

Oryx

Keeping predators out: fences reduce livestock depredation at night-time corrals in the mountains of Central Asia

By Gustaf Samelius, 10th February 2020

Livestock depredation by large carnivores is a major conservation challenge throughout the world. Predator attacks on domestic animals result in economic loss and emotional trauma for livestock owners and thereby set the stage for retaliatory and preventive killing of carnivores. A new [study](#) in southern Mongolia showed that tall fences were very effective to reduce livestock losses to snow leopards and wolves at night-time corrals at the winter camps of livestock herders. The study illustrates that fences can be an effective measure to reduce night-time losses at herder corrals and thereby also an important measure for facilitating the coexistence of large carnivores and people.



A traditional corral in the Tost Mountains in southern Mongolia with a fence built around it. The purpose of the traditional corrals is not to keep predators out but to keep the herd together and to provide shelter from the wind.

In the study area in the Tost Mountains livestock depredation occurs both in pastures and at night-time holdings. Attacks at night-time corrals can be especially devastating, as they often result in mass-killings of livestock that significantly impact herder economy and emotional well-being. Predator-proofing of small pens and houses is an effective way to reduce losses of small livestock holdings. However, there currently is no efficient way to reduce night-time losses at large livestock holdings where building predator-proof structures is not possible or would be very expensive.



A snow leopard scent-marking a small cliff in the Tost Mountains in southern Mongolia. The image is from a camera trap used to monitor the snow leopards in the area.

Working with herders who had reported significant livestock losses prior to the study, researchers erected 10 fences at winter camps in the area. The fences were 2 m tall, made of metal nets and poles, and with an electric wire running along the top—a much more challenging obstacle for predators than the low wood-and-stone walls traditionally used for night-time corrals. The fences proved to be effective: whereas prior to the study on average nearly four goats and sheep were lost to predators per family and winter, there were no livestock losses in the two winters of the study after the fences were built.



Goats and sheep grazing in a pasture in the Tost Mountains in southern Mongolia. The study in southern Mongolia showed that herders lost about the same number of goats and sheep at the pastures as they lost at the night-time corrals prior to the study.

Overall, the herders were happy with the fences, but also suggested improvements such as adding wind shelter to the fences to protect livestock from the strong and cold winter winds, and making them larger to avoid overcrowding. Keeping too many animals inside fences can affect their health and reduce the quality of their wool. Field visits showed that the fences generally lasted well but that some minor repairs were needed, such as adding soil or rocks to places where these had washed away under the fence.

The [study](#) showed that herders' attitudes towards snow leopards were generally positive and remained so during the course of the study. In contrast, herders viewed wolves rather negatively, and even though no livestock was lost to wolves at the fenced winter camps, the herders' attitudes towards these predators became even less favourable during the study—perhaps because wolves continued to attack livestock in summer pastures.



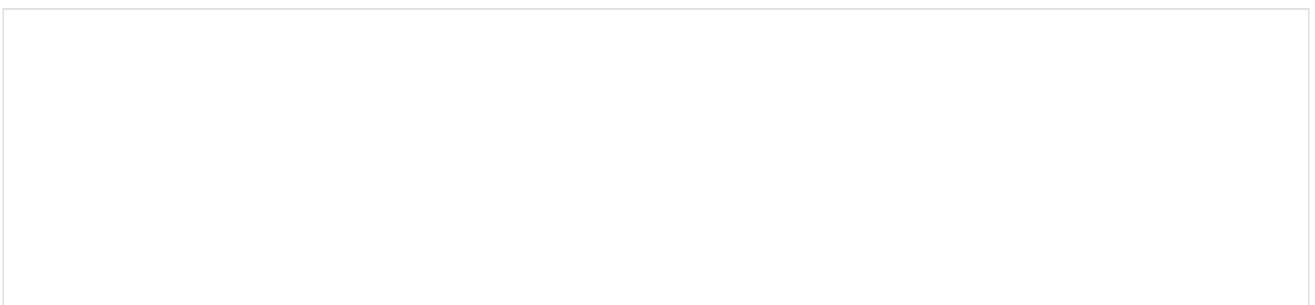
A wolf caught on a camera trap in the Tost Mountains.

One challenge for integrating the fences used in the study into a permanent conservation programme is the relatively high cost of the fencing material. For the study in southern Mongolia, the Snow Leopard Trust and Snow Leopard Conservation Foundation bought the material and then worked out an arrangement to repay the cost of the fences together with the recipient families. This way the herders did not have to pay for all the costs at once but instead spread out the cost over time.

Visit www.snowleopard.org for more information on snow leopard conservation and what you can do to help safeguarding snow leopards and their environment.

All photos: Snow Leopard Trust and Snow Leopard Conservation Foundation

The article [Keeping predators out: testing fences to reduce livestock depredation at night-time corrals](#) is available in *Oryx—The International Journal of Conservation*.





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