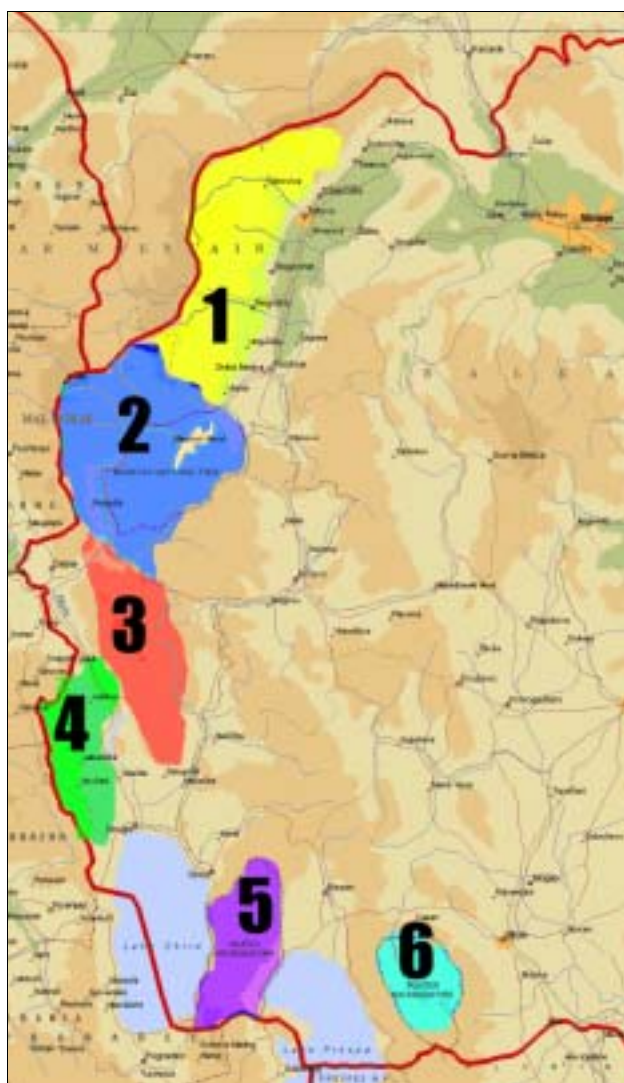


On the status of the Balkan lynx in the Former Yugoslav Republic of Macedonia

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1. Current status and distribution

For easier charting and describing, the territory inhabited by lynx was divided in five areas. Starting from the northern border with Yugoslavia and following the Albanian border they are: Shar Mountains, Mavrovo National Park, Stogovo and Karaorman Mountains, and finally Drimcol region, Galicica National Park and Pelister National Park (Map 1).



Map 1. Regions in the FYR of Macedonia discussed in this report:

- 1 Shar Mountains (outside Mavrovo National Park)
- 2 Mavrovo National Park
- 3 Stogovo and Karaorman Mountains
- 4 Drimcol region
- 5 Galicica National Park
- 6 Pelister National Park

1) Shar Mountains (outside Mavrovo National Park):

Illegal woodcutters from both sides of the border have over-used the northern part of the mountain, and this is now considered a very big problem. The slopes above Tetovo town are being subject to illegal building of vacation houses and villas. There is an initiative for the Shar Mountains to be proclaimed as a national park (updates will be available), and poaching is definitely rising, since there is little or no control of the region.

The Yugoslavian part of the Shar Mountains, according to our sources, was a natural park, but no other information on the current situation is available. So far the locals and hunters we contacted have seen no lynx for the last 10 years, so we have to conclude that there are no lynx in the north part of the mountain. There are wolves, bears and roe deer present.

2) Mavrovo National Park:

The park is quite large and it stretches over 730.8 km², including the entire Bistra, Korab, Deshat, and Vratsa Mountains (on the Macedonian side of the border) and part of Shar and Krchin Mountains. To the north, it stretches as far as the point where the borders of Macedonia, Albania and Yugoslavia meet and to the south just out of the reach of Stogovo Mountains.

Although people inhabit all areas of the park, most of the population is located in small villages, which have faced constant mass depopulation for the last 50 years. Today mostly elderly people live in the villages and following this trend, the logging, burning of forests and stock herding are considerably reduced. The forests are under no serious threat, but there is some poaching by the local population and an increasing problem of waste disposal caused by local winter tourism.

The lynx population of the park is considered to be stable. Wardens officially record the sightings. The wardens, who estimate the population, document their sightings (Tab. 1). The observations of the forest police, locals or tourists are rarely documented.

Records of the park and a brochure of the park published in 1995–1996 describe a population of about 20 lynx that periodically follow the local population of chamois (1600 individuals) across and out of the park. According to the employees and the wardens, today there is a certain increase; however no official counting has been conducted. There is also an increase in the population of roe deer (and a few other park animals), which in 1996 numbered over 1200 individuals. There is a distribution map of roe deer, chamois and wild boar of the park available, dating from 1989.

Table 1. Documented lynx sightings of the last 10 years (detailed list of the last 30 years is available).

Year	Locality	Observation
1993	Velebrdo	a lynx was killed by a poacher
1995	in the park	the park rangers and the forest police found a lot of tracks
1996	Brodec	one of the employees saw a lynx
1996	Rech	the warden of the park saw a lynx
1997		a skin of a lynx was found
??	Nostrovo	one of the employees saw a female and two cubs
2000	near park headquarters	tracks discovered
2000	Lazaropole, Mavrovo	young lynx of the year killed

Hunting and habitat loss have long ago extirpated the red deer. There is a population of 70 brown bears, 200 wild cats and about 20 wolves that are the subject of a predator control program due to attacks on livestock. We were able to confirm the existence of a stable population of alternative prey, but the lack of records prohibits any assessments. The increased populations are connected to the migration of animals from Albania and Kosovo during the war. The closeness of natural parks in Yugoslavia along the border correlates with these claims. An increase of game is noted even on Jakupica and Golesnica Mountains (south of Skopje). According to locals from Veles, roe deer flood the area.

3) Stogovo and Karaorman Mountains, Drimcol region:

There is a confirmed population of lynx on Stogovo Mountains. The information was obtained from local people of the village of Brosnica. According to their claims, the animals are frequently seen near the locality Ostrobrdo. However, an estimate of the number is not possible at this time. There is a survey dating from 1997 that describes a population of about five lynx, but having in mind the closeness of Mavrovo National Park, it is possible that the population is shared between these areas.

Local people also confirmed the existence of lynx on Karaorman Mountains (southern part of the Stogovo-Karaorman complex). However, an estimate of the number is not possible. Interviews with local people from the above mentioned mountains (Zupa region) revealed that the lynx has been very rare for the last 10 to 15 years, and that the whole area is facing increasing problems with poaching. For example, one of the interviewed people saw a couple of lynx playing on a clearing in the lowlands of Stogovo Mountains seven years ago. He killed them confusing them with dogs.

The Drimcol region and Mount Jablanica north of Ohrid lake were subject to severe hunting and poaching, so game is relatively rare, and at times even hunt-

ing of hares is banned. The last lynx was seen at least ten years ago. So it is safe to conclude that there is no lynx population in this region.

4) Galicica National Park:

The national park stretches over the entire Galicica Mountains and covers over 250 km². The highest peak is at 2255m above sea level. There is a road going over the entire mountain, connecting the settlements on the shores of the two lakes. The park employees confirm the existence of lynx in the park; their estimate is two to three animals. A sighting list was not available at this time. Interviews with hunters from the Prespa region and with the forest police indicate – although not very reliably – that there are no lynx present on the Prespa Lake side of the mountain. Roe deer, bear and wolf populate the park. There is only one village at the edge of the park near Lake Prespa.

5) Pelister National Park:

The park extends over an area of 125 km², at an altitude ranging from 700 to 2600m. It contains the highest part of the mountain and a little more than a third of its total surface. As in the Galicica NP, the park officials describe a population of from one to three animals. We found some mountain climbers who saw a lynx at the border of the park some 18 months ago. Chamois, wolf, bear, roe and red deer are present in the park. Interviews with hunters from the Prespa region and with the forest police indicate that there are no lynx present on the Prespa Lake side of the mountain. There are two villages in the third zone of the park, an area where the inhabitants are allowed agricultural activities. There were claims that lynx also inhabited Karadzica Mountains. However, this is very unlikely and it is still under investigation (updates if the situation changes will be available).

To summarize, today the lynx population is only stable in Mavrovo National Park with the possibility of a slight increase due to the war in Kosovo. In all other areas, the population trend is decreasing. Compared to 10 years ago, the lynx has disappeared from areas like

the Shar Mountain and Drimcol region. The decrease of the lynx population in the FYR of Macedonia has been important over the last decade.

2. Legal status

Since 1973, lynx have been proclaimed as a natural rarity. They are protected under the *Act on Protection of Natural Rarities*. Since then, the status of lynx has not been changed. In April 1996, lynx were proclaimed as a protected species of which the hunting is permanently banned by a new Hunting Act.

The Ministry of Agriculture and the Ministry of Environment share the responsibilities of enforcing the law. However, the forest police and gamekeepers have not enough manpower; they are poorly paid and have very little equipment. Under these conditions, poaching has increased.

The territory outside the national parks is under the control and protection of hunting clubs (which pay concessions to the government) and the forestry management. There is no real assessment of their work. Although most of the people work for government organizations (under the Ministry of Agriculture) or so-called public enterprises, there seems to be a lack of coordination in their efforts.

Killing a permanently protected animal is punishable by a fine of 20,000 to 50,000 denars (\$350 to 900) or imprisonment up to 30 days. The person is also obliged to pay for damage to the concessionaire or to the park management. If the concessionaire does not protect, or if he even hunts a protected animal, he pays a fine of 150,000 to 300,000 denars (\$2,500 to 5000). If there is a breaking of the concession arrangement, the person in charge of the enterprise is fined 30,000 to 50,000 denars (\$500 to 900). For the export of protected species, ministry approval is needed. A special permit from the National Agency for Protection of Natural Rarities is required in order to capture or kill a



Map 2. Present distribution of lynx in the FYR of Macedonia.

protected animal. To hunt protected animals for research, examination, diagnostic or scientific purposes requires a permit signed by the Minister of Agriculture.

3. Status of alternative prey

Although reports are very variable depending on the source, we can confirm fairly stable prey populations in all areas populated by lynx. However, it is impossible to give precise estimates due to the increased number of foxes in the past year, and the lack of recent surveys.

4. Habitat

The status and development of the forests are under the supervision of the concessionaires and they follow individual logging and repopulating programs. The national parks have only negligible logging problems but the areas outside the parks, although protected by foresters, face some problems depending on the region and the size of the human population. The general condition of the forests in the western part of the FYR of Macedonia is considered to be stable, but tending to get worse.

5. People and institutions

5.1. GOs in charge of hunting, forestry and nature conservation

All the national parks and forestry reserves in the country are branches of a single public enterprise (government owned). Responsibility lies with the Ministry of Agriculture, Forestry and Water Management. The parks are partly financed by the government, but they get most of their finances by selling wood to the local population and selling hunting permits to tourists.

The rest of the territory is divided into regions and then offered for concession by the government. The main concessionaire is the public enterprise Macedonian Forests, which controls the major part of the forests in the country. This enterprise is also partly financed by the government, and it also deals with fuel wood over the whole territory of the country.

Both public enterprises – for forestry management and national parks – are responsible for the conservation of the animals' habitat, the forests entrusted to them, as well as for making up the losses caused by logging, hunting and poaching. Also a part of their conservation programs is to provide food for the animals (roe deer, red deer) during the winter. Mavrovo National Park has started a program for reintroduction of the red deer, but results are still unknown.

5.2. NGOs in charge of hunting, forestry and nature conservation

A smaller part of the territory is leased to private companies and hunting societies that form hunting parks. As previously described, the concessionaires are responsible for implementing the hunting restrictions for protected species and for conservation of the habitat, as well as for reduction of undesirable and unprotected species (fox, wolf etc.).

5.3. Universities/sciences involved in wildlife research

- Veterinary faculty Skopje; Department of biology and diseases of wild animals.
- Forestry faculty Skopje; Department of wildlife management, forestry management.
- Faculty of natural sciences Skopje; Biology institute
- Museum of natural sciences.
- National park managements; running independent programs.

6. Stuffed animals

The Museum of Natural Science owns six stuffed lynx. They are listed as a national treasure and are therefore not for sale. Investigation and contacts with private owners were not conducted at this time, due to the possibility of raising interest in the lynx in the local population and thus enhancing poaching.

7. Contacts

Contacts have been established with the director of the public enterprise that controls all the national parks in Macedonia and with the managers of all the above-mentioned national parks. Support for the lynx preservation project was also obtained from the Ministry of Agriculture and the Ministry of Environment, which roughly includes all the relevant government organizations. Special support has been obtained from the Commission for Protection of Special Natural Rarities, which is trying to pass an especially strict protection bill in the parliament. A few NGOs demonstrated also their willingness to help the project. Although a wider inquiry out in the field was not possible at this time, some of the local people have shown interest and are willing to help. We have managed to enlist members from almost all of the mentioned regions. This will certainly prove invaluable for local implementation of the project.

8. Conclusions

a) The final estimate of the number of lynx in the FYR of Macedonia is somewhere between 30 and 35 indi-

viduals. About 80% of the animals are located in the National Park Mavrovo and about 15% more reside in the mountains in the immediate vicinity of the park's boundary. Only 3–6 animals live outside the wider Mavrovo region. And 90% of the animals live in national parks.

b) No reports of lynx related attacks on livestock have been documented in the official statistics during the last 10 to 15 years. If any occurred, they probably have been considered as wolf attacks. The government pays for damage done by protected animals.

c) The interviews with local people, who live outside of the national parks, showed that most of the sightings are usually accompanied by shooting at, or killing the lynx. In most cases, the people involved claimed that they had no knowledge of the current legislation, or that they had mistaken the animals for wild cat, which has no legal protection.

d) In all concerned areas, including the national parks, there is some illegal logging and poaching, but it is considered to be a threat only in the northern part of Shar Mountain and in the Drimcol region.

e) For now it seems that only the national parks are a relatively safe haven for protected species, due to the constant control by wardens.

f) One cannot help feeling, that there is little or no cooperation between the public enterprises that control the territory. In spite of the fact, that they are all responsible to the Ministry of Agriculture, there is a noticeable lack of a specialized authority that oversees and coordinates their activities.

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