Oryx

There’s something about snow leopards: assessing herder attitudes toward the ‘ghost of the mountains’

By Charlotte Hacker, 2nd June 2020

China’s Tibetan Plateau is home to unique flora and fauna, including the enigmatic snow leopard *Panthera uncia*. The snow leopard’s range spans 12 countries across Central Asia. China is home to 60% of the species’ known range, which amounts to c. half of the total population. This makes conservation work in this country particularly important.

Like most residents of snow leopard range regions, those in China depend on pastoralism for income or subsistence. Livestock are used for food, dairy products, transportation, wool, hides, fuel, ecotourism, and religious purposes. Loss of livestock to predators such as the snow leopard creates financial burdens on herders, which in turn can induce negative attitudes towards the species and those working to protect them and, in extreme cases, retaliatory killings of predators. Given the already low density and numbers of wild snow leopards, these negative outcomes can have severe consequences for persistence of the species.

Yaks are the primary livestock kept by herders living on the Tibetan Plateau. Herders interviewed in this study owned an average of 73 yaks, with some owning up to 250. Photo: Charlotte Hacker

Long-term conservation success requires the support of multiple stakeholders, including scientists, government and local people. Residents of Tibetan culture and descent can play an especially crucial role given their nearly 2,000 years of coexistence with wildlife, knowledge of the environment, and adjustment to the rapid environmental and societal changes that have taken place in the area in recent years. However, willingness to support protection plans requires assessment of attitudes towards the species in question and opportunities for herder concerns and opinions to be recorded.

To help better understand the current status of attitudes toward snow leopards and what influences positive and negative attitudes, we interviewed 73 herders over 1 week in Suojia Village of Yushu Prefecture in Qinghai Province, China, an area where negative interactions between people and snow leopards can be intense.

Left: The author (C. Hacker) speaks with Tibetan translator, Gong Bao, about interview statements and design. Photo: Zhang Yu. Right: Co-authors Yifan Cheng and Yuchuan Dai interview a local herder. Photo: Xie Ran

Our results helped to corroborate this intensity, finding that just under half of herders interviewed had lost livestock to snow leopards in the previous 5 years. Despite this, attitudes towards the species were generally positive. We found that higher levels of formal education and lower

livestock losses were key drivers of positive attitudes, whereas lower importance of snow leopards attributed to religion, lower levels of formal education, and lower livestock losses were key drivers of negative attitudes.

Discovering that lower livestock losses drive both positive and negative attitudes was unexpected, but speaks to the multidimensional nature of human–wildlife interactions and how views towards snow leopards are shaped. Lower livestock losses being associated with positive attitudes is intuitive, but its association with negative attitudes warrants further investigation. Livestock loss is probably only one piece of the puzzle surrounding attitudes towards snow leopards. The degree of frustration induced by a loss may be dependent on animal age, health, sex and size. For example, the loss of a geriatric male yak in poor health may have less effect in promoting negative attitudes than the loss of a healthy female of reproductive age.

Livestock loss to predators can be a frustrating event for herders who depend on their animals for their livelihoods. Photo: Charlotte Hacker

The open ended questions in our survey facilitated conversations that were helpful for understanding relationships between respondents and snow leopards. Unsolicited topics such as concern for grassland degradation by the pika *Ochotona* sp., frustration with wolves *Canis lupus*, and folklore surrounding snow leopards in Tibetan religion were conveyed as part of general knowledge exchange and storytelling between interviewers and respondents. Such communications were fruitful in gaining insights that can be applied to the realization of study goals and in engendering trust between residents and scientists.

Findings from our work attest to a tolerance afforded to snow leopards despite their role in livestock loss. This tolerance may stem from multiple sources, such as education and relative

comparison to wolves, but is probably anchored in the Tibetan belief of peaceful coexistence with wildlife coupled with a relative lack of negative connotations attributed to snow leopards in Tibetan folklore. The role of livestock loss in shaping attitudes warrants more detailed investigation, as do other areas of interest stemming from this work, including the effectiveness of guardian dogs, and the use of local ecological knowledge in complimenting scientific survey efforts.

Herders in the picture's foreground move their yak through snow leopard habitat in Yushu Prefecture, China. Photo: Charlotte Hacker

The article Determinants of herder attitudes toward the Vulnerable snow leopard *Panthera uncia* in Yushu Prefecture, China is available in *Oryx—The International Journal of Conservation.*

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