

## YAK: A WILD AND DOMESTICATED BEAST OF MOUNTAIN-DESERTS

Ghulam Rasool<sup>1</sup>

### Abstract

Yak is among the little known animals of the world. It was wild some centuries back. But it is now almost domesticated. However some isolated population of wild Yaks is found in Kuenlum-Karakorum mountains in Chines Turkistan. It has great economic value and for this reason it has been domesticated and many different breeds have been evolved by its crossing with domestic cattle. Yak breeding is common in the high lands of the Northern Areas of Pakistan (Gilgit & Bultistan). Its role in the high lands is more or less the same as the camel in the deserts. The British travelers who first saw the Yak in Pamir, being widely reared by the nomadic tribes, remarked "It seemed to be able to do every thing except lay eggs".

Key words. Yak, Zo, Zomo, hybridization, Feral.

### Introduction

The Yak, largest and heaviest of all Tibetan animals belongs to the class Mammalia, order *Artiodactyla*, family *Bovidae*, genus *Bos* mutus wild, species *B.mutus grunnienss* domesticated. Native names are Brong, Dong (wild), Pengu (tame) Tibetan, Yak Ladakh Baltistan, Bapoo, Gilgit, Astore, Termini Hunza, Nagar and Gojal.

Yak is a native animal of Tibet and Szechwan, going up to 6060 m elevation above sea level. Yak is believed to be extinct in its wild form as it has since been domesticated like other domestic animals. It has been recorded that in the 14th century wild Yaks occurred in the Tuva chain. In the 7th century they were known in Kusnezsk, and in 1939, they occurred in the Altai and Dauriva as well as in Semiplantisk areas. In 1866, a herd of eighty Yaks were sighted by a hunter across the Sutluj beyond Niti. In 1914, a small population of wild Yaks were observed in Sikimm state. A small feral yak population exists in Game

---

<sup>1</sup> The author is General Secretary, BASDO Northern Areas, P.O.Box-501 Gilgit, Pakistan.



sanction of Afghanistan (Sayer 1979 and 1980). Amongst 70 Yaks sighted by hunters in 1979, 26 are reported to have been left in 1980. The reduction in number is due to heavy pressure of poaching. Recently a team of Chinese scientists reported the occurrence of some herds of wild Yaks around the Memare Lake situated in Kuenlum-Karakorum mountain system in Chinese Turkistan. A herd of fifty feral Yaks live in Sherqilla null, Northern Areas, Pakistan belonging to the Raja of Punyal.

Virtually, Yak is a beast of highest altitude and is the only massive animal that lives in the most inhospitable region in the world, survives and depends on such scanty herbage. It is sure footed and an expert climber but always avoids broken ground, rocky places and glaciers. It is a good swimmer. A newly born calf can easily cross the icy mountain streams. Unaffordable streams and rivers can be crossed with the aid of Yaks by holding their tails firmly. It lives in herds of twenty to two hundred animals including cows and calves for most of the year. Old bulls are solitary and sometimes live in herds up to five. In the beginning of the year herds increase in size and are found around grassy grounds where they are attracted by the newly sprouting grasses. With the advancement of season they move to the upper limits till autumn and again return to lower elevations in valleys and water logged areas and are found wandering for more land grasses.

### **Domestic Yak**

The climatic conditions most suited to a Yak for its survival are at elevation of 4000-5000m above sea level where the animal can be pastured through out the year. Below 3000m Yaks are apt to lose vigor. The body size of the domestic Yaks is smaller than its closest relative which still runs wild but in very limited number and are found in the most isolated places. The pure breed of Yaks is kept by herders in upper Hunza as there is no tradition of Yak-Cow breeding and the same tradition is being followed in other subdivisions of Gilgit District (Nagar, Haramosh, Gupis, Yasin). Normally, there is no crossbreeding being practiced in Wakhan of Afghanistan, among the Wakhi settlers. The vocabularies of Brusho and Wakhi do not include any words for cross-breeding and pure breeds are known as "Termini" the herders in Baltistan are cross-breeding Yak and cattle, and this practice is more common is Shigar, Ganche, Huoshe and their eastern neighbors of Ladakh. Domesticated Yaks are cross-bred with cattle and vice versa to produce hybrids. The hybrids produced in each generation carry a special name and are used for specific purposes. The hybridization is going on since time immemorial. The following scheme is commonly applied to produce hybrids of Yaks and cattle.



1.	♂ Yak	×	♀ local cow
		=	F1 Hybrids (Sterile)
	Male	=	Zo
	Female	=	Zomo (Zongo)
2.	♂ Zo	×	♀ Local cow
		=	F1 Hybrids (Sterile)
3.	♂ Yak	×	♀ Zango (Zomo)
		=	F1 Hybrids (Sterile)
	Male	=	Gar
	Female	=	Garmo
4.	♀ Yak	×	♂ Garmo
		=	F1 Hybrids
	Male	=	Gir
	Female	=	Girmo
5.	♂ Yak	×	F1 ♀ Girmo
		=	F2 Hybrids
	Male	=	Yak
	Female	=	Yakmo
6.	♂ Ox	×	♀ Zango
		=	F1 Hybrids
	Male	=	Tul
	Female	=	Tulmo
7.	♂ Ox	×	♀ Tulmo
		=	F1 Hybrids
	Male	=	(no name)
	Female	=	Garmo
8.	♂ Ox	×	♀ Bacho
		=	F1 Hybrids
	Male	=	Ox
	Female	=	Cow

The hybrids produced under number 1 produced males best for ploughing, is stronger than the ordinary ox, good as a pack animal, delicious meat, easy to keep and the requirement of feed is very low as compared to the cattle. The female (Zomo) is stronger than a cow and produces more milk and butter. It is very easy to keep as it thrives in harsh climatic conditions and on scanty feed. The hybrids produced by crossing ox and zongo i.e. (Tul), is a good meat producing animal and Tulmo (female) produces milk more than the cows. It breeds at the age of 4 years and once in two years.





### **Economic importance**

Yaks are used for many products and purposes: milk, meat hair, leather and drafting. Yak cows are poor milkers, they were reported to produce 1-2 kg milk daily for 4-5 months. In eastern Pamir the average milk yield during a lactation period of 150-170 days was estimated at 300kg, in addition to 200kg taken by calf. In Kirgizia the mean yield during a period of eight months was 608kg. The milk is of rich golden color and has a high fat content, with fat globules of 4.0-5u diameter, : the solid non-fat content is also high. Butter made by the Yak milk has an agreeable aromatic flavour and does not turn rancid.

### **Body weight**

The body weight of mature Yak bulls weigh 380-400 kg and the cows 260-270kg. In eastern Tibet an average weight of 225kg has been recorded for cows.



Birth weight vary between 10 and 16kg. The daily weight increases up to six month ranging from 200-250kg. Owing to its high hemoglobin and low fat contents, Yak meat is characterized by an intense red color. The meat is devoid marbling. It is coarsed fibred but very suitable for sausages. Yak fat owing to its high carotene content (19mg/1kg fat) is deep yellow in color.

### **Excellent pack animal**

The Yak is an excellent pack and riding animal for mountain travel, being capable of carrying a load of up to 150kg. Even with relatively poor feed it can carry 50-75kg for 13-16 hours a day for months at a time, and stay in good condition. In difficult country Yak is superior than Mule in finding their way, and is skillful in moving through snow. It is a sure footed animal and thrives in harsh climatic conditions of the snow fields and in the rugged mountains. It digs snow for feed. The wet hide forms approximately 80% of the live weight. Adult Yak yields 750-1400g hair and 500g wool per year. The hair of outer coats are used for tent covers, grain sacks, ropes and the wool of under coat is made into felt. The switch of the tail is applied with a handle and utilized as dusting brush. Dried Yak dung provides the most common fuel on the high plateaus of the Central Asia.

### **Haybrids**

The hybrids produced by cross-breeding of Yak bulls and local cows reach maturity earlier and give more milk than Yak cows. It is a common practice in Baltistan and upper Astore to cross their cows with Yak bulls. The male hybrid is called Zo and the female zomo. Zo is a good drought animal and the Zomo is considered best for production of milk and meat. The feed requirement of both these hybrids is very less as compared to the cattle and are easy to keep even in the most unfavourable climatic conditions. The role of Yak in the high lands of Asia is the same as the camel in the desert. Mr. Maynard Owen Williams, staff representative of the National Geographic Society who led the Trans-Asiatic expedition with his two tractor motor cars to China through the traditional Silk Road remarks when he first came across a herd of Yak in Pamir being kept by the nomadic tribes: "It seemed to be able to do every thing except lay eggs".

### **Conclusion**

In view of its economic importance, the villagers of upper Hunza Nager and Ishkoman may be encouraged to practise the Yak breeding in suitable places



in their villages. The modern advancement in genetic engineering like artificial insemination, embryo preservation, synchronization of estrous cycle and periods etc. can best be utilized to have quicker result and systematic investigation. The NGOs concerned with the Rural development in the areas should motivate the villagers to adopt this practice and should be given technical guidance. Yak breeding should invariably be a component of their projects where the NGOs are arranging funds for the rural development and particularly in Projects concerning the Conservation of Biodiversity in these remote villages.

## References

- Anon. Wildlife of Ladakh. Haramukh Publication, Srinagar, India.
- Anon. World of Wildlife. Gazelle, Kiang and Yak, Orbis Publishing Ltd. London. 6: 261.
- Ahmad, B. 1976. Personal communication. Range Forest Office.
- Gojoye, S. 1988. Scientific research on Karakoram and Khunuldu Mountains, China Pictorial (Urdu).
- Good Win, H. and C. Way. 1975. IUCN Red Data Book, Vol.1, Mammalia. Morges.
- Jest C. and J. Bonnemaire. 1976. Le Yak son role dans la vie Matérielle et culturelle el 1976. Eveurs D'. Asie Centraler Ethnozootechnie no 15 (1976). (The Yak, its in the economic and cultural of its breeders in Central Asia).
- Kreutzmann, Heerm.ann. 1986. A note on Yak keeping in Hunza, Norther Areas. Pakistan. (Maison des Sciences de l' homme 54, boulevard, Respai 75270 Paris Cedex Bureau 447).
- Pater, S. 1976. The book of Indian Animates, Bombay Natural History Society, Bombay.
- Schaller, G.B. 1976. Aggressive behaviour of domestic Yak. Journal Natural History Society, Vol.73.