

What Has Happened to the Snow Leopard *Since the Break-up of the Soviet Union?*

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The former Soviet Union's snow leopard population was concentrated largely in Kyrgyzstan and Tajikistan. The total number of snow leopard in both republics in the 1980's was at least 1200 - 1400. This represented 75% of the entire species in the Soviet Union, or 15% in the entire natural habitat; in Kazakhstan the snow leopard population totaled

180-200, in Uzbekistan around 100, and in Russia 150-200 (Red Data Book of the USSR, 1984; Green, 1988; Koshkarev, 1989; Fox, 1994; Koshkarev, Smimov, Zyryanov, 1995). The number and natural habitat of the species were in universal decline. Losses in Kyrgyzstan from poaching alone were no less than 30 animals per year from the 1960's through the 1980' s. During this period the population in this area decreased by half, and the natural habitat by one third (Koshkarev, 1992).

With the break-up of the Soviet Union, poaching of the snow leopard and its prey grew by at least a factor of 3-4 (Koshkarev, 1994). The failure to pay salaries and wages from 1992-93 in rural areas, a dramatic increase in the demand for raw materials for Chinese medicine, and the freedom of the black market led to an increased focus of attention on the snow leopard, mountain sheep (*Ovis ammon karelini*, *O.a.poli*, etc), the ibex (*Capra sibirica*), the musk deer (*Moschus moschiferus*), the marmot - gray, mongolian, black hooded, et al. (*Marmota baibacina*, *M. sibirica*, *M. camtschatica*, etc.), and other animals. They were caught by the hundreds,

thousands, and tens of thousands. Poaching reached unprecedented levels. Snow leopard in Central Asia were killed even in zoos, announcements about the sale of pelts and live animals were published in newspapers, and in the Kyrgyz Academy of Sciences a story circulated that a pregnant female had been offered for sale by telephone. The government of

Tajikistan officially granted licenses for hunting snow leopard. Snow leopard pelts and corpses started to be smuggled into China across the border of the Central Asia republics (Cunha, 1997; Snow Leopard News, 1999).

In 1995 in Kyrgyzstan, during the celebration of the thousand-year anniversary of the People's Age of Manas, regional exhibitions displayed close to 200 (!) snow leopard pelts (according to eyewitness accounts). Throughout the present decade, pelts and live snow leopard have been common gifts in Kyrgyzstan, Kazakhstan and Tajikistan at all government and administrative levels. Snow leopard coats were given as gifts from the president of Kyrgyzstan to the president of Kazakhstan and from the president of Kazakhstan to the king of Spain, and live snow leopard cubs were given in Kyrgyzstan to Deng Xiaoping. Therefore, it is not surprising that when we conducted a controlled inspection of the five best snow leopard habitat areas in Kyrgyzstan and Kazakhstan in May-June, and November-December 1999, fresh tracks of the animals were found in only one of them! In

Sarychat - Irtash reserve, which is also the best habitat in Kyrgyzstan for preserving the snow leopard, this animal was absolutely trapped out within 3-4 years after the opening of the reserve. The presumed poachers in this case are reserve guards (former shepherds) who are the only people with access to the interior of the reserve. In June of 1999 we did not find here one fresh set of tracks, but we did find five traps set out for snow leopard. When we repeated the research in December, we found an additional trap, but again - not one set of tracks.

According to information from the anti-poaching squad founded by NABU in Kyrgyzstan, the density of snow leopard in the 1990s in the Issyk - Kul region fell five times; in Kyrgyz Mountains, ten times (personal correspondence).

The extent to which regional snow leopard populations declined during the 1990's is uncertain. Kyrgyzstan has apparently inflicted the most casualties. Hunting for snow leopard has been a tradition since time immemorial (remember that most snow leopard in the world's zoos were caught in Kyrgyzstan), and this tradition continues to this day. Given the level of poaching, which grew in Kyrgyzstan by at least 3-4 times after the break-up of the Soviet Union, annual losses to the Kyrgyz population must have been around 90-120 adult animals. However, this fails to account for indirect mortality of dependent cubs whose mother is killed (Koshkarev, 1985).

Assuming an average litter of two and a sex ratio of parity, or 1: 1 (Blomquist, 1980; Koshkarev, Kuz'minykh, 1988 - generalized information for entire natural habitat), then the poached animals could be comprised of 45-60 females. If 50% of these were breeding individuals, then the snow leopard population could suffer an additional loss of 45-60 for a total of 135-180 - a figure equalling one fourth of the entire population! That is two times more than in Mongolia, where the population is almost ten times higher (McCarthy, 1999). Even if 25% of these were females with dependent cubs, then the annual loss would still amount to 112-150, a significant number by any standard.

These high poaching rates in Kyrgyzstan could be sustained for a few years (1993-96), when snow

leopard numbers remained high, after which a catastrophic decline occurred. Populations following the Soviet Union break-up have never regained their former sizes. We estimate that the Kyrgyz snow leopard population in the 1990's was reduced by 75% or 500-600 animals. There can now be barely more than 150-200 individual snow leopards; thus, the population has been decimated.

If the situation in other Central Asia republics and Russia is close to that observed in Kyrgyzstan, then we are talking about the destruction of no less than half the population. We estimate that the number of snow leopard in existence today in the former Soviet Union does not exceed 700-900 individual animals.

Why was it that the most recent decade of the former Soviet Union's existence has turned out, with respect to nature, to be the most barbaric and the cruelest of the entire century? Why did the 1990's witness the fastest rate of destruction of nature, at a time when investment by international funds in environmental protection in the Soviet Union was at its highest historical levels (Nasser, Piatina, 1995; Mikhailenko, 1997; Stepanitsky, 1997)? Why was the destruction not halted by the almost one hundred new nature preserves that cropped up in that same period? And what will stop the poaching, which threatens the snow leopard today with complete destruction?

If we compare the present situation with the past, we see that before the break-up of the Soviet Union, when the scale of corruption, unemployment, and the black market were limited, poaching was restricted as well. It offered only supplemental income and therefore allowed both people and animals to survive. After the break-up of the Soviet Union, corruption and unemployment became ubiquitous (CITES Mission, 1999). It was corruption and unemployment that turned the country into one huge black market, and made poaching and mediation in the sale of goods the only source of income for many inhabitants, of urban as well as rural locations. There is no other way to explain the appearance of 200 snow leopard pelts at the Manas holidays in 1995, the massive sale to the Chinese market of medical raw materials made from the snow leopard in the 1990's, and the absence in 1999 of the wild animals in the best habitat areas in Kyrgyzstan and Kazakhstan.

If we look through the prism of corruption, unemployment, and the black market, we should not be surprised that, contrary to expectations, the millions invested by international funds could not support environmental protection in the Soviet Union. In this condition, dollars earmarked for environmental protection and programs were effective primarily within the walls of environmental protection offices, and therefore supported not nature, but the very same corruption, unemployment, and black market.

Despite the gloomy picture of the 1990's, the situation has changed for the better. The changes are evident in private rather than state-run organizations in Kyrgyzstan itself, where the crisis today is the most serious. These include a private Canadian gold mining company, the Kumtor Operating Company (subsidiary of Came co); a state reserve, Sarychat-Irtash; two private currency hunting areas, Emegen' and Kainar; and a presidential (in reality also private) game reserve, Kegety.

Kumtor Operating Company and the Sarychat-Irtash reserve are neighbors. In 1993, when the reserve had not yet opened and the company was just beginning operations, social and environmental organizations raised a wave of loud protests, not least because of potential poaching on the lands of the future reserve. ISLT reviewed the Environmental Assessment and urged Kumtor to support improvements for nearby Sarychat-Irtash and to implement anti-poaching measures. In order to avoid even rumors about possible poaching, the Canadian leadership made a very wise move. It completely banned not only the use, but even the carrying of weapons of any sort in Kumtor's work area. Thus, outsiders were banned from even appearing in Kumtor. As a result, the kind of reliable barrier undreamt of by any reserve in Kyrgyzstan appeared along the western border of the reserve two years before its creation!

Events of a completely different nature were taking place on the southern borders, where the best habitats for the snow leopard are found and where, until the creation of the reserve, the collective farm

was the owner. During all the years of Soviet rule, the collective farm shepherds grazed their cattle there and illegally trapped snow leopards, which was their main source of supplemental income.

With the break-up of the Soviet Union, the collective farms collapsed. The shepherds went to work in the reserve. What had once been supplemental income on the collective farm and had supported them for so many years in the reserve became their only source of income. People lasted only three-four years on that income, because after this time the snow leopard had been decimated.

The monthly salary of workers in Kumtor Operating Company is \$200-\$300. For that kind of money, workers prefer not even to consider poaching. It would be senseless of them to lose their jobs and earnings for violating company rules. In the reserve, however, the rangers don't receive, either on a monthly or yearly basis, the \$6-8 that should be paid to them. The reserve has no money. Therefore, despite the laws, the rangers are forced to consider poaching. For someone in their situation, a snow leopard's pelt represents the only way out, and we have no right to accuse these people for violating the law and wishing to survive.

Workers on the private foreign-currency hunting areas are also paid around \$200-\$300. We inspected them in May and November of 1999 and the result was the same everywhere: fresh snow leopard tracks were found in all the suitable habitat. The density of mountain sheep and ibex populations - the main objects of the foreign-currency hunts - was 10 times higher (1) than in the Sarychat-Irtash reserve. Thus here we see a clear linkage between local people enjoying good economic benefits, and wildlife enjoying relative safety from poaching.

Such a slice of heaven as that found near the Canadian company and in the private foreigncurrency hunting areas was created in a special presidential reserve called Kegety in the Kyrgyz Mountains. Shortly after the reserve was opened, the gray marmot, which had previously almost been destroyed, and the snow leopard were introduced on its lands, and the number of mountain goats rose sharply. We don't know how much the workers on the reserve earn. But there is no doubt that the rangers who guard the reserve do not prefer poaching

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as a source of income, and the same may be said of the workers of the Kumtor Operating Company or workers from the foreign-currency hunting areas Emegen' and Kainar.

So here's a little truth about the snow leopard and a little model for saving it. We believe that if tomorrow just one tenth of Western and local companies, funds, and organizations were to begin acting in the former Soviet Union the same way the Kumtor Operating Company, Emegen', Kainar, and Kegety are acting today in Kyrgyzstan, the situation would necessarily change for the better. If the government so desired, the situation would change ten times faster, without the empty words and sham projects that today help primarily to feed those who conceived them.

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