ATTEMPTS TO INTRODUCE THE ALPINE IBEX IN ROMANIA

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With a view to enrich the fauna of the mountain regions, it was decided to introduce the Alpine ibex back in 1978. This mammal was originally brought to a colonization enclosure in the Ciucaş Mountains (Eastern Carpathians). Later, they were taken to Snagov forest (Ilfov county), and finally to the Western Carpathians in Alba county. A new colonisation process had been initiated in the Southern Carpathians, but it never came to be. In acclimatization pens, but also in the wild, this species lasted only 15 years (1979–1994), due to non-adaptation.

Keywords: Alpine ibex, colonization, Carpathian Mountains, Romania.

INTRODUCTION

The steinbock, rock goat or Alpine ibex, as it is also known, is part of the Artiodactyla Order (Owen, 1848), Bovidae family (Gray, 1821), Caprinae Gill subfamily, 1872 (Murariu, 2004).

This mammal has the following characteristics: a body length (head and trunk) of 100–160 cm, a tail length of 12–15 cm, and ear length of 10–12 cm, and a weight of 50–120 kg (Grimmberger, 2017). The curved horns of the ibex are imposing, reaching up to 100 cm in length, while in females they do not exceed 35 cm.

It is a charming member of the fauna, which is found in the Alps (Pedrotti, Lovari, 1999). The favorable habitat is made up of rocky mountains, as it prefers steep terrain at high altitudes, the rock goat being an excellent climber (as its name suggests), capable of great leaps.

In order to research this aspect, field observations were made where Alpine ibex were brought to Romania, the very few recorded data on colonization were identified and interviews were conducted with the personnel from the local forestry and hunting administrations.

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RESULTS

Bringing the species to Romania

The possibility of introducing this ruminant was put forward for the first time in 1949, when the question arose regarding the colonization of some rare game species in the country, the Alpine ibex then being seen as "*interesting*" from this point of view. The highest sectors of the Carpathian Mountains were deemed suitable for colonization: Făgăraş, Piatra Craiului, Retezat, Rodna, and Bucegi Mountains.

After more than 15 years, this idea was revived, in the context of an action then called the country's "enrichment of the fauna" (Negulici, 1965, p. 3).

In 1978, Barbu pointed to the fact that "for the near future, the Forestry Department is perfecting the import of the rock goat", viewing the action as a "welcome" one (p. 79).

While working on the second edition of his *Treatise on Cinegenetics*, Cotta (1982, p. 86) mentioned the fact that "the introduction of the Alpine ibex into the fauna of the country was being experimented with. It is necessary to proceed with great discernment in order not to compete with, hinder and thus damage the evolution of the Alpine chamois, which is the pride of this country due to the good quality of the trophies".

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The species was brought to Romania in 1979 (Fig. 1).

Figure 1. The geographical position in Romania of the points where Alpine ibex were introduced (•) and where they are meants to be reintroduced in the future (\circ).

The evolution of population nuclei

a) The numbers in the Ciucas Mountains (Eastern Carpathians)

A number of 21 specimens (10 males and 11 females) covering all age groups were brought in 1979 from the Swiss Alps (the Swiss National Park), and they were prepared for the expedition near Saint Moritz. The transportation was carried out in special wooden crates, each specimen being assigned its own crate. The crates containing the animals were then shipped by special plane to Bucharest, to be then taken by truck to the enclosure at Valea Berii. In the northern extremity of Prahova county (near the border with Brasov county, within Măneciu commune), the Alpine ibex were introduced into an acclimatization enclosure called Valea Berii (spanning over several hectares at 1,060–1,100 m alt.), near the homonymous valley, at the source of the Teleajen river. It had a 2.5 m high perimeter fence made of barbed wire (the wires were layed out every 10 cm) and wire mesh, fixed on willow wood posts (Fig. 2). The fence reached 50 cm underground. The area was set up in 1978 for deer populations, but when the Alpine ibex were brought in it was empty, the deer having been released into the field. There were two feeders and two salt pans in the pen. At the feeders they were given clover and corn meal. Water was provided by Manole's Stream, which passed through the fenced-in area. This stream is a tributary of the Berii valley, which is the permanent source of the Teleajen River. Three stone mounds had been built in the enclosure to mimic the natural habitat of Alpine ibex. They were 6×7 m in length and width, and 3 m in height. The animal shelter was built of wood.



Figure 2. A sector surrounding the Alpine ibex colonization enclosure from Valea Berii (Prahova County). A high observation point may also be noted (1980).

Initially, a few Alpine ibex were pregnant. A few kids were also born in the enclosure, but only two survived. However, towards the end of 1979, a bear in search of food made a breach in the fence and devoured two specimens, thus leaving only 19 individuals. In the spring of 1980, another bear entered the enclosure leading to 13 mature Alpine ibex and one kid escaping, leaving only six specimens behind. The ones that escaped roamed the surroundings, especially the summit of Ciucaș-Tigăile Mari, an open place with many rock formations. In the spring of 1983, two more specimens were seen on the Ciucas peak (at 1,954 m alt.). Seven specimens were observed in the wild – by forest rangers, hunters, shepherds or tourists - in 1982, eight specimens in 1983, twelve specimens in 1984, nine specimens in 1985, and eight specimens in 1986. The shepherds found that a male ibex lived for around two years isolated on the cliffs of the Rosu Mountain (1,651 m altitude). They were observed at a maximum of 4–5 km away from the colonization pen. One specimen reached even further and was found frozen dead in the Târlung reservoir (Brasov County), located about 15 km away to the northwest of the colonization pen.

After 1986, this mammal was no longer observed despite all the repeated controls of the forestry staff, as the specimens were most likely killed by large carnivores (*Canis lupus, Ursus arctos, Lynx lynx*) or died due to a lack of adaptation.

The remaining Alpine ibex in the designated area (one male and three females) were kept there in the winter of 1980/1981, and in the spring of 1981 were captured and transported in wooden crates on trucks to Snagov forest, 30 km North of Bucharest.

b) The Alpine ibex in the enclosure of Snagov Park forest (Vlăsiei Plain)

The enclosure in Snagov forest (Scroviştea Forestry Unit, known as Vlăsia at the time) was created in 1978, at an altitude of 90 m, initially for the colonization of cervids, but after these were released, it became home to the Alpine ibex. Its surface was on the smaller side, and the nearest village is Coadele (present-day Siliştea Snagovului), part of Gruiu commune, located in the northern extremity of Ilfov County.

The fence around the enclosure was made of wire mesh fixed on wooden poles 50–60 cm in diameter, and 3 m high. In the enclosure, the ibex benefitted from a wooden shelter and larger feeder around a sort of paddock. The water was brought by the security peronnel from a well and poured into a rather large watering trough, also made of wood. There was also an alignment of eight blocks of different heights fixed in a tallest-to-shortest and shortest-to-tallest order using rough cement, for the goats to climb on. Larger rocks had been placed in the enclosure, in an attempt to "mimic" their natural environment.

The six specimens from the Valea Berii enclosure (Prahova County) were brought here in 1981. They reproduced, so that in 1988 there were 18 individuals in the Snagov enclosure, and 20 in 1989 (10 male and 10 females). At the end of fall 1990, only 17 specimens left. They also had kids in the pen, so at the end of 1989 and the beginning of the following year there were 6 kids playing on the wooden blocks.

During the time they were held at Snagov, some also died.

Prior to 1989, the then-president of Romania had hunted the 3 most representative specimens in the enclosure, the most valuable trophy totaling 198.30 CIC points (Alaci, 2018). One such trophy can nowadays be found, together with a whole taxidermied specimen, at the Hunting Museum of the Carpathian Mountains in Posada (Prahova County) (Figs. 3, 4).



Figure 3. Alpine ibex specimen hunted in the Snagov enclosure (Ilfov County), exhibited in a taxidermied state at the Hunting Museum of the Carpathian Mountains in Posada (Prahova County).

In November 1990, due to the fact that the plain habitat was entirely unsuitable for Apline ibex, the 17 specimens of different ages, that lived in the Snagov enclosure, were taken to a mountain area, close to Iezeul Ighiel. They were transported there in wooden crates, on trucks.



Figure 4. Alpine ibex trophy obtained from a specimen hunted in the Snagov enclosure (Ilfov County) and exhibited at the Hunting Museum of the Carpathian Mountains in Posada (Prahova County).

c) The nucleus of Iezerul Ighiel (Western Carpathians)

The repopulation enclosure was set up at 930–950 m altitude, near Lake lezer, on the territory of the village of Ighiel (Ighiu commune, in the center of Alba County, in the Trascău Mountains), in 1966, for deer and mouflon populations. The enclosure was almost 10 ha, of which 60% was made up of beech forest, and 40% of meadows. The boundary fence was made of wire mesh 2 m high, and above it 5 rows of barbed wire, all fixed on concrete posts. Five feeders and four salt pans had been installed inside.

As previously mentioned, in November 1990, the 17 Alpine ibex were brought from the Snagov enclosure (Ilfov County), and were kept in the Iezerul Ighiel, until the spring of 1992, when, following a storm, a beech tree was uprooted, thus destroying over 10 m of fence, allowing the ibex to escape. Several forest rangers were mobilized to return the animals to the enclosure, succeeding in bringing in only half of them. However, two weeks later, following another storm, the fence broke in another sector and the ibex got out for good, dispersing throughout the surroundings (especially, where they found more extensive rocky areas). The animal shelter was made of wood. Hay for feed was harvested from the paddock clearing. The Alpine ibex had no kids in the enclosure.

After leaving the enclosure, the ibex stayed for almost two years in the surrounding area, up to a maximum of 5 km away, the sighting of 1–2 specimens being a rare occurrence. Later, they were most likely killed by wolves. Several years after their disappearance, locals from the village of Ighiel found the badly degraded skullls (still retaining the horns which rendered them easily recognizable) of two females.

d) The repopulation initiative of the Arpășel area (Southern Carpathians)

To this end, in the mid-80s, a delegation of experts, representatives of the management of the Gran Paradiso National Park in the Italian Alps, visited Romania and decided that the sector between the peaks of Moldoveanu (2,544 m alt.) and Negoiu (2,535 m alt.), the highest in the Făgăraş Mountains, may be where the Alpine ibex could be reintroduced (since it has the appropriate geographical and habitat conditions).

In order for this to happen, between 1986–1987, a project was initiated by the then Ministry of Forestry, to introduce the Alpine ibex in the Arpăşel valley in the Făgăraş Mountains, the highest in Romania. This sector is located in the South-Eastern extremity of Sibiu County, a rocky area adjacent to the peaks of Albota (2,262 m alt.) and Buteanu (2,507 m alt.), not far from the national road that crosses the Făgăraş Mountains (the Transfăgărăşan).

Georgescu (1989, p. 11) even mentioned the fact that "*a first shipment of several dozen specimens is soon expected*" from the Gran Paradiso National Park.

It had been decided that this be achieved through government involvement, but the events of late 1989 in Romania put an end to it.

CONCLUSIONS

In order to enrich the fauna of the alpine level of the Carpathian Mountains, it was decided, in 1978, to introduce a new species of mammal – the Alpine ibex. The first shipment was brought in 1979 to the Southern end of the Eastern Carpathians. After leaving the colonization enclosure, they were observed roaming freely until 1986. In 1981, in a plain area near the Capital of the country, a nucleus was formed which was later introduced in the Western Carpathians, where it remained until 1994. In the Southern Carpathians, the introduction of the species was initiated in the second part of the '80s, but it did not come to fruition.

Still, in 2000, Negruțiu and his collaborators (p. 107), stated that it would be "*possible to reintroduce the Alpine ibex into the country's fauna*", but so far nothing has been done in this regard.

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