
Human-animal conflicts and social dimension

Coexistence of wolves and herders within Mongolia's ancient pastoral traditions

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Mongolia's deep-rooted tradition of pastoralism, tracing back over 5,500 years, reflects a resilient bond with its vast landscapes and wildlife. This connection plays a critical role in the coexistence of livestock and predators, shaping strategies to protect herds from threats across Mongolia's expansive steppe. As of 2024, Mongolia's population of 3.5 million supports approximately 64 million livestock, with herding sustaining over a third of the nation's workforce. Wolves, which account for an estimated 15,000 livestock losses each year, are classified as near-threatened in Mongolia due to overharvest, often related to international trade. However, they present a major challenge for rural communities. Distinct from other regions, Mongolia has no formal compensation programs for depredation losses, pressing herders to rely on self-devised methods of prevention.

From 2022 to 2024, we conducted surveys with livestock owners in proximity to Bogd Khan Mountain, one of the oldest protected areas in the world, and UNESCO Biosphere Reserve. We evaluated the impacts of wolves on herders and the adaptive strategies they employ. Additionally, we conducted a camera trap survey within the protected area to examine the abundance and activity of wolves in relation to livestock (horses and cattle) and natural prey (wapiti and Siberian roe deer).

Our findings indicated that wolf abundance was not related to the number of livestock present; in fact, there was low temporal overlap with cows and moderate overlap with horses. Instead, the abundance of wolves was positively associated with the availability of natural prey. Moreover, the activity of wolves showed higher overlap with that of natural prey compared to livestock, displaying similar patterns with two activity peaks occurring at dawn and dusk. The results of the herders' survey revealed a variety of approaches to managing wolves and herds. These included rotational grazing, the use of guard dogs, and culturally significant methods such as traditional wolf hunting. Additionally, the sociodemographic characteristics of the interviewees influenced their perceptions of wolves and their herd management strategies. This study reveals the complexities of balancing traditional practices with emerging ecological pressures, demonstrating how Mongolia's pastoral communities navigate predator coexistence amid modern economic and environmental challenges. These findings offer valuable insights into community-driven conservation practices in pastoral landscapes of countries with an emerging economy.