



Gorce National Park – one of the few sanctuaries of Wilderness in Polish Western Carpathians

Gorce National Park (GNP), located in the Polish part of the Western Flysch Carpathians, has been operating since 1 Jan. 1981 and currently covers an area of 7 029 ha (+ 19.27 ha formally not included yet within the area of the GNP), of which 6,600 ha is a property of the State Treasury. The area of the Park extends in the central, highest part of the Gorce range in the altitude 700–1310 m a.s.l. and is composed of the main, large area and 14 small exclaves. 96% of the Park's area is covered by forests, the rest are mid-forest mowing meadows and glades in various succession stages. The lower mountain belt, reaching the altitude of ca. 1 100 (1 200 m a.s.l. at south side of this range) is mainly covered in the lower part by the fir and spruce forest (Abieti-Piceetum; approx. 660 ha, i.e. 9.35% of the GNP area), and in the upper part by various variants of the Carpathian beech forest (Dentario glandulosae-Fagetum; 3 753 ha, i.e. 53% of the GNP area). The ridges and northern slopes of the highest hills are overgrown by the upper mountain spruce forest (Plagiothecio-Piceetum; approx. 1 327 ha, i.e. 18.9%), while between both distinct mountain belts there is a zone of transitional communities (Plagiothecio-Piceetum fagetosum; approx. 594 ha, i.e. 8.43%).

Since 2000, the forest area of 3 611 ha has been strictly protected; an extension to 4 005 ha is planned in the near future (56% of GNP area; according to the project of management plan). A strict protection fully covers the most natural pieces of the Carpathian forest Wilderness with almost primeval forests protected from 1927 (Turbacz reserve, area 120 ha, from 1964 enlarged to 319 ha), from 1970 (Dolina Łopusznej reserve, area 113 ha, preceded by several years of bison breeding). In the strict protection zone, there are also almost all the areas occupied by upper mountain spruce forests, in which the process of natural decomposition and replacement of tree generations has been taking place for over 20 years. While the uppermost spring areas of spruce stands should be considered natural, others are the result of anthropogenic changes related to the economic activity and pastoral economy of local people, intensive from the end of the Middle Ages to the mid-20th century. Some of today's upper mountain spruce forests are the result of secondary succession in once widespread forest clearings. The strict protection zone is considered a key protective regime in accordance with the principle of limiting any human interference in the course of natural processes. Only the safety of park visitors has priority in this zone before the spontaneous course of natural phenomena.

The larger part of the actively protected zone is an external buffer in relation to the strict zone and is not subject to economic measures. Logging of dying spruces, aimed at slowing the bark beetle gradation, is limited to a small area of several hundred hectares. With the exception of the active protection of the young generation of trees against deer pressure, a large part of the forest covered by this protection regime is devoid of human intervention and has a high degree of wildness. Glades and private forests surrounding them, constituting approx. 422 ha of GNP area are subject to landscape protection and can be used with restrictions.

The GNP area is the most natural, best protected, integral part of two Natura 2000 areas: the Special Conservation Area "Ostoja Gorczańska" (PLH 120018) and the Special Protection Area for birds "Gorce" (PLB 120001). These areas were established due to the occurrence of several natural habitats important for the EU, including mountain beech forests (code 9110 & 9130) and mountain spruce forests (code 9410), of endangered forest predatory mammals: grey wolf (*Canis lupus*),



Eurasian lynx (*Lynx lynx*), brown bear (*Ursus arctos*), and bats (*Myotis myotis* and *Rhinolophus hipposideros*), and nearly 20 bird species including: capercaillie (*Tetrao urogallus*), White-backed woodpecker (*Dendrocopos leucotos*), three-toed woodpecker (*Picoides tridactylus*) and owls: Ural owl (*Strix uralensis*), Eurasian owl (*Glaucidium passerinum*) and hairy owl (*Aegolius funereus*), found in forests with a high degree of wildness.

Established throughout the Park in 1992, the network of permanent monitoring plots is used, among other, for periodical (every 5 years) monitoring of the stands dynamics and forest-forming species, the damage of the young forest generation by ungulates and its survivability, the rate of destruction of spruce stands influenced by bark beetle activity and hurricane winds, as well as the dynamics of their regeneration. Systematic monitoring of mammals using photo traps, carried out for several years, gives information on changes in the population of wolf, lynx and bear, as well as the ability to identify and track the history of lynx individuals. The annual monitoring of owls provides information about their abundance and dynamics. Research on these issues, in cooperation with other Park employees and scientific institutions, is carried out by a separate park's unit - the Scientific Laboratory. Comparison of research results from parts subject to strict and active protection gives the opportunity to assess the advisability of applied treatments and modify the methods of nature protection management.

The Park provides a network of roads, tourist routes and educational paths for visitors. Camping places are provided in two peripheral locations. There are no housing estates or public roads in the Park itself, except for two settlements at the park border occupied by employees. In the mountains you can use tourist hostels on the outskirts of GNP or the accommodation served by nearby agritourist farms.

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