

Hunting of Rare and Endangered Fauna in the Mountains of Post-Soviet Central Asia

Introduction

The 1991 Soviet implosion and subsequent independence of five New Independent States within Central Asia hurled this region's environmental problems into the forefront of a curious and fearful scientific world. Since then, Western scholars and aid specialists have intensely scrutinized the Aral Sea Disaster Zone and the Semipalatinsk Nuclear Testing Site. This paper introduces another dilemma precipitating from Soviet disintegration: the non-sustainable hunting of rare and endangered fauna in the mountains of Central Asia, often sanctioned by the very government officials responsible for wildlife protection.

Central Asian wildlife suffers from numerous environmental ills resulting from decades of overgrazing, mining, and deforestation. Post-Soviet era hunting adds an urgent threat to regional biodiversity that we must not ignore. Poaching also cross-cuts into regional political issues, cultural survival, highland-lowland interaction, the viability of ecotourism, and the effectiveness of the global environmental community to orchestrate species preservation.

Background: Environment and Politics Set the Stage

The colliding Indian Ocean and Eurasian tectonic plates uplifted this "Roof of the World" where the Hindu Kush, Karakorum, Pamir-Alai, Tien Shan, and Alayskiy Ranges converge. The cordillera trends west to east for 12,000 km, and reaches above 7000 m on four summits. Extreme vertical relief blocks air-masses from every cardinal direction, creating numerous microclimates and abrupt elevation gradients. This Eurasian crossroads biota originates from the Indo-Himalayan, Mediterranean-African, West Eurasian, and Mongolian realms. Forests of juniper (*Juniperus*), birch (*Betula*), and spruce (*Picea tianshanica*), divide the higher subalpine-alpine meadows from lowland steppe-desert zones. The diverse environment supports some of the world's finest surviving populations of mountain wildlife, including snow leopard (*Uncia uncia*) Siberian ibex (*Capra [ibex] sibirica*), Marco Polo and argali mountain sheep (*Ovis ammon poli* and *O. ammon bochariensis*), markhor (*Capra falconeri*), Himalayan snowcock (*Tetraogallus himalayensis*), keklik partridge (*Alectoris kakelik*), Asiatic brown bear (*Ursus arctos isabellinus*), tolai hare (*Lepus tolai*), and numerous avifauna. Many species migrate into adjacent Afghanistan and China.

The prior two centuries of colonial ambition and internal power struggles produced a multifrontier where China, Afghanistan, Pakistan, and the N.I.S. intersect (see Figure 1). The Red Army closed this terra incognita in the 1920's to all but a few closely monitored transhumants. The Communists then depopulated much of the Sino-Afghan frontier along the southern Pamir Plateau and Tien Shan, erecting barbed wire in places to discourage any frontier transgression. Stalin removed Tajiks from the western Pamirs during the 1940's. Collectivized agriculture and transhumance on the Pamir Plateau, Tien Shan, and Alayskiy ranges soon followed. Souring Soviet-Sino relations in the 1960's, persistent tension between Pakistan and India in the Karakorum, and the prolonged Soviet-Afghan war further restricted indigenous and foreign movement during the Brezhnev era. The late 1980's perestroika under Gorbachav authorized limited return migration to the Pamirs and rejuvenated regional transhumance.

Wildlife thrived in these isolated mountains during Soviet control. The stringent travel restrictions and forced relocation of mountain peoples eliminated most farming and hunting. Renewed pursuit of mountain fauna since independence is rapidly reversing this trend. Unfortunately, unsophisticated wildlife censusing both during and after Soviet rule complicates documentation. The Soviet Red Books delineate species distribution, but fiscal and travel restrictions compromised census accuracy (Shukurov 1994; Shabozov 1992). The politically charged Pamir Mountains where "the whole population of snow leopards is 200, but nobody counted them especially" is illustrative (Buzurukov and Muratov 1990). However, insufficient quantitative data does not invalidate the now conspicuous availability of meat and body parts in Central Asian markets; flourishing sport hunting, and numerous bullet-ridden carcasses strewn about mountain slopes suggest sudden and implacable pressure on these formerly isolated populations. Several interconnected factors drive the carnage:

Hyperinflation: reduced fiscal support and fewer manufactured goods from Moscow, new currencies (except Tajikistan), and industrial reorientation fuel annual inflation that exceeds 2,000% in isolated mountain regions;

The insatiable demand for meat, pelts, and other wildlife body parts outside of Central Asia;

Aggressive sports hunting by foreigners;

A purge of government institutions and personnel responsible for wildlife management and protection, and

Declining central and local government authority.

These factors are analyzed below within the context of legal and illegal hunting.

Hunting Schemes

Contemporary hunting in Central Asia is either (1) legal, sanctioned and regulated by the government; (2) quasi-legal, authorized and negotiated by top government officials through private channels; or (3) illegal, by poachers for meat, body parts and trophies. Table 1 indicates the species hunted in Central Asia by reported permit fee. The most coveted and therefore most expensive mammals are snow leopard (*Uncia uncia*), Marco Polo sheep (*Ovis poli*), and the wild hog (*Sus scrufa*).

Table 1: Average Government Hunting Fees in Five Post-Soviet States

Snow Leopard (<i>Uncia uncia</i>)	US\$ 20,000	
Marco Polo sheep (<i>Ovis poli</i>)	18,000	
Mountain Urial (<i>Ovis ammon bochariensis</i>)	8,000	
Asiatic Bear (<i>Ursus arctos isabellinus</i>)	6,000	
Siberian Ibex (<i>Capra [ibex] sibirica</i>)		4,000
Markhor (<i>Capra falconeri</i>)	4,000	
Keklik (<i>Alectoris kakelik</i>)	1,200	
Himalayan Ular (<i>Tetraogallus himalayensis</i>)	1,000	

Sources: Goskompiroda 1994; CMD 1993; Shabozov (1992)

Legal Hunting

Legal hunting by government permit is common throughout the former Soviet Union. The Pamir, Tien Shan and Alai Mountains now attract a growing European and North American clientele (Cunha 1994). Hard currency is scarce in these struggling economies besieged by social and economic problems, and government officials responsible for wildlife protection quickly discovered the lucrative return generated from selling hunting permits to trophy-hungry foreigners. The civil war in Tajikistan promotes the anxiety articulated by a Canadian in Bishkek: "I want my trophies before this region falls into Afghan or Iranian hands" (Thomas 1994).

Most foreigners arrange hunts through Western firms that cooperate with Russian counterparts based in Moscow or St. Petersburg, although updated communications and entrepreneurial skills now promote direct links with Central Asian firms in Almaty, Bishkek, and Tashkent. Clients pay for legitimate government permits and hunting services (transportation, guides, food and lodging). The permit revenue theoretically supports wildlife departments, research, and protected area development, yet many agency personnel vehemently maintain that such funds seldom reach the departmental or field level (Buzurukov 1994; Hurwitz 1994; Richards 1994a; Severskiy 1994; Shukurov 1994; Shabozov 1992). Proceeds enrich mountain communities only when companies hire villagers as temporary "local" guides, porters, and innkeepers.

Goskompiroda (Environment Ministry) normally regulates hunting within the N.I.S. The Kirghiz Assistant Goskompiroda Minister, N. Abelevich (1994) explains:

Hunt management falls within the Committee of Environmental Protection. We keep a special register of wild animals, and establish special limits for each animal. We do have illegal hunting, but hunting patrols service each area. Those caught hunting illegally are fined, and we take their animals and weapons. Sometimes we also take legal action. Within our department, we have one hunting specialist patrol on horseback. We know that shepherds comprise most illegal hunters. We believe that there are only very few cases where members of a hunting service kill wildlife.

This Soviet style management is not always accountable or based upon sustainable limits. For example, in pre-civil war Tajikistan the 1992 permit for one Marco Polo ram cost \$50,000, while bear permits cost \$30,000 (GBAO 1992). The "official" 1992 bag limit for the Southeastern Pamir and Pamir Plateau of eight Marco Polo rams (GBAO 1992) does not reconcile with the estimates of:

1. a Goskompiroda Minister, "No more than 12" (Safarov 1992);
2. a Pamirian shepherd, "more than 30" (Ali 1992);
3. a hunting camp cook, "about 30" (Novikoff 1992), and
4. a local driver, "probably 20 to 40" (Misccha 1992).

Agreements between Goskompitroda in Dushanbe and Moscow tourist agencies entitle the local Badakshan government to half the permit fee, though only a portion is forwarded, and it is in Russian rubles.

This problem is pervasive in former Soviet Central Asian states. The Kazak agency charged with monitoring wildlife completed a "census of ungulates, woodchucks, muskrats, rare and endangered animals, an air census of saiga, a mid-winter census of wildfowl and others," but the present financial and technical constraints made working in Regional Inspection Bureaus very difficult and forced field personnel to compromise "their struggle against poachers" (Kuppaev 1994). The Uzbek Central Government took a different approach by eliminating key personnel and programs within Goskompitroda and the Biological Monitoring Agency, both of which regulate zapovedniki (nature reserves). The Uzbek Biological Chief, A. K. Atadzhanov, then reportedly contracted reserve management to ANAS (a French hunting firm) in exchange for the right to pursue endangered screw-horn goat, Bukharan deer, Tien Shan bear, and snow leopard (Mukhina 1994). Zatoka (1993) reports how the neighboring Turkmenistan government fined poachers less than \$5 for taking antelope horns that fetch \$30-50 per pair. The Tajik government in the Western Pamirs assigns many law enforcement jobs for political reasons. Protection efforts amount to ineffective semiannual helicopter flights and one annual jeep trip. Enforcement in the southeastern Pamir is more systematic. Khorog officials patrol to verify grazing compliance and to discourage poaching, but severe fuel shortages now threaten even this effort.

Quasi-Legal Hunting

Top government officials grant auxiliary hunt tourism permits to foreigners for hard currency. These quasi-legal bolshoi hunts appear unregulated once the spetsial clients reach the field. Their furtive approval at the Ministry and Cabinet levels complicates precise verification.

In a recent example, Mosolov (1993) describes how Minister of Ecology and Bioresources, Svyataslav Medvedyev, authorized pursuit of endangered animals in Kazakstan:

The Saudi prince for whom this permission was given will pay a rumored \$2,500 per animal that he kills...In the Ustyurt, they're hunting on muflon (*Ovis ammon Poli B.*) and djeiran (*Gazella subgutturosa Guldenstaedt*). In Semireche with 15 jeeps and 15 hunting falcons, a Saudi Arabian prince is fulfilling his dream, having received official permission to kill 100 head of the rare MacQueen's Bustard (*Chlamydotis undulata*) and to capture 8 baloban falcons. For our citizens, such actions are nothing less than crime.

Similarly, a well equipped 1992 German party produced a letter signed by the now deposed President of Tajikistan, R. Nabiyeu, authorizing a snow leopard and Marco Polo sheep hunt in the Pamirs. Head Goskompitroda officials organized the expedition for a "six-figure" dollar premium inclusive of a military helicopter. In Turkmenistan, bag limits "were not derived from scientific research and inventory but from the input of hunters" (Anonymous 1993). There is no evidence that money generated from these special authorizations reached the federal

agencies responsible for biodiversity or the local governments in whose jurisdiction the hunts took place.

Illegal Hunting

As used here "poaching" defines wildlife which is taken without government approval. This abstraction is more applicable to North America and Africa than in the former Soviet Union where governmental authority and jurisdiction over natural resources are uncertain, particularly in isolated mountain districts. Quantifying spatial and temporal characteristics of poaching is difficult. Yet, mounting evidence from government personnel (biologists, geographers, road maintenance and aviation crews), foreign aid specialists, and non-governmental organizations (NGOs) indicates accelerating and pervasive wildlife slaughter throughout the new Asian states (Braden 1994; Richards 1994a; Buzurukov 1994). The need for money and meat drives poaching. Severe inflation, food shortages, a demand for hard currency, and warden salaries below \$30 per month influence both hunters and wardens. With Marco Polo sheep bladders bringing US\$400 in neighboring Xinjiang (China), bear claws fetching \$800 in Beijing, and guide fees of \$5,000 or more per hunt, the payoff for a lone transgression equals "enough to live on for ten years" (Shirkov 1992). Governmental malaise and the removal of KGB surveillance promote an attitude expressed by Dushanbe geologist K. Ahaev (1992) who states that "anything is possible when enough dollars change hands."

Federal governments focus law enforcement on more densely populated lowland districts. A Klashnikov culture akin to the nineteenth century American West rules a growing amount of mountain terrain. Highland minority clans covet their wildlife and the economic security that accrues from selling pelts, gall bladders, teeth, claws and other body parts. Recent frontier openings with China, Turkey, and several Eastern European states facilitate smuggling of animal contraband from Central Asia.

Post independent entrepreneurs ply hunt expeditions to foreigners in the larger Central Asian cities. Although prices vary, guided hunts that guarantee snow leopard and Marco Polo ram cost \$4,000 each in Dushanbe. A similar offer for bear hunting runs \$500 in Almaty. In July 1994, a Bishkek businessman seated in a new Ford Bronco offered me one week of transportation, food, accommodation, firearms and Marco Polo rams for \$2,000 cash. His caustic appraisal of the need for hunting permits - "Dollars are the only permit here." - portends a bleak future for Central Asian wildlife.

In August 1992, the writer observed two jeeps pursue *Ovis poli* across the Pamir Plateau until the animals collapsed; hunters then shot two supine rams outright. Aerial hunting of snow leopard and Marco Polo sheep from both military and Aeroflot helicopters in the Pamir-Alai and Tien Shan mountains was also witnessed. A recent World Bank Memoire (1994) states:

Widespread poaching decimated wildlife in Kyrgyzstan and remains... a nationwide program which has seriously depleted birds and mammals. Much of the poaching comes from the livestock raisers who in the summer graze their herds and flocks throughout most of the country, including

high mountains. Additional poaching pressure comes from urban dwellers and farmers.

My 1992 field observations of 23 wild sheep carcasses in the Pamir-Alai support this allegation. Although Tajikistan cited 78 wildlife poachers in 1991, government officials believe there is "no way only five ministry specialists can even begin to evaluate or stop the killing" (Aggamov 1992). Ecoston News (1993) reports that in Kazakstan:

the battle with poachers is of utmost importance. In the third quarter of 1993, government agencies documented over 1,500 incidents and issued fines of over 2 million rubles (approximately forty-five cents per incident). 28 criminal investigations were initiated because of these incidents. Unfortunately, professional hunters are often the ones who break the rules. For example, recently a troop from the Dzhuzkzgan Government Hunting Agency destroyed a whole herd of saiga antelope.

Hunting for meat and body parts accounted for 81% of the violations.

Even with a concerted government effort to contain poaching - unlikely given the fiscal constraints - protecting Central Asian mountain wildlife will be extremely difficult. The contorted mountain topography and swift rivers complicate warden patrols. Unbroken fir stands shield illicit activity in much of the Tien Shan and Altai, while new vehicles and black market benzene facilitate tyranny across the undulating Pamir Plateau. Wildlife officials in Badkshan (eastern Tajikistan) and northern Kirghizstan are so short of auto and aviation fuel that "little or no patrolling is done anyway" (Shabozov 1992).

Helicopter pursuit also has roots in post independence financial distress. The government encourages military and civilian aviators to augment their income with private air charters. While flourishing tourist flightseeing, legal sport hunting, and mountaineering clientele provides some emolument, facilitating illicit poaching is more lucrative. Pursuing animals by jeep or motorcycle, baiting, poisoning and trapping are also common. Well-financed guides in the employ of foreign hunters or those seeking valuable body parts often bribe destitute wardens. The post-Soviet purging of non-indigenous Central Asians, ostravechnio (the outmigration of Russians from Central Asia), and the elimination of key resource agencies further cripples wildlife protection.

Post-colonial jurisdiction over land and natural resources also complicates wildlife law enforcement. Mountain peoples assert that government property ownership and mandatory agricultural and stock communes ended with independence. Anti-government opinion is strongest among return migrant communities, recently liberated communes, or those ignored during 70 years of Soviet suzerainty. Violence connected with the adjudication of disputed terrain and resources has many government officials fearing isolated mountain zones will evolve into territorial islands ruled by mullahs, militias and mujihedeens. An emerging opium trade in the Pamir-Alai contributes to the growing disorder.

Finally, primitive X-ray technology and untrained customs officials make smuggling illicit wildlife products through customs less formidable relative to other sport hunting regions like Alaska, South

Africa, or Argentina. Improving standards will help, but a lengthy frontier and the rise of international free economic zones to promote trade (such as Naryn and Osh Oblasts between Kirghizstan and China) favor bootlegging. The Director of the Governmental Fauna Census in Kazakstan estimates that enforcement agencies seize less than 1% of the transborder animal trade (Solyanik 1994). The liberal interpretation of diplomatic immunity by new Central Asian States may also contribute to illegal traffic.

Future Potential Action

Judiciously monitored hunting and trapping of wildlife are compatible with species preservation (Alaska Fish and Game 1993; East 1991). However, regions with sophisticated law enforcement and local support endure poaching, thus abating wildlife decline in Central Asia requires outside assistance in several venues.

Providing incentives to curtail poaching is the first imperative. Establishing protected areas in conjunction with a regional economic development plan - that engages local populations at every stage of development and implementation - is an important first step. Sport hunting as a source of renewable income may be necessary (although wildlife biology and not revenue goals must determine bag limits). The reserves succeed and species survival increases when profit sharing provides tangible reasons to curb illicit hunting (Taylor-Ide et al. 1992; West and Brechin 1991). The Central Asian mountains offer spectacular scenery, amenable summer climate, and few biting insects, snakes or aggressive bears. This infrequent combination holds tremendous and largely untapped tourism potential. The Kirghiz president considers ecotourism the second development priority (World Bank 1994), while adjacent Tajikistan is designing a national park system to generate foreign exchange. Both will likely require temporary outside technical and financial support.

Policy change at the local and federal level, especially uniform wildlife law, is an urgent need. The new sovereign governments rewrote Soviet civil codes after independence but retained many familiar loopholes. Although laws without field enforcement will not prevent overhunting, establishing legal codification is a necessary start. Unfortunately, scarce fiscal resources and inexperience at self-governing divert attention from environmental issues.

Funding for biodiversity programs is also important. Besides cooperative reserve establishment there is a critical demand for contemporary wildlife assessment (i.e., determining census, reproductive status, habitat analysis, and predator prey relationships). The World Bank (1994), Institute of Soviet American Relations (ISAR), German Development Bank (Cranston 1994), and the U. S. Agency for International Development (USAID 1994) have designed proposals to meet this need.

Not to be overlooked is an emergent NGO contingent. ISAR cooperates with almost 100 independent and quasi-independent NGOs (having partial government affiliation) within Central Asia. Both ISAR and the US Peace Corps train these groups, so important in Western democracies, as government watchdogs and policy advisors. Grassroot action strategies are novel for those raised in the USSR command structure. The recently

opened World Conservation Union (IUCN) and World Wildlife Fund branch offices, and the subsequent deployment of USAID Environmental Officers will augment technical expertise and funding for wildlife conservation. The US Peace Corps trained 20 environmental specialists to work Central Asia in 1995, and may expand the program in the future (Richards 1994b). The above should also strive to reduce the little general public awareness or understanding of biodiversity and environmental conservation. Finally, supporting the Convention on International Trade in Endangered Species (CITES) affords some international protection and networking that will channel federal attention to illegal hunting and illicit trade. The treaty requires codified hunting laws that many states now lack.

Conclusion

These proposals may be "too little, too late" to abate wildlife decline in this cordillera. Partial implementation will alleviate pressure on wildlife. The formidable regional milieu of local and foreign hunters, poorly paid government personnel, and cabinet ministers who sell wildlife for profit, impede reconciling development and conservation. The international community has cooperated with states in Africa, Asia and the Americas to save wildlife in the past, sometimes with stunning success. In Central Asia, outside technical and financial assistance will be necessary.

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