



**SUPPORTING CONSERVATION OF WEST CAUCASIAN TUR
(CAPRA CAUCASICA) IN GEORGIA**

Project No: 400206

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1. Introduction

1.1. Background

West Caucasian Tur (*Capra caucasica*) is native only to about 4500 square kilometres in the Greater Caucasus in Georgia and south-western Russia and has one of the smallest habitats of all ungulates. Tur, like many other large mammals inhabiting Georgia, is seriously endangered. It is difficult to survive under diverse human interference: the pressure of hunting, habitat degradation, destruction and fragmentation. The species is on the red list of the World Conservation Union (IUCN) as endangered (*A1d + 2cde, ver.2.3. /1994* – Rare, Groombridge). According to the evaluation made in 1994, the number has decreased by 50% for the last decade. Habitat is degraded and its territory is diminished. Excessive exploitation has been noted.

The species is also on the red list of Georgia. According to the Georgian Law on the Wildlife, it is prohibited to hunt turs. However, turs often fall victim to illegal hunting. Turs are chiefly hunted for meat, although its skin and, especially, horns, are also utilized. Horns are used for making drinking vessels (called “Kantsi”). Parts of tur skull with horns are also used for decorative purposes. In order to gain large-size horns, people hunt strong male turs, which fulfil an important breeding function. As a result the population age structure is destroyed. This in turn affects the viability of the populations.

Due to human pressure, which has been occurring for centuries, the tur has found shelter in impenetrable places. As it is rather difficult to hunt, sport hunters try to kill turs from helicopters and often succeed. This animal once found across the whole Western Caucasus and featuring in numerous legends and poems still numbered in thousands in the beginning of the last century but is now drastically reduced. Current number of *Capra caucasica* is unknown, but is probably ≤ 1000 , as evaluated by Shackleton and others in 1997 for the last time.

It must be mentioned that scientific data concerning habitat conditions, population size, recent threats and local community attitude toward this species are very scarce and without protective measures and effective conservation action there is a big probability of its extinction. Correspondingly, it now is the focus of the conservationists and scientists, alongside with other rare species. Area is proposed as candidate for National Park status and one of the strategic goals of Georgian biodiversity strategy and action plan (NBSAP) is to elaborate and implement a management plan for the conservation of *Caprinae* sub-family and *Capra caucasica* itself.

1.2. Species Description

West Caucasian Tur (*Capra caucasica*) is one of the species of *Caprinae* subfamily of the family *Bovidae* distributed in Georgia.

Sexual dimorphism is quite well-expressed in this species. The length of body of the male is 150-165 cm and that of the female is 120-140 cm. The breadth of shoulders in males is 90-109 cm and that of the females is 78-90 cm. The weight of males is 65-80 kg, rarely 100 kg. The weight of females is 50-60 kg. The length of tail is 10-14 cm. The length of horns varies from 66 to 85 cm. The circumference of the horn at its base is 29-32 cm. Both females and males have horns, although their sizes are different. The horns of the females are smaller and thinner. They rarely reach 30 cm in length and 10 cm in circumference at the base.

Capra caucasica differs from another tur species *Capra cylindricornis* in the form of its horns. Its horns are not of spiral form, unlike those of *Capra cylindricornis*. Wrinkles are more conspicuous at the frontal surface and wavier and in the lateral cut, at the base, they have squarer, rounded corners. At the base the horns develop outwards and upwards. In the middle they develop outwards and backwards. The upper 1/3 of the horns is curved inwards so that the tips are directed towards each other.

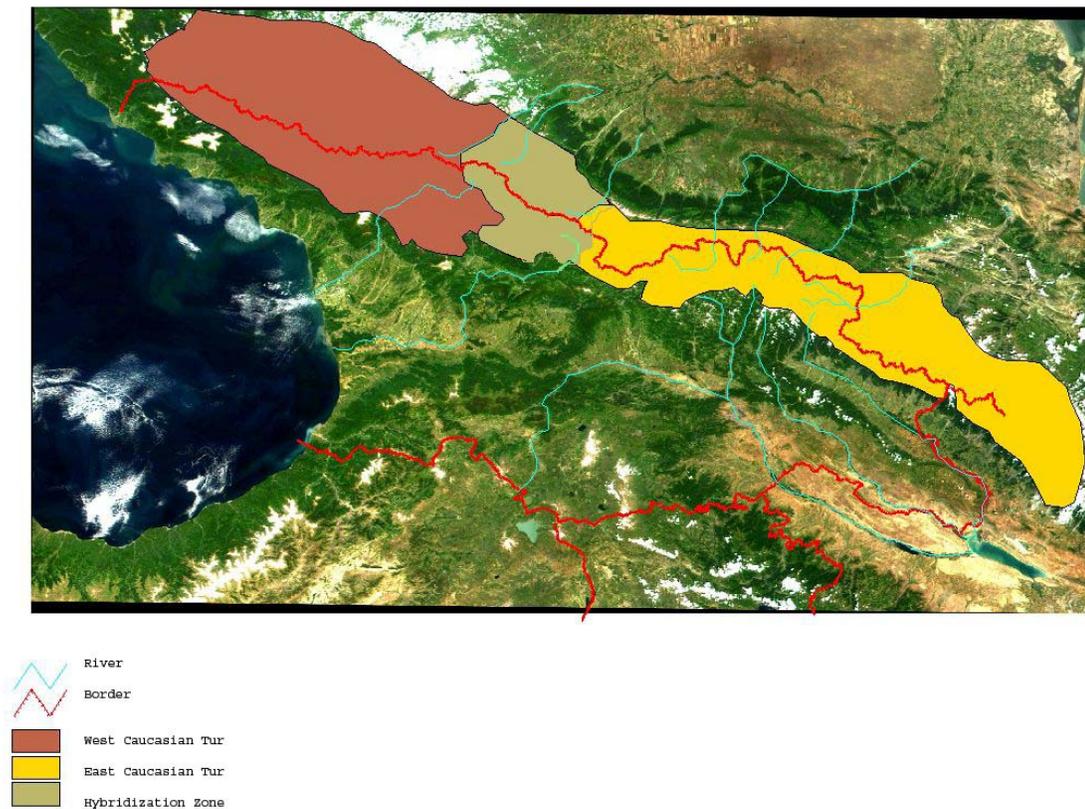
In summer the pelage is dirty-yellowish or gray. On the back, along the spine they have a dark stripe. The frontal part of the legs is dark brown; the rear side of the thigh is white. Winter pelage is darker, with brownish tones. In spring, before the hair starts to fall, it becomes lighter in color. The chest is covered with mixed black and white hair. The belly is white, with a grayish tone. The nose and mouth are black. The tail is dark; at the base it is dirty yellow. The face of the males, especially the forehead, is darker than the rest of the body. In winter dense, long, curly hair grows on the forehead of the males. Both males and females have medium-size beard, which is shorter and dark brown in summer and longer and denser in winter.

1.3. Habitat Description and Distribution

In the remote past, turs were widespread in Georgia not only on the Greater Caucasus, but on the Lesser Caucasus as well. This fact can be proved by the bones found at sites of human habitation in the surroundings of the Lesser Caucasus.

At the beginning of the 20th century *Capra caucasica* was widespread at the source of the Rioni River. These animals chiefly inhabited the slopes of the Greater Caucasus Chain, earlier they were found on the Shoda Mountain (Racha). However, at the beginning of the 20th century, tur was no longer found in the latter location. According to literature, both species of tur could be found at the source of the Rioni.

At the source of the Enguri River (Jibiani and Chvabiani villages) horns of hybrids of *Capra caucasica* and *Capra cylindricornis* were found (Radde, 1899). Based on these, we can conclude that from the source of the Enguri to the source of the river Rioni there was a zone of hybridization of the two species of tur.



Picture 1. Distribution of *Capra caucasica* in the Greater Caucasus. *Capra cylindricornis* distribution area and zone of their hybridization is also shown.

Nowadays tur inhabits only the Greater Caucasus. West Caucasian Tur (*Capra caucasica*) is distributed only in the Western part of the Caucasus: from mount Chugushi (44⁰N, 40⁰E) to the source of river Baksani (43⁰N, 43⁰E). According to Menzbier (Menzbier, 1934), *Capra caucasica* occurs from Mount Elbrus to the East, reaching Dikhtau where the range of *Capra cylindricornis* begins. The meridian of Dikhtau (60⁰52'54"') represents the border between the ranges of these two species (Radde, 1899). In Georgia, it is found in several provinces: Svaneti, probably also in Racha (near its border with Svaneti) and Abkhazia (Ritsa forest reserve). So, the distribution area of West Caucasian tur begins from Shkhara and continues to the west (pic.1).

Until human expansion, turs were found in relatively low places. Human disturbance and the change of climate led to the migration of turs to highland habitats. So, now West Caucasian tur (*Capra caucasica*) mainly inhabits sub-alpine and alpine zones at the elevations ranging between 800-4000 meters above sea level. Permanent snow restricts their spreading above 3000 meters. Their main habitats are forest-covered mountain slopes adjacent to rocks. Mature adult males reach higher places than females and their young.

During severe winters turs remain on southern slopes. 30-80% of these animals move down to the forest zone. This species has one of the smallest ranges compared to other ungulates. It inhabits only 4500 square kilometers in the Western part of the Caucasus. The length comprises approximately 300 km (Heptner, 1989), the width is generally about 15 km, only in certain places reaching 30 km (in a straight line).

According to scientific data, the density of the population in summer is about 13 individuals per square km, winter density is 44 individuals per square km.

1.4. Hunting

The reasons for hunting can be divided into 2 major categories: 1. Hunting for economic purposes; 2. Hunting as sport activity. Sport hunters should also be divided into 2 categories: hunters who aim at killing turs (despite their age and sex), and trophy hunters i.e. those who hunt male turs for their horns. Trophy hunting is illegal and disorganized in Georgia, although it is very popular on the territory of Russia (Kabardino-Balkaria).

The highlanders of Georgia suffer severe economic hardships. Thus, any source of income is very important for them. Local hunters gain turs for meat, which is either used by their families for food or may be sold (tur meat is a delicacy). Horns and skin may also be sold. Drinking vessels, made of tur horns are popular in Georgia and elsewhere. Cultivated horns cost 100-150 Lari in Georgia and they are more expensive outside the country. Naturally, hunters get only a small portion of this amount. Local hunters also may guide visiting hunters to the places of tur's occurrence and assist them in killing turs.

But more importantly tur-hunting is a part of the cultural life of the highlanders. Historically, hunting of turs brought great fame to Svanetian men. Hunters were most respected members of the society. Famous hunters of various tribes were well-known in the entire Svaneti. Despite the fact that tur has always been one of the major game species hunting bore certain restrictions and prohibitions. Unfortunately at present these customs are almost neglected and only a few people adhere to traditional hunting.

It is argued that the strong decrease of the population started in the second half of the 19th century. E.g. one famous hunter from Ushguli had killed about 800 turs. In the beginning of the 19th century about 220 turs were killed per year. Near the Latpari Mountain about 30 turs were killed daily in the 60s of the 19th century. This was due to the accumulation of firearms among the population of Georgia and the increase of the number of guest hunters. Another strong decrease started by the end of the 20th century, namely, in the 1990s. In this period, due to the hard economic conditions and excessive accumulation of firearms, all wild animals, including tur, were subjected to strong poaching pressure. The tendency of decrease in the number of turs is still obvious.

2. Aims and Objectives:

2.1. Aim

To promote the conservation of West Caucasian tur in Georgia

2.2. Objectives

- To carry out questionnaire survey for determining and mapping “*Capra caucasica* hotspots” (the areas under high poaching pressure)
- To estimate approximate number of animals and evaluate current threats in the identified areas
- To produce preliminary report for the development of long-term conservation strategy and provide them to the Ministry of Environment, Georgian Protected Areas Development Centre and other concerned institutions.
- To promote biodiversity awareness among local population (especially youth and secondary school students) and to strengthen links between the local society and governmental entities.

3. Methodology

3.1. Questionnaire Survey

The areas of high poaching pressure or “*Capra caucasica* hot spots”, as we called them, were determined in Svaneti region by the questionnaire survey. Open-ended questionnaires were specially designed for the locals, mainly hunters. It included the questions about the local population attitude toward the species, hunting sites, frequency, habits and traditions, habitat destruction and other issues concerning tur distribution and threats. Questionnaires were not filled in by the hunters themselves but the team members were asking the questions in the process of individual or group conversations that made the interview more comfortable for the respondent and the answers frank enough to rely on. The survey was held in June and fifteen hunters from town Mestia and different villages around it were interviewed.

3.2. Animal Count Methods

According to the analysis of the questionnaires and using presence-absence method (if a species is present or absent from the particular territory) areas under high poaching pressure were identified and GPS locations for identified areas (“*Capra caucasica* hot spots”) were taken. Eight main gorges have been selected and stratified for detailed studies. In August and September animal counts in the selected areas using direct count method was conducted. We also intended to use adaptive cluster sampling (Thompson, 1992) that is suitable for rare and clustered species and allows maximal coverage of the study area but gathered data wasn't enough to use this technique.

3.3. Threats and Habitat Assessment

Threats and habitat assessment for “*Capra Caucasica* hot spots” was based on the information from questionnaires, special field forms in which current threats were recorded and habitat suitability analysis. The form included the major threat types outlined in 2000 IUCN Red List of Threatened Species (IUCN: Threats Authority File (Version 2.1)):

1. Habitat Loss/Degradation (human-induced)

Agriculture

1.1.4. Livestock

1.1.4.1. Nomadic

1.3. Extraction

1.3.1. Mining

1.4. Infrastructure development

1.4.9. Road-building

3. Harvesting (hunting/gathering)

3.1. Food

3.6. Leisure activities (and/or sport hunting)

3.4. Materials

3.4.2. National trade (trade by the horns of tur)

9. Intrinsic factors

9.3. High juvenile mortality

10. Human Disturbance

10.1 Reason: recreation/tourism (including alpinism)

10.3. Reason: regional conflicts

4. Results

4.1. Questionnaire Survey Outputs

15 hunters in different villages of Svaneti region and town Mestia were questioned and following sites of hunting were named by them (table 1):

Mt.Tetnuldi	Mt.Laila	Mt. Sapovnela	Mt. Shkhara	Lekhziri gorge	Tsaneri gorge	Tviberi gorge	Zeskho gorge
4	1	1	5	2	4	3	6

Table 1. *Capra caucasica* “Hot Spots “ in Svaneti and intensity of poaching pressure in different areas according to the questionnaire survey of local hunters. The numbers indicate how many times spots were pointed by 15 surveyed hunters.

Zeskho gorge (by six hunters), surroundings of Mt. Shkhara (by 5 hunters), Tsaneri (by 4 hunters) and Tviberi (by 3 hunters) gorges, Mt. Tetnuldi surroundings (by 4 hunters). Territory of Mts. Sapovnela and Laila were mentioned in the interview of only single hunters.

Following information was also gained based on to the questionnaire survey:

- Hunters kill in average 2 individuals per hunting. They preferably hunt on adult males (12 hunters), rarely – on females (4 hunters), none of them has mentioned killing the young, but there were two occasions of catching them alive.
- Each hunter kills in average 70 individuals during 40 years of active hunting period. They start hunting in the age of about 15. There is at least one hunter per village (data of tur harvest is based only on local hunters survey; hunters from another parts of Georgia and foreign hunters are not taken into account).
- The average time spent on one hunt is 4-5 days. Usually locals hunt in small groups of 2-3 men (13 respondents); fewer sometimes even individually (3). Group hunting tradition was described by only one hunter from the village Ushguli, nearby Mt. Shkhara, that according to him took place about 20 years ago and earlier.
- Main hunting season mentioned by all 15 hunters is autumn – from the end of August till the end of November. Only few (3) of them mentioned about individual hunting in winter months.
- The parts of the hunted animals taken back home are the horns (15 hunters), the meat (14), the skin (9), the whole body (9).

- Locals usually hunt with common, non-automatic single-, or double-barrelled gun (all 15), that is sometimes even handmade.
- All questioned hunters pointed out that tur hunting is old tradition of their families. It is considered an initiation for the Svanetian young man. First successful hunt means an accession to the adulthood. First attempt of tur hunting local boys make at the age of 15. There are lots of traditions and customs related to the tur hunting that they also shared with us gladly.
- According to the survey tur hunting is not the main source of food or money for locals but is a substantial part of their culture. They almost never sell the poached animal parts, but often give them as a very precious present. Even the meat of the hunted animal is shared among the friends and neighbours in the village.
- Local hunters mostly don't take foreigners for hunting (13); they sometimes even don't let the people from other places, or villages to hunt on the territory nearby them. Only two of them remembered the occasion of taking visitors for hunting in the mountains.
- All questioned hunters expressed their wish to take part in national park creation, future activities and ecotourism, especially if it will give them the source of employment and economic benefit.

4.2. Animal Count Results

According to the data obtained from the questionnaire survey during the first expedition 8 main gorges of “*Capra caucasica* Hot Spots” were identified by presence/absence method, stratified and explored to carry out animal count surveys. The data are given in the Table 2:

<i>Gorge</i>	<i>Number of turs</i>
Hadishi	16 /2 groups: 1) 8 females with 5 juveniles; 2) 3 adult males
Lekhziri	15 /2 groups: 1) 7 females with 3 juveniles; 2) 5 adult males
Tviberi	30 (approx.)
Zeskho	17 (approx.)
Tsaneri	46 (approx.)

Table 2. Number of turs counted in different gorges.

The animal count survey was conducted during the months August-September that was unusually hot for that area last year. The local guides (mainly also the hunters) were taken to explore the territory easier as the place is mountainous and not easy to explore. Because of a intensive human disturbance turs are trying to hide in more and more impenetrable places and are very difficult to find; especially daytime when they find shelter on the highest rocky slopes unreachable for men. They only come down for overnight to grazing places and go back upward before the sunrise.

Because of all above mentioned unfortunately no animals were found in three of the explored gorges: nearby Mt. Laila, Mt. Shkhara and Mt. Sapovnela. In other gorges the numbers of the turs counted during the fieldworks were also very low: 46 individuals in Tsaneri gorge, 30 individuals in Tviberi gorge, 17 individuals in Zeskho gorge, 16 individuals in Hadishi gorge (Mt. Tetnuldi territory) and 15 individuals in Lekhziri gorge. These data was not enough for cluster count but according to the habitat suitability analysis and questionnaire survey approximate estimation was made and we could roughly conclude that the number of turs in Svaneti region is ≤ 1000 .

4.3. Threats and Habitat Assessment

Based on the information from the literature, questionnaires, special field forms in which above mentioned threats were recorded and habitat suitability analysis during the fieldworks all threats were grouped in three main threats that could effect West Caucasian tur: 1) Hunting; 2) Grazing; 3) Tourism. Intensity (Strength of the threats) and extensity (territorial layout of the threats) of the threats was also evaluated. According to the strength and territorial layout, threats may be represented as follows (table 3):

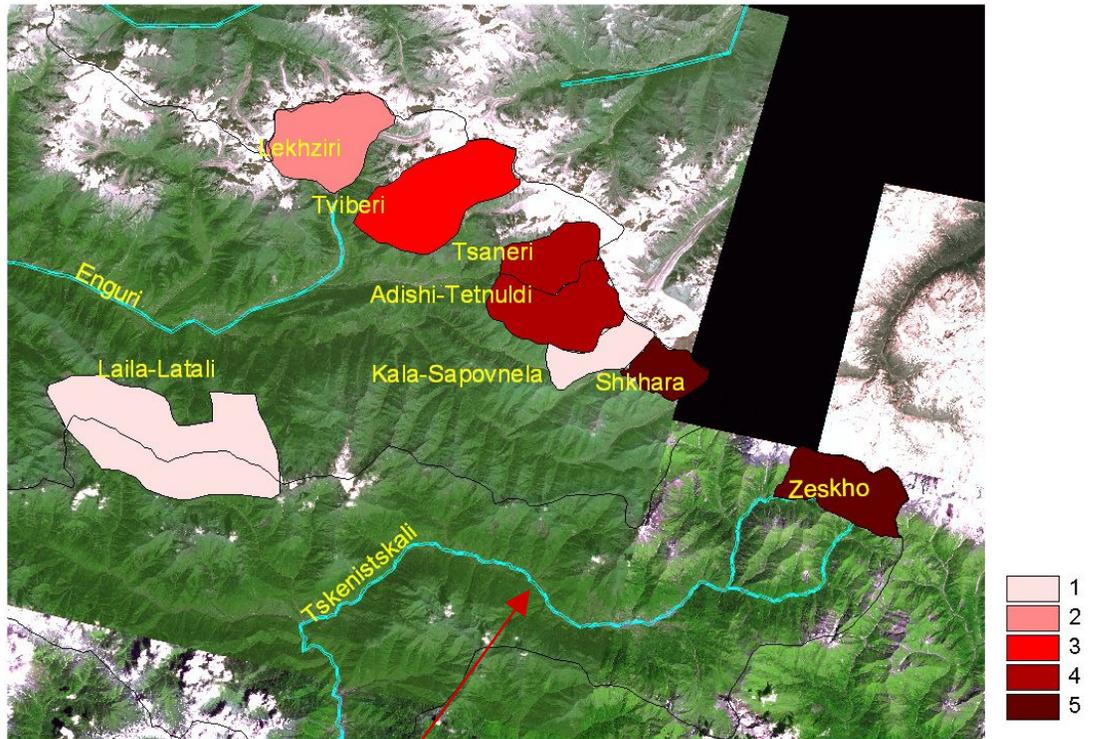
Type of threat	Intensity (Strength of the threats)			Extensity (territorial layout of the threats)		
	Strong	medium	Comparatively weak	Affecting half or more of the habitat territory	Affecting half or less of the habitat territory	Affecting only a small portion of habitat
Hunting						
Grazing						
Tourism						

Table 3. Range of threats affecting *Capra caucasica*.

As it is shown hunting is the most problematic danger for the species as for the intensity so for the extensity of threat. The evaluation was based only on the local hunter survey and visitor sport hunters were not taken into account. But it must be mentioned that they also play dramatic role in the population number reduction.

As for the grazing, we found out that there are no sheep on the studied territory. Local population owns only cattle, which grazes in the village neighborhood. Thus, grazing does not represent a threat for this population of turs at present.

There are numerous peaks in Svaneti that attract alpinists from all over the world. Those peaks and their neighborhood comprise the main habitat of West Caucasian tur. So, the extensity of the threat from the tourists/alpinists is quite high (Affecting half or a bit less of the habitat territory). There are cases when alpinists also hunt turs. However, it still can't be identified as a serious threat to tur population.



Picture 2. Poaching pressure intensity in different Gorges. The 5 intensities of red color points out the intensity of the poaching pressure.

5. Discussion

As it is clear tur hunting is still very popular and unfortunately presents the most serious danger as for the strength so for the territorial layout of the threat (table 3). The sites of high poaching pressure are: Zeskho, Tsaneri, Tviberi and Lekhziri gorges, also the territory nearby the village Hadishi (Mt.Tetnaldi). Hunting pressure is highest in the Riv. Zeskho gorge. It should be mentioned that the local population in some villages preserve the gorges near their place: only the local hunters can hunt there (Tsaneri and Tviberi gorges are the good examples). That underlines the importance of involvement of locals in conservational activities. These gorges are located nearby the village Mulakhi and the villagers do not let hunters from other places to hunt on their territory. May be this is the reason why we observed the most number of turs in those two gorges (table 2).

As for Zeskho gorge, this place is not preserved by locals. So the hunters from other parts of Georgia also come to hunt in this gorge. These places are often used by mountain climbers for training. This is another way of disturbance for turs and wildlife in common here. The involvement of sportsmen in hunting is probable as well though we didn't have opportunity to gather data about it.



Picture 3. Staffed animals found in the families in the villages Ushguli (first photo) and Mulakhi (second photo). In Ushguli the animals are killed years ago, in Mulakhi young tur was killed by the hunter the same summer when he accompanied us in the expedition.

All questioned hunters pointed out that tur hunting is the old tradition of their families. It is considered an initiation for the Svanetian young man. First successful hunt means an accession to the adulthood. First attempt of tur hunting local boys make at the age of 15. Due to the difficulty of hunting, impenetrable rocky places, the difficulty of bringing down the prey etc. hunting is considered a matter of valor. Therefore hunting of turs always brought great fame to Svanetian men. Hunters were and still are deeply respected members of the society. Famous

hunters of various tribes were well-known in the entire Svaneti. One can hear lots of stories about them and their hunting adventures. Many of the local hunters are also good mountain climbers and even professional sportsmen. This once more emphasizes the difficulty of hunting and the braveness of those people.

Hunting is connected with numerous rituals and customs. In the highlands of Georgia tur was always considered a sacred animal. Hunters sacrifice the horns of tur to the divinities and sacred places to get success and blessing in hunting. Even in our times it is possible to see the horns of tur, piled at the places of worship, or the shoulder bones even inside the chapel (pic.4-5). Despite the fact that tur has always been one of the major game species, hunting it bore certain restrictions and prohibitions that the number of most popular local hunters still hold. A hunter was not allowed to kill more than three animals at a time. To kill more was considered a great sin. Hunters did not shoot sleeping animals, first they had to scare them off. People believed that when a weapon had killed too many animals it became sinful with time. When a weapon had killed one hundred animals, it had to be disposed of (e.g. buried). As guns were always expensive, hunters tried not to exceed this limit for a long time.



Picture 4. Church of Savior in the village Mulakhi and sacrificial tur horns. The villagers use the horns as drinking vessels during the festivals.

A hunter was not allowed to kill a female tur which had kids, even if he was returning with no prey at all. If a hunter killed such a female tur, his fellow hunters would say scorned by his mates: “He could not obtain a male and was only fit for killing weak females”. In Svaneti, male turs with white spots were not shot. Such turs were considered sacred. There was a belief that a hunter who sold tur horns would lose his luck. Before going hunting the people of Svaneti fixed candles to the horns of turs and said their prayers begging the divinity for successful hunting.



Picture 5. “Mol-Jrag” – tiny chapel of St. George with numerous tur shoulder bones inside. The bigger the bone, the higher they put it and it brings a big fame to the hunter.

Usually locals hunt in small groups of 2-3 men, or sometimes even individually (pic. 6). But group hunting tradition was also described by one hunter from the village Ushguli, nearby Mt. Shkhara, that according to him took place about 20 years ago and earlier. Collective hunting was more usual in winter. Almost the entire male population of villages took part in hunting. Hunters drew turs from cliffs to ravines, where the animals were unable to move fast, due to the heavy snow. Here turs were caught by dogs, often without any shooting. In winter turs come lower, where they can gain food. Hunters know these places well. It has been described that in Ushguli, Khalde, Adishi and Mulakhi there were places where turs went during heavy snowfalls. Hunters met turs, trapped and killed them there. But according to the survey the main hunting season is autumn – from the end of August till the end of November.



Picture 6. Hunting process taken on a video by the hunters themselves.

According to the survey tur-hunting cannot be considered a regular source of food or income for them. The highlanders of Georgia suffer severe economic hardships. Thus, any source of income is very important for them. Local hunters can sell hunted tur meat that is a delicacy, also horns and skin. Drinking vessels, made of tur horns are popular in Georgia and elsewhere. Despite this all of them mentioned that they almost never sell tur derivatives but they often share the meat

with the friends and neighbors. The tur horns and skin is very precious present from the hunter. Some of them also keep stuffed animals or the head of hunted tur with horns as a decoration and are proud of having hunted the biggest tur, or the most number of individuals, or the males with the longest horns (pic.3,7-8). So, tur-hunting is more the part of the cultural life of the highlanders than the source of food or income, the roots of which goes very deep in their history and customs.



Picture 7. Hunters keep tur horns in the families and use them as drinking vessels – “Kantsi”.

6. Measures for conservation

The results of the survey once again underlines that West Caucasian tur is extremely endangered and because of the intensive poaching pressure there is a big probability of local extinction. In order to effectively manage this species, further study is required to monitor the population status and trends of this species. Although working with locals especially hunters gives us a hope that good planning and management of conservation measures can improve the situation.



Picture 8. Head or scalp of tur with horns is often kept as a decoration.

Nowadays the species is the focus of the conservationists and scientists and on the red list of the World Conservation Union (IUCN) as endangered (EN, *A1d + 2cde*, *ver.2.3. /1994* – Rare, Groombridge). Georgian Law on the Wildlife also protects the species and it is prohibited to hunt the turs but unfortunately the level of poaching pressure still remains very high. In Feb. 2005 elaboration and implementation of a management plan for the conservation of Caprinae sub-family and *Capra caucasica* itself was included in the Georgian biodiversity strategy and action plan (NBSAP) as one of the strategic goals. Recently (Jul. 2007) “Status report and conservation action plan: Tur in Georgia” was created and our project results were also included in it.

The area is proposed as candidate for National Park status and Protected Areas Development Project is preparing a draft of the Central Caucasus Protected Area (Racha, Lechkhumi, Svaneti) management plan. It must be mentioned that there are several protected areas and hunting reserves on the Russian territory of West Caucasian tur distribution and because of this the species is in the better situation there nowadays. But more than 1/3 (2000 km²) of its habitat is on the Georgian territory so as it seems creation of National Parks in Central Caucasus (Svaneti, Racha) is an urgent task. The project outputs were also handed to the Protected Areas Development Project (World Bank/GEF) and concerned institution at the Ministry of Environment of Georgia that will probably help the process of park creation.

Poaching affects turs over their entire habitat but some places require urgent and special protection: Svaneti – Zeskho, Tsaneri, Tviberi, Lekhziri gorges, Tetnaldi outskirts. In our opinion reduction of the poaching pressure will become more effective by involving the local population in conservation activities and their economic stimulation. Highlanders know their surrounding environment better than anyone else and therefore they are the best candidates as national park employees after its creation. They even expressed their wish to be involved in conservation processes and pointed out several areas that can be preserved easier. For example, the villagers from Mulakhi indicated that they don't allow the hunters from other places to hunt in the nearby gorges: Tsaneri and Tviberi. These are the gorges where we observed the most number of turs and the locals mentioned that it will be easy to protect this territory as there is just one access – from the village Mulakhi.

It must also be taken into account that the highlanders have a long-standing tradition of tur-hunting, which has become part of their cultural life. Therefore, one of the ways to control it is to allow trophy hunting in specially organized community based hunting farms. This will allow free hunting to the local population according to the established quotas. But the quotas should be very carefully elaborated on the scientific basis.

Another way to attract animals back to their habitats and retain there is preparation of food and mineral supplements where possible. Turs like all other ungulates need mineral salts that they obtain by licking rocks, soil, or mineral waters (pic. 9) In places where there is a lack of natural sources of mineral salts it is recommended to provide artificial sources but these places should be under a special protection after that.



Picture 9. Natural supplies of mineral salts on the rocks and footprints and excrements of turs found nearby.

7. Education and Public Awareness

Conservation education was one of the major aims of the project. During all expeditions educational work was held with locals in the studied area to share information about uniqueness of their native region and about the West Caucasian tur as an object of the highest ecological importance. The informal leaflets about the West Caucasian tur rareness, uniqueness and significance for tourism development as a flagship species in Svaneti were distributed among the locals. The questionnaire survey also had the form of private or group conversations held in the familiar situation during which the information exchange took place between us and locals.

First steps in community awareness rising in Svaneti also included presentations and workshops with secondary school students of the age from 9 to 15 that took place during the third expedition in September. The presentation was designed for secondary school students to convey our message of conservation of biodiversity. Team members visited 7 local secondary schools in various villages of Svaneti.

Public awareness is very important in the future conservational activities that are planned in the region. After creation of the national park and hunting farms that will also include the studied territory training in species conservation, management and marketing will be needed for those representatives of the local population who will be involved in the establishing of community based hunting farms and work as a national park staff.

Locals can also be involved in ecotourism that is developing very fast together with the common tourism in the region. They will be the best guides for the visitors and also get interested to see more animals, e.g. turs alive and show them to tourists than to hunt. Special trainings and awareness programs are necessary for this target group as well.

Informal presentations were also prepared and held at the universities of Tbilisi for the students of the faculty of biology that may take interest in conservational work and namely in tur conservation in the future.

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Financial Report

	Grant proposal budget	Actual expenditure	difference	note
Phase1: Project Preparation				
Administrative: Maps (topographic, digital, inc. GIS) Computer (PC)	1300\$	1300\$	0	
Scientific Equipment: Telescope Binoculars GPS Receiver Walkie-talkie Office supplies	960\$	600\$	360\$	We couldn't buy a telescope
Other: Digital camera, batteries, memory cards	400\$	600\$	-200\$	
Phase2: Project Implementation				
Stipend	1800\$	2200\$	-400\$	Number of fieldwork days were increased
Local guides	100\$	200\$	-100\$	
Transportation: Tbilisi-Mestia-Tbilisi Local transportation (jeep, horses) Accommodation	1675\$	1825\$	-150\$	
Logistics: Field logistics (tent, sleeping-bags, bags, boots) First aid equipment Food in the field	2280\$	2580\$	-300\$	
Education/Awareness: Leaflets (500 items) Stationary and refreshments	230\$	230\$	0	
Phase3: Post Project Expenses				
Administration	150\$	50\$	100\$	
Report production and Result dissemination	150\$	50\$	100\$	
Photography/Video	100\$	150\$	-50\$	
Other: Web-site designing Accountant Adviser	550\$	550\$	0	
Contingency	800\$	0	800\$	
Total CLP Grant	10495\$	10335\$	160\$	