

Full Text:

The need for community-based actions for protecting snow leopards

Livestock depredation is becoming a significant problem across the snow leopard's range. Although annual losses typically amount to less than 1-2% of the overall livestock numbers, they can exceed 10-15% of the herd in areas constituting a depredation "hotspot." In the case of snow leopard, these are usually pastures with an abundance of cliffs and broken, rocky terrain that represents prime habitat for the species. Since depredation patterns generally vary widely from one year to the next or from one location to another, it is difficult to determine if such loss results from different individuals occasionally killing livestock, or whether it is more the work of the habitual depredator that has learned how easy domestic animals are to stalk and kill (Linnell et al. 1999). But every winter there are numerous reports of a snow leopard entering poorly-constructed night enclosures and then killing most or all of the confined livestock. Herders commonly lose 20-50 of their sheep or goats in such an event, a significant economic loss in a region where the annual per capita income is often US \$200 or less. While visiting a remote Tibetan valley near Mt. Everest, I was told by an angry villager of a snow leopard which had killed 107 of his livestock. In nature, such instances of multiple predation, or "surplus killing," are virtually unknown, for most prey species have well-developed predator detection and escape behaviors, and are seldom if ever cornered in any significant number.

While herders will tolerate the occasional loss, they usually retaliate by attempting to trap, poison or shoot predators blamed (rightly or wrongly) for recurrent or multiple losses. Ironically such "surplus killing" can be avoided entirely by ensuring all vulnerable night-time enclosures are predator-proofed. The other kind of depredation involves livestock that are taken after being left to roam at will or those snatched from a flock which is being poorly guarded. While such losses can never be entirely eliminated, they can be reduced to acceptable levels. Other important factors thought to contribute to depredation include habitat loss and fragmentation, and the depletion of natural prey base (especially from poaching). As the number of wild prey declines, so snow leopards must increasingly turn to domestic stock for their survival. Like their counterparts elsewhere, herders in the Himalaya tend to blame predators without adequately accounting for other mortality such as disease and accidents. Many have abandoned proven traditional shepherding practices. In addition to less vigilant guarding, livestock are often allowed to forage in areas offering good stalking cover for snow leopards. With more children in school and thus not serving as shepherds, families are increasingly letting their stock roam freely during the daytime; similarly, many fail to properly maintain or repair their corrals, which are easily accessed by a predator in search of a meal.

Since snow leopards are an endangered and thus a protected species, herders typically respond to any livestock depredation by demanding compensation from the government. For example, in Ladakh, the wildlife department devotes almost 60% of its annual budget to compensating herders for stock killed by snow leopard and wolf. Paying for such loss is hardly a sustainable solution, and furthermore it fails to address root causes of the problem. By contrast, predator-proofing corrals is a relatively easy and inexpensive proposition that prevents loss in the future. Other possibilities for reducing livestock depredation include use of trained guard dogs, communal shepherding, and preferential access to sheep or goat breeds with well-developed anti-predator traits (that is native rather than exotic breeds unfamiliar with predators).

Livestock predation has been a fact of life since animals were first domesticated 10,000 years ago (Nowell and Jackson 1996). They note that it can only be reduced, not eliminated. And with the depletion and loss of the natural prey base, it could be further argued that pastoralists are helping to support snow leopard populations in areas where they might not otherwise exist. So for conservationists, the question becomes how to ensure depredation is kept to acceptable levels, while simultaneously encouraging local people to perceive the greater worth of a live snow leopard than a pelt of one which took their livestock. Apart from reducing depredation, this means increasing local incomes and strengthening community stewardship of alpine ecosystems. It is this challenge that Snow Leopard Conservancy (SLC) is focusing its effort on, namely seeking ways of helping local people and large predators to better co-exist.

Goals, Objectives and Proposed Activities

The SLC's primary goal is to conserve snow leopards by offering communities incentives for becoming the ultimate guardians of this cat, its prey and its habitat.

Our primary objective is to significantly reduce retaliatory poisoning or hunting of snow leopards from herders by reducing depredation losses through improved animal husbandry and guarding practices. Another objective is to increase household incomes by providing technical assistance, grants and incentives for community-based activities which are environmentally sound and socially responsible, linked to specific stewardship and biodiversity conservation commitments, and designed to maximize community “buy-in,” long-term self-reliance, and ecosystem health. As such, community-based tourism can help to offset the economic impact of depredation while leading herding communities to place greater value on their live snow leopards.

Examples of the type of activities proposed by the Stewardship Program:

- Predator-proofing of traditional stone livestock corrals or pens;
- Trial testing of solar-electric fencing for use in summer pastures or where there are insufficient stones to construct sound corrals;
- Education of herders on improved animal husbandry and guarding practices for avoiding or reducing depredation, including awards for exemplary herders;
- Use of guard dogs and the promotion of community-based shepherding systems;
- Improved predator detection and avoidance skills of existing livestock (especially sheep and goats) through inclusion of suitable indigenous breeds from Tibet.
- “Predator-friendly” wool and handicraft production, similar to that being undertaken by Irbis Enterprises in Mongolia with the support of the International Snow Leopard Trust;
- Incentives for reducing livestock numbers in depredation “hotspots” during predation-prone periods;
- Development of eco-tourism opportunities, including trekking services, nature guiding, and home-lodge operation;
- Support and incentives for better protecting natural prey species, such as patrolling, the creation of special wildlife areas, livestock-free blue sheep wintering areas, etc.;

Implementation Strategy

Several sites are being established where remedial measures will be tested. We are using the APPA process (Appreciative Participatory Planning and Action) as the primary planning tool (Jackson 1999). APPA employs “the four D” (Discovery, Dreaming, Design and Delivery), inviting participation from all stakeholders -- from village children to adults, to NGOs and government wildlife departments -- to collaborate in identifying and designing remedial solutions which are sustainable, environmentally friendly and appropriate to their context. We believe APPA’s previous success is due in large part to its village-based approach, and to the fact that the exercises used to develop action plans can be understood and carried out even in areas where villagers are illiterate (Jackson, In Press).

By using different control measures and linked incentives, and by comparing conservation success with sites in which little or no action is taken, we hope to assess what works best and is most easily replicated (considering, too, the diverse cultural conditions throughout the snow leopard’s range). Sites are being chosen for their importance to snow leopards and alpine biodiversity, and where there is a history of livestock depredation. We emphasize that wildlife conservation is the primary reason funding is being made available. SLC will only invest in or work with communities endorsing the five basic conditions: activities must have proven conservation benefit to snow leopards, their prey and habitat, a significant reciprocal contribution and clear responsibility on the part of all key stakeholders, a strongly participatory planning process which involves all affected segments of the community, and a firm commitment to long-term monitoring using simple indicators. All interventions must be environmentally sound, economically sustainable, socially responsible, and implemented according to a mutually-agreed-to and binding work-plan which sets forth stringent penalties for non-compliance.

SLC’s activities are being implemented in partnership with local NGOs and protected area management authorities, who carry out agreed-to-activities in close collaboration with herders and other villagers. Overall technical input and program management is provided by Dr. Rodney Jackson (Vice Chair for Snow Leopards of IUCN’s Cat Specialist Group, and former Conservation Director of the International Snow Leopard Trust - ISLT). The program is staffed through range country professionals trained in social sciences, community development and wildlife conservation.

Project activities are under implementation in Ladakh (India) and the Annapurna Conservation Area (Nepal). Other sites under consideration include the South Gobi region (Mongolia), the Khunjerab

National Park and Baltistan area of Pakistan, and the Qomolangma National Nature Preserve in Tibet. Pilot testing will take three or more years. During the first year we concentrate on baseline gathering and community planning meetings; program interventions start in year two, followed by monitoring and evaluation through year five. The second phase, which will continue indefinitely, involves applying lessons learned in this program to other sites across the snow leopard's vast range. We are planning to host exchange study tours and regional workshops. In each country our goal is to ensure there are several NGO's active in applying this approach to people-wildlife conflict which extends beyond simply the snow leopard.

References:

Jackson, R. 1999. Snow Leopards, Local People and Livestock Losses: finding solutions using Appreciative Participatory Planning and Action (APPA) in the Markha Valley of Hemis National Park, Ladakh, October 6-26,1999. CAT News 31:22-23.

Jackson, R. In Press. Managing people-wildlife conflict in Tibet's Qomolangma National Nature Preserve. In: Proceedings of Second International Wildlife Management Congress. Edited by R. Field, R.J. Warren and H. Okarma, Hungary, June-July 1999.

Linnell, J. D. C., J. Odden, M. E. Smith, R. Aanes, and J. E. Swenson. 1999. Large carnivores that kill livestock: do "problem individuals" really exist? Wildlife Society Bulletin 27(3):698705.

Nowell, K. and P. Jackson. 1996. Wild Cats: Status Survey and Conservation Action Plan. IUCN-The World Conservation Union, Gland, Switzerland.

*Director, Snow Leopard Stewardship Program, a project of the Cat Action Treasury, P.O. Box 202, Los Gatos, CA 95031, USA. Email: <rodjackson@mountain.org> Website:

<<http://www.snowleopardconservancy.org>>