

On the Occurrence of Brown Bear in the Polish Carpathian Mountains

O WYSTĘPOWANIU NIEDŹWIEDZIA W POLSKICH KARPATACH

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The occurrence of the brown bear in 337 hunting grounds and 5 national parks of the Polish part of the Carpathian Mountains was assessed in the year 1986 by an inquiry. Bears lived transiently in 74 of these grounds, and permanently in 26. These grounds were grouped in the following regions: A — Bieszczady Mountains, B — Low Beskid, C — Beskid Sądecki, D — Gorce, E — Tatra Mountains, F — Babia Góra, G — Beskid Żywiecki.

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1. INTRODUCTION

After World War II brown bears (*Ursus arctos* Linnaeus, 1758), were found in Poland exclusively in Bieszczady and Tatra, while migrating bears were occasionally seen in the Babia Góra region (Buchalczyk, 1964). In the 1970's and 1980's single animals were observed ever more frequently in the regions where they had not been seen for many decades (e.g. Tomek, 1983; Parusel, 1985). These reports coincided with a great rise in the number of bears over the border in Slovakia (Janik, 1986). The data on the occurrence of bears in Poland have been summarized in the paper of Jakubiec and Buchalczyk (1987), which also contains a map of sites where bears were found in the period 1980—1982.

The purpose of the present communication is a presentation of a more up-to-date (1986) and more extensive (based on data from 342 grounds) information on the occurrence of bears in the Polish part of the Carpathian Mountains.

2. METHODS

All of Poland is divided into hunting grounds of 30—100 square km surface. Most of these are hired by hunting associations, and some are administered by regional forestry inspectorates. In the analysed area there were 337 hunting grounds and 5 national parks. In 1986 the authorities of the hunting associations, forestry inspectorates, and national parks received 342 inquiry forms and were asked to choose one of the following possibilities of occurrence of brown bear: (1) bears not found; (2) sporadically found as a migra-

ing animal, observed in the years 1980—1986 but not every year; (3) always found and seen every year. Another inquiry was sent in 1986 to 1,000 randomly selected huntsmen, usually to 5—8 in each hunting association. This inquiry concerned the species and the number of killed animals (Jamrozy, 1988) and contained also a question concerning the estimated occurrence of bears in the hunting grounds of the huntsman.

The number of responses was 228 (66.7%) in the first inquiry, and 205 (20.5%) in the second inquiry. From 38 hunting grounds no responses were obtained, and the necessary information was obtained (1) during trips to these grounds by myself, (2) during talks with foresters and hunters studying in Cracow. Both in the field and in Cracow, about 50 such interviews were carried out. For 134 hunting grounds (about 40%) information was got from several independent sources (inquiry I and II, interview).

3. RESULTS AND DISCUSSION

The occurrence of bears was reported from 100 of the 342 hunting grounds and national parks, and in 26 of them bears were living permanently (Table 1). These data were marked on the map (Fig. 1) in which the Polish part of the Carpathian Mountains has been divided into two parts: (1) the mountainous and predominantly forested higher elevations of the Carpathians, and (2) the lower situated less forested Carpathian Hills.

Bears were seen with very few exceptions only in the Carpathians where the following regions could be isolated:

A. Bieszczady. In the last decades this region was the main site where this species was living (Buchalczyk & Markowski, 1979; Głowaciński & Witkowski, 1979). The research presented here confirms this fact.

B. Low Beskid, the region of the Dukla Pass and upper part of the drainage basins of the rivers Jasiołka and Wisłoka. This area is contiguous with the Bieszczady refuge and is its extension in the western direction.

C. Beskid Sądecki. This region contains the mountain ranges of Jaworzyna Krynicka and Radziejowa. Since 1978 bears have been seen there every year (Tomek, 1983).

D. Gorce. Bears were reported in the eastern part of Gorce, the Lubań range, by Bodziarczyk (1986). This area is also a western extension of the Beskid Sądecki.

Table 1
Bears observed in the region of Carpathian Mountains in 1986, in per cent of the areas from which reports have been obtained.

Presence	Carpathian Mountains (166 hunting grounds)	Carpathian Hills (176 hunting grounds)	Whole Carpathian Region (342 hunting grounds)
Permanent, regular	15.7%	—	7.6%
Sporadic, irregular	41.6%	2.8%	21.6%
Total	57.2%	2.8%	29.2%

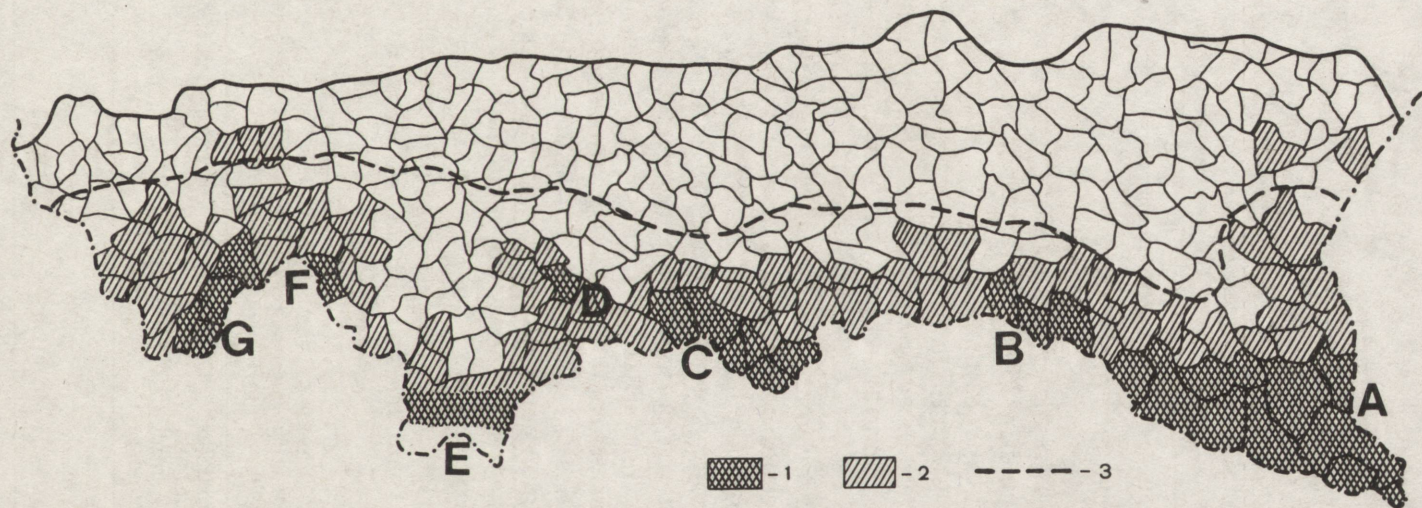


Fig. 1. Occurrence of bears in the Carpathian region according to inquiry responses in 1986. Designations: 1 — permanent regular presence, 2 — sporadic irregular occurrence, 3 — borderline between Carpathian Mountains and Carpathian Hills. Regions of bear presence: A — Bieszczady, B — Low Beskid, C — Beskid Sądecki, D — Gorce, E — Tatra Mountains, F — Babia Góra, G — Beskid Żywiecki.

E. Tatra Mountains. Besides Bieszczady this is another region where bears have been observed every year, although in small numbers (Barabasz, 1929; Podobiński, 1959, 1974).

F. Babia Góra. In this region the brown bear has appeared fairly regularly (Dzięciołowski & Pawłowski, 1964), but only since 1979 may this species be regarded as permanently living there (Parusel, 1985).

G. Beskid Żywiecki. This is mainly the region of Pilsko and the area in the south-western direction towards Wielka Racza. This is also an extension of the area in the Slovak Orava which is the habitat of the bear, towards the area of Babia Góra.

Some of these regions are thus contiguous and form four separate refuges (A with B, C with D, E, F and G). Similar refuges were isolated by Jakubiec and Buchalczyk (1987) for 1982, but according to the observations reported here for 1986 they have extended further. Apart from the regions where the species is always present, single animals are seen occasionally in a much greater area, practically in the whole Polish part of the Carpathian Mountains, and even in the areas of the hills north of the mountains (Przemyśl Hills in the east and Podbeskidzie in the west). This is evidence of the continuing territorial expansion of this species which may lead to the development of a contiguous habitat of the bear in a large part of the Carpathian Mountains.

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