

World Heritage Sites

Protected Areas and World Heritage



DURMITOR NATIONAL PARK MONTENEGRO

The spectacular limestone scenery of the Durmitor massif was carved by glaciers and deeply dissected by rivers and underground streams. Along and around the Tara river canyon, which has the deepest gorges in Europe, the dense pine forests are interspersed with clear lakes and harbour a wide range of endemic flora.

COUNTRY

Montenegro

NAME

Durmitor National Park

NATURAL WORLD HERITAGE SITE

1980: Inscribed on the World Heritage List under Natural Criteria vii, viii and x.

2005: Expanded to coincide with the National Park borders in Montenegro under the same criteria.

STATEMENT OF OUTSTANDING UNIVERSAL VALUE [pending]

INTERNATIONAL DESIGNATION

1976: The Tara River Basin and surrounding area designated a Biosphere Reserve under the UNESCO Man and Biosphere Programme (182,889 ha).

IUCN MANAGEMENT CATEGORY

II National Park

BIOGEOGRAPHICAL PROVINCE

Balkan Highlands (2.33.12)

GEOGRAPHICAL LOCATION

In northwestern Montenegro, approximately 80 km southeast of Sarajevo. Lake Pivsko runs north-south 5 km from the western border. Situated at 42° 58' to 43° 17'N by 18° 16' to 19° 27'E.

DATES OF ESTABLISHMENT

1952: Established as a National Park by Sl. List Rep. Crne Gore 14/1952;

1977: Tara River Canyon decreed a Nature Reserve and Nature Monument;

1978: The Tara River gorge added to the National Park;

1997: Durmitor National Park boundaries fixed at 34,000 ha;

2005: Expanded to coincide with the borders of the Montenegrin National Park.

LAND TENURE

State ownership. Administered by the National Parks Authority of the Ministry of Environmental Protection and Physical Planning. The large Tara River Basin Biosphere Reserve surrounds the Park.

AREA

32,100 ha

ALTITUDE

±450m to 2,522m (Mt. Bobotov Kuk).

PHYSICAL FEATURES

Durmitor National Park lies high in the southeastern Dinaric Alps near the watershed between its Mediterranean and Danube basin drainages. It ranges in altitude from about 450m to 2,522m and comprises the Mount Durmitor massif with 50 peaks above 2,000m, and the Tara River gorge. Because of its location and altitudinal range, the Park has both Mediterranean and alpine microclimates, resulting in an exceptional range of species. The dominant geological features are very thick, often savagely contorted, limestone formations of the middle and upper Triassic, upper Jurassic and upper Cretaceous, notably the Durmitorean flysch, though more recent rocks are also present. The peaks of the massif have been glaciated and there remains an ancient ice grotto. The 18 glacial lakes among the alpine pastures of the Durmitor and the canyons of the Tara, Piva, Susica and Komarnica rivers were formed during the Quaternary period, following a period of sudden thaw and the formation of glaciers on the Durmitor and neighbouring mountains. There are numerous examples of weathering, rock forms and land features characteristic of karstic, fluvial and glacial erosion.

The waters of the largest lake, Black Lake (*Crno jezero*), feed two separate river basins: the River Tara, and, underground through the Durmitor massif, the River Piva which was dammed in 1975. Both rivers drain into the Drina and Sava tributaries of the Danube. Some of the lakes drain into subterranean swallow-holes, and Montenegro's deepest cave is under Durmitor (897m deep). The pure clear waters of the River Tara, one of the last wild rivers in the Balkans, flow for 60 km through a gorge 1,300m deep, the deepest in Europe. The sheer sides have caves and fantastic rock formations and where less steep are clothed in dense pine forests with a notable diversity of habitats and flora.

CLIMATE

The climate ranges with altitude from inland Mediterranean in the valleys to cool temperate on the plateau. The average minimum annual temperature at Zabljak (1,465m) is 5°C in winter, the average maximum in summer is 14°C, but on the plateau these averages are -8°C, rising to 8°C. Annual precipitation in central Montenegro averages 1,750mm, falling as snow on the mountains, where there are 150 days of snow in the mountains above the ski resort of Zabljak. In high places it lies year round (Summitpost, 2005).

VEGETATION

A flora of 700 species is recorded. Vegetation zones range from deciduous valley forests, Mediterranean conifer forests, sub-alpine *Fagetum subalpinum* and *Pinetum mughi* forests, subalpine heath and peat bogs to alpine meadows. The dominant species include Scots pine *Pinus sylvestris*, Norway pine *P. resinosa*, mugo pine *P. mugo*, silver fir *Abies alba*, beech *Fagus sylvatica*, occasional birch *Betula alba*, juniper *Juniperus communis* and Bosnian pine *Pinus heldreichii*. The Park contains one of the last virgin forests of very old, tall black pine *Pinus nigra* ssp. *illyrica* in Europe, on soils that would usually develop beech woodland. The Park also supports a rich karstic and calcareous grassland flora with many rare and endemic species including *Verbascum durmitoreum*, *Gentiana levicalex*, *Edraianthus glisicii*, *E. sutjeskae*, *Valeriana braun-blanquetii*, *Daphne malyiana*, *Carum velenovskyi*, *Saxifraga prenja*, *Trifolium durmitoreum*, *Oxytropis dinarica*, *Silene graminea*, *Plantago durmitorea* and *Viola zoysii*. There are 37 taxa endemic to the area and 6 specific to Durmitor.

FAUNA

300 species of animals are recorded which includes a high number of invertebrates. Forest mammals include brown bear *Ursus arctos*, grey wolf *Canis lupus*, Eurasian otter *Lutra lutra*, wild boar *Sus scrofa*, wild cat *Felis silvestris* and northern chamois *Rupicapra rupicapra*. 130 species of birds are noted by Birdlife International (2005) including golden eagle *Aquila chrysaetos*, short-toed snake-eagle *Circaetus gallicus*, peregrine *Falco peregrinus*, honey buzzard *Pernis apivorus* and rock partridge *Alectoris graeca*. Capercaillie *Tetrao urogallus* and black grouse *Lyrurus tetrix* are also claimed to be present. The Tara and its tributaries, as well as the lakes, contain a large number of salmonidae including Danube salmon *Hucho hucho* (EN), sea trout *Salmo trutta fario*, brook trout *Salvelinus fontinalis*, and grayling *Thymalus thymalus*.

CONSERVATION VALUE

Durmitor National Park has spectacular glaciated karst scenery and the deepest gorges in Europe, along the Tara River Canyon. Its pine forests interspersed with clear lakes harbour a wide range of endemic flora and wildlife. It lies within a WWF Global 200 Freshwater Eco-regions and a UNESCO Biosphere Reserve.

CULTURAL HERITAGE

Early Illyrian and Celtic inhabitants were supplanted or absorbed by the present Drobnjaci slavs. The area is known for picturesque churches and monasteries.

LOCAL HUMAN POPULATION

The Park has 1,500 inhabitants, mostly engaged in farming and herding; most of the high altitude pastures are grazed by sheep and cattle during the summer. The small town of Zabljak, on the eastern boundary has some 2,000 inhabitants with a further 2,200 living within the municipality, and is expanding as the possibilities of tourism develop (Bojovic, 2005). During the winter season the population is swollen by visitors.

VISITORS AND VISITOR FACILITIES

The area, which combines savage mountain grandeur and alpine pastures, is increasingly visited by sightseers, hikers and mountain climbers, both nationals and foreigners. There were 2,876 visitors in 2004 (WHC, 2005). There is a visitors' centre, many clear trails, three mountain shelters on the high plateau, a hut, a refuge and a bivouac; camping is permitted near each. Water-related sports are popular: fishing, swimming, canoeing, kayaking and rafting. There are several tour operators and ample hotel accommodation and restaurants in neighboring Zabljak which is Montenegro's prime ski resort. The area is well mapped.

SCIENTIFIC RESEARCH AND FACILITIES

The region's geology was first studied in 1840, and despite its remoteness, Durmitor has been studied intermittently ever since. The five volume *Fauna of Durmitor* is published by the Montenegrin Academy of Sciences and Arts between 1984 and 1996. The first volume describes the geography, geology, hydrology and climate of Durmitor, part of its flora and vegetation. Later issues contain papers on the area's mammals, birds, reptiles, amphibians, butterflies, dragonflies, flies and social wasps, bugs, beetles, millipedes, earthworms and molluscs. The chamois of the Susica valley are systematically studied and UNESCO teams have inventoried the flora and both aquatic and terrestrial fauna. There is annual monitoring of waters and biodiversity. The Tara river canyon has been the subject of speliological, hydrological, biological and archaeological studies.

MANAGEMENT

The site is well managed by the National Parks Authority of the Ministry of Environmental Protection and Physical Planning. Under the Physical Plan for the Park drawn up in 1997, a total area of 34,000 ha was divided between three zones: for strict protection, 3,400 ha; for protection, 25,400 ha and for multiple use, 5,200 ha. A five-year management plan was being implemented in 2005. The Park at present contains seven reserves under special management, grouped in three zones: 1) Mlinski stream

and the Black Lake Basin containing 270 ha of mixed forest including spruce, fir, beech, black pine and maple. The unusual hydrology of Black Lake and the virgin forest of Mlinski are the principle reasons for the area's special management status. There is also a 5 ha peat bog (Barno Lake) at 1,450m with an interesting lucustrine flora; 2) Tara Gorge Biosphere Reserve which includes the 3,000 ha gorge, 40 ha of virgin black pine *Pinus nigra* forest which is unusually productive for growing in calcareous soil, and the 70 ha Zabojski Lake with an interesting hydrology which is currently under-studied; 3) Skrcka Lakes and Susica Valley of 2,500 ha in the north-east of the Park, managed to protect and facilitate the study of chamois *Rupicapra rupicapra* and other rare animals. In 2005 an area of 40 ha was excised from the Park to allow for the expansion of Zabljak when the Park was expanded to coincide with the National Park borders in Montenegro. In 2004 a draft management plan for 2005-2020 was drawn up proposing enlargement of the Park's boundaries to take in ten neighbouring nature reserves, natural monuments and a part of the gorge excluded at present (IUCN, 2005). The possibility of a future transboundary park with Sutjeska National Park in Bosnia-Herzegovina has been considered (Summitpost, 2005).

MANAGEMENT CONSTRAINTS

In 1990, there were two major threats. One was from a zinc- and lead-processing factory at Mojkovac 32 km upstream from the canyon which operated between 1976 and 1991. Holding tanks for the storage of its wastewater polluted with heavy metals were due to fill in 1985. It was impossible to provide new tanks, so the government proposed discharging the waste into the Tara. However, the river would then become biologically dead, so in 2005 amelioration of the threatened pollution within two years was to be undertaken, if funding could be found. The second threat was from the long-projected Buk Bijela hydroelectric dam project on the river Drina downstream in Bosnia planned by the governments of Montenegro and of Serbian Bosnia. This would have flooded 12-18 km of the gorge and threaten the movement of migratory fish. The plan was dropped in 2004 by the Montenegrin government in the face of public and international pressure, to which the World Heritage Committee and IUCN contributed (UNESCO-IUCN, 2005). However, there remain concerns about the revival of plans to exploit the hydroelectric potential of the river. In addition to the major threats, forested areas have been reduced by illegal felling, even in the core zone, and arable land and pasture have been lost to indiscriminate building. A Park-owned sawmill inside the Park's boundaries has been closed. The area will probably become increasingly subject to disturbance from year-round tourism which the government wishes to encourage, especially from the development of new ski runs into the protected area (Bojovic, 2005).

STAFF

Comprises a Director, ten administrative staff and 50 rangers (undated information). Effective patrolling suffers from inadequate funding (UNESCO-IUCN, 2005).

BUDGET

2,000,000 dinars in 1979. A sufficient budget is derived from a number of sources including central Government through the National Parks Authority, entry fees, the World Heritage Fund for maintenance of laboratory facilities and bear conservation, the Montenegro Tourist Board, donations from industry and from charges for use of the Park's facilities and resources. Past international assistance has amounted to US\$9,000 (1981), US\$50,000 (1988), US\$20,000 (1988) and US\$38,000 (1989) mainly for equipment (UNESCO, 2005).

LOCAL ADDRESSES

The Director, National Parks of Montenegro, Bozane Vucinic bb, 81000 Podgorica, Montenegro.

S1Z Nacionalnog Parka Durmitor, Institute for the Protection of Nature, P O Box 2, 81001 Podgorica.

REFERENCES

The principal source for the above information was the original nomination for World Heritage status. BirdLife International (2005). *BirdLife IBA Factsheet*. www.birdlife.org.

Birks, H. & Walters, S. (1973). The flora and vegetation of Barno jezero, Durmitor, Montenegro, *Glasilo Republ. zavoda za zast. prirode - Prirodnjackog muzeja Titograd*, No. 5, Titograd.

Bojovic, M. & Bojovic, V. (2005). Report on Technical Review and Evaluation of the Study 'Program for Development of Mountain Tourism in Montenegro'. Report for UNDP, Podgorica, Montenegro.

IUCN (2005). *World Heritage Nomination - IUCN Technical Evaluation: Durmitor National Park (Serbia & Montenegro) Minor Modification of Boundaries*. IUCN, Switzerland.

Nonweiler, G. *et al.* (1984). Fauna of Durmitor Parts 1-5. *Fauna Durmitora*, Montenegrin Academy of Sciences and Arts, Titograd. (In Serbian with English summaries).

Summitpost.org (2005). *Bobotov Kuk*.

UNESCO-IUCN (2005). *Report of the International Mission to Durmitor National Park and Tara River Basin, Serbia & Montenegro and to Bosnia and Herzegovina*. Mission Report, Paris.

UNESCO World Heritage Committee News (2005). *Durmitor World Heritage Site is no Longer Threatened*. Paris.

UNESCO (1997). *Draft Report of the Rapporteur*. Report prepared for the Bureau of the World Heritage Committee (Unpublished).

----- Division of Ecological Sciences (n.d.). Lists of endemic plants, aquatic and terrestrial fauna.

World Heritage nomination (1979). (Contains a list of references in Serbo-Croat).

World Heritage Committee (2005). *State of Conservation of World Heritage Properties in Europe SECTION II. Montenegro. Durmitor National Park*. UNESCO, Paris.

Wojterski, T. (1971). *National Parks of Yugoslavia*, Poznan.

DATE

February 1979. Updated 5-1990, 8-1997, 1-2009, 5-2011, January 2012.