

-1 The Future of The Snow Leopard

In Partial Fulfilment of Wildlife Ecology elective course

By: Simon O'Connor

Third Year

Veterinary Medicine



Snow Leopard www.epedia.pbwiki.com

Introduction

The snow leopard, sometimes as the “ounce” is a large cat native to the mountain ranges of Central Asia from Afghanistan to Lake Bakal and eastern Tibet in an area stretching 1,230,000 sq kilometers, although within this vast area the snow leopard is found in isolated areas. Although sharing its name with the common leopard, it is not closely related to the leopard and is classed as a sole member of the genus *Uncia uncia*. One of the main differences is its inability to give a full deep roar and slight differences in skull anatomy. The snow leopard is well known for its fur. It has a whitish-tan coat with ringed dark spots of dark ashy brown and rosettes of black. Snow leopards live typically for 15-18 years and can weigh up to 75kgs. Their long tail, which is used for greater balance on the steep mountainous terrain is proportionately longer than other cats of equal size. The snow leopard also has large furry feet which help it to gain grip and also conserve heat on cold mountain surfaces. Snow leopards are solitary animals, although mothers can rear cubs for extended periods of time in caves and mountain dens. They feed mainly on ibexes, deer, boar but also on urial and the bharal (blue sheep) and are generally not aggressive towards humans unlike the tiger or common leopard. The total estimated wild population is between 4000-7500 but accurate numbers are difficult to ascertain due to the

unforgiving rugged mountain terrain on which they live in. Today they are one of the rarest animals on the Himalayan mountain range.

Paper Review

The papers I reviewed were:

Movements and Activities of snow leopards in Southwestern Mongolia by T.M.

McCarthy, T.K. Fuller and B. Munkhtsog.

Human-Wildlife conflict in the kingdom of Bhutan: patterns of livestock predation by large mammalian carnivores by T. Sangay and K. Vernes.

Sangay et al talk about human wildlife conflict and about how livestock, mainly cattle, horses, sheep, yak and poultry are being killed in the Bhutan region by tigers, the common leopard, the snow leopard, black bears and wild dogs. These livestock are important to Bhutanese farming families and contribute much to the rural economy, providing food and revenue.(1)

Wang and McDonald cite lax herding, inadequate guarding of stock and overgrazing as factors contributing to livestock loss.(2)

If conservative legislation is to be truly successful in conserving Bhutan's large predatory mammals, then human-wildlife conflicts must be minimised wherever possible.(1) During the two year study from 2005-2007, 1,375 livestock animals were killed. Of these however only 32(2%) were killed by the snow leopard with the common leopard killing 70%.(1)

In order for farmers to gain compensation, the TCF (Tiger Conservation Fund) requires three forms of evidence before paying the compensation.(1)

Work in Bhutan demonstrates that the success of any predation mitigation requires the full engagement of farmers in wildlife management decisions and education of the public about the value of nature conservation.

T.M McCarthy et al tracked movements of snow leopards in Southwestern Mongolia using four radio monitored snow leopards, two male and two female, allowing them to track daily movements and monitor behaviour. The results showed that snow leopard activity was highest at night time but also showed significant activity throughout the day.(3)

Mean distances travelled by the snow leopard in a twenty four hour period substantially exceeded those reported elsewhere for the species.(4)

The distribution of ibex within the study area may explain much variation in snow leopard habitat .(5)

Lower population density and movements that take cats across habitats offering little escape cover make the snow leopard more vulnerable. This coupled with dependence on an ungulate population that is coming under increasing pressure from domestic stock grazing would argue for greater protective measures.(3)

Discussion

It is clear that the existence of the snow leopard is in danger. Although the highest

estimated numbers reach 7500, nobody can be fully sure of how many or how few exist today. The mountainous terrain they live in makes it difficult for researchers to locate and observe them. Like so many other animals under threat today, the plight of the snow leopard only comes to light when it is in danger of extinction. It is said that nearly half of the world's frog species are in danger of extinction yet sadly they won't get the public's attention the way the snow leopard will due to the size and beauty of the snow leopard. But its beauty doesn't guarantee its safety and much hard work will have to be done to preserve it.

Education is the key to this. Educating the public in these regions about not only the snow leopard but the value of nature conservation, while also working with farmers to come to reasonable solutions.. Obviously farmers are angry to lose valuable livestock and I am sure some will say that their livelihoods are 'in danger of extinction' but work must be done together with the TCF to protect the snow leopard. Hopefully the ideas created today about saving the snow leopard will be used for other endangered species in similar circumstances and maybe even the common leopard some day in the future.

References

1. Sangay, T., Vernes, K., Human-Wildlife conflict in the Kingdom of Bhutan: Patterns...., Biol. Conserv(2008), doi:10.1016/j.biocon.2008.02.027
2. Wang, S.W., Macdonald, D.W., 2006. Livestock predation by carnivores in Jigme Singye Wangchuck National Park, Bhutan, Biological Conservation 129,558-565
3. McCarthy, T.M., Fuller, T.K., Munkhtsog, B., 2004. Movements and activities of snow leopards in Southwestern Mongolia.
4. Jackson, R., Ahlborn, G., 1989. Snow leopards(*Pantheria uncia*) in Nepal-home range and movement. National Geographic Research 5, 161-175.
5. Litvaitis, J.A., Sherburne, J.A., Bissonette, J.A. 1986. Bobcat habitat use and home range size in relation to prey density. Journal of Wildlife Management 50, 110-117.