

**Some observations on the population of Suleiman markhor
(*Capra falconeri jerdoni* Hume, 1875) in Takatu,
Balochistan Province, Pakistan**

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Abstract

Population of Suleiman markhor (*Capra falconeri jerdoni*) was studied in October 2003, which suggested that a total of 45 markhors exist in Sikhar Gut, Praang, Mazghae and Naagha within Takatu Conservation Area. The population in the study area consisted of 11 males, 18 females and 16 young. Considering that markhor is a polygamous animal and a single male can mate with a herd of females, therefore, it is proposed that one or two old males may be allowed for trophy hunting, which will enable local conservation group to effectively manage the population of markhor in the Takatu Conservation Area.

Keywords: Suleiman markhor, *Capra falconeri jerdoni*, Takatu, Balochistan

Introduction

Takatu Conservation Area is located in Quetta and Pishin Districts. It spreads to the northern end of Quetta valley in northeast and southwest direction as an outlying spur. The twin peaks, which form its highest peak with elevations of 11,390 feet and 11,340 feet, are situated in the center (Fig. 1). The main conservation area in Takatu is Bostan Daraa, Zavar Kaan, Praang, Tumbale, Shin Mozghae, Nagha, Marachagh and Mari Chak (Takatu Wildlife Conservation Plan for Suleiman Markhor, 2003). This area is known to be inhabited by a sizeable population of Suleiman markhor *Capra falconeri jerdoni* Hume, 1875, however, information of actual population inhabiting the Takatu Conservation Area was not documented.

It is generally believed that wildlife law enforcement in Pakistan usually fails unless local population is involved. Balochistan province is the pioneer to develop a mechanism by involving local people to protect the wildlife of an important area known as Torghar where this mechanism has successfully been practiced since 1985, through trophy hunting programme. Trophy hunting provides an incentive to local community to conserve both species and their habitat. The local communities are being persuaded to stop hunting in their own interest. In exchange, they receive some income from limited and carefully controlled trophy hunting. These hunts are based on annual surveys, which allow the scientists and villagers to assess the status of species. This programme has paved the way for sustainable use of wildlife in some areas of Pakistan.

The success of community-based trophy hunting programme in Torghar has changed the attitude of other communities as well. Few years back people of Takatu followed the same lines and started their effort to organize the communities inhabiting the surroundings of the Takatu.

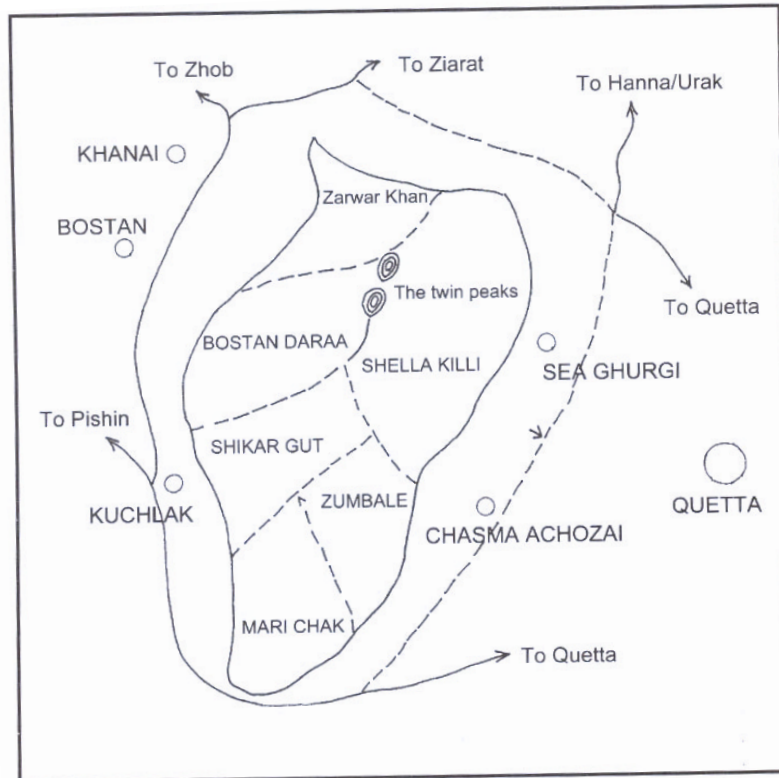


Figure 1. Map of Takatu Conservation Area.

In the past markhor species was declining with rapid pace due to excessive and indiscriminate hunting by locals and visitors from outside. In 1999 at the time of inception of idea for sustainable use of resources, the population of Markhor and Urial were recorded 32 and 6 respectively (Muhammad Yousuf Kakar, personal communication). Therefore, the present study was carried out to assess the present status of markhor population in Takatu Conservation Area.

Materials and Methods

Population survey of markhor was conducted from 23 to 26 October 2003 in four sites i.e. Sikhar Gut, Praang, Mazghae and Naagha within Takatu Conservation Area. During these surveys, three teams were dispatched to mountains to locate the animal using binocular and data was recorded about sex and age of the animals.

Results and Discussion

The study site (Takatu Conservation Area) has an area of approximately 50,000 acres. The area surveyed is about 15% of the total area, which consists of high ridges separated from one another by deep and narrow gorges. The hilltops are almost rounded whereas lower slopes are steep to moderately steep (Fig. 2-3). The climate is cold during winter snowfall from December to March and frost is frequent. (Takatu Wildlife Conservation Plan 2003). Annual rainfall is about 5 to 13 inches, most of which precipitates, in the form of snow during winter.

This habitat is alpine dry steppe and vegetation of Takatu is of steppe forest in southern latitude (Roberts, 1997). The dominant plants in the area are *Juniperus excelsa*, *Polycarpon sp.*, *Pistacia khinjuk* and *Fraxinus xanthoxyloides* whereas among the bushes and grasses *Caragana ulcina*, *Caragana ambigua*, *Cotoniaster nummularia*, *Prunus eburnea*, *Artemisia maritima*, *Cousinia onopordioides*, *Ephedra nebrodensis*, *Sophora griffithii*, *Berberis balochistanica*, *Pennisetum orientale*, *Stipa pennata*, *Dichanthiurn annulatum*, *Melica persica* *Chrysopogon montanus* and *Eulaliopsis binata* are worth mentioning (Fig. 2-3).



Figure 2. Vegetation of Mazghae (Takatu) at about 10,000 feet.



Figure 3. Vegetation of Takatu Mountain.

During the four-day survey, 45 Markhor were counted (Table-I). Out of total estimated area of 50,000 acres, only about 10,000 acres may have surveyed. The results of the present census were limited to only four areas, however, results seems to be encouraging because previously it was reported that population of markhor was declining. It may be mentioned that the present survey was not done in rutting season (November), during which markhors gather in large herds

Table-1. Population of markhor observed in Takatu Conservation Area

S. No.	Date	Area	Male	Female	Young	Total	Remarks
1	23-10-03	Shikar Gut	2	3	4	9	One male of trophy size.
2	24-10-03	Praang	5	8	6	19	Two male of trophy size.
3	25-10-03	Sheen Mazghae	4	7	6	17	Two male of trophy size.
4	26-10-03	Naagha	—	—	—	---	:-
Total:			11	18	16	45	

The survey results suggest that the population is large enough to sustain even if the trophy harvest programme is induced, in which 1 or 2 males of trophy size (7-8 year old) may be permitted to hunt which possibly will have no negative impact on the population size. Markhors are polygamous animals and a single male can mate with a herd of several females so the overall reproductive rate would not be affected by the loss of a few older males (Schallar, 1977).

Markhor population in the area is usually monitored involving local communities supported by a conservation organization (Takatu Warorgalvi Tanzeem) and Balochistan Forests and Wildlife Department. Recent observations showed that the population of markhor is gradually increasing. Continuous surveillance through the community and wildlife watchers for the past few years has a successful check on uncontrolled hunting in the area, which may be one of the reasons for reported increase in markhor population.

Viewing that the population in the study area is large enough to sustain and proliferation of the species, it may be considered trophy hunting a small, strictly controlled number of markhor by inviting foreign hunters. The generated revenue can be defrayed in local community for the sake of species protection. However, regular and continuous monitoring should ensure the stability of the population of the Suleiman markhor in Takatu and other areas of its distribution.

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