

Mongolian Red List of Mammals



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Summary Conservation Action Plans for Mongolian Mammals

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INSTITUTE OF BIOLOGY, MNAS



LIVING CONSERVATION

ENDANGERED

Marmota sibirica

(Radde, 1862)

Order: Rodentia

Family: Sciuridae

Common names: Siberian marmot, Mongolian marmot, tarbagan marmot or Transbaikial marmot (English), Mongol tarvaga (Mongolian)

Subspecies in Mongolia: *M. s. sibiricus*, *M. s. caliginosus*

Synonyms: *M. caliginosus*, *M. dahurica* (see Wilson and Reeder (1993) for further details)



Photograph courtesy of B. Lkhagvasuren

Description

Light brown in coloration with dark guard hairs on the head and the tip of the tail. Adults have an average head-rump measurement of 50-60 cm and typically weigh 6-8 kg, reaching a maximum of 9.8 kg (Adiya, 2000).

Conservation overview

Global status: Least Concern

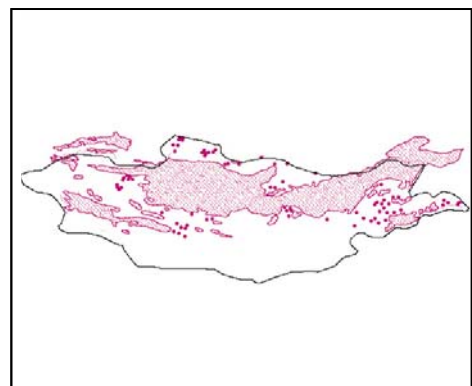
Regional status: Endangered, A2ad

Legal status: Hunting was completely banned during 2005 and 2006 by the Ministry of Nature and Environment. Prior to this ban, hunting was permitted between August 10th and October 15th, depending on population size (MNE, 2005). Local governments are required by law to conduct population surveys every four years, and have the authority to close areas for the protection of the species. In areas where industrial hunting takes place (when permitted), surveys must be completed on an annual basis and be funded by the hunting company (Wingard and Zahler, 2006). Approximately 6% of the species' range in Mongolia occurs within protected areas.

Distribution

Global distribution: Russian Federation, China, Mongolia.

Regional distribution: *M. s. sibiricus* inhabits steppe and grassland habitats, from the extreme east to the Altai Mountains of the west (Wingard and Zahler, 2006). *M. s. caliginosus* inhabits higher mountains and ranges in northern, western, and central Mongolia, including Hangai, Hövsgöl, and Mongol Altai mountain ranges (Adiya, 2000).



Abundance

Over the past 60 years, this species has experienced an ongoing decline in population size. In 1940, as many as 40 million individuals were estimated to inhabit Mongolia (Eregdendagva, 1972). However, by 1990 the population was estimated to consist of 20 million individuals (Wingard and Zahler, 2006), with estimates further decreasing to just five million by the most recent assessment in 2001 (Batbold, 2002). Numbers are believed to have since declined even further (K. Olson, pers. comm.).

Habitat and ecology

Inhabits open steppe, alpine meadows, semi-desert, forest-steppe, mountain slopes, and river basin habitats. In Mongolia, typical elevations range from 600 to 3,000 metres (Demberel and Batbold, 1997). Marmots are considered to be a keystone species, as they are important to the overall structure and health of steppe and mountain habitats, upon which many other species depend (Zahler *et al.*, 2004). By creating burrows they bring buried soil to the surface, which recycles nutrients and aerates the soil. Their burrows also provide shelter for many other native species such as ground squirrels, pikas, hedgehogs, mustelids, foxes, and Pallas' cats (Adiya, 2000; Zahler *et al.*, 2004). Their feeding habits shape the diversity and composition of vegetation, and they are also an important food source for many carnivorous mammals and raptors, such as buzzards, snow leopards (*Uncia uncia*), and brown bears (*Ursus arctos*).

The reproductive season occurs during spring, with young born between April and June. This coincides with the preferred hunting period for this species, as the fur is at its most dense and is most valuable for trade. Removal of females during this time is greatly reducing survival prospects for this species (Wingard and Zahler, 2006). Approximately 25-30% of offspring do not survive their first year, leading to an estimated reproductive capacity of 60%. However, Mongolian scientists estimate that when the impact of hunting is accounted for, the actual reproductive capacity is more likely to be as low as 20% (Wingard and Zahler, 2006).

Dominant threats

Hunting for skins, meat and for use in traditional medicines, for local, national, and international trade. Marmot oil contains naturally high levels of corticosterone² and has several traditional uses in Mongolia, including as a leather conditioner, to treat burns, frostbite, anaemia and tuberculosis, and as a dietary supplement for animals and children (Adiya, 2000; Wingard and Zahler, 2006). At least 104.2 million marmot skins were prepared in Mongolia between 1906 and 1994 (Batbold, 1996), and it is estimated that more than 1.2 million skins per year have been traded since the late 1800s, with as many as three million individuals removed from the population in 2004 (Wingard and Zahler, 2006). Recent surveys estimate that actual trading numbers presently exceed hunting quotas by more than three times; in 2004 more than 117,000 illegally traded marmot skins were confiscated (Zahler *et al.*, 2004). Outbreaks of plague also constitutes a threat and human plague cases are known to have occurred as a result of marmot hunting, prompting extermination campaigns (Batbold, 2002). However, outbreaks are becoming less frequent as the population size declines.

Conservation measures in place

- This species is conserved under Mongolian Protected Area Laws and Hunting Laws, but no conservation measures specifically aimed at this species have been established to date.
- More than 120 people attended a workshop entitled 'Mongolian Wildlife Trade' held in Ulaanbaatar in August 2005. Working groups outlined cross-cutting and sector-based recommendations for the effective management of wildlife trade in Mongolia.

Conservation measures required

- Enhance enforcement of existing protective legislation.
- Conduct further ecological research and monitor population trends in order to develop a sustainable harvest management programme.
- Protect and maintain habitat through community based initiatives.
- Develop a public awareness programme to highlight the protective legislation in place for this species and its conservation status.
- Review and assess the effectiveness of reintroductions into areas of its former range.
- Implement recommendations from the ‘Mongolian Wildlife Trade’ workshop (see Wingard and Zahler (2006) for details of recommended actions).

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Spermophilus alashanicus Büchner, 1888

Order: Rodentia

Family: Sciuridae

Common names: Alashan ground squirrel

(English), gozooroi zoram (Mongolian)

Subspecies in Mongolia: *S. a. dilutus*

Synonyms: *S. dilutus*, *S. obscurus*, *S. siccus* (see Wilson and Reeder (1993) for further details)



Photograph courtesy of D. Yee

Description

Typically brown or grey in colour, with small pale spots on the back and a pale underside. The coloration of the coat becomes lighter in summer, with the head and shoulders turning a pale chestnut colour (Nowak, 1991). Internal cheek pouches are used for carrying food. Its legs and tail are short and it has a head-rump measurement of 22-23 cm (Sokolov and Orlov, 1980).

Conservation overview

Global status: Least Concern

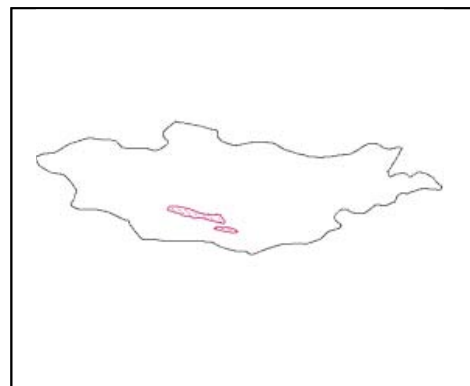
Regional status: Endangered, A3c

Legal status: Protected as Rare under the 2001 revision (Mongolian Government Act. No. 264) of the 2000 Mongolian Law on Fauna (Badam and Ariunzul, 2005). Listed as Rare under the 1995 Mongolian Hunting Law (MNE, 1996), and included as Rare in the 1997 'Mongolian Red Book' (Shiirevdamba *et al.*, 1997). Approximately 13% of the species' range in Mongolia occurs within protected areas.

Distribution

Global distribution: China, Mongolia.

Regional distribution: Occurs around Ikh, Baga Bogd, Gurvansaikhan and Öshög mountains in Govi Altai Mountain Range (Bannikov, 1954; Dawaa, 1972).



Abundance

Population data for this species are currently unavailable, although it is believed to be most abundant in areas around Gurvansaikhan Mountain.