

# Large Carnivores (Bear, Lynx and Wolf) in Albania

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## Summary

### ALBANIA'S IMPORTANCE FOR LARGE CARNIVORES

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 (map of the Southern Balkans)

### SPECIES DISTRIBUTION

#### **Brown Bear (*Ursus arctos* L.)**

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 (*see the map of bear distribution in Albania*).

**Wolf (*Canis lupus* L.).** 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.

**The lynx (*Lynx lynx*).** 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.

### POPULATION STATUS

#### **Brown Bear (*Ursus arctos* L.)**

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. 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.

### **Wolf (*Canis lupus L.*)**

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. The current wolf population in Albania is estimated between 900-1200 individuals. Data provided by the GDFF (state authority on forestry and pasture) are showing an overestimation ranging between 30-60 %. 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: the wolf population has got quite sharp decline from year 1950 to 1970, while nowadays it seems to be stabilized or slightly increasing, especially during the last 10 years.

**Lynx (*Lynx lynx*)**. The lynx population in Albania has known a strong decline since 1950, 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 **15-25** individuals. 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.

### **HABITAT**

**The bear** habitat in Albania includes all the range of the high forests: broadleaved, coniferous, and mixed stands. High forests of beach (*Fagetum*) seems to be an important part of the bear habitat in Albania. Part of the bear range falls inside the agricultural land in the rural areas, that is cultivated with cereals and fruit-trees. Forest harvesting, agriculture, livestock breeding, keeping beehives, horticulture and vineyards are the main land uses.

**The wolf** prefers open forest areas It is found in all types of woodland and forest areas, shrub lands, mixed forests, sub-alpine and alpine meadows. Collecting firewoods, forest harvesting and logging, livestock breeding, grazing, are the main land use practices taking place inside the wolf range.

**The lynx** habitat is composed of relatively well-preserved and remote areas occupied by old growing forest, mostly mixed broadleaved and coniferous with rocks and cliffs. Generally, the areas included in the lynx range are relatively remote and undisturbed by human activities. Only selected forest harvestings some of them illegally carried out, and some livestock free grazing occur in there.

### **CONFLICTS WITH HUMANS**

**Level of damage caused to the livestock.** Although there is not a regular evidence on the damages caused by LC species, the tendency is to over-estimate them, in order to justify illegal killings. In fact, wolf is causing damages to livestock, mostly on sheep and goats all the year along, especially during winter time. The bear, in summer and autumn use to frequently feed on crops, livestock and fruit-trees, causing sometimes considerable damages to the farmers' small economy. The bear damages in beehives are not very often occurring.

**Compensation system.** 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.

**Preventive measures.** The only preventive measure used so far is that of shepherd dogs. There are existing some well trained breeds of shepherd dogs in the rural areas of Albania, able to keep the LC, especially the wolf, out of the livestock herds/flocks. Unfortunately, these breeds are not very widely spread out and most of the shepherd dogs are not of that breed and not well trained. Other measures used to keep the Large Carnivores away from causing any damage are those of making fires (during the night), noise-making (including shooting in the air), from time to time.

**Livestock in Albania.** Before World War II livestock structure was dominated by sheep and goats raised mainly for milk and also but to a lesser extent for meat and wool. On average there were three heads of small animals per capita of population. After the World War II, the transformation into socialism negatively affected the livestock breeding structure and largely eliminated what had been an animal raising tradition very well-adapted to Albania's natural conditions. As a result, from 1950 to 1990 the number of sheep and goats increased by only 250 thousands, as compared to 2.6 folds increases for cattle, while the human population increased to 1.7 times

Almost every farmer's family has 1-2 milking cows, 5-6 sheep or goats, 10-15 chickens, some hogs, and probably transport animals such as horses, mules or donkeys.

**Trends of livestock industry.** During the period 1950-1970 corresponding to the beginning and end of agriculture collectivisation there was a 3% decrease in the number of cattle and a 22% decrease in the number of sheep and goats. Between 1970-1990 the number of cattle increased by 56 % and the number of sheep and goats by 41 %.

Livestock numbers increased briefly during the first year immediately after the dismantling of the co-operatives. By the end of 1993 there were about 57 thousand more cows and 414 thousand more goats and sheep than in 1990.

After 1993 and on the trend is as follow:

- increasing the number of cattle (mostly milking cows),
- increasing the number of sheep,
- decreasing the number of goats, and
- increasing the number of equids (horses, mules and donkeys)

Most of the livestock is kept as free grazing, but not free ranging. Grazing is organized and under control of the shepherds that either individually or in group do control their own livestock herds/flocks.

**Human population density distribution.** Albania has one of the highest population growth rates in Europe. After the War II the population growth rate was higher than in previous periods. During 1920-1940 population increased by 36 % with an annual growth rate of 1.5 %, whereas during the period 1950-1970, growth rates were respectively 75.8% and 2.9 %. The fast growth of population in post War II resulted from a special demographic policy that

promoted and favored birth rates which were 3 to 4 times higher than in neighbouring countries or in other countries of Europe.

After 1980, population growth rates declined. Thus, the annual increase of population was 2 % compared to 0.5 % in other European countries. At the beginning of the 1990s, great political and economic changes greatly affected the population growth rates. Reduction of birth rates and emigration following the unstable situation during the transition period (1991-2000), appear to have been the most important factors that conditioned this change.

Another marked demographic feature of Albania is the high percentage of the population living in rural areas. At the end of the Great War, about 84% of population was living in countryside (according to the first census of population in 1923). After the WAR II, this percentage dropped slightly (79.5 % in 1950). During a relatively long period (1950-1990), the state prevented migration of people from the countryside to the cities. Thus, as late as 1990, the rural population still accounted for 63.9 % of the total. This means that in 40 years the percentage of rural population decreased by only 16%. Consequently, a rural overpopulation, high rural population density, especially in the mountains, with very limited acreage of agricultural land and natural resources for many families to even meet their immediate requirements for food. After the democratic changes in 1991, a quick and uncontrolled migration of people from rural to urban areas took part, and consequently the percentage of rural population has dropped to 53.5 % (in 1998) and the tendency is towards a further decrease of the rural population

All this situation appeared to have heavily impacted wildlife, among which LC species as shown above have been among the most affected ones.

#### **HUMAN ATTITUDES TOWARDS THE SPECIES**

**Bear** is considered from the majority of the public a friendly animal. In a lot of tales bear is a friendly, patty and enjoyable animal. For most of them the bear is not dangerous to humans. Only few people living in quite remote rural areas, inside the bear range do consider the bear a pest predator, causing damages to crops and livestock, and dangerous even to man.

**Wolf** is considered by most of the public a very dangerous and damaging animal. Conflict of man and wolf is deeply rooted among the rural population, due to the fact that the wolf is a permanent danger to their livestock, both in summer and winter grazing.

**Lynx.** It is rather difficult to judge about the man attitudes towards the lynx. This is because of the species biology and ecology. Lynx is a quite solitary animal, very scarce and difficult to be seen. As a very specialised predator, it does not cause a real damage to livestock. Many people do not have any knowledge and consideration about the species. Nevertheless, they consider it a real king of the old growing forest, a very smart, strong and skilful predator, that does respect preys it lives on.

#### **LEGISLATION**

There is not existing any practice to manage LC populations in Albania. **The bear** is considered a **strictly protected species** by the Albanian law on Hunting and Wildlife Protection (1994), and his hunting has been prohibited since 1990 and on. **The wolf is a protected species** by the Albanian law on Hunting and Wildlife Protection (1994), and his killing/hunting is allowed by special permission issued by the state authority (GDFFP). **The Lynx is a strictly protected species** by the Albanian law on Hunting and Wildlife Protection

(1994). But, practically, due to lack of legal enforcement, all the three LC species are hunted and killed all the year along.

Enforcement of legislation in Protected areas is another priority issue raised recently, due to the fact that illegal forest logging and harvesting is being concentrated right there, inside the protected areas, where there are still well preserved old growing forests, that have at the same time stands of good timber quality.

## **SPECIAL ISSUES**

**Genetic identity** (hybridisation with dogs). In few cases, like those registered in Librazhdi area, there are records or crossbreeding between the wolf and the shepherd dog.

There is no evidence yet of **stray and feral dog** presence and any damage caused from stray and feral dogs to livestock. Further studies and observations/investigations are needed to clarify this issue.

**Rabies distribution.** Few cases of men bitten by wolves and dogs rabies-positive have been recorded so far in Albania. This disease is not problematic, but there is an evidence that this disease appears time to time.

**Wild ungulate species.** Three wild ungulate species are present in Albania: the wild boar (*Sus scrofa*), roe deer (*Capreolus capreolus*) and the wild goat/chamois (*Rupicapra rupicapra*).

-The wild boar distribution in Albania is very much linked with that of woak woodland forests, that occupy hilly zone and pre-mountain zone of Albania (0-800 m in the north and 0-1200 m in the south). Population size of the species today is estimated between 800-1000 individuals and it is decreasing

-The roe deer distribution is linked with pre-mountain and mountain zone of Albania (over 400m in the north and over 600m in the south of the country). The population of the roe deer is currently estimated between 400-500 individuals and is decreasing.

-The chamois distribution is linked with high mountains in Albania (mountain picks over 2000 m above sea level). The population size is estimated between 1200-1600 individuals by the GDFP, but this is an over-estimation.

Based on the current estimations of the wild ungulate populations in Albania, all the three species are not allowed by the regulation to be hunted, considered so protected species. But, due to failure of legal enforcement all the three species, especially wild boar and roe deer are being hunted throughout their distribution range in Albania, including protected areas; they are hunted even inside the Strict Nature Reserves and National Parks.

## **THREATS**

The illegal animal killing is still practised in Albania, although the LC species are protected and strictly protected by the law. This is the case especially for the wolf, which has traditionally been considered a pest predator, as causing damages in the farmers' livestock all the yearlong, and thus the animal has been prosecuted and killed systematically

Use of poisons for predator control has been practiced in the past, before 1990. In the past, 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.

Main roads and highways that are being constructed nowadays are considered a threat to LC species, particularly to the bear. They are causing a permanent habitat fragmentation and discontinuation, and barriers to animals' movements, increasing so isolation of the individual animals or sub-populations, that leads to genetical erosion.

Hunter attitudes towards species are not equal for the three species. In general all of them are considered pest predators, as causing damages to the livestock and crops. But, the attitude of the hunter towards the bear and the lynx is in general positive, while towards the wolf it is very negative.

## **CONSERVATION ACTIONS AND RECOMMENDATIONS**

- Enacting the law on Biodiversity protection and the law on Protected Areas. Improvement of legislation on the protection of LC species should consider the establishment of a compensation system for the damages caused by them to farmers (livestock, crops, beehives, fruit-trees).
- Preparation and work for implementation of the species action plan (SAP) for selected species, such as large carnivores, is considered a priority by the BSAP (Biodiversity Strategy and Action Plan) of Albania.
- Enlargement of the Protected Areas through the establishment of the representative network of protected areas, as foreseen in the BSAP approved by the Government of Albania. (Most of the enlarged and newly proposed PAs are used by the large carnivore species and thus they are providing key habitats to large carnivores, particularly for the Lynx. Creation of transborder-protected areas should be considered an important measure to improve the conservation status of LC species).
- It is necessary to implement conservation measures outside protected areas, through Forest and Pasture Management Plans.
- Better co-ordination among the country's research institutions, and with their counterparts abroad, in the field of LC studying and management and monitoring is important.
- Programmes and projects to encourage public and community participation in the process of biodiversity (including LC) planning and management must be developed, encouraged, and implemented in the future.
- Extension service for land users on biodiversity protection and management issues, including those dealing with minimizing or mitigation of damages caused by large carnivores should necessarily be developed in a near future.
- Strengthening Albania's compliance with international conventions, and signing other conventions such as Bonn, International Trade of Endangered Species of Flora and Fauna (CITES) is a priority.