Takhi Post



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Success needs staying power



Eurasian lynx in the takhi reserve Great Gobi B. Since December, up to 60 cm of snow has been covering the vegetation. On top of this, an icy wind blew at March temperatures of -38° C.

But this time the takhi got through the winter well - partly because we drew the right conclusions from the last Dzud.

Photo: N. Altansukh

Dear friends of the wild horse



This is what conservationists are afraid of: that a major risk will weaken a valuable population. This happened to us last winter. A dzud that badly affected the taki population in the 18,000 km2 Great Gobi B reserve was followed by a snowy winter in 2023/2024.

However, we had learnt the right lessons from the Dzud and acted accordingly. The rangers had created a plentiful

hay store, thanks to which the primordial wild horses entered the winter months in good condition this time. This helped when the snow that had fallen so early did not melt in the exceptionally dry and cold weather and even our off-road jeep with the emergency hay sometimes had trouble with the snowdrifts. The military lorry, which we were recently able to purchase thanks to donors like you (picture below), will help in the future.

Thanks to good reserves and sufficient winter feeding, there were hardly any losses this winter. As things stand, only three takhi have died so far, and 65 mares are pregnant. At the end of February, the takhi population was estimated at around 260 individuals, of which 252 have been confirmed.

But one thing is clear: surely it is a spectacular success for species conservation to save the primordial wild horse, which was already extinct in the wild, from extinction and even to reintroduce it to its last refuge. But what does success mean here?



When is a species threatened with extinction "out of the woods"? Only when its survival as a wild animal is more likely in the long term than its extinction.

This requires long, very long breath. Especially for a species that has only survived in zoos and has lost vital knowledge. A few harsh winters, a severe drought exacerbated by too much competition from domestic livestock, a rampant virus, even the corruption of their genetic material by free-ranging domestic horses are enough to jeopardise this hard-won success.

But with enough prudence and tenacity, it can be achieved. With your help, we have achieved a great deal in 2023 and will build on these achievements in 2024. After all, nothing less is at stake than whether the last true wild horse on the planet has a future after millions of years of evolution - or not.

This really matters to me. To you too?

Scheider

Dr. Reinhard Schnidrig, President, ITG

On track thanks to you

Species conservation is no walk in the park. Sometimes there is a shortage of funds, materials or personnel - or the authorities and those affected are sceptical that preserving an ecosystem or a rare species can be more worthwhile in the long term than commercial exploitation. Added to this are natural risks, namely the local climate or infectious diseases.

Nothing works without persistent efforts. It requires rangers, authorities and unpaid volunteers who invest many hours in our programme. Nothing would work without our loyal foundations and donors either. We gratefully remember your donations, which enabled us to respond quickly with hay purchases in the Dzud winter of 2022/2023.

Your donations also allow us to keep the conservation programme for the takhi and the unique ecosystem of the Dzungarian Gobi on track and optimise it step by step. This Takhi Post presents key topics of our current work, which we also addressed in our annual ITG workshop with the Mongolian authorities at the end of January.

"It's about whether the last true wild horse on the planet has a future after millions of years of evolution - or not."

Mongolian Gobi: soon to be a World Heritage Site?

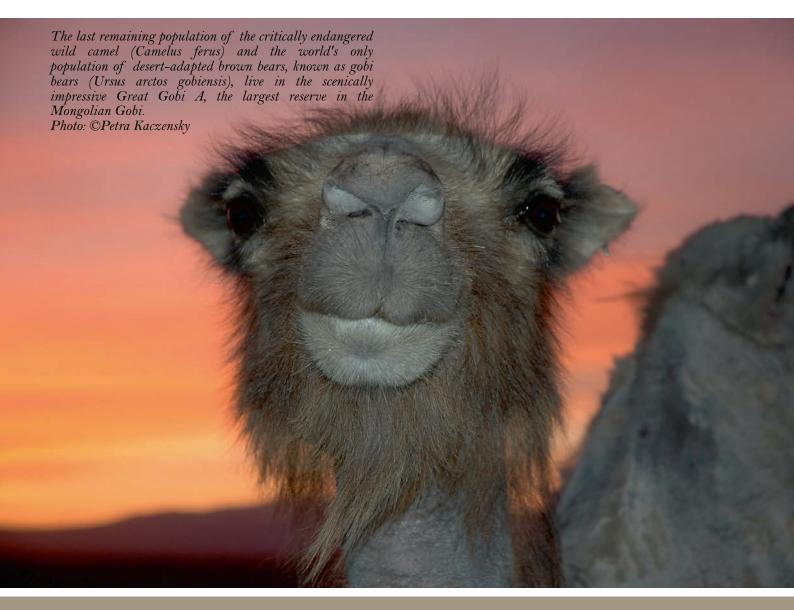
Central Asia is home to by far the world's most important ecosystem and biome of the cold winter steppe or semi-desert. This is why Mongolia and 4 international partners (including ITG) are proposing the "Mongolian Gobi" as a World Heritage Site. It is to include 4 already strictly protected reserves on the border with China (Great Gobi A and B and Small Gobi A and B) plus two natural monuments. They are home to the world's last population of wild camel, the largest remaining populations of khulan, one of the largest populations of wild takhi and globally important populations of Siberian ibex, goitered gazelle and Mongolian gazelle, as well as a stable population of snow leopard. The 6 protected areas are also home to more than 30 species of nationally endangered mammals, reptiles and birds, many of which are specially adapted to the extremely continental climate.

The project was launched in June 2023 under the leadership of the Mongolian Ministry of Environment (MET), project management by the Succow

Foundation (link to project page see below image) and management by ITG (until 2 February 2025).

The desired protection status for the still largely undisturbed landscapes of the Mongolian Gobi is all the more important and urgent as the prospecting for mineral resources in these ecosystems is being driven forward with great pressure. Heavy goods roads and railways are needed to transport the ore to China.

The fragmentation of such fragile habitats by these linear barriers would have serious consequences for the steppe's large animal fauna, which depends on high mobility, not to mention the pollution caused by waste and emissions from ore mining. The proposal for a border crossing on the southern border of the strictly protected Great Gobi A reserve is particularly irritating. If built, it would lead to infrastructure development in the largest, most remote and most unspoilt protected area of the Gobi.



Central Asia is home to the world's most important cold steppes or semi-deserts.

Strategy for a biosphere reserve in times of climate change

Extreme climate zones feel the effects of climate change earlier and more strongly than temperate zones. This is true on the Altai snowfields as well as on the barren pastures of the Dzungarian Gobi. Herders there are complaining about increasing droughts. Hard data is still lacking (we are working on it). But we need to assess early on how creeping changes affect water points and steppe ecosystems. And we need to adapt the management of the protected area accordingly.

The utilisation of waterholes and grazing areas has a decisive influence. They are equally critical for the wild ungulate species and for the nomads.

The use of springs in the reserve and water abstraction from reservoirs (namely the Bij reservoir) must be sustainable in the long term. The studies carried out in recent years on the reserve's hydrology (in particular on the oases that are vital for wild animals and nomads) shall be fed into the strategy for optimising the water balance of the new management plan.

What's anything but sustainable is the massive increase in livestock numbers in Mongolia - by a staggering 215% since the turn of the millennium! During this time, the herds of goats and sheep of the 280 nomadic herders who use the reserve seasonally have also grown. More intensive grazing promotes and exacerbates droughts. The increasing number of free-roaming domestic horses in the reserve is also hardly compatible with the objectives of the protected area. They are in direct competition with the rare wild equids takhi and khulan for water, feed and mares in heat.

It is also in the interests of the pastoral nomads not to overexploit the barren pastures. But this requires binding rules - more on this on p. 6. It would make sense for the nomadic herders of each district to form a cooperative and agree on the use of the pastures among themselves. Indispensable: the rangers must monitor compliance with the rules of the protected area and enforce them if necessary.



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Health care

for livestock, wildlife and people

The winter of 2023/2024 shows that if sufficient preparation is made for predicted extreme weather events, their impact can be mitigated. Disease monitoring in the protected area is just as important. This was introduced in 1998 following an outbreak of piroplasmosis, which later enabled the early detection of strangles and pneumonia. However, there is hardly any data on the causes of death of the takhi in the last 10 years.

Such data would be important to counter the great risk that infectious diseases of the numerous cattle pose to the cattle themselves, the wild fauna and the herders, who all use the same resources. The early detection of diseases and their timely control requires careful documentation and clarification of the cause of death of domestic and wild animals. Only through proper health monitoring can potentially catastrophic disease outbreaks be prevented.

In the field, this means: clean documentation of dead animals (wild or not), taking and correctly processing and storing samples, recognising any mortality accumulation and immediately drawing up an action plan. It also requires good contact with veterinary institutes and the local vet so that they can advise and act immediately in emergencies.

Preventive health care for livestock in the reserve and in the buffer zones is essential. This is the only way the authorities can effectively protect takhi, khulan and goitered gazelles in one of their most important refuges and continue the success of the takhi reintroduction programme. This requires a change in awareness among politicians, ministries and herders. And the necessary funding. And staying power.

Shrubs against the desert

A strategically important task is to protect the stands of black saxaul (*Haloxylon ammodendron*) and to reforest where they have been overused as a source of firewood. These stem-succulent shrubs, which grow up to 8 metres tall, cope well with drought and salty soils. They are not only the most important carbon store in the Gobi; their thick bark also stores a lot of water and their widely branched root system secures loose soil. This makes them a natural ally against desertification. They also provide food, habitat and wind protection for various creatures.

The reforestation and protection against browsing of the saxaul stands, which were heavily thinned by 2015 (but have remained stable since then), is therefore an important goal of the new management plan.



At the end of January 2024, ITG held its annual workshop at the Bruderhaus Wildlife Park in Winterthur, Switzerland. In addition to the ITG Board, key representatives of the Mongolian authorities, online participants and the Wildpark were also represented.

The three-day, packed programme covered developments in Mongolia and Kazakhstan, the new Great Gobi B management plan, the House for the Gobi and socioeconomic programmes, strategic aspects, the World Heritage candidacy, ITG research programmes and capacity building for Mongolian officials.

"Your garden is now in a nature reserve!"

You would probably read that with a frown. But this is exactly what happened to households that were affected by the doubling of Great Gobi B area in 2019.

How can local residents be compensated for the restriction of their land use? By generating additional income from the reserve in the long term. For example, through higher added value from cashmere wool. This means more revenue from smaller goat herds. This reduces competition for grazing in the wildlife reserve, reduces overuse of the sward and thus desertification. Both are also vital for the survival of the nomadic culture in the biosphere reserve.

In order to achieve such goals, we are continuing to invest in our socio-economic programmes for cashmere production and tourism development. Agreements with the pastoral nomads in the protected area and its buffer zones regulate herd size and pasture utilisation. In return, they received a guarantee of USD 30,000 for their cashmere cooperative *Khovchiin Tsagaan Sort*, instruction in professional combing and packaging of wool and training in optimal pasture management.

The cooperative sells some of its very high-quality cashmere wool directly to end customers instead of to middlemen. Last year, its 74 members already made a net profit of around USD 2,400 after repaying the loan. They also received 44 contacts from cashmere processors; however, some of those need larger quantities of wool and only buy yarn, not raw wool. The cooperative therefore needs to be able to offer even more added value in Mongolia or examine the use of camel wool. But the start has been successful and interest is high. What is needed is staying power.

This also applies to additional income from tourism. Last year, 31 international travellers ventured into the protected area: the "trip of a lifetime" (according to one enthusiastic participant). The net profit of over USD 19,000 shows that this business, if run properly, has a lot of development potential. Its utilisation by local residents requires a long-term development of the necessary skills and a regional tourism infrastructure. Mongolia has a lot to offer: an impressive culture in the midst of a spectacular natural heritage.



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Species portrait: Pallas's pika 1

Despite its short legs and round ears, this rock-loving species (*Ochotona pallasii*) belongs to the hare family.

The anatomically homogeneous group of pikas evolved in zones of mountain formation, where the 29 species (27 in Asia and 2 in North America) colonise relict sites. They exist in 5 habitat types: in scree, on cliffs, digging burrows on rocky slopes (similar to marmots), in scrub, or digging burrows in hilly terrain. *Ochotona pallasii* is a mixed type, alternating between scree and rocky slopes depending on density and geography.

Pikas fulfil a similar occupation (ecological niche) to marmots. But despite the often brutal climatic conditions in their mountains, these tiny creatures do not take a winter break. And this despite the fact that they eat a variety of green vascular plants that are not available in winter. It works because most pika species start to hay from July. They gather fresh vegetation

in piles, which they leave to dry in the same place every year. Pallas's pikas collect up to 14kg, which they store in special chambers in their burrow. This is also where they deposit the primary faeces typical of the hare clade, which contain bacterially pre-digested cellulose in their appendix and are consumed directly from the bowel outlet or later on.

This species lives in the south-eastern Altai and in western and southern Mongolia (as well as in some enclaves in eastern regions) in colonies, usually on steep scree or grassy slopes at an altitude of 1000 to 3200 metres. With a weight of 150-270 g and a length of 16-23 cm, it is relatively large. It aggressively defends its territory of 100 to over 700 m2 in size (twice as much for males) and marks it with urine, pyramids of faeces and trails. Other pikas fortify the entrances to their burrows with small castle walls made of stones and animal dung. Burrows of the Pallas's pika can have up to 40 entrances.

The breeding season of this polygamous species begins in March or April. It lasts 4–5 months, during which the females give birth to 2 to 3 litters with 3–8 young each. The gestation period is 3–4 weeks. The young are nestlings. They are suckled for 2–3 weeks. Females are sexually mature after 4 to 6 weeks, males only in their second year.

Lissovsky AA (2016). Family Ochotonidae (Pikas). Pp 28-60 in: Wilson DE, Lacher TE, Mittermeier RA eds. (2016): Handbook of the mammals of the world. Vol 6., Lagomorphs and Rodents I. Lynx Edicions, Barcelona



Pikas are asocial to very sociable, depending on the species; Pallas's pikas are sociable but aggressively territorial. They are mainly active during the day, but also in the first half of the night during rutting and haying. They avoid midday heat and wind but enjoy resting and sunbathing. However, they spend almost half of their active time on guard duty. With alarm whistles, they warn their colony of predators, the type of which is indicated by the call frequency. In contrast, they will silently hide from weasels.

Some species of pikas also sing with long territorial calls. Communication also includes scent marking using neck glands as well as urine and faeces, which they deposit in latrines.

As prey for many birds of prey and carnivores, pikas play an important role in mountain ecosystems. The Altai mountain weasel (*Mustela altaica*) has even specialised on them. Black-lipped pikas in Tibet have been shown to increase the biodiversity of plants and birds in their habitat. Their burrows aerate the soil and provide shelter for ground nesting birds. Nonetheless, they are being destroyed with rat poison on a large scale, grotesquely because they are said to damage livestock pastures.

In addition to direct persecution, deforestation and climate change (global warming) threaten the pikas. Most species (including *O. pallasii*) are not considered endangered. However, our ecological knowledge of them is limited and isolated populations can easily come under pressure.

Let's secure the future of the wild horse together



"I am motivated by the fact that my work contributes to preserving both the precious natural heritage of the Mongolian Gobi and our ancient cultural heritage for future generations."

Ankhzaya Nasantogtokh, Research Assistant, ITG Mongolia, Ulaanbaatar

ITG works in an honorary capacity.

Every donation goes directly towards the protection of wild horses and their habitat.

This is how your donation helps us - thank you very much!



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