

The Biology of the Snow Leopard in the Gissarsky Nature Reserve

Full Text:

The Gissarsky Nature Reserve totals 87,538 ha, and the snow leopard inhabits most of the reserve, being encountered in the stows of Bourche, Aksuv, Karamkul, Mizakigov, Kumirli, Saritugai among others. Beyond the reserve, snow leopards are recorded to the south-east in the headwaters of the Tupalang River basin, in the Sangardak area and to the north-east in Tadjikistan.

Numbers and Habitat

The number of snow leopards in this reserve has increased from two or four in 1981 to between 13 and 17 individuals in 1994. Since 1981, snow leopards have been sighted 72 times and their tracks or pugmarks 223 times. Animals are more frequently encountered in the Kyzylsu and Tanhazdarya areas of the reserve (80% of all observations) and more rarely in the Mairkin and Gilan areas.

A total of 153 day-time resting sites or day-beds of the snow leopard have been recorded; as a rule, these are located on a rock promontory which offers a good view of the surrounding area. From April until December snow leopard and ibex (*Capra [ibex] sibirica*) occupy south-facing areas up to 2,200m above sea level, in juniper forests and rocky outcrops.

Diet

In the Gissarsky Nature Reserve snow leopards largely feed on ibex. Over a period of 14 years, 92 kills and remains of ibex aged from one to thirteen years of age have been examined. Other records of predation, by the number of events observed, include 33 cases of juvenile and mature horses, 25 long-tailed marmot (*Marmota caudata*), 18 Himalayan snowcock (*Tetraogallus himalayensis*), 17 domestic goat, 13 wild-boar (*Sus scrofa*), five domestic sheep and three incidents involving cattle. Twenty-two attacks on domestic flocks were reported, and these occurred during both the daytime and at night. In 1987, in Surpa stow of the Surkhandarya region, an individual snow leopard attacked a flock and caught a sheep by its neck. Although the shepherd approached with a stick to within 10 m, the snow leopard refused to relinquish its prey, and instead threatened the shepherd by quickly swinging its fore-limbs in his direction; only after 10 minutes had passed did the cat leave and disappear into the nearby mountain. The main competitors of snow leopard are wolf and lynx, both of which also prey upon ibex. However, wolves and the dogs of shepherds are considered the principal enemies of the snow leopard.

Breeding

Snow leopards usually mate between the 20th of February and March 20th. Two males are often observed remaining close to a female. The offspring are born in late April to May, and there are usually two per litter (23 encounters), although a single litter of three has also been recorded.

Table 1. Snow leopard population estimates for Gissarsky Nature Reserve, 1981-1994.

Year	Number	Year	Number	Year	Number
1981	2-4	1986	6-8	1991	11-13
1982	4	1987	8-10	1992	11-13
1983	4	1988	8-10	1993	11-15
1984	6-8	1989	8-10	1994	13-17
1985	6-8	1990	9-11		