**The golden jackal in Albania**

Jackals are part of the Canidae family, and in general there are 5 types of jackal. In Albania the golden jackal (Canis aureus) is living. Their geographic territory is from Southern Europe, Eastern Europe, North Africa and to some areas of Asia. Jackals eat everything – birds, small mammals, carcasses, but in cases of food shortages they also take fruits or vegetables. We have often seen in the Park that in their stomach there are grains of fruits that they use for food.

They live in monogamous families and they defend their territory (about 3 km2). Their zone is marked by urine and fevers and is so large that it allows the growth of the cane. Usually they get their prey alone or in couple, but when the prey is big even in rams.

According to the IUCN Red List, the jackal is classified as vulnerable species. But despite the fact that it is not at an apparent risk of disappearance, its number is declining worldwide.

There are no statistics and there is no exact number in Europe and Africa. And we do not have an exact number in Albania. In the Divjake National Park located between the two rivers Vjose and Shkumbin, there are around 170-180 pairs, but we think that this number should be higher. This is supported by increasing visual contacts in adjacent residential areas. The screaming hall that is heard is another sign. Our cameras often send us photos of them.

The presence of a higher number of stars is also shown by the fact that although he is living mainly on the coast of the ravines of the rivers, it is noticed in recent years even in other hilly areas about 20 km from the coastline. In the whole of Republic of Albania currently over 850 pairs are estimated.

Although it is a controversial species, due to damage to agriculture and livestock, its role in the ecosystem is important because it cleans the environment from carcasses and keeps the equilibrium population of rodents and rabbits. However, the damage that jackals cause to the farmers is bigger that their help.

As in many European countries and in Albania too, the jackal is a protected species and its killing and hunting is not allowed. Often the farmers, annoyed by their presence and damage, have also used poisonous food to fight it, causing damage to their population.

Ana Taga

Executive Director

Albania Federation for Hunting and Conservation

**The golden jackal in Bosnia and Herzegovina**

* The first specimen of golden jackal in BiH was registered in 1976 in West Herzegovina Canton in Zagorje – Posušje. It was shot by hunter Branko Jurišić.
* In 1980 second shooting of golden jackal is registered, this time by hunter Samir Gopo on the Vlašić Mountain, Central Bosnia Canton.
* In the years 2010-2017 the population of golden jackal in BiH has suddenly grown. There are only few areas with no registered appearance of golden jackals today.
* In mountain regions jackals are not permanently habited and while in the far south, north-east and in plain areas of northern and central Bosnia golden jackal is permanently present.
* Permanent presence of golden jackal is noticed in lowland areas rich in small sized animals and cervid species, while in south-eastern areas golden jackal appears occasionally and its numbers are oscillating.

Legal status:

* International regulations: Conservation status - least concern
* Inland regulations: Hunting act (F BiH and RS) - unprotected species

Economic status:

* Until 2010 golden jackal was almost unnoticed in terms of hunting economy. Since its numbers have largely grown there is need for planned and organized approach in hunting this expanding species.
* Until 2016 golden jackal was not included in ruling plans due to its relatively small population and legal status of unprotected species.
* With arrival of golden jackal in hunting areas some species have become twice as endangered (hare, ground nesting birds), as well as some species which did not have natural predators before.
* Population of golden jackal in most hunting areas in BiH is sustainable. In some hunting areas in north-eastern Bosnia and Bosnian Posavina population is growing towards upper limits of sustainability.

Status of golden jackal population 2010-2017:

|  |
| --- |
| **STATUS OF POPULATION**  |
| PERIOD | QUANTITY | SHOT | TOTAL |
| 2010 - 2017 | 1.950 | 482 | 2.432 |

In terms of territory coverage there are three regional populations of golden jackal in BiH:

1. *Northern plains population:* The most widespread and biggest population of golden jackal in BiH, inhabits lowland areas of BiH from north-east and border with Serbia over Semberija i Majevica along the border with Croatia and river Sava across Bosnian Posavina and further west to Gradiška municipality.
2. *Southern population:* Inhabits southern areas of BiH, from seaside over Neum, Čapljina and Stolac municipalities. In this area golden jackal is present all the time but its population numbers are oscillating.
3. *South-eastern population:* Inhabits south-eastern borderline area with Serbia and Montenegro (Rudo and Foča). This population is always present but ist numbers vary as well.

Golden jackal population has not caused any damage to other species present in hunting areas across BiH but its expansion and growth in some areas are warning signs that planned measures should take place in further management of golden jackal.

**Hunting Association of Herzeg Bosnia**

Mostar, October 20, 2017

**The golden jackal in Bulgaria**

Until the early 1960s, the jackal occupied only the region of Strandzha Mountain, in the Southeastern part of the country. In 1962 a rigorous protection of the species was imposed, and consequently, the areal of jackals in the country began to increase gradually. The main reasons for that are:

* More than 20 years the jackal remains protected;
* The large amount of available food provided by intensive development of hunting in the country and the large amount of farm produced pheasants, partridges and chukar partridges released in this period.
* The intensive development of livestock breeding in the region of Southeast Bulgaria (especially of sheep);
* The large amount of unregulated landfills scattered all over the country.
* And the incorrect disposal of carcasses and other waste of animal origin in the rural areas in the country, near the small villages and farms.

Nowadays, this species is one of the most numerous predators in Bulgaria and inhabits more than 80 000 km2 or 72% of the territory of the country. Jackals can be found in the field regions and also in the regions up to 800 m of altitude. Population size is ca. 47,500 individuals (2016), whereas the hunting bag is 29,500 individuals (2016). The population growth was 31% over 8 years (2009-2016, nearly 4% per year). The hunting bag is also increasing with average value of 7,6% for the same period. **In comparison:** European hare population is 310,000 and the hunting bag is only 7000 per year. The average density in spring, before the period of reproduction in the different regions of the country varies between 0,0 and 1,43 specimen per 100 ha. The mountain regions are outside the jackal’s habitats. Productivity of the habitats is very low and allows density of 3-9 hares (4,8 in average) per 100 ha, and is not influenced by the presence of jackals. Although wild game is not the main food for this species, due to the high number of jackals, they cause significant damages to the local small wild animals and also to the offspring of the ungulate game in our country (mouflon, roe and fallow deer).

About the legislative regulations for jackal hunting:

* The Individual hunting of jackal is permitted all over the year and even at night;
* The maximum number of active permits issued for individual hunting is 3 per 500 hectares;
* The driven hunt of jackals is permitted from 1st of January until the end of February but only in the presence of forester officials and outside forest territory;
* It is allowed to shoot a jackal while hunting for any other game species;
* It is allowed to use selective traps.

**Problems**

Population regulation is not satisfactory at this stage. Hunting does not show significant effect on the nucleus of the population in reproductive age due to high probability of survival. At two-years of age, jackals start to reproduce.

* **Hunters are not motivated to hunt jackals:** A working mechanism motivating hunters must be introduced, e.g. Bulgarian government used to pay bonuses of 10 EUR for each shot jackal.
* **The government policy creates unnecessary and non-regulated obstacles for the hunters:**
* *Permits for individual hunt are allowed only to those hunters who have registered places with disposed carcasses and/or animal parts in order to attract carnivores.*
* *The presence of forester officials during the driven hunt for jackal is required and obligatory. In most cases, the presence of officials during the hunt is deliberately not assured by the forestry. Thus, the number of hunting trips is significantly reduced.*

**The golden jackal in the Czech Republic**

The first proven record of golden jackal in the Czech Republic is from 2006. The previous records have not been officially proved. One jackal was hit by a car in 2011 and there are several sightings from Moravia, through central part of the Czech Republic and all the way to the northern parts. Number of sightings is increasing. There are more than 60 photos of different individuals from area near Milotice (central part). This year there are even photos proving that the golden jackal is breeding in this area. These are the first records of breeding in the Czech Republic.

Based on various meetings with our colleagues from Hungary we know that the situation must be discussed in details as this predator can have an enormous negative impact on other species of fauna. We are closely observing the situation and also discussing the possibilities of the control population. This will also have to be intensely discussed with the Ministry of Environment.

This species is not regarded as “game species” under The Hunting Act no. 449/2001 coll. therefore we will have to find another mechanism to control its population.

Ing. Tomáš Kunca, Ph.D.

Department of game management

Ministry of Agriculture

**The golden jackal in Hungary**

The golden jackal became extinct in Hungary and the most part of the Balkans and Central Europe by the middle of the 20th century. Settled down again in the southern region of Hungary in the 1990s. The southern and eastern parts of the Balkan Peninsula seem to hold the largest populations of jackals. Greece, one of the region’s strongholds for the species, experienced a large-scale population decline during 3 decades till the first years of 2000s.

The population and the occurrence area of the golden jackal have increased continuously over the past decade. The golden jackal has become a common species in Serbia, settled down in Hungary, and the first breeding pairs were observed in Austria. Today, jackals are appear in Northern Europe. The distribution area of the golden jackal is not continuous but patchy, whereas their density in these patches can be significant.

On the basis of a questionnaire survey series started 1997 a population explosion could be observed. In 1997 only four, while in 2006 66 game management units reported the golden jackal in their area. The officially estimated population size (ca. 8000 animals) as well as the hunting bag (2000) data show a very similar exponential growth over the years. The largest continuous populations are in Somogy, Baranya and Bács-Kiskun County, but the species also appears in other parts of the country. The majority of the hunting bag is in Transdanubia, whereas 90% of that is shot in three counties situated in southern Hungary parallel with the Croatian and Serbian border. The golden jackal will be a common predator in Hungary with a countrywide occurrence.

The jackal’s feeding habits are similar to the red fox. It generally eats small mammals, but if there aren’t enough, it can eat young big game. The golden jackal has no competitors; it is stronger than the red fox, has got a better reproduction strategy; and the golden jackal is a habitat and food generalist species. It seems that the only limiting factor is the availability of hiding places.

The distribution of the species has several factors. Anthropogenic sources (waste, viscera, domestic animals remains or carcasses) seem to have a massive impact on the spreading of the golden jackal. Hunting is one instrument to control the species, but social expectations are ambivalent: people do not understand the necessity of hunting, but if any human-wildlife-conflict occurs, they ask for the most intensive shooting. However, hunting-based wildlife management is not necessarily able to regulate the population of a species with such a high reproduction rate, as golden jackal, red fox, wild boar etc.

Based on a presentation by Dr. Miklós Heltai, Institute for Wildlife Conservation, Szent István University, Gödöllő, President of the Nature Conservation Committee of the Hungarian Hunting Chamber

**The golden jackal in Serbia**

Serbia’s mountainous regions with the Balkan’s high mountains is one of the six European centres and one of the 158 centres of biodiversity in the world.

The specific geographical position at the point where Central European and Mediterranean influences meet, the tumultuous geo-tectonic dynamics and diversity of geological, geomorphologic, hydrologic, climatic and pedological characteristics have made Serbia a region with exceptionally diverse genetic species and ecosystems.

The standardisation and simplification of areas by composition and habitat structure, the use of harmful biocides, the redistribution of arable areas, the removal of boundaries and favourable nesting, feeding and concealing habitats for wildlife and the lack of winter hideouts are the most significant reasons for the loss of species of hunting game in Serbia.

The aforementioned changes have resulted in increased numbers of buzzards, hawks, martens, foxes, wolves and other species, especially the golden jackal, which is considered an “expanding species”.

The jackal’s territory corresponds to the assumption that on a wider area they avoid overlapping with that of the wolf, i.e. in areas where territories overlap, altitude zoning is expressed. The jackal takes over territories at lower altitudes, especially in riverbeds. The population is estimated at over 5000 specimen (hunting bag is more than 2.000).

According to the Hunting Law, they are protected species but with the open hunting season all year. The current status indicates relatively good conditions for the conservation and survival of the population. Harm to cattle and game still cannot be described as alarming.

Aleksandar Ćeranić

CIC expert & STJ