

The Snow Leopard in Xinjiang, China

(The following is abstracted from an article by George B. Schaller, Li Hong, Talipu, Ren Junrang and Qiu Mingjiang on the status of the snow leopard in Xinjiang Uygur Autonomous Region in China. It originally appeared in *Oryx* magazine, and permission was given by Dr. Schaller for an abstract to be published in *Snow Line*.)

The snow leopard is *widely* distributed in Western China, but there has been little information published regarding its status there. The authors conducted this survey as part of a collaborative project to assess high-altitude wildlife resources in various regions of China. Because there are 1.5 million sq. km. in Xinjiang, intensive work was limited to five sample areas, three in the Tian Shan and two in the Kunlun Shan. Two of these areas were in reserves and one adjoined a reserve.

The team went into each sample area by yak, horse, or camel, and then searched on foot for snow leopard spoor. They looked particularly for scrape marks, which are made by the cat raking its hind paws on the ground. These scrapes are often found at the base of cliffs. In addition droppings were analyzed for determination of food habits. Further information was gathered by asking local people about the presence of snow leopard in nearby ranges. In certain areas wild ungulates were counted in *order* to determine their abundance as potential prey species.

During 10 days spent in the field in the eastern Tian Shan, east of Urumqi, no definite snow leopard spoor was found. Prey species also appeared to be scarce as an intensive search of a 250 sq. km. mountain *section* in a region called Bei Shan revealed only six ibex.

A 750 sq. km. block of mountains was selected for a two week *survey* in the western Tian Shan. Here only one definite snow leopard scrape was found and three probable scrapes. All four scrapes were old. However, wolf *spoor* was common, and findings indicated these predators subsisted primarily on ibex, marmot and domestic stock. More snow leopards are probably found in the far western Tian Shan than other parts of the range. The team was told that local people, during the winter of 1985-86,

killed a total of 12 snow leopards, and that 11 snow leopards were killed by two men a year earlier. Two major valleys of the 3,000 sq. km. *Tomur* Feng Reserve were surveyed over a 12-day *period*. In one, the 475 sq. km. Datrang drainage, no snow leopard spoor was found. But further east in the Mazat valley where the team sampled only the lower 40 km., nine droppings and 20 scrapes were noted in the parts above 2,200 m. Prey consisted mainly of ibex, but an unusual amount of *vegetation*, primarily *Tamarix* twigs, was also found in the droppings. Marmots, an important summer food source in other regions, are not present in these valleys but it is not known why. The team concluded that snow leopards were scarce in *Tomur* Feng Reserve and doubted that more than 15 animals were using it.

Snow leopards were rare in the 14,000 sq. km. Taxkorgan Reserve, situated in the west where the Kunlun Shan adjoins the Karakoram and the Pamirs. A two-month survey was conducted in the western half of the reserve, and the total population of snow leopard for the reserve was estimated to be 50-75. Prey species here were mainly marmot and blue sheep.

The team traveled across the ranges of the Arjin Shan and Kunlun Shan for three weeks to the Tibetan Plateau. Most of the terrain in the plateau is above 3,500 m. and it is primarily a desert environment with sparse vegetation. Herdsmen reported that snow leopards are rare here, and the team failed to find signs of their presence.

In Xinjiang, the total range of the snow leopard is about 170,000 sq. km. or 10.6 percent of the area. Because vegetation is sparse in arid environments, there would normally be few animals, but hunting has been a major factor in further depressing the numbers of both predator and prey. Although ibex were common in two areas of the western Tian Shan, snow leopards were rare in those two regions, illustrating that prey abundance may not reflect predator status. The team reported that in several ranges the snow leopard is now either extinct or almost so. In Xinjiang there are three reserves totalling 62,000 sq. km. in which snow leopard can be found. The team concluded that the future of the snow leopards in these reserves remains insecure, with a total number of probably fewer than 120 individuals.

In the Taxkorgan Reserve, which has approximately 7,750 people and 70,000 domestic animals, coexistence of the Kirgiz and Tajik peoples with the wildlife is the crucial factor. However, much of the Arjin Shan Reserve is still devoid of herdsmen and livestock. Therefore in Xinjiang the real hope for the snow leopard could be in the western Tian Shan, and if the U. S. S. R. side of the border is included, this region has the potential to become one of the best in the cat's entire range.

But the authors add this cautionary note to the end of their report: "It is evident from the destruction of the species in parts of the Tian Shan that remote habitat and a sparse human population do not offer security. The future of the snow leopard in Xinjiang will depend ultimately on large well-protected reserves, enforcement of regulations against killing the cat, and proper management of prey animals."