

Catching camels in the Gobi

November 11 2011

In Oct. 2011 Professor Chris Walzer and Dr. Gabrielle Stalder, veterinary scientists at the Research Institute of Wildlife Ecology at the Veterinary Science University, Vienna, successfully attached GPS satellite collars to endangered wild Bactrian camels in the Mongolian desert. Their efforts are part of the long-term Gobi Research Project on wild horses, Asiatic wild asses, and other animals that make this unique environment their home.

The range of the wild Bactrian camel (*Camelus ferus*) has been reduced to only three locations world-wide: two in China (Lop Nur and Taklamakan desert) and one in Mongolia (Great Gobi A Specially Protected Area). The Great Gobi Protected Area was established in 1975 to protect a unique desert environment that is home to several rare or globally threatened [mammal species](#), such as the wild Bactrian camel, the Gobi bear (*Ursus arctos gobiensis*), the snow leopard (*Uncia uncia*), the argali wild sheep (*Ovis ammon*) and the Asiatic wild ass (*Equus hemionus*). However, habitat deterioration due to increasing human demand for livestock pastures and water resources, illegal hunting, and recently also a marked increase in illegal placer mining (mining valuable minerals by washing or dredging activities) in the protected area region have become a conservation concern. "Increasing incidences of resource extraction in the area seriously jeopardize the integral protection of the camel's and other species' habitat," says Chris Walzer, a senior veterinary scientist at the Research Institute of [Wildlife Ecology](#) (FIWI) of the Veterinary Science University, Vienna, who has a long-standing landscape-level commitment to conservation research in the Gobi.

The wild Bactrian camel is listed by the International Union for Conservation of Nature (IUCN) as critically endangered. About 600 animals are estimated to remain in China and between 350 and 1,950 in the Great Gobi A protected area in Mongolia. It is difficult to estimate population size more precisely because of the remoteness and large size of the area, compounded by the inherent difficulty of estimating population size for low density "clumped" populations. There are large knowledge gaps relating to the movement patterns, habitat use, behaviour, ecology, population dynamics, and veterinary aspects of wild camels. One tool for finding out more about where they go and how they use their habitat is the use of GPS collars. This information is important for the development of appropriate conservation strategies. According to Chris Walzer, it is especially important to protect suspected migration routes between Mongolia and China. "But to do so, we first need to establish exactly where the camels tend to roam."

In October 2011, Chris Walzer and Gabrielle Stalder (FIWI) and their Mongolian colleagues were able to capture and collar four wild camels. Both scientists are highly skilled and experienced in capturing and anaesthetizing wild animals for various bio-medical procedures, which can be a tricky and even dangerous undertaking. In this instance, the team spent two weeks living in tents and chasing after camels in 4x4 vehicles in this harsh and remote environment more than 1000 km from the capital Ulaanbaatar. Driving 250 km on bumpy roads and off-road across the stony desert can take as long as seven hours, and tracking camels in the huge area can be like finding a needle in a haystack. It took three days before the scientists spotted a group of camels. Once they caught sight of some camels, the team had to try to get close enough to dart individual camels on the run from the jeep, without causing the animals excessive stress before anaesthesia. Between October 2002 and June 2007, Chris Walzer and other scientists had radio-collared and monitored 7 free-ranging wild camels, but those collars are no longer operational and data from more individuals was urgently needed to

reveal habitat and space use patterns. Now there are four more individuals whose GPS signal will provide essential locational data.

Prof. Walzer and Dr. Stalder were accompanied on this trip by Dr. Pamela Burger of the Institute of Population Genetics, Vetmeduni Vienna, who collected some genetic samples for the continuing analysis of relatedness between wild and domestic Bactrian [camels](#) and to help estimate the degree of hybridization inside the protected area. The genetic analysis is a long-term collaboration between scientists at the two institutes. The FIWI scientists' efforts to study and conserve the desert habitat of these species are undertaken in partnership with Dr. Richard Reading of the Denver Zoo, and Adiya Yamasuran of the Mongolian Academy of Sciences.

Provided by University of Veterinary Medicine -- Vienna

Citation: Catching camels in the Gobi (2011, November 11) retrieved 17 April 2024 from <https://phys.org/news/2011-11-camels-gobi.html>

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