

Research trip to Stepnoi Nature Sanctuary, Astrakhan Oblast, Russia

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Stepnoi Nature Sanctuary (also Stepnoy Nature Reserve) and nearby areas of Kalmykia are the last stronghold for the critically endangered saiga antelope (*Saiga tatarica tatarica*) in Russia. Ten years ago we two were lucky enough to find this little known reserve while looking for a possibility to investigate the behaviour of wild saigas. The protection of a small and fragile saiga population (about 8 000 individuals) is a key aim for a team of enthusiasts running the reserve. Full elimination of poaching and significant limitation of anthropogenic disturbance made Stepnoi a safe place for saigas where they find reliable sources of water, graze, give birth and socialize. In recent years, another crucial event in the life of saigas became common in Stepnoi. At the beginning of December, the rut starts and males begin their impressive fights for the harems of about 15 females. There is an important reason why rutting behaviour became more common and visible. Just a decade ago saiga population in Russia faced a so-called reproductive collapse. The horns of saiga males are highly valued in Asian markets as a part of traditional medicine. Heavy poaching since the Chinese–Soviet border opening has led to the drastic decline in the proportion of adult males in the population. The normal pattern of rutting behaviour when the strongest adult males compete for the groups of females simply vanished. This, in turn, resulted in an almost catastrophic decline in the number of pregnancies. Luckily, the population survived and the number of males is increasing slowly but steadily.

When we started our research, it was huge luck to meet an adult male with its beautiful lyre-shaped horns. To date, we observe several dozens of them every day during the summer months. Observation hides installed by the biggest waterholes in the area allow watching these beauties at a close distance. However, to see adult males in winter is still difficult as they move a lot and are not that dependent on the waterholes.

Despite our low expectations, this winter we tried to observe saigas from the hide near the largest waterhole in the area. Every morning we walked 1.5 km from the ranger station to the hide before the first light to minimize the disturbance of saigas. Frost and ever strong steppe wind made hours of waiting in the hide not particularly pleasant but the outstanding encounters with saigas helped us to forget about frozen toes. Gorgeous males in their winter fur regularly visited the waterhole area. It is clear now that the right timing was crucial. During the rut itself, most saigas aggregated at another part of the reserve as both feeding and drinking were not their priorities. But just after the rut exhausted males (often with injuries and fresh scratches) showed up at the waterhole. Occasionally males engaged in brief fights which were never too serious. Many of them made a hollow bubbling sound typical for the males' interactions during the rut. Most of the time, however, males looked relaxed and tired. We observed them drinking the ice-cold water and consuming soil rich in minerals in large amounts. A large proportion of adult males normally die after the rut but some manage to survive. It seems that water and minerals available at the waterhole play a significant role in the survival of adult males exhausted after the rut.

Oh yes, one morning a lovely wolf showed up by the waterhole and tried to chase a saiga with not much success! We also saw an African wildcat running through the steppe not far from the ranger station.

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