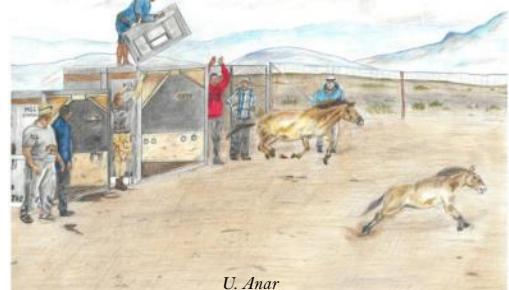


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## Carrying on the legacy



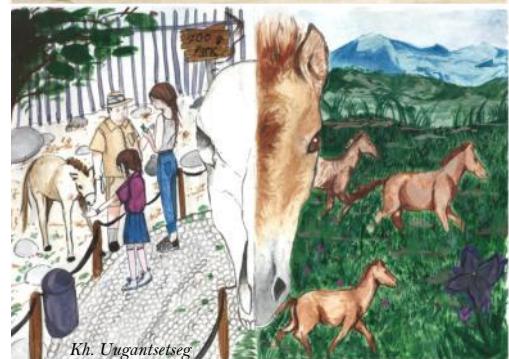
U. Anar



Esvi, Ulaan Baatar, school No 111



S. Sukhhuyg



Kh. Uugantsetseg



Ч. Чингүн, Түүхийн Аргалант сумын нийтийн цэцэрхэгийн үзүүлэлт



Kh. Suvd, Khuvsgul province, Tosontsengel high school



T. Tuulaihua, Govi-Altai province, Tonhil high school



E. Tumenbayr, Govi-Altai province, Tonhil high school



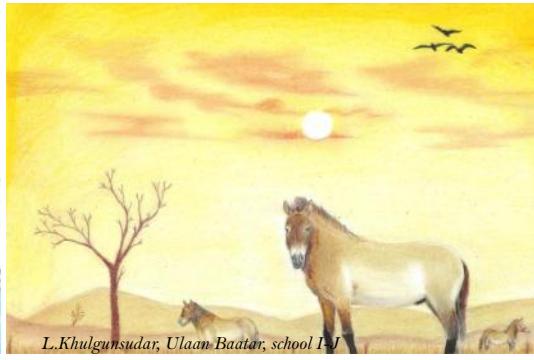
G. Nominjelger, Ulaan Baatar, school No 5



G. Khasbaatar, Ulaan Baatar, school No 14



S. Khongorzul, Ulaan Baatar, school No 73



L. Khulgunsudar, Ulaan Baatar, school 1-J



N. Battur, Tuv province, Argalant high school



A. Ganzaya, Govi-Altai province, Tonhil high school



B. Enkhzul, Ulaan Baatar, school No 74

Let's protect the Primordial Wild Horse and its environment.

# Dear friends of the Wild Horse



Many of us are increasingly perplexed by the dizzying pace at which the human world is changing. Every decade pours upon us a torrent of new, ground-breaking results of technical evolution, the consequences of which are often unforeseeable. It's hard to keep up with it. Not just for us. The networks of life, which have become thin, also seem increasingly overburdened. Natural evolution does not hurry. It

measures time in millennia. Its tool is the genome, its test series a seemingly endless succession of generations that have had to hold their ground under adverse conditions and against manifold competition. Their genome is the record of these thousands of years of life experience. Natural intelligence instead of artificial. Losing a species is like burning a thousand-volume instruction manual for survival.

The takhi escaped extinction by a hair's breadth. Now the reintroduced residual herds must be protected from key threats: overuse of their habitat, introduction of infectious diseases, deadly extreme weather, and genetic mixing with domestic horses. Achieving this is our primary goal.

However, it is crucial for success that the people in the vicinity of the Great Gobi B reserve support it. Under-

standably, they want to derive their own benefit from the reserve. Our activities for the benefit of the local population serve this secondary goal. Optimizing pasture use is difficult, but rewarding for herders and conservationists alike. Together we want to increase the value added by livestock and develop ideas for tourism or other commercial opportunities. It is also important to us to inspire in youth a reverence for all life and an interest in wild nature, plants and animals. In our 2022 Young Researchers Workshop, Mongolian young people tried to approach this topic analytically, and in a national takhi drawing contest, they found powerful images for it, as shown on these pages.

More and more people understand the importance of giving enough space to nature to save its precious legacy through our frantic times. It's great to know you at our side in this effort! Without your loyal support, we could do little. Let me sincerely thank you. I hope to be able to count on your continued support.

PS: Would you like to experience the great homeland of the takhi yourself? An exciting adventure trip to the wild horses of the Great Gobi B is waiting for you! You do dare, don't you?

Dr. Reinhard Schnidrig, President, ITG

*ITG Mongolia Director Batsukh Jamiyandorj welcomes the audience of the one-week Young Researchers Program 2022.*



*Ch. Punsal, Norovlin school*

**"It is important for us to instill in youth a reverence for all life and an interest in wild nature, plants and animals."**

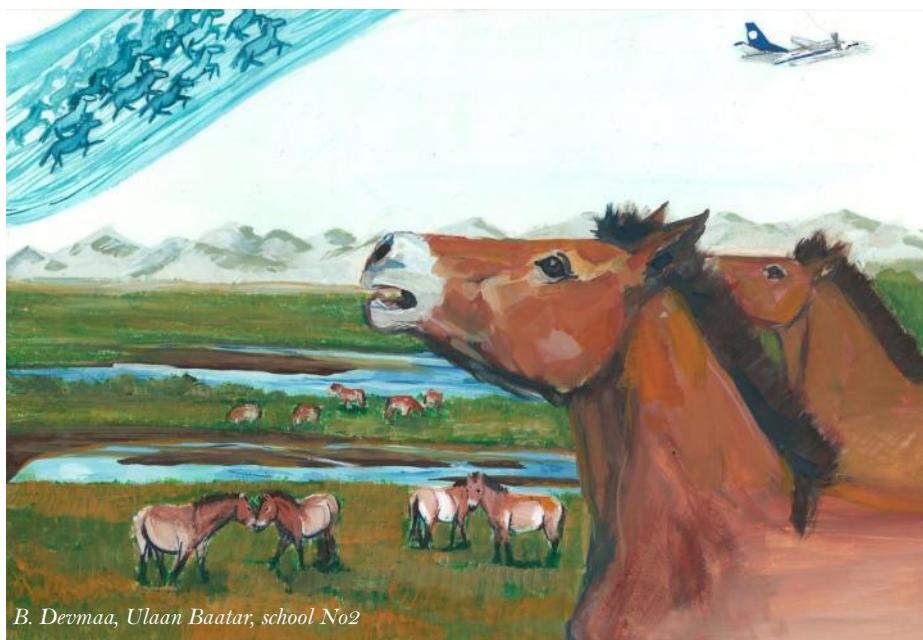
# Ungulate populations are in good condition

In 2020 and 2021, the coronavirus prevented the Great Gobi B wild ungulate population census - one of the most important measurement criteria for the success of species conservation in the reserve. In August 2022, it was finally possible - thanks to your donations - to carry out the elaborate, logically demanding count. Only the planned use of a drone from Kazakhstan fell victim to customs formalities, but we want to make another attempt in 2023.

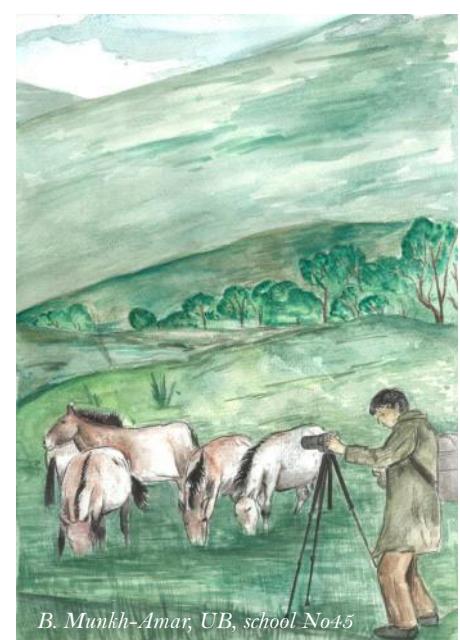
The results of the census are still being evaluated (as part of Thomas Vogler's PhD thesis at Inland Norway University in Norway and in close cooperation with the Great Gobi B reserve). However, initial trends indicate that the population of gazelles has increased and there has been very good reproduction this year with many twins. The khulan population appears to be stable, with the number of foals this year possibly slightly lower than usual. However, due to the extreme drought, khulans were very concentrated in a few areas this year, making accurate population estimates difficult. Takhi numbers are also increasing, as we know from detailed harem data, and numerous takhi groups were also seen from observation posts. Overall, a positive conclusion!

*How are the populations of steppe ungulates developing in the reserve? If possible, we try to answer this question every 5 years in a so-called "Steppe Ungulate Count". We combine a direct count of 102 strategically selected observation points over several days with an extrapolation to the entire study area. The latter covers 18'000 km<sup>2</sup>, almost half the area of Switzerland. The personnel-intensive census is facilitated by the clear terrain, but remains a challenge in many respects. Therefore, we definitely want to test the use of semi-professional drones (with flight times of more than 3 hours), since especially large groups can be counted more accurately from the air.*

*Centre images: ITG biologist G. Yondon and Great Gobi B Senior Specialist N. Altansukh in front of the map; observation post, ready for a cool night's sleep. Photos: ©Petrakaczensky*



B. Devmaa, Ulaan Baatar, school No2



B. Munkh-Amar, UB, school No45

After two postponements due to Corona, we were able to catch up on the elaborate ungulate census in 2022.

# 70 foals facing a hard winter

The good news first: the wild horses (takhi) are doing their best to pass on their precious genetic legacy! With the increasing size of the takhi population in the Great Gobi B reserve, there are also more and more foal births per year. This year, the record-high population of 349 individuals increased by no less than 70 foals. A very gratifying development.

However, with increasing herd size foal mortality also increased. Within the first year of life the young horses are very susceptible to weather conditions, diseases and predators (wolves). In the last 10 years, between 30 and 40% of foals died within their first year of life.

Extreme weather and infectious diseases are particularly dangerous. They can kill many takhi all at once and endanger the still small populations. In fact, one of the dreaded "dzud" is looming - a bone-chillingly

cold winter after a summer drought. We await it with concern because weakened, malnourished animals have little to withstand a severe winter.

The reserve management is preventively buying emergency hay supplies. Alas, many of the harems are now so shy that emergency feeding must be tactically planned. And the majority of them are still too sedentary to avoid extreme weather in the way gazelles and wild asses do, by moving to a safer region. They lack the traditional knowledge of their habitat that the species possessed before extinction. It must first be re-established. We therefore hope for gracious weather - and for donations for emergency hay. Every amount helps us to absorb these additional expenses!

## Foal sponsorship

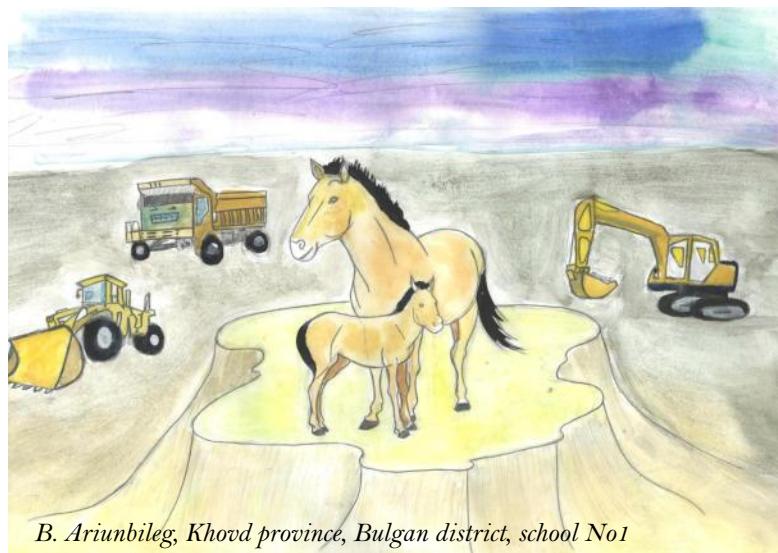


For only USD/CHF 100.- you help a takhi foal to build up its own pedigree in a well-protected habitat! Every takhi counts.

Its name is yours to determine.

Give a takhi for Christmas - meaningful and (for once really) sustainable!

<https://savethewildhorse.org/donate/>



B. Ariunbileg, Khovd province, Bulgan district, school No1

*This year, 5 mares foaled as late as in September, including the 23-year-old mare Zur (born in Cologne), who gave birth on 9/18, and the 9-year-old mare Anar which did so as late as September 29! Late foals are particularly at risk.*

*This also applies to the orphaned ones, like the colt Bataa. However, he is in good condition and is visited daily in the release enclosure. Senior Specialist and Reserve Director a.i. N. "Aagi" Altansukh is wielding the feeding bottle. The foal was named after the herder who found it.*

In 2022, the record-high population of 349 individuals increased by no less than 70 foals carrying the precious genome.

## Help the takhi to survive the impending "dzud" winter!

USD/CHF 50.- is enough to provide 25 takhi with emergency hay for one day.

USD/CHF 100.- will additionally ensure transporting the hay to its destination.

Any other donation amount is also welcome!



## News on key people

The long-time director of the Great Gobi B reserve, Oyunsaikhan Ganbaatar, resigned at the end of September 2022 to take on a new challenge in conservation. O. Ganbaatar began working for takhi reintroduction back in 1999 – then as a biology student with Prof. Ravchig Samija, who was closely associated with the project. A takhi research program was just emerging. Ganbaatar, a man of great dedication, quickly became indispensable to the project and emerged as an outstanding takhi expert, building up an enormous wealth of experience and data over the years. His excellent networking with regional and national politicians, herders, gamekeepers and the ITG, as well as his political flair, decisively advanced the reintroduction program; a highlight was the park expansion in 2019. Ganbaatar also did a lot of information work in Mongolia and at international conferences and is widely recognized. In his new commitment, Ganbaatar will assess another area for its suitability for takhi release. At the same time, he will complete his dissertation. ITG sincerely thanks O. Ganbaatar for 23 years of invaluable service to the cause of takhi reintroduction. We wish him and his family every success in his future endeavours!

As a result of the resignation of O. Ganbaatar, the directorate of the Great Gobi B reserve is being re-staffed. Ad interim N. "Aagi" Altansukh takes over this

responsible task. He comes from the hamlet of Bij on the northeastern border of the reserve and holds a Bachelor in Economics and Accounting from the International Institute of Economics and Business; a Bachelor as an Environmental Protection Ecologist from the Institute of Environmental Management; and a Master in Biology from Khovd University. He has been working since 2007 as a specialist, later senior specialist, for the reserve. He is therefore very familiar with the local conditions and stakeholders. We congratulate N. Altansukh on his new position and look forward to a productive collaboration with him.

The important Ministry of Environment and Tourism of Mongolia (MET) is now led by Bat-Ulzii Bat-Erdene. ITG has already had initial talks with him. We hope for a further fruitful cooperation with the ministry, with which we are connected by an agreement renewed in 2022 for the joint management of the Great Gobi B reserve.

*The new Minister of Environment and Tourism B. Bat-Erdene in conversation with ITG President Dr. Reinhard Schnidrig, ITG (Mongolia) Director Batsukh Jamiyandorj and MET experts T. Boltbaatar (1st from right) and Sh. Tserendulam (2nd from right).*



Outgoing director O. Ganbaatar moved the reintroduction program forward decisively; a highlight was the 2019 expansion of the reserve.

## "We are rangers"



"Any little boy can crush a beetle - but all the professors in the world can't make one." The admonition of German philosopher Arthur Schopenhauer (1788-1860) still holds true 200 years later, despite all progress. Some 400 Mongolian primary and secondary school students learned what wonders even the most unimpressive creatures hold during the week-long young scientists' program "We are Friends of Mother Earth." This activity, conducted by ITG and the reserve administration in early March 2022, took place at schools in the buffer zone surrounding the Great Gobi B reserve. What is the need for protected areas? What is their value? How did the Mongolian national animal takhi return to its homeland? What do we achieve with its protection? Presentations, information posters, a nationwide drawing competition and a drama competition on this topic sparked the young folks' interest in such questions.

Other activities on the occasion of the 30th anniversary of the takhi resettlement aimed to create benefits for the families in the vicinity of the reserve and carry the idea of nature conservation into the present and future society. As a service to the community, we had the rooms of a school in Bugat and Tonkhil (Gobi-Altai) renovated and optimized. 300 families in the buffer zone received a calendar with im-

*The winners of the competitions - 20 pupils - were able to visit the protected area in June. In September, about 100 selected students went on field trips under the motto "WE ARE RANGERS". The older ones assessed water quality using indicator species, studied plants, invertebrates and their ecosystems, and learned about career opportunities in chemistry and biology. The younger ones became familiar with animal tracks and observed takhi, aquatic life and reptiles.*

pressive photographs and information about the ecosystem, and 1000 copies of the 30-year edition of Takhi Post were distributed to the people and students of the buffer zone, as well as to students of environmental science.

Big things start small. Who knows - perhaps there is a great researcher of the future among the "Young Researchers of the Year" chosen by a panel of judges from the students' entries? If we take care of our natural heritage, at least he or she won't have to try to make a beetle!

The 2022 Young Scientists Program took place at schools in the buffer zone surrounding the Great Gobi B reserve.



### An exciting adventure trip to the great homeland of the takhi is waiting for you.

Experience the wild horses of the Great Gobi B in the wild and immerse yourself in the everyday life of nomadic families in the biosphere reserve.

Date: July/August 2023. Expert travel guidance by Odkha Travel and Lena Michler

More info at: <https://www.odkha-travel.de/touren/themenundspezialreisen/>

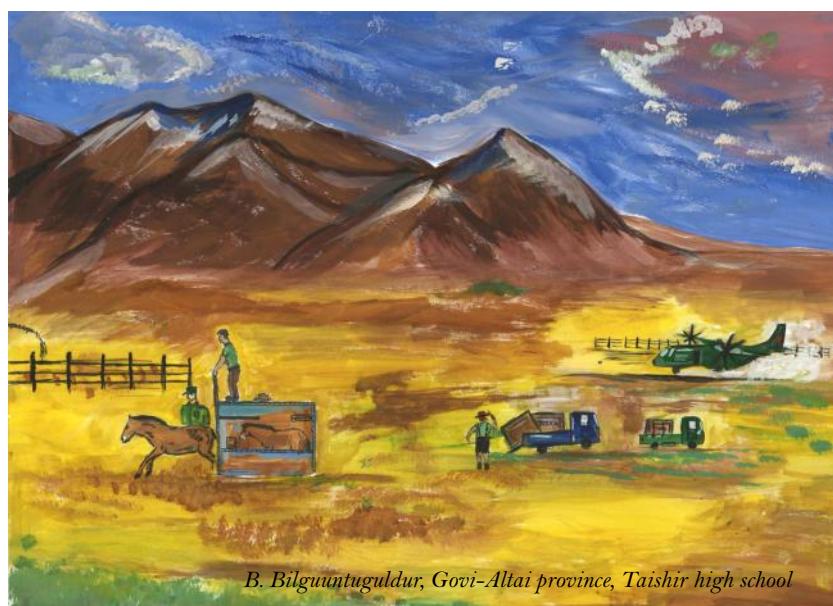
You do dare, don't you?

### 30 years of takhi reintroduction

ITG Mongolia, Great Gobi B Reserve, Hustai National Park and Khomyn tal National Park jointly celebrated 30 years of Takhi resettlement in Mongolia with a science conference, a press conference, a ceremonial act and a national drawing competition including an exhibition.

### An eye on domestic horses

The number of free-roaming domestic horses in the reserve is increasing. Therefore, in mid-September 2022, rangers began noting their numbers and locations - an indicator of hybridization risk. A total of 271 domestic horses were sighted in 20 groups at 5 locations. These data can be cross-referenced with those of the takhi in the future. Despite different chromosome numbers, wild horses and domestic horses can produce fertile offspring. Therefore, their hybridization risk is fundamentally high.



B. Bilguuntuguldur, Govi-Altai province, Taishir high school

With various activities for the 30th anniversary of the takhi reintroduction, we want to create benefits for the families around the reserve.



© Saruul Fischer

Cashmere wool is the main source of income for herders in Mongolia. International demand for this precious natural product and rising living costs have led to a sharp increase in small livestock (especially goats) in recent years. This, combined with climate change, is causing growing concern about the loss and overuse of grazing land. Nevertheless, about 1/3 of Mongolia's population live as nomadic herders - a sustainable way of life as long as mobility is possible. In order to preserve the cultural heritage, the traditional way of life and the livelihood of the herders around the reserve, the new cooperative "Khuvchiin Tsagaan Sort" was founded in October 2022. A total of 110 voters from Bij and Perm bag villages (both located in the buffer zone of the reserve) unanimously approved the establishment of this cooperative. So far it consists of 15 members including controlling team and board of directors. New members can join at any time. The cooperative deals with animal husbandry and cooperates with the reserve authority, the ITG and the Sustainable Cashmere Union (SCU, a Mongolian organization for sustainable cashmere production). It will advise herders on pasture management and how to achieve a

good return on investment with herding in the reserve area. The focus will be on marketing combed cashmere. Through the collective sale of this product, the herders achieve a higher added value and can thus operate in a more socially just manner. For this purpose, SCU will conduct various courses in 2023 and provide expert support to the newly established cooperative on its way. The Great Gobi B team will support these activities with a technical team in the first year. The next meeting of the cooperative will take place in February/March 2023.



G. Baasankhuu, Khuvsgul province, Tosontsengel high school

The new cooperative advises herders on pasture management and how to optimize the profitability of their work.

## Pasture use in times of drought



© Buyantogtokh Dorjbat



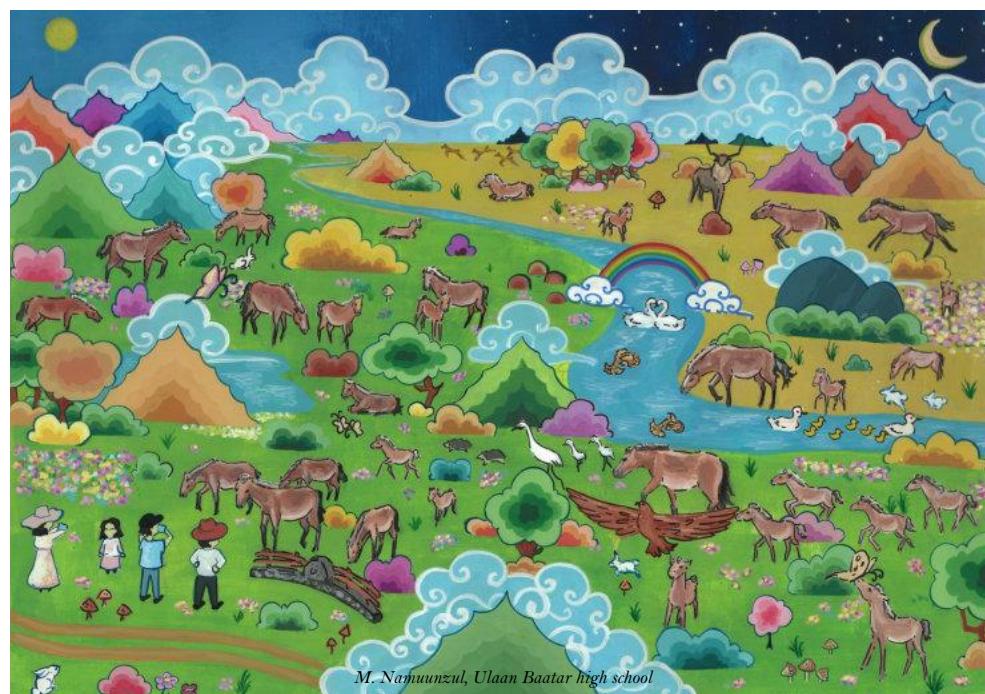
© Buyantogtokh Dorjbat

The barren pastures of the Dzungarian Gobi must be used with extreme care so that the plant cover can recover. The nomadic herders know this, of course. But they must learn to take into account the growth of their herds, the wild ungulate populations in the protected area and the effects of climate change. The data needed for this is being provided by a 20-month scientific study<sup>1</sup>, which links the migratory movements of the nomadic herders with pasture productivity and ground-based vegetation analyses in the Great Gobi B.

From data collected from 19 goats with transmitter collars, we learned that herders prefer to camp with their flocks in pastures of nutrient-rich *Stipa* grasses. When grazing, animals move up to 5 km from the camp, which is changed about 9 times a year (every 3–5 weeks). Summer and winter camps range from 70 km to over 120 km apart. The high mobility of local herders in the Dzungarian Gobi contributes to relatively sustainable vegetation use.

Since September 2022, some baffled cows and dogs now wear transmitter collars, too. Most herders in the reserve keep mainly goats and sheep. But some prefer to own cows. They mainly use an area called Khonj in the northwest of the reserve. The vegetation there suits cows far better than small livestock. In order to understand the movement patterns of these herds of cattle, they have now also been fitted with transmitters, as have some of the Mongolian herd guard dogs. A big thank you goes to the Great Gobi B rangers who helped put on the collars, and to the herders who allow us to track their animals.

<sup>1</sup> Michler L et al., *Moving Toward the Greener Side: Environmental Aspects Guiding Pastoral Mobility and Impacting Vegetation in the Dzungarian Gobi, Mongolia*. *Rangeland Ecology and Management*, Volume 83, July 2022, 149–160



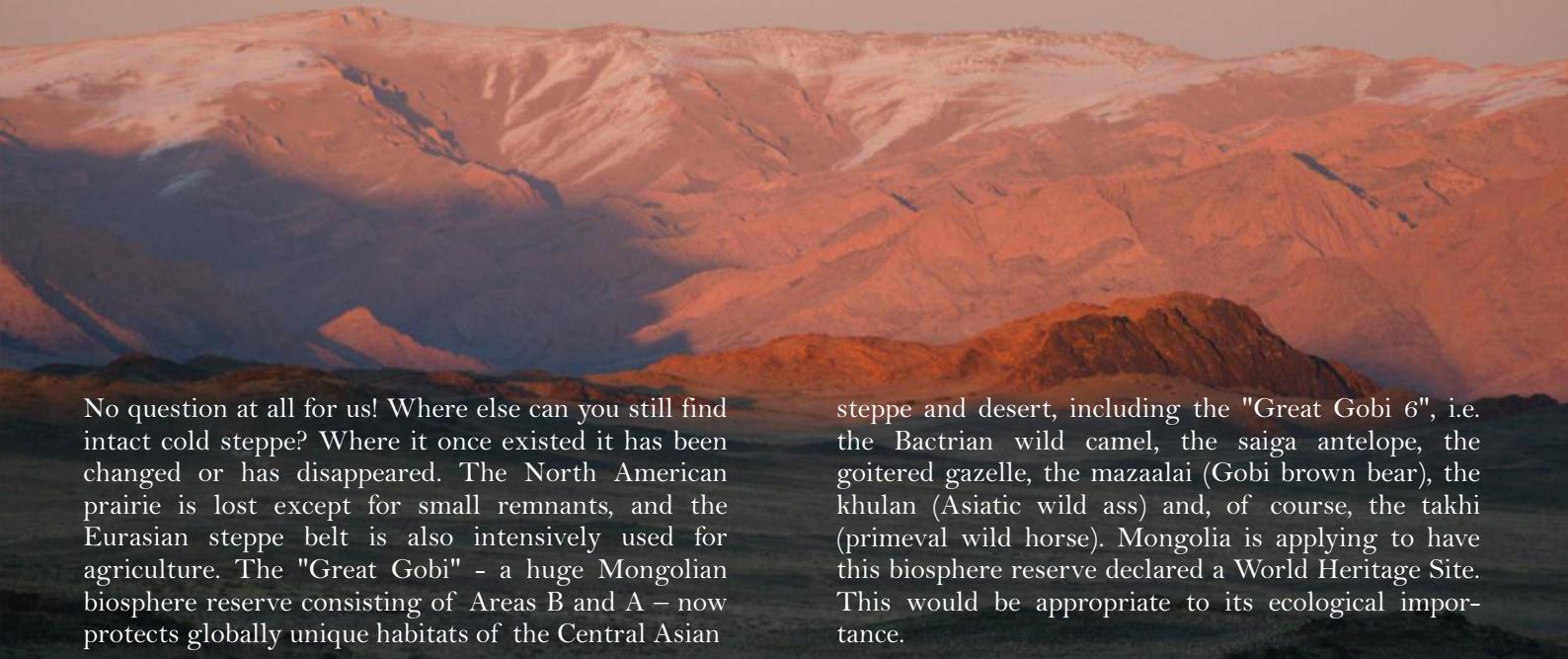
M. Namyunzul, Ulaan Baatar high school



B. Amina, school No1, Bulgan province

Nomadic use of the reserve is particularly challenging in times of drought. Jointly collected data provide a scientific basis for this.

# Will the Great Gobi become a World Heritage Site?



No question at all for us! Where else can you still find intact cold steppe? Where it once existed it has been changed or has disappeared. The North American prairie is lost except for small remnants, and the Eurasian steppe belt is also intensively used for agriculture. The "Great Gobi" - a huge Mongolian biosphere reserve consisting of Areas B and A – now protects globally unique habitats of the Central Asian

steppe and desert, including the "Great Gobi 6", i.e. the Bactrian wild camel, the saiga antelope, the goitered gazelle, the mazaalai (Gobi brown bear), the khulan (Asiatic wild ass) and, of course, the takhi (primeval wild horse). Mongolia is applying to have this biosphere reserve declared a World Heritage Site. This would be appropriate to its ecological importance.

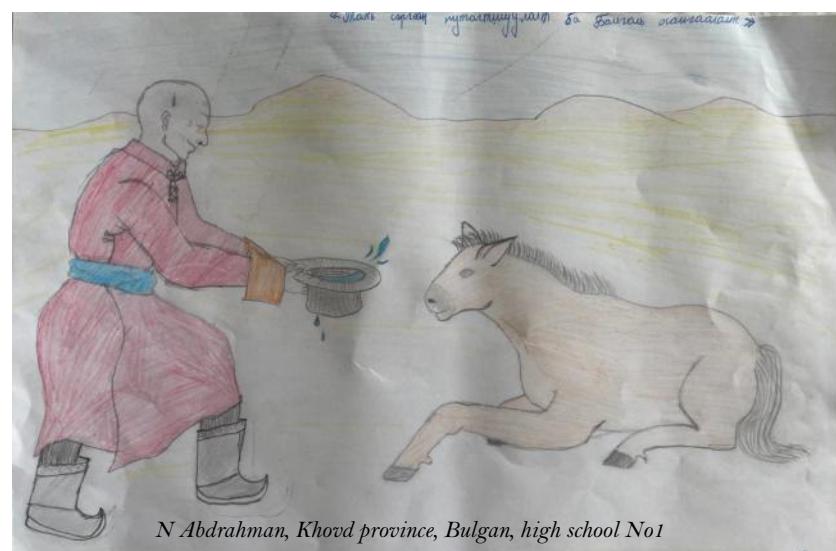
## National Action Plan for takhi conservation



The first steps of takhi reintroduction in Mongolia took place almost simultaneously 30 years ago at two widely separated and very different sites (Great Gobi B and Hustai Nuruu) selected by the respective private initiators. 12 years later a third, also privately financed site followed (Khomyn tal), which was expanded 2 years ago and (like Hustai before) declared a national park.

Parallel reintroduction in several reserves does make the Mongolian takhi population more resilient to local threats. But cooperation among the three reserve authorities allows for a unified, coordinated strategy to protect the species and various synergies. Recently, the three reserves adopted a joint 2020-2025 action plan for the attention of the Ministry of Environment MET. It defines - under the lead of the ITG Mongolia team - a common reintroduction methodology. The establishment of a National Study Center on the Przewalski's horse and a joint Academic Council will promote international cooperation in studies on the takhi.

*At Takhi us oasis in the west of the Great Gobi B reserve, wild asses, goitered gazelles and takhi congregated to form a mixed herd. Photo: Dalaitsuren Sukhbaatar*



Cooperation among the three reserve authorities allows for a unified, coordinated strategy to protect the takhi.

# Species portrait: Gobi big brown bat<sup>2,3</sup>



©2007 V. Rossina

Let's keep it short: not much is known about the Gobi big brown bat (*Eptesicus gobiensis*), although it was scientifically described as early as 1926. That's barely enough for a proper fact sheet.

As thin as the facts are about the Gobi big brown bat, you can easily get lost in its systematics. It belongs to the order Bats, the family *Vespertilionidae* (evening bats), the subfamily *Vespertilioninae* (one of 4 subfamilies), the tribe *Eptesicini* (one of 9 tribes) and the genus *Eptesicus* (one of 11 genera with a total of 63 species).

Evening bats are the third most speciose mammal family after the rodent families *Muridae* (mice) and *Cricetidae* (voles, i.e. voles, hamsters and new world mice) and the largest of the order Bats, which has about 1400 known species.

Of the – as per current knowledge – 496 *Vespertilionidae* species from 54 genera, 6 are critically endangered, 15 endangered and 27 vulnerable according to IUCN classification.

What does this jumble of numbers mean? That bats are tremendously diverse. No wonder, since they are the only mammals to master active flight, which has opened up countless ecological niches for them that are occupied by birds during the day. *Eptesicus gobiensis* is one of about 900 species of mostly insectivorous small bats that use echolocation for orientation. Some of them go way beyond insects, preying on frogs, fish, birds or small rodents up to 60% of their own weight, or licking blood for food. A wholly different specialization characterizes the family of fruit-eating Old World flying foxes, which forms 8 subfamilies with 9 tribes.

The immense diversity of bats is matched by their great ecological importance - whether in controlling insect populations, providing fertilizer, pollinating flowers, or dispersing fruit seeds, without which some tropical tree species could not renew their populations. Because most bats live and hunt in groups, they are particularly vulnerable to disturbance, habitat loss, or loss of nesting sites. Their ghastly image is also putting a strain on this extremely species-rich and ecologically indispensable group of mammals. The Corona zoonosis exacerbated it, leading to the brutal extinction of entire bat colonies. As if it were the bats' fault that we invaded their habitat to catch them, exposing ourselves to dangerous viruses!

## Fact sheet: Gobi big brown bat

Small species for the genus *Eptesicus*. Body length 5.7-6.5 cm, weight 9-15 g. Dorsal fur yellowish brown to dark gray, belly brownish gray. Face, ears and wing membranes blackish brown. Ears rather short and rounded. Female with 2 teats.

Lives in much of Central Asia, but is one of the rarest bat species wherever it occurs. Inhabits desert, semi-desert and steppe habitats at altitudes between 200 and 3300 m.a.s.l., often in mountainous terrain. Sometimes also in settlements. Prefers waterholes and river valleys with trees and rocky outcrops.

Usually occurs singly or in small groups. Hides in knotholes and rock crevices during the day, rarely at cave entrances. Nocturnal, activity peaks shortly after sunset. Its relatively strong jaws and teeth allow it to cope with more robust insects such as moths and beetles (the latter on the ground). Hibernates.

Mates in fall, giving birth in June. Low reproductive rate, usually only 1 young per litter, slow growth.

Currently considered not threatened ("Least Concern") due to large range. No specific population-threatening risks are currently known, but data are sparse. Drought reducing insect populations could be a problem.

<sup>2</sup> Wilson D.E. & Mittermeier R.A. eds, 2019, Handbook of the Mammals of the World, Vol. 9. Bats. Lynx Edicions, Barcelona

<sup>3</sup> Batsaikhan N. et al, A Field Guide to the Mammals of Mongolia, 2014, Zoological Society of London, London

The high species diversity of bats corresponds to their great ecological importance.

# Let's secure the future of the wild horse together



"The Great Gobi B reserve is unique. It is difficult to say which is more spectacular: its landscape of mountains, hills, vast plateaus and oases - or the incomparable flora and fauna within it. One thing is certain: we must preserve both and thus pass on the heritage!"

O. Khurelbaatar, Specialist for tourism, training, communication and buffer zone, Takhin tal, Mongolia

ITG works in an honorary capacity.

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

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

**USD/CHF 50.-**

You feed 25 takhi with emergency hay for one day.

**USD/CHF 75.-**

You help to identify and preserve important resting and breeding places of the bird fauna (with 22 globally endangered species!).

**USD/CHF 100.-**

You finance one day's emergency hay for 25 takhi, including transport.

**USD/CHF 200.-**

You finance a window of the meeting and recreation room of the House for the Gobi.

With any other amount you also help to preserve this unique wildlife species and the flora and fauna of the Central Asian steppe.

*E. Tamir, Tuv province, Argalnt high school*

Follow us on Facebook und Instagram!



Become a member of the 'Friends of the Wild Horse'!

Annual membership fee for private individuals **USD/CHF 50.-**

Foal member for young people, students and apprentices **USD/CHF 20.-**

Donation account

Aargauische Kantonalbank

CH-5001 Aarau

Account number (IBAN): CH07 0076 1016 0117 6052 3

Beneficiary "Freunde des Wildpferdes"



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