

On the status and distribution of the large carnivores (Mammalia: Carnivora) in Albania

Dr. Ferdinand Bego

Tirana University, Museum of Natural Sciences, Rruga e Kavajes, Tirana, Albania

Abstract

This is a paper on the existing knowledge and the recent data about the status and distribution of the large carnivores (*Ursus arctos*, *Canis lupus*, and *Lynx lynx*) in Albania, based upon the last 10 years field trip and work throughout the country. Each LC species is analysed separately, and for each species status, distribution, threats to and reasons for species decline are given and discussed. Some conservation measures to improve LC population are also proposed. Special attention should be paid to the Lynx, a critically endangered species in Albania, whose population is estimated at 20-25 individuals.

Key words: Large carnivores (Brown Bear, Wolf, Lynx) distribution, status, threats, and conservation measures.

1. Introduction

In spite of its territory Albania plays an important role to maintain and ensure the long-term survival of the large carnivores of the Southern Balkan. Its populations and gene-pools for the Lynx (*Lynx lynx*), Brown Bear (*Ursus arctos*) and Wolf (*Canis lupus*) are of great importance for a healthy population of large carnivores, especially in the Western Balkan mountain ecosystems.

Historical data on the status and distribution of the carnivores, are those offered by the General Directorate of Forestry and Pastures and the Institute of Forestry and Pasture Research. Other old sources of data on hunting games, including LC species, provide the publications of PUZANOV V. & MITRUSHI I. (1955) and KOÇI V. (1961). In 1986 Prigioni et al in their paper on the otter (*Lutra lutra*) in Albania publicize data on the species status and distribution. GRIFFITHS H.I., (1991) and GRIFFITHS H.I., THOMAS D.H. (1993) provide data on the status of the Euroasian Badger, *Meles meles* (L.1758) in Europe, including Albania. All the three species are in the list of the main threatened animal species of Albania (ATKINSON R.I., 1990).

In the recent years there are collected quite a lot of information and useful data on the status of the LC species and some of them have been published or communicated (BEGO F., 1997; BEGO F. ET AL., 1998; BEGO F., 1999; VANGJELI J., HABILIT D., BEGO F., RUCI B., 1997). This paper is providing the most recent and updated knowledge on the current status, distribution and conservation of the large carnivores of Albania.

2. Methods

The main method used to collect data was that of "transects", identified on maps and followed carefully in the field. The researcher looks for animal signs and tracks, mostly for feces, and foot-prints on soft grounds or snow (BANG & DAHLSTROM, 1990;

CORBET G. & OVENDEN D.,1985; TOSCHI A., 1965). A photo camera and a GPS tool have been used in the last few years to get more accurate and easily-to-be-mapped data.

Apart from this direct method, interviewing target local people, such as shepherds, hunters, foresters, was practiced in almost all the visited areas, where possible. Topographic and forest maps (1982, 1995) of scale 1:25.000 have been used to better mark the localities of observations.

3. Results and Discussions

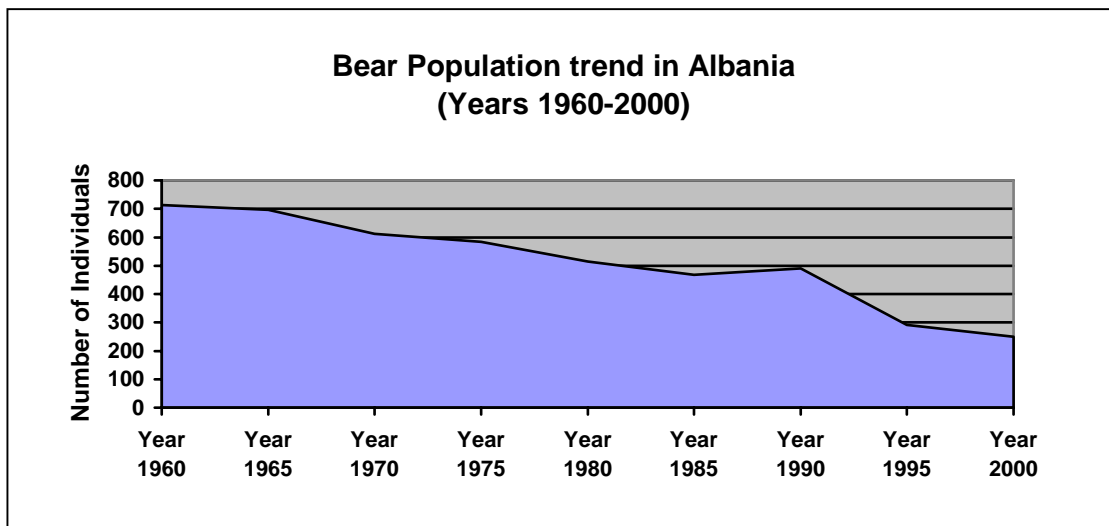
3.1 Brown Bear (*Ursus arctos* L.)

Status. The current estimation on the bear population in Albania is about 250 individuals. The last figure is the lowest registered one in Albania during the last 50 years, and shows a systematic decline of the bear, especially during the last 20-25 years (see the Table 1 and Figure 1)

Table 1. Trend of the bear population in Albania

Year	Year	Year	Year	Year	Year	Year	Year	Year
1960	1965	1970	1975	1980	1985	1990	1995	2000
714	697	612	584	514	468	491	292	250

Source: General Directorate of Forestry and Pastures (GDFP, 2000)



Distribution. The species has been recorded in the following locations: Livadhi Harushes, Vermosh, Lepushe, Razem-Veleçik (MM), Theth (SH), Valbone, Çerem dhe Lumi Gashit (BC), Lumbardhe e Munelle (PU), Bjeshke e Oroshit (MR); Bicaj-Kolesjan (KU); Lura 1, Lura 2, Radomire, Kala e Turres, Grame, Rabdishte [Korabi Mnt] (DI); Zall Gjocaj (MT), Sheshet e Bulqizes, Liqenet e Bulqizes, Liqeni i Zi (BZ), Bize, Brozhe, Berdhet, Qafe Molle-Dajt-Priske (TR); Labinot – Mal, Zavaline, Gjinar (EL); Kostenje, Qarishte, Rrajce, Polis, Dardhe, Sopot, Stravaj, Lepushe (LB), Bishnice, Guri Nikes, Qafe-Panje, Valamare (PG); Holte-Lukove (GR); Gorice e madhe (Prespe e

Madhe), Morave, Dardhe, Nikolice, Vithkuq-Ostrovica (KO); Tomorr-Kulmak (BR dhe SK); Germenj-Shelegure, Piskal-Shqerri (ER); Bredhi i Hotoves (PR).

Based on the records, the bear distribution in Albania is very much related with the distribution of the beach and mixed beach, fir and black pine forests. The Vjosa river is the most Southern border of the bear distribution range in the country. The Bear in Albania is met in the sub-mountainous and mountainous regions, that's, over 600 m in the northern Albania and 800 m in the south. Map no. 1 is showing the distribution range of the brown bear in Albania.

Conservation status and main threats

The bear is considered a protected species by the Albanian law, and his hunting has been prohibited since 1990 and on. In spite of that, the bear is being killed and persecuted in most of its range, mostly because it is considered to cause damages to farmers' crops and livestock. In fact, in summer and autumn the bear used to frequently feed on crops, livestock and fruit-trees, causing sometimes considerable damages to the farmers' small economy. There is not so far any financial mechanism in place to compensate the farmers for the damages caused by the LC, including the bear. Even, the existing legislation does not have any provision about the compensation of the damages caused by the LC species. Apart from the illegal animal killing that is still practiced, other main threats to bears are (i) illegal forest harvesting that is causing huge bear habitat fragmentation and loss, (ii) uncontrolled grazing that takes part even inside the strict nature reserves, and national parks, (iii) animal prosecution and keeping animals in captivity, including dancing bear practice that is still on in Albania.

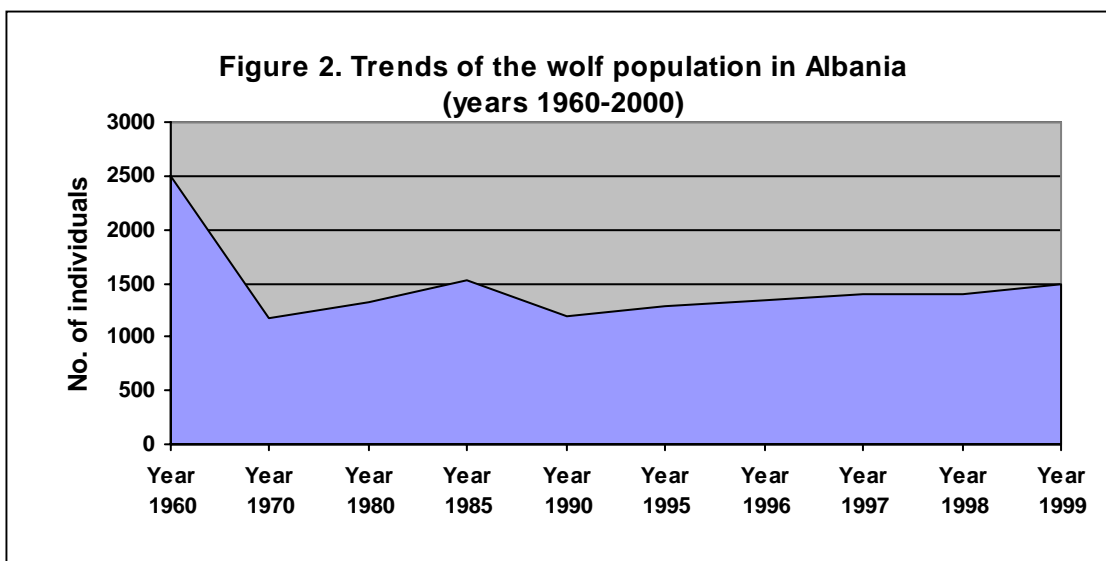
The bear has become a threatened species in Albania; it is considered a vulnerable (VU) species in the Red data book (REC, 1997), and the Biodiversity Strategy and Action Plan (NEA, 1999) has called for a species action plan be prepared and implemented in the next 3-5 years.

3.2 Wolf (*Canis lupus* L.)

Status. The current wolf population in Albania is estimated between 900-1200 individuals. Data provided by the GDFP (state authority on forestry and pasture) are showing an overestimation ranging at about 30 %. Anyway, based upon these historical data collected and reported by the DGFP, it is possible to see the trends of the wolf population in Albania over the past 50 years (see table 2 and figure 2). As shown, the wolf population has got quite sharp fluctuations from year 1960 to 1960, while nowadays it seems to be stabilized or slightly increasing during the last 10 years.

Table 2. Trend of the wolf population in Albania

Year	Year	Year	Year	Year	Year	Year	Year	Year	Year
1960	1970	1980	1985	1990	1995	1996	1997	1998	1999
2500	1170	1330	1530	1200	1280	1350	1390	1400	1500
Source: Haki Zoto, game specialist at the General Directorate of Forestry and Pastures (GDFP, 2000)									



Distribution. The species has been recorded in the following locations: Livadhi Harushes, Vermosh, Lepushe, Razem-Veleçik (MM), Boge, Theth, Cukal (SH), Valbone, Çerem, Nikaj Mertur, Lumi Gashit (BC), Lumebardhe e Munelle (PU), Berzane (LE), Bjeshke e Oroshit (MR), Lure, Korab (DI); Zall Gjocaj (MT), Sheshet e Bulqizes, Liqenet e Bulqizes, Liqeni i Zi (BZ), Qafe-Shtame-Skenderbe (KR); Bize, Brozhe, Berdhet, Qafe-Molle-Dajt-Priske (TR); Labinot –Mal, Zavaline, Gjinar (EL); Kostenje, Qarishte, Rrajce, Polis, Dardhe, Sopot, Stravaj, Lepushe (LB), Bishnice, Guri Nikes, Qafe-Panje, Valamare (PG); Holte-Lukove (GR); Gorice e madhe (Prespe e Madhe), Morave, Dardhe, Nikolice, Vithkuq-Ostrovce (KO); Tomorr-Kulmak, Bogove (BR and SK); Germenj-Shelegure, Piskal-Shqerri, Vasha Mnt (ER); Bredhi i Hotoves, Nemerçke-Dhembel (PR), Trebeshine, Kurvelesh (TP), Zheji, Bureto, Bredhi i Sotires, Mali i Gjere, (GJ); Rrezome, Dhrovjan (DL), Konispol (SR); Mali Çikes, Llogora, Karaburun (VL).

Distribution range of the wolf in Albania covers most of the territory, including the hilly, pre-mountainous, mountainous, and alpine zones. Given the fact that the wolf has become nowadays a predator dependent to livestock in Albania (mostly on sheep and goats), its movements and migrations are very much linked with those of sheep and domesticated goat herds that in summer time move up to mountain pastures, while in winter get down to lowlands for grazing. The wolf is absent along the western lowland coastal zone of Albania, from Shkodra to Vlora. Map no. 2 shows the distribution range of the wolf in Albania.

Conservation status and main threats

While for most of the Western European countries the Wolf has become extinct (Council of Europe, 1990), and a vulnerable species worldwide (IUCN, 1996), in Albania, as in other Southern Balkan European countries, it is not considered a threatened species. On the contrary, the wolf has traditionally been considered a pest predator, as causing damages in the farmers' livestock all the year-long, and thus the animal has been prosecuted and killed systematically. In the past, before the years '90, there have several times been organised national campaigns to reduce the population size of this species by organised hunting and killing, and even by using toxic chemicals, like strychnine, in the wolf feeding places. Nowadays, the wolf is protected by law (the Law on Hunting and Wildlife Protection, 1994), and its killing

is allowed in special cases, and only by issuing a special authorization. Practically, due to lack of legal enforcement, the wolf is hunted and killed all the year long. As stated above, the wolf has become a livestock dependent predator in Albania. That's because population size of wolf's natural prey, such as large ungulates [roe deer (*Capreolus capreolus*), wild boar (*Sus scrofa*) and wild goat (*Rupicapra rupicapra*)] are remarkably reduced. Over-hunting, habitat loss and fragmentation, and grazing competition among the domesticated and wild herbivores are some of the main reasons. In few cases, like those registered in Librazhdi area, there are records or crossbreeding between the wolf and the shepherd dog. This phenomenon is expected to be more frequent in the future, and will become a real threat to the geen-pool erosion of the wolf in Albania and Southern Balkans wide.

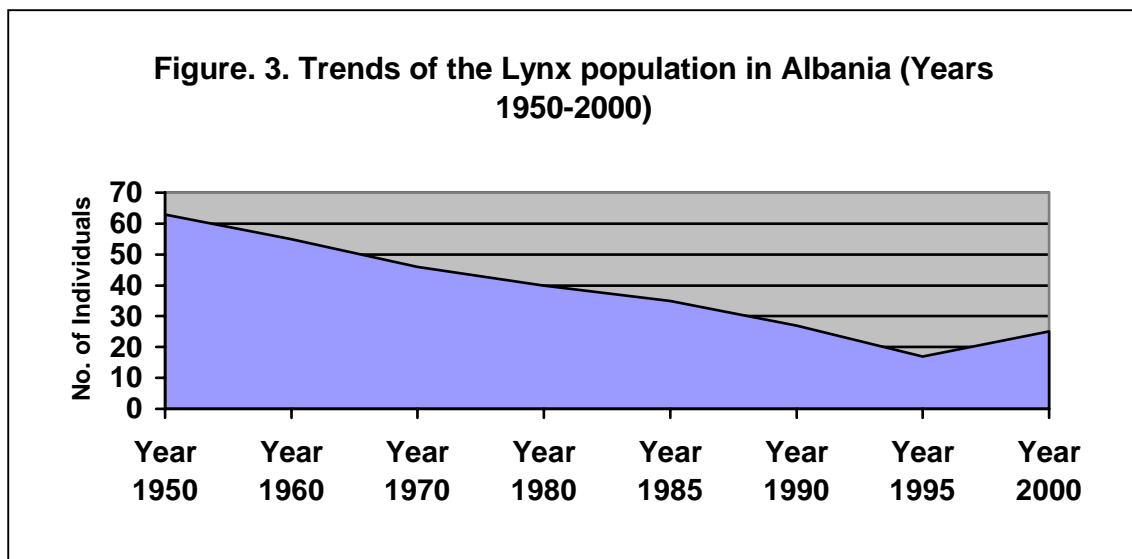
3.3 Lynx (*Lynx lynx*)

Status. The lynx population in Albania has known a strong decline since 1970, and a rough estimation shows that the lynx has loosed more then 60% of its population at the beginning of the years 50. The current lynx population in Albania is estimated somehow between 20-25 individuals. This figure tells that lynx now has become a critically endangered species in Albania, and appeals, at the same time, for the urgent need for actions to be taken. Trends of the lynx population in Albania over the last 50 years is given by the table 3 and figure 3.

Table 3. Trend of the Lynx population in Albania

Year	Year	Year	Year	Year	Year	Year	Year
1950	1960	1970	1980	1985	1990	1995	2000
63	55	46	40	35	27	17	25

Source: Haki Zoto, game specialist at the General Directorate of Forestry and Pastures (GDFP, 2000)



Distribution.

The remaining population of the lynx includes some three-four main nucleuses, such as: 1) Alps (Vermosh-Livadhi Harushes-Theth-Valbone); 2) Munelle-Balgjaj-Martanesh (Puke, Mat and Bulqize districts); 3) Qarrishte-Rrajce (Librazhd), and 4) Sopot-Zavaline-Holte (Librazhdi, Elbasani and Gramshi districts). The most important nucleus seem to be that of Sopot-Zavaline-Holte, and Munelle-Balgjaj-Martanesh, in which some vaste areas of well preserved old growing mountain forest still occur.

Conservation status and main threats to species decline

In the Biodiversity Strategy and Action Plan of Albania (NEA, 1999) the lynx (*Lynx lynx*) is one of the priority mammal species for which a Species Action Plan is required to be prepared within the next two years and implemented immediately after. This is based on the existing data and the trend of the species in Albania during the last 50 years. Lynx habitat loss and fragmentation, animal disturbance, persecution and killing have been and still are the main threats to the species decline. Lynx is a strictly protected species by the Albanian law on Hunting and Wildlife Protection (1994), but due to failure of legal enforcement the animal is still being killed.

4. Conclusions and Proposals

The populations of LC species have significantly declined in Albania over the last 50 years.

There is a need for updating the information and knowledge about the Large Carnivore population, following two main pathways:

- (i) Carrying out surveys on the potential lynx areas not yet visited and surveyed during the last 10 years. This will provide information whether the lynx is present or absent in these areas. If yes,
- (ii) Undertaking more detailed surveys on the Lynx areas already identified as such.

2. Based upon the data collected by the field surveys, a Lynx National Recovery Action Plan should be drafted and discussed. This would include: (i) the identification of the sites that are critical for this species to be taken under protection and appropriate management; (ii) related institutional and legislation arrangements and enforcement; (iii) publication of raising awareness materials and organisation of campaigns, focused particularly on the villages surrounding lynx areas; (iv) considering the compensation policy by the state authority for the farmers, in the cases of damages caused by the Lynx; etc.

3. A regional Lynx Recovery Program should be set up in a very near future, in order to better co-ordinate actions and measures to be taken by the West-eastern Balkan Countries, and address the Lynx Recovery Program to the European level, and raise more funds to implement it.

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