

Articles

Survival and spatial ecology of saiga calves in Mongolia

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The Mongolian saiga (*Saiga mongolica*; see Feature Article in this issue) occurs in the semi-desert ecosystems of western Mongolia with a population of 5,000-7,000 individuals. The Mongolian saiga occurs in three subpopulations; they now occupy only 20% of their former range. In recent years, the saiga's population size and range in Mongolia have increased, probably due to enhanced law enforcement. Protected areas are the most common and efficient way to conserve wildlife species and their habitats. Given that <30% of saiga range in Mongolia is currently under protection there is a need to expand the size and number of protected areas so that they can effectively conserve saiga habitat. Although much knowledge has been gained regarding the survival and movements of saigas within Sharga Nature Reserve (SNR), nothing is known about the ecology of saigas beyond the nature reserve. To determine if protected areas are having a positive effect on the survival of saiga calves, we captured and collared newborn calves in the 3,088 km² SNR and at Khuisiin Gobi, a previously identified calving area 40 km further northeast, which is not part of Mongolia's Protected Area system. During 11-21 June 2012,

we collared 10 males and 10 females in Khuisiin Gobi, and 8 males and 12 females in Shargyn Gobi; 24 singles and 16 twins (fig. 1). Calf body mass averaged 2.43 ± 0.39 kg (n=40) and there was no difference in body mass of calves captured at Sharga vs. Khuisiin Gobi ($t=0.03$, $p=0.48$). The red fox (*Vulpes vulpes*) was the most frequently observed carnivore in the Shargyn Gobi, whereas corsac fox (*Vulpes corsac*) was mainly observed in Khuisiin Gobi. During the capture efforts, 3 collared calves were killed by foxes and raptors in Shargiin Gobi. Two calves died due to unknown predation and disease in Khuisiin Gobi. The monitoring of marked animals is currently underway to document survival and movements in the two areas. This

approach will provide an opportunity to examine detailed ecological and management questions related to movement, behavior, habitat use, and survival within and outside the protected area. This study was funded by the National Geographic Society.



Radio-collared saiga calf in Sharga Nature Reserve in western Mongolia

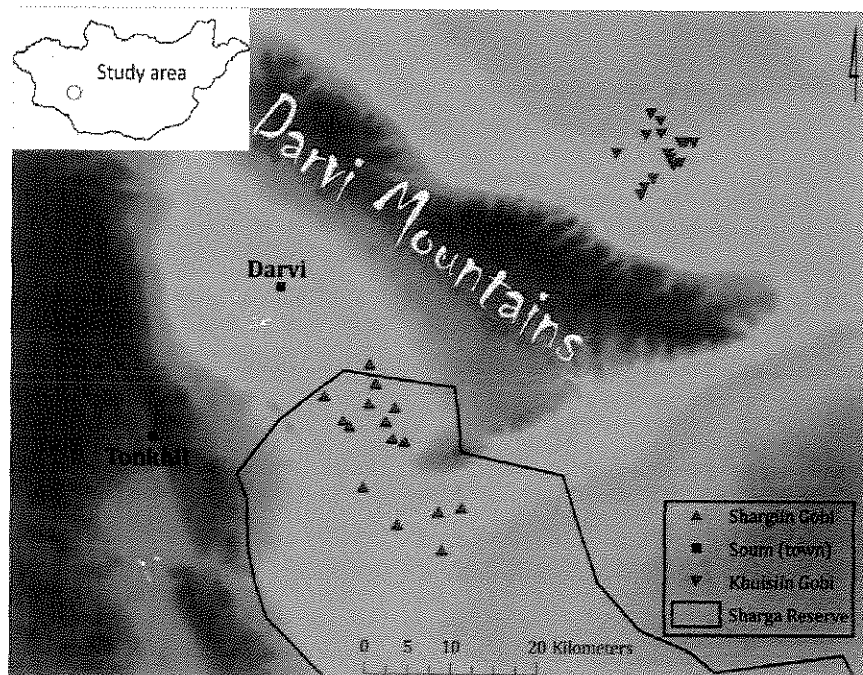


Figure 1. A map of the study site in western Mongolia