

## Threats to nature in Polish National Parks

MAREK ZGORZELSKI

Warsaw University, Poland

### Abstract

National Parks with their most unaffected nature and strongest biodiversity are the most important links, regardless of the methodology of delineation and prioritisation of such areas. Detailed studies have been completed for the following National Parks: Biebrza, Narew, Świętokrzyski, Ojców, Karkonosze, Bory Tucholskie and Table Mountains, and more are in the pipeline for: Roztocze and Wolin. National Parks are dominated by forests and most are found in former timber production forests. The geodesic parameters of the parks' borders (length and actual shape) as well as the type of neighbouring areas have a major impact on the effectiveness of nature protection in national parks. A lot of examples of good cross-border cooperation could be quoted, e.g. between Poland and Czechia (the Karkonosze mountains) or Slovakia and Poland (border national parks in the Carpathians).

**Key words:** Poland, National parks, Natura 2000, renaturalisation

It has recently become a fad and, in fact, an environmental necessity to form spatial systems of nature conservation such ECONET or Natura 2000. National Parks with their most unaffected nature and strongest biodiversity are the most important links, regardless of the methodology of delineation and prioritisation of such areas. Yet, even these most precious natural heritage sites have been subject to sometimes strong human pressure. The Faculty of Geoecology has studied this issue through a series of coordinated MSc theses guided by the author of this text. It has been postulated that each Polish National Park is subject to external pressures from local and non-local sources and internal threats found within the protected area. Detailed studies have been completed for the following National Parks: Biebrza, Narew, Świętokrzyski, Ojców, Karkonosze, Bory Tucholskie and Table Mountains, and more are in the pipeline for: Roztocze and Wolin. Finally, a preliminary summary document has been drafted covering all National Parks in Poland.

The type and scale of non-local external pressure, mainly in the form of incoming masses of polluted air and polluted surface water, are a function of NPs topography and proximity to highly urbanised or industrialised areas. The most vulnerable in this category appear to be the National Parks of Karkonosze, Table Mountains, Świętokrzyski (polluted masses of incoming air), Kampinos (air and water pollution, lowered ground water level), Wolin (polluted Odra River) and Narew (impact of reservoir Siemianówka).



Local risks are normally much more diverse and tied to the local economy around the park. Key sources are: local air emissions (including low stack), unmanaged landfills, pollution of and impact on ground water (melioration, depression cones), urban pressure, use of fertiliser and pesticides/herbicides. The most threatened here are: Ojców, Kampinos, Bory Tucholskie, Polesie, Biebrza and Narew.

While facilitation of tourism is one of the key missions of National Parks tourism is the principal internal risk factor. The most vulnerable are all mountain NPs, especially the Tatra and Karkonosze National Parks, and several lowland areas: Słowiński, Bory Tucholskie, Wolin, Kampinos, Wielkopolska.

In Poland, the concept of the concentration – sometimes excessive – of tourist traffic in the most attractive locations of national parks is still persisting. It is manifested, for instance, by the closure of some tourist trails in the Tatras. At the same time, no viable concept of tourism distribution has been formulated as yet. For instance, in the Stolowe Mountains, Szczeliniec Wielki and Błędne Skały are visited by tens of thousands of tourists, while the remaining attractions, no less interesting, merely by hundreds of tourists. Unfortunately, the concentration of tourist traffic is combined with a poor awareness of ecological issues and scanty knowledge about nature among the parks' visitors, which results from the shortcomings of ecological education in Poland. The main threats to Polish parks related to tourism include: noise, devastation of tourist trails – which, in the mountains, leads to excessive erosion, devastation of rocks and old trees as well as the undergrowth, and littering, which is now dramatically increased due to the popularity of disposable packagings.

In the recent years, a new threat was added – poaching, which results from the dramatic aggravation of the economical conditions of the population living in the vicinity of parks. Poaching can take three forms. In the most widespread form, it involves using snares and hunting game for food. More seldom, it takes the form of professional hunting, involving firearms and related to illegal trade in game and leather in markets and bazaars. The third form of poaching is to a large extent produced by the parks themselves – it is a peculiarly understood form of protecting the park's assets from damage caused by animals. This is brought about by the failure to pay due damages by the parks or local administration.

Another significant threat to nature on the part of local communities is berry-picking and mushrooming (sometimes done on an industrial scale), tree-felling and collecting of deadwood for fuel purposes.

National Parks are dominated by forests and most are found in former timber production forests. As no forest management measures are applied today, the forests are more vulnerable to infestation and the renaturalisation is extremely time-consuming.

Poland's National Parks are mostly small in size and many are completely contained within a network of roads and human settlement, which poses a strong constraint on the natural processes. Conservation is manifestly inhibited by the existence of unprotected enclaves within National Parks and small pockets of National Parks immersed in principally unrestricted areas. The use of uniform conservation practices is hampered by a diversity of land ownership within Parks and their delineation not aligned with spatial units.

The geodesic parameters of the parks' borders (length and actual shape) as well as the type of neighbouring areas have a major impact on the effectiveness of nature protection



in national parks. Forest-forest and meadow-meadow borders seem to be optimal. In the majority of National Parks in Poland, farming areas or farm buildings constitute the direct vicinity of parks. Sometimes, however, the park borders with service areas or even industrial zones. In this respect, the Kampinos National Park seems to be in the most adverse situation. Also, the Polesie National Park suffers from the direct vicinity of an industrial facility (depression hollow produced by the Bogdanka coal mine). The negative impact of the expansion of housing onto the areas in the park's direct vicinity can also be felt in the Ojców and in the Bory Tucholskie Parks. In the latter case, this is due to a violent increase in the number of summer cottages and cabins.

Although elsewhere this is not a problem in most cases in the Polish conditions, the owners of land which is not under the management of national parks, that is, which is not the property of the State Treasury, constitute a significant threat to the parks' natural environment. Such areas are the sources of expansion of troublesome anthropophytes, of water and soil contamination (no sewerage), of local atmospheric emissions and of noise. The demand for attractive recreational plots leads to the property dispersion in these areas and to changing their existing function, traditionally agricultural, to the leisure and tourist function (accommodation, catering).

The persisting conflicts between the interest of the parks and those of the local communities do not make nature protection in Poland's national parks any easier. Most controversies are observed in connection with the Białowieża and Tatry National Parks. Nearly everywhere in Europe, local communities living in the parks' vicinity, derive substantial profits from tourism that is developing in the area. Opening access to Polish national parks, which is their statutory obligation, is treated by the park managers as a "necessary evil", with the simultaneous restrictions arising under the nature protection regulations, which are very rightly applied in respect of the current, and frequently adverse, economic activity of the park's neighbours. Creating facilities for ecotourism in the vicinity of parks, and not in the parks themselves, and promoting national parks tourism (here the exceptions include the few parks universally regarded as attractive for tourists – Bieszczady, Tatry, Stołowe Mountains, Karkonosze, Ojców, Słowiński parks), still remains a song of the future. Most national parks are not prepared to accommodate a large number of tourists or to ensure an attractive and valuable (in terms of ecological education) stay within the park's territory and its protecting zones, which would not stand in contradiction with nature protection requirements. The protecting zones of the national parks in Poland are still regarded as *sui generis* pollution filters, and not as a service base (accommodation, catering, transport) for the main protected areas. Very frequently, many nature objects typical of a given national park can also be found in its protecting zones. They could be used to take over some tourist traffic from the park's area.

Many problems related to nature conservation and protection occur in the border national parks, where the state borders intersect areas of significant ecological value. This is primarily true for the Białowieża National Park and the Stołowe Mountains National Park, which do not have their counterparts on the Belarussian and Czech side of the border. At the same time, many examples of good transborder cooperation could be quoted, e.g. between Poland and Czechia (the Karkonosze mountains) or Slovakia and Poland (border national parks in the Carpathians).



Tab. 1 Polish National Parks

	<b>National Parks</b>	<b>Date of creation</b>	<b>Area (ha)</b>
1.	Babiogórski	1954	3,392
2.	Białowiecki	1947 (1932)	10,502
3.	Biebrzański	1993	59,223
4.	Bieszczadzki	1973	29,202
5.	Bory Tucholskie	1996	4,798
6.	Drawieński	1990	11,342
7.	Gorczański	1981	7,030
8.	Gór Stołowych	1993	6,340
9.	Kampinoski	1959	38,544
10.	Karkonoski	1959	5,575
11.	Magurski	1995	19,962
12.	Narwiański	1996	7,350
13.	Ojcowski	1956	2,146
14.	Pieniński	1954 (1932)	2,346
15.	Poleski	1990	9,762
16.	Roztoczański	1974	8,482
17.	Słowiński	1967	18,618
18.	Świętokrzyski	1950	7,632
19.	Ujście Warty	2001	7,956
20.	Tatrzański	1954	21,164
21.	Wielkopolski	1957	7,584
22.	Wigierski	1989	15,085
23.	Woliński	1960	10,937
	<b>Total</b>	<b>[ha]</b>	<b>307,016</b>