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SPECIES**

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**PROPOSAL FOR THE INCLUSION OF
THE GOBI BEAR (*Ursus arctos isabellinus*)
ON APPENDIX I OF THE CONVENTION**

Summary:

The Government of Mongolia has submitted the attached proposal* for the inclusion of the Gobi bear (*Ursus arctos isabellinus*) on Appendix I of CMS.

*The geographical designations employed in this document do not imply the expression of any opinion whatsoever on the part of the CMS Secretariat (or the United Nations Environment Programme) concerning the legal status of any country, territory, or area, or concerning the delimitation of its frontiers or boundaries. The responsibility for the contents of the document rests exclusively with its author.

PROPOSAL FOR THE INCLUSION OF THE GOBI BEAR (*Ursus arctos isabellinus*) ON APPENDIX I OF THE CONVENTION

A. PROPOSAL

Inclusion of Gobi bear (*Ursus arctos isabellinus*) populations in Mongolia and China to CMS Appendix I.

B. PROPONENT: Mongolia

C. SUPPORTING STATEMENT

1. Taxonomy

1.1 Class: Mammalia

1.2 Order: Ursidae

1.3 Family: Ursus

1.4 Genus, species or subspecies, including author and year: *Ursus arctos isabellinus* (Wilson & Reeder 2005)

1.5 Scientific synonyms

1.6 Common name(s), in all applicable languages used by the Convention:

English: Gobi bear which also known as Mazaalai in Mongolia.

2. Overview

Gobi bears are listed as a Critically Endangered population of brown bear in the IUCN Red List of Endangered Species, and are found only in the extreme environment of the Gobi Desert of Mongolia. Statistically rigorous population estimates indicate that less than 45 remain. Most of the population is found in the Great Gobi Strictly Protected Area in Mongolia; however, GPS satellite telemetry demonstrated that one individual travelled west into the Tien Shan Mountains of China and remained there for about a month before returning. It is possible that other Gobi bears may inhabit the area to which he moved, but no recent investigations have been made in that portion of China. In addition, there have been unconfirmed reports in China of bears adjacent to their present range during about 1950-1970 (Reynolds et al., 2010).

3 Migrations

3.1 Kinds of movement, distance, the cyclical and predicable nature of the migration

The sole documented movement of >140 km occurred in 2016, but the GPS satellite collar that documented it automatically disconnected from the bear after the movement occurred. The bear has not been recaptured. Gobi bears are exceptionally difficult to capture and there are so few remaining in the population that if a cyclical or predictable migration/movement occurs, it hasn't yet been documented. In the 12 years of the present research effort, only 21 bears have been captured, and the majority of these were further captured to the east where a western migration/movement pattern such as that observed would be less likely to be documented.

Distribution of Gobi bears was determined from locations GPS satellite collared bears and from matching the samples of genetic fingerprints from hair collected at feeder sites. Based on 242 GPS locations, the home range size of an adult female that stayed within the Shar Khuls oasis complex was 514 km². This female utilized habitat between elevations of 1009-1532m. In comparison, 2 adult males that travelled between oasis complexes had home ranges of 2465km² and 2485km², respectively. One of these males used elevations between 1122 and 1492m.

3.2 Proportion of the population migrating, and why that is a significant proportion

This Critically Endangered population is small enough that if any members of the population migrate, it would be especially significant to the survival and/or recovery of the population.

4. Biological data (other than migration)

4.1 Distribution (current and historical)

Prior to the 1970's, Gobi Bear distribution in southwestern Mongolia extended beyond its present confines and included areas adjacent to the GGSPA to the north and east.

This area encompassed Edriin Ridge, the Eej Khayrkhan Nature Reserve to the west of Bayantoorai, and portions of Gurvan Saykhan National Park to the east.

The reasons that these areas are no longer occupied are not known. The Gobi bear have been distributed in the "A" part of Great Gobi Strictly Protected Area located at the south-western part of Mongolia (see map 1). The south-eastern part of Gobi bear distribution goes along with border Gansu region of China. According to data from 2005, the southernmost distribution went to 42°34', northern to 43°25', western to 96°05' and eastern to 100°00'. This area covers 18,000 km². Between 1940-1970, the population in the north part became extinct completely, and the area has diminished to more than two times; from mid 1970s the distribution has remained stable but, in eastern part it expanded slightly and bears have been observed at their former habitat.



4.2 Population (estimates and trends)

Until 1960th, there was no any information on Gobi bear population. According to press, 15-20 during 1960s (Bold, 1967), more than 20 during mid 1970s (Bold, Dulamtseren 1976), 20-25 at the beginning of 1980s (Bugaev, Tumor, 1985), 25-30 (Jirnov, Ilyinsky, 1985), 25-30 during the 1990s (Shaller et al., 1993), 30-35 (Tulgat, 1995) individuals have been recorded. By 2005, 25-30 bears (Mijiddorj 2006) are estimated.

The previous population estimate surveys using DNA mark-recapture in 2008-2009 (CI 95 per cent: 22-31 individuals, including 14 males and 8 females) and 2013 (CI 95%: 27-40 individuals, including 22 males and 5 females) showed unusual male bias that remains a serious conservation challenge (Tumendemberel et al. 2015). The survey planned for 2017-2018 will be essential to understand if this biased sex ratio is due to sampling bias or due to a real demographic pattern.

4.3 Habitat (short description and trends)

Gobi Bears persist as a unique ecotype in the Gobi Desert of southwestern Mongolia. They are superbly adapted to low food availability and harsh environment of the Gobi Desert, where annual temperature may vary between 46°C in summer to -34°C in winter. Also known as “Mazaalai” and regarded as a national treasure by Mongolians, Gobi bears occupy three main areas, or oasis complexes, within the 45,784km² Great Gobi Strictly Protected Area (GGSPA, Zone “A”): Atas Bogd Mountain, Shar Khuls Oasis, and Tsagaan Bogd Mountain. Each oasis complex is comprised of seven or more springs of various sizes, separated by about 70-100 km from the adjacent complex.

4.4 Biological characteristics

Gobi Bears persist as a unique ecotype in the Gobi Desert of southwestern Mongolia. They are superbly adapted to low food availability and harsh environment of the Gobi Desert, where annual temperatures may vary between 46°C in summer to -34°C in winter.

4.5 Role of the taxon in its ecosystem

The Gobi Bear together with Wild Bactrian Camel is considered as an umbrella species of Gobi ecosystem. It means that the conservation of this species will help to protect other wildlife species in Gobi region.

5. Conservation status and threats

5.1 IUCN Red List Assessment (if available).

No IUCN Red List Assessment available.

5.2 Equivalent information relevant to conservation status assessment

To effectively accomplish recovery and conservation of the Gobi bear, its taxonomic status needs to be confirmed. Based on its morphology and habitat references, some scientists have classified the Gobi bear as a separate and distinct species, *Ursus gobiensis* (Sokolov and Orlov 1992). Others classify them at the subspecies level, such as *Ursus arctos pruinosus* (Zhirnov and Ilyinski, 1986) or *Ursus arctos gobiensis* (Red Book 1997).

5.3 Threats to the population (factors, intensity)

Small size of the population, climate change affecting availability of water and vegetative food.

5.4 Threats connected especially with migrations

Climate change that affects water availability and growth of vegetation. No poaching or illegal take has been documented or suggested by local people.

5.5 National and international utilization.

There is no evidence of utilization of Gobi bear in the world. No zoos contain this species.

6. Protection status and species management

6.1 National protection status:

Completely protected.

Gobi Bears are listed as Critically Endangered in the Mongolian Redbook of Endangered Species and by the Zoological Society of London using IUCN standards. This assessment was based on estimates that the population included less than 50 adult animals, and were separated by enough distance from other closely genetically-related populations that immigration/emigration would not reasonably be expected to occur.

6.2 International protection status:

It is included as an Appendix I species (critically threatened with extinction) under the Convention on International Trade in Endangered Species (CITES), to which Mongolia is a signatory country. No Gobi Bears are known to exist in captivity anywhere in the world.

6.3 Management measures.

Water source rehabilitation. Seasonal supplemental feed is provided for a short time during spring after the bears emerge from hibernation and in fall when bears need to gain weight prior to hibernation and birth of young in dens.

6.4 Habitat conservation:

Habitat conservation is provided through Mongolia's Strictly Protected Area status of the area. This Protected area had been established to protect primarily the Gobi bear and the wild camel.

6.5 Population monitoring:

Ongoing

7. Effects of the proposed amendment

7.1 Anticipated benefits of the amendment

Because of their present low population size, restricted range and limited available habitat, further declines may occur. However, if effective conservation efforts are applied, Gobi Bears have a much greater chance for recovery. In case this species amended to CMS Appendix I, international cooperative conservation activities, especially within range states, will be promoted and possible species strategies will be developed between Mongolia and China.

7.2 Potential risks of the amendment

We see no risks in case of amendment.

7.3 Intention of the proponent concerning development of an Agreement or Concerted Action.

After amendment we deem necessary to develop an Agreement between China and Mongolia on conservation of the species.

8. Range States

Mongolia and China.

9. Consultations

This proposal was developed under consultation with Dr. Harry Reynolds, Former President of International Bear Association, now the Scientific Advisor to IBA and "Gobi Bear Project" team leader.

10. Additional remarks

None

11.References

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