

Nature conservation in the Czech Republic

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Conservation of nature and landscape in the Czech Republic has a considerably long history. The first steps towards purposeful nature protection trace back to medieval landowners who aimed to prevent degradation of their property, mainly by regulations on logging wood and hunting. King Charles IV in his code *Majestas Carolina* (1355 AD) appreciated the value of forests, called for reduction in the logging volumes and encouraged reforestation. The protective approach was carried on by part of the aristocracy through centuries and, in combination with advanced forest laws issued by Maria Theresia in the 18th century, enabled reasonable conservation of large forest areas.

The oldest specifically protected areas are the virgin forest reserves *Žofínský prales* and *Hojná Voda*, both located in the *Novohradské Mts.* in southern Bohemia (proclaimed 1838 AD). During the latter half of the 19th century and in the first half of the 20th century, several other reserves were proclaimed in the country. The modern era of nature conservation started in former Czechoslovakia in the 1950s with the adoption of appropriate state legislation, namely of Act No. 40/1956 Coll. on state protection of nature, which set the framework for establishing national parks (NP), protected landscape areas (PLA) and small-scale protected areas (state nature reserves, protected sites, protected parks and gardens, protected study areas, protected natural formations, protected natural monuments). Since 1973, the so-called rest areas were also defined as relatively valuable parts of landscape suitable for recreation because of their natural and aesthetic qualities.

The Czech legislation on nature conservation was distinctively adjusted by the adoption of Act No. 114/1992 Coll. on nature and landscape protection. The categories of large-scale protected areas remained the same (national parks, protected landscape areas), while the small-scale protected areas were redefined into the following categories: national nature reserve, national nature monument, nature reserve, and nature monument.

National parks are unique on either national or international level. They consist of natural ecosystems or ecosystems little influenced by man, whose fauna, flora and abiotic nature are of exceptional scientific and educational significance. All activities in the national parks should be directed towards preservation and improvement of the natural environment. The area of national parks is divided into three zones and public access to these zones is restricted. As of 2007, there are four national parks in the Czech Republic, together taking up 1.5% (1,195 sq km) of the state territory (see Table 1).

Protected landscape areas are large territories of landscape formed in a balanced way, with characteristic relief, a significant portion of natural forest and permanent grassland ecosystems, in some cases with conserved historical

settlement monuments. Economic exploitation of these areas is permitted in accordance with their protected status to the extent that it contributes to and improves their natural state and assures the preservation of optimal ecological conditions. Recreational use is permissible if it does not harm natural values. As of 2007, there are a total of 25 PLAs in the Czech Republic (a total of 10,887 sq km).

National nature reserves are small-scale areas of exceptional value, unique ecosystems of national or international significance in combination with natural relief and typical geological features. Natural reserves are small-scale areas where natural rarities are concentrated and a typical and significant ecosystem of the geographical area is present.

National nature monuments and nature monuments are defined as small-scale natural features. They are especially landforms or geological features, mineral resource localities or areas where rare or vulnerable species occur in the remnants of ecosystems. Where there is an ecological, scientific or aesthetic significance on either a national or international level, the area (even an area formed by man) is designated a national nature monument.

Small-scale protected areas represent spots of strict protection within national parks and protected landscape areas as well as outside of these large-scale protected areas, protecting distinct natural features that have been conserved in an otherwise culturally transformed landscape. As of January 1, 2007, there were 112 national nature reserves, 779 nature reserves, 104 national nature monuments, and 1,191 nature monuments in the Czech Republic.

Apart from large-scale and small-scale specially protected areas, Act No. 114/1192 Coll. defines a category of *monument trees* as protected trees of significant age, biological or aesthetical importance. Also *natural parks* are defined as areas intended to protect concentrated aesthetic and natural values of landscape by restricting the extent of human activities that would be likely to degrade the natural values of the landscape. The former “rest areas” were turned into natural parks, and also new natural parks were established where suitable.

NATURA 2000

With the accession of the Czech Republic to the European Union, NATURA 2000 was to be implemented through adopting the Bird and Habitat Directives into the national system of nature conservation. The total extent of protected areas in the Czech Republic has risen from 15% to 18.5% due to NATURA 2000. A total of 41 Special Protection Areas (SPA) were proposed in the first stage, but one was rejected (Heřmanský stav–Odra–Poolzí) and two other postponed (Dehtář and České Budějovice Ponds), therefore the number of finally declared SPAs has dropped to 38. Individual areas are distinctive as for their acreage and number of bird species. The largest is Šumava (968.4 sq km), while nine other are larger than 300 sq km (Křivoklátsko, Doupovské hory, Labské pískovce, Krkonoše, Králický Sněžník, Jeseníky, Libavá, Beskydy, and Třeboňsko). The smallest SPA (3 sq km) is the Bohdaneč Pond in the Pardubice region. As to the Habitat Directive, 863 Sites of Community Importance (SCI) were put on the National List in 2004.

UNESCO biosphere reserves

Biosphere reserves are declared by UNESCO within the programme Man and the Biosphere. At present there are six biosphere reserves in the Czech Republic: Bílé Karpaty, Krkonoše, Křivoklátsko, Pálava, Šumava, and Třeboňsko. All of them coincide with large-scale protected areas.

Wetlands and peat bogs

In the Czech Republic, peat bogs represent a Quaternary relic. These vulnerable biotopes regulate outflow and storage of ground water, thus being of great importance in the landscape. Peat bogs, marshes and wetlands are protected by law, most of them as small-scale protected areas. Ten localities in the Czech Republic have been put on the list of the Ramsar Convention on Wetland Protection. The present area of peat bogs (some 27,000 hectares) is much smaller compared to the original natural state; large portions were converted into agricultural land, built up or inundated by ponds. Smaller peat bogs (with an area up to tens of hectares) prevail. Among the largest in the Czech Republic are Třeboňská and Borkovická Moors in the Třeboňsko region, Mrtvý luh, Rokytecká and Rybářenská Marsh in the Šumava Mts., Boží Dar Peat Bog in the Krušné Mts., Dářko Peat Bog in Žďárské vrchy and Rejvíz Peat Bog in the Jeseníky Mts. Marshes are frequent in Polabí, Máchovo jezero surroundings, and the vales of Hornomoravský úval and Dolnomoravský úval.

Table 1 National parks and protected landscape areas in the Czech Republic (as of January 1, 2007)

protected area	area (sq km)	year of declaration	description
National Parks			
České Švýcarsko	79	2000	rock cities with the largest rock arch in the Czech Republic
Krkonošský	363	1963	the highest Hercynian mountain range in Europe, glacial and periglacial landforms, peat bogs, waterfalls, endemic species
Podyjí	63	1991	deep Dyje River canyon with numerous meanders, cryogenic landforms, vegetation and climatic inversion
Šumava	690	1991	vast forest complexes, peat bogs and wetlands, glacial lakes, cryogenic landforms
PLA			
Beskydy	1,160	1973	the highest part of the Czech Carpathian range
Bílé Karpaty	715	1980	Carpathian meadows, harmonic cultural landscape
Blaník	40	1981	preserved cultural landscape
Blanský les	212	1989	forested mountain massive
Broumovsko	410	1991	sandstone rock cities (largest in central Europe)

České středohoří	1,070	1976	neo-volcanic stubs, canyon Porta Bohemica
Český kras	132	1972	karst area (Koněpruské Caves)
Český les	473	2005	natural forest complexes, peat bogs
Český ráj ¹⁾	182	1955	sandstone rock cities, neo-volcanic stubs
Jeseníky	743	1969	periglacial landforms, peat bogs
Jizerské hory	350	1967	peat bogs, beech forests, elevated etchplain
Kokořínsko	270	1976	sandstone rock city (rock lids)
Křivoklátsko	630	1978	preserved original species composition of forest
Labské pískovce ²⁾	245	1972	sandstone rock cities
Litovelské Pomoraví	96	1990	floodplain forests, wetland biotopes
Lužické hory	270	1976	harmonic forested landscape, folk architecture
Moravský kras	92	1956	the largest karst area in the Czech Republic
Orlické hory	200	1969	vast forest complexes, peat bogs
Pálava	86	1976	Jurassic klippe, karst landforms
Poodří	82	1991	floodplain forests, Odra River bends, ponds
Slavkovský les	640	1974	neo-vulcanites, forest complexes
Šumava ³⁾	994	1963	glacial relics, peat bogs
Třeboňsko	700	1979	ponds, wetlands
Žďárské vrchy	715	1970	numerous weathering landforms, cryogenic landforms
Železné hory	380	1991	wedge block, limestone islands

Notes: 1) enlarged in 2002;

2) part of this area became the České Švýcarsko National Park (declared in 2000);

3) enlarged in 1991, Šumava National Park declared in part of PLA.

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