



WILD LIFE ISSUES IN MONGOLIA

Onon Yo, Odonchimeg N, and Batnasan N

WWF Mongolia Programme Office

E-mail: mpo-species@wwf.mn

1. INTRODUCTION

Mongolia is divided into six basic natural zones, differing in climate, landscape, soil, flora and fauna. The Mongolian Altai-Sayan – one of the Global 200 Ecoregion contains all of examples of these natural zones and over a relatively short distance, offers Gobi, semi-desert, steppe, taiga, tundra, flood plain forest, freshwater, salty marshes etc. The conservation of Altai-Sayan Ecoregion's biological diversity has global significance. This region represents one of the great opportunities on earth to conserve relatively intact ecosystems, large enough to allow ecological processes and wildlife populations to fluctuate naturally.

Mongolia boasts a wide variety of wild life: 139 species of mammals, 449 species of birds (330 migratory and 119 inhabits in Mongolia year round), 22 species of reptiles, 6 species of amphibians, and 76 fish species. The Mongolian Altai-Sayan has a fauna that includes a number of rare and endangered species such as Snow Leopard (*Uncia uncia*), Wild sheep (*Ovis ammon*) or Argal, Siberian Ibex (*Capra sibirica*), Mongolian Saiga (*Saiga tatarica mongolica*), Musk Deer (*Moschus moschiferus*) Pallas' cat (*Felis manul*) or Manul, Black Tailed Gazelle (*Gazelle subgutturosa*), Wild Boar (*Sus scrofa nigipes*), Stone Martin (*Martes foina*), Marbeled Polecat (*Vormela peregusna*), Elk (*Cervus elaphus*) or Red Deer, Snowcock (*Tetraogallus altaicus*) or Altain ular, Cenereous Vulture (*Aegypius monachus*), Golden Eagle (*Aquila chrysaetos*), Lammergeyer (*Gypaetus barbatus*), Spoonbills (*Platalea Leucorodia*), Dalmatian Pelican (*Pelecanus crispus*), Great white egrets (*Egretta alba*), Whooper Swans (*Cygnus cygnus*), Greet black-headed gulls (*Larus ichthyatus*), Black Storks (*Ciconia nigra*) and Swan Goose (*Anser cygnoides*). An endemic, native and rare plant species are very high in this region.

2. CONSERVATION STATUS

Mongolian Red Book (1997) lists 30 species mammals, 30 species birds, 5 species reptiles, 4 species amphibians, 6 species of fish, 1 agnathans, 19 insects, 2 crustaceans, and 4 mollusk species as endangered, vulnerable, or rare. Mongolian Law on Fauna lists 12 mammals, 8 birds, 4 species of fish, and 1 species of insects as very rare (endangered), and 11 mammals, 21 birds, and 2 species of fish as rare. 14 mammals, 71 birds, 8 plants, 2 species of fish, 1 species of insects, and 1 species of reptiles are included on Appendices I and II of the Convention on the International Trade of Endangered Species (CITES). Some endangered and rare species habitats are included in the Protected Areas system.

3. THREATS

The major threats to the Mongolian wildlife are illegal hunting, competition for pasture and water with livestock, climate change, prairie (steppe) and forest fire, harsh winter and drought.

3.1. Illegal hunting. Illegal hunting and animal products for trading has increased dramatically over the last 10 years. Major hunting in the area includes Musk Deer, Elk, Boars, Squirrels and Marmot. In particular the Elk population has drastically declined because of the illegal hunting for its antlers, tail and

other body parts (organs). An illegal trading system has been developed in the region where traders from the cities come to the local village and even to the herders' home buy these products at low prices. Hunting is increasingly becoming a hobby for much more prosperous man.

2. Competition for pasture and water. The number of livestock has steadily increased since 1990. As of 2000, the number of livestock reached to 30.0 million heads, compared to 25 million heads in 1990. The wild ungulates had competition with domestic herds for pasture and water.

3. Steppe and forest fire. Habitat of Red Deer, Musk Deer, Squirrel, Roe Deer and Mongolian Gazelle have been declining due to increasing steppe and forest fires. Forest fire occurs mainly due to human careless activities.

4. IMPORTANT SPECIES FOR CONSERVATION

There are number of important species in Mongolia for conservation and sustainable management. WWF Mongolia has identified the following 5 **key species** whose conservation is of special concern and which act as powerful icons for the conservation of other species and habitats in the Altai-Sayan and Mongol-Daurian Ecoregions:

a) Altai-Sayan Ecoregion:

1. Snow leopard, *Uncia uncia*,
2. Argali (Wild sheep), *Ovis amon*
3. Takhi (Wild horse), *Equus przewalski*,
4. Taimen, *Hucho Taimen*

b) Mongol-Daurian Steppe Ecoregion:

5. Mongolian Gazelle, *Procapra gutturosa*

Other important species considered for conservation are:

6. Musk deer, *Moschus moschiferus*
7. Saiga Antelope, *Saiga tatarica mongolica*
8. Dalmatian pelican, *Pelicanus crispus*
9. Saker Falcon, *Falco cherrug*

More detailed information about these species given as follows:

4.1. Snow leopard (*Uncia uncia* Schreber, 1776)



Legal Status in Mongolia: Listed in the Mongolian Red Book as Very Rare (corresponds to the Endangered category in the IUCN Mongolian Red Book) and Appendix I of the Convention on International Trade in Endangered Species of Fauna and Flora (CITES).

Distribution in Mongolia: Snow leopards are widely distributed in the mountains of western Mongolia and occur in the Altai Mountains, the Khangai Mountains, the Khan-khokhii Mountains and Kharkhiraa, Turgan, Tsagaan Shuvuut Mountains, and in isolated mountainous sections of the Trans-Altai Gobi. They are thought to occur in up to 10 aimags and 107 soums with a total range of about 80,000 to 100,000 km². Snow Leopards may occur in the Khovsgol Mountains, Khovsgol National Parks, although no confirmed sightings have occurred since the 1960's. The highest density of Snow leopard occurred in Turgan and Tsagaan Shuvuut Strictly Protected Areas during the several years' field survey.

Habitat: Snow Leopard habitat includes steep broken mountainous regions in the alpine and sub-alpine zones, where vegetation is sparse. Range wide, population estimates to occur in altitude from 2,000 to 3,500 m.

Population: Population estimates of Snow leopard in Mongolia vary from about 700 to 1200 heads, with a density of 1 to 1.5 leopards per 100 km². Snow leopards density in Toson Bumbiin Range, Nemegt Mountains of South Gobi province from about 4 cats per 100 km² in good to excellent habitat. In Uyert Valley of Gobi-Altai province and Yamaat Valley of Turgen Mountain SPA 3.7-4.0 cats per 100 km².

Prey Species: The Snow leopards in Mongolia mainly feed on Ibex, Argali sheep, Pika, Hare, Marmot, Snowcock, Choker and livestock, sometimes on Mongolian and Goitered gazelles, Red deer, Roe deer, and young bears. In areas with a scarce density of Ibex and other major preys, snow leopards occasionally attack livestock including yaks, horses as sheeps and goats, sometimes cows. Schaller and others (1992) collected 29 feces of snow leopard and determined that their main diets were: ibex (62.8%), marmot (17.6 %), yak (2.6%), and vegetation (17%).

Specific threats to snow leopard:

1. Widespread poaching
2. Illegal trading in its pelt, bones and other body parts
3. Habitat fragmentation due to competition with livestock
4. Wild prey loss
5. Skin disease, which infects livestock as well as snow leopards and leads death
6. Persecution by pastoralists

Actions implemented by WWF

1. Since 1997, WWF Mongolia has been supporting the project for snow leopard conservation and developed Snow Leopard Management Plan in Turgen and Tsagaan Shuvuut SPAs.
2. From 1997 to 2002 the snow leopard population increased in WWF's project area. In Turgen from 29 to 48 and in Tsagaan from 4 to 18. Prey populations were stabilised or increased in the same areas. Full support for conservation measures has been obtained from local population.
3. Established Snow leopard Information System and permanent transect for regular monitoring of snow leopards and they prey species have been conducting monthly by rangers in Turgen and Tsagaan Shuvuut SPAs.
4. Based on the Snow Leopard conservation project, an anti poaching brigade was established in Uvs aimag in July 2001. The anti-poaching brigade is active in the 3 western provinces.
5. Established "Irbis" enterprise in Buffer zone in Turgen and Tsagaan Shuvuut Mountain SPA
6. In 1999 and 2000 a series of workshops were held for development of the Snow Leopard Conservation Management Plan for Uvs province.

4.2. Argali (*Ovis ammon Linnaeus, 1758*)



Legal Status in Mongolia: Listed as a Rare Animal in the Mongolian Red Book and included in Appendix II of the CITES. Hunting was prohibited in 1953, but trophy hunting for foreign hunters is still permitted and poaching continues to be an important source of mortality.

Distribution: In Mongolia Argali sheep is distributed in 48,732.5 km² territory of 110 soums of 15 provinces. Relatively larger areas of distribution are noted in Myangan Ugalzat, Boorog, of Khovd province, Aj Bogd Mountain of Gobi-Altai province, Oshig of Ovorkhangai province, and Gobi Gurvan Saikhan Mountain of Umnogobi province. Distribution of Argali increased in Tov, Khentii aimag, but declined in

Bayan-Ulgii, Bayankhongor and Gobi-Altai provinces.

Habitat: Exposed Mountains, hills and sandy bluffs. Altitude: in Altai - at 3500m, in Umnogobi and Trans-Altai Gobi - at more than 1100 m, and in Khuvsgol - at 1250-2500 m. In summer, Argali in the Altai and Khangai Mountains migrate up to glacier meadows, moving down in the winter. Sometimes Argali migrate seasonally to find water and better pasture.

Population: Mongolia's Scientific authorities (the Mongolian Academy of Sciences) estimated 50,000 argali in 1975, 60,000 in 1985, but only 13-15,000 in 2001 (Dulamtsere et al. 1975, General & Experimental Biological Institute 1986, Institute of Biology 2001). Assessments of Argali resources in Mongolia were conducted in 1975, 1986, and 2001. According to these assessments there was a 72.0 % decrease in Argali resources from 1975 to 2001 and a 76.6 % decrease from 1986 to 2001. Due to natural conditions, climatic changes and especially due to human impact, in particular, habitat encroachment, unregulated trophy hunting and poaching, the number of Argali has been decreasing.

Trophy hunting. Trophy hunting of Argali by foreign hunters has been taking place since 1965. It is one of the sources of foreign currency. In the period 1967-1989, 1630 argali were hunted with special permits and according to the currency rate of that time; 20 million tugrugs were brought into the state budget. However, almost no money is allocated to conservation or management, generated from Argali hunting. Instead, hunting fees are divided among the federal government's general funds (70%), the local *soum* (or county) government (20%), and the hunting organization (10%).

Since 2002, the number of licenses issued by Minister of Nature and Environment rapidly increased from 45 to 80 per year. The results of census in 2001 showed that no more than 13.000-15.000 Argali inhabit Mongolia. Nevertheless, the Government increased the number of licenses for Argali trophy hunting and gave 80 permissions to 43 hunting companies.

Wild species that attract foreign trophy hunters are mostly "rare" species. Therefore, their exploitation without any proper conservation management can result in rapid decrease in population resources, further threatening with extinction.

Specific threats:

1. Poaching and uncontrolled hunting
2. Chasing and disturbance
3. Strong competition with livestock on pasture and water
4. Severe winter and dry spring and summer.
5. Sudden coldness in new area is pushing them to move again resulting death.

Actions implemented by WWF

1. Since 2000, snow leopard conservation project of WWF includes snow leopard prey (Argali, Ibex) conservation and monitoring in Türgen and Tsagaan Shuvuut Strictly Protected Areas.
2. Updated Argali Position Paper and advocate by media.
3. Supported elaboration of Argali Conservation Management Plan in 2002.
4. Initiated and supported in Myangan Ugalzat Nuruu of Hovd Province establishment of local Protected Areas and implementation of new model conservation activities, based on Community Based Wildlife Management by local authorities and herders.
5. Conducted workshop on argali management in 2000.

4.3. Takhi (Przewalski) horse (*Equus przewalski*).



Takhi or Przewalskii horse (*Equus Przewalskii* Poliakov, 1881) is one of the seven equide species in the world. From 1930s Takhi became threatened in Mongolia (Dovchin, 1969), and currently are listed as very rare and highly endangered in the Mongolian Red Book (Shiirevdamba et al, 1997). It is extinct in the wild.

In 1991, upon the Government of Mongolia decision to coordinate reintroduction of Przewalskii horse in the country, a National Takhi Commission was established. At present, two sub-populations have been reintroduced in different regions of Mongolia. The third one will be reintroduced in Khomiin tal where reintroduction project has been implemented since 1998 with support from WWF.

From the conservation genetics point of view, it is vital to keep the inbreeding coefficient minimal when reintroducing small populations. In order to do so, long term planning foresees that young horses will be exchanged between the different reintroduction projects in Mongolia.

4.4. Taimen (*Hucho taimen* Pall., 1773)



Taimen (*Hucho taimen*) is an endangered species. The main distribution areas are Tengis, Shishhed Watershed in the northern part of the Altai Sayan Ecoregion. The Taimen is a flag ship species for WWF's Altai-Sayan Ecoregion programme

This fish is listed in the Mongolian Red Book.

Holchic and Hensel state that the Siberian Taimen, has decreased by over 40 percent in 1980.

Taimen (*Hucho taimen*), living in Tengis Shishhed basin of Mongolia, spawning at the age of 6 to 7 years during the period mid May (water temperatures 7° to 10° C) up to the beginning of June.

Specific threats:

1. Uncontrolled fishing by foreign tourists and local residents.
2. Increased Illegal trading

4.5. Mongolian gazelle (*Procapra gutturosa* Pall.,1777)



The Mongolian gazelle is a game species. It is the largest ungulate population in Central Asia. The Eastern Mongolian steppe is the comparatively untouched last habitat area of Mongolian gazelle population.

The Daurian Ecoregion is one of the two WWF's Global 200 Ecoregion in Mongolia that has global importance for conservation of unique biodiversity. Milner-Gulland and Lhagvsuren (1998) made a population formula of the Mongolian Gazelle based on hunting information from many years. From the formula, there were, between 1940-1950, 4-5 million Gazelles in Mongolia. Over 2 million Mongolian Gazelles now inhabit Mongolia (Lhagvsuren, 2000).

3-4 years after the 1997 count, Mongolian Gazelle numbers have decreased. The reasons for this could have been the poor weather conditions (drought, starvation in winter 2000-2001) and several infectious diseases.

Factors affecting population decline. There are many factors affecting the decline in the Mongolian Gazelle's population such as weather, drought, starvation, cold rain, steppe fires, poaching, human and livestock interference, disease and predators.

In Dornod Aimag, oil surveys, the mining industry and the railway affect the Mongolian Gazelle's distribution and migration. The most negative factor is the RAILWAY (with fences on both sides).

The planned railway along the Eastern Steppe in Mongolia needs reconsideration. It may divide the population and reduce migration from abundant populations in the East to the West, and destroy traditional migration routes. A thorough assessment of the possible impact is necessary, before any construction plans are approved.

The separation of populations between East and West, by the Ulaanbaatar-Zamiin-Uud railway and consequential barrier to migration has already resulted in a decline in population numbers in the West.

The Mongolian government used to issued hunting licenses for Mongolian Gazelle at an average of 20.000 per year for commercial and household purposes. But this was also one of the main reason for increased poaching. It is justified to ask if Mongolia really needs to exploit this wildlife population while the country is under heavy pressure from 23 million head of livestock, with losses of several million animals each year, due to over-populations and severe weather conditions.

Actions implemented in Mongolia:

- Dornod Aimag has 2 Strictly Protected Areas, 1 National Park, 1 Nature Reserve and 1 Natural Monument which provided ideal habitats and birth places for the Mongolian Gazelle. Within them are Dornod Mongol, Mongol Daguur, Yakhi Lake and Toson khulstai Protected Area, the most important habitats and birth places of the Mongolian Gazelle.
- Recently, WWF Mongolia has requested to prevent the commercial hunting and submitted its position to MNE and as result of this it has been prohibited in a last couple of years. This was announced by the Minister of Environment at WWF's Annual Conference in Nepal.

Priority areas for Mongolian Gazelle Conservation. The most important birth places from Dornod, Sukhbaatar, Dornogobi and Khentii aimags' territory such as Jaran togoon Steppe, Menen Steppe, Byan-Ondriin Govi, from North of Tumentsoyt to Kherlen valley, Bayanmonkh, Darkhan soum, Doloodoin Govi, must be conserved. Also, a Protected Area for the Mongolian Gazelle Conservation must be established with both Mongolian and Chinese cooperation.

4.6. Musk deer (*Moschus moschiferus*, Linnaeus, 1758)



Legal Status in Mongolia: Musk deer was listed in the Mongolian Red Book of Mongolia (1987, 1997) and also was described as “very rare” species by the Law on Hunting (1996) and Law on Fauna (2000). Due to conservation measures taken by the Government prior to the 1990s, the status of this species showed a tendency of increasing numbers.

Distribution in Mongolia: The musk deer is a sub-alpine taiga species and it inhabits areas with cedar forests that occur in upper northern slopes of Khentii and Khuvsgul Mountains and areas along the mountain tops of Khangai and Khan Khokhii Mountain Ranges.

Musk deer in Mongolia are distributed throughout 40 soums, involving 10 aimag territories (governmental units of 1975), covering the Khangai, Khentii, Khuvsgul and the Khan Khokhii Mountain Ranges; 27, 000 km² containing Siberian Pine, Pine-Larch, Larch-Pine and Pine-Larch-Birch Forests (Dulamtseren et al., 1975, Dulamtseren et al., 1989).

Population: According to Academy of Sciences (Official Report, Department of Mammals’ Ecology, Institute of Biology, Academy of Sciences, Mongolia, 1975), the musk deer population of Mongolia was estimated over 44,000 with 43 per cent of them being male. The population of the musk deer has greatly declined in Mongolia since 1990s partly due to democratic changes and consequent liberalization of trade. Current population of the musk deer is not known due to lack of proper census.

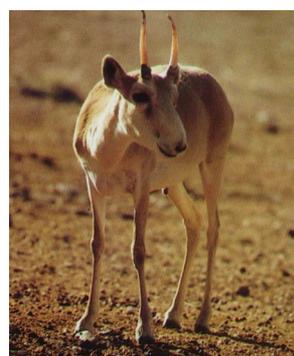
Habitat: Habitat of musk deer is comprised of larch and cedar forests. Locations at above 1000-4200 m altitude constitute main habitat areas.

Illegal-Trade: The trade in musk pods has increased since the beginning of 1990s. In the period 1994-1999 the trade increased most significantly.

Specific threats:

1. Poaching for medicinal and other purposes
2. Trade of musk pod and musk
3. There are no detailed surveys
4. Forest fire
5. Changed sex ratio
6. Predators activities
7. Lack of information about the parasites

4.7. Mongolian saiga (*Saiga tatarica mongolica*, Bannikov, 1946)



Legal Status in Mongolia: Listed as a very rare animal in publications of the Mongolian Red Book and Appendix II to the Convention on International Trade in Endangered Species of Fauna and Flora (CITES).

Distribution in Mongolia: The Mongolian saiga was seen nearby the lakes of Orog, Biger, Boon Tsagaan and south part of Uvs Lake in their migration. Unfortunately, Mongolian saiga disappeared in Uvs lake depression in 1920s, in depression of Khyargas and Airag lakes in 1960s and in basins of Dorgon, Khar Nuur lakes and lower part of Zavkhan river in 1960s. If conclude since 1990 the population of Mongolian saiga has been locating an area stretched from back part of Mongol Altai to front slope of Darvi mountain range in the north and from Ikhes lake to Boor depression in the east direction.

Habitat: Steppe areas of Mongol Altai mountain foothills with *Anabasis brevifolia*, Mongolian grass (*Stipa glareosa*) and *Artemisia gobica* at 1100-1200m. Migrate between mountain pastures and valleys in response to severe winters and summer drought.

Population: Distribution area of Mongolian saiga varies between 1100-13300 km². According the survey saiga numbers were 300 in 1978 (Sokolov et. al.), 1400 by 1993 counting (Dulamtseren et. al., 1993), 5300 in December 2000 (Amgalan et. al., 2000) and 1020 saigas accounting in December 2002. Compared to December 2000,

Mongolian saiga population number has decreased by 80.7 per cent (Dulamtsere et. al., 2002), due to severe winter.

Specific threats:

1. Severe winter (continuous drought, severe winter-zud)
2. Competition with livestock on pasture and water resources
3. Poaching for medicinal purposes
4. There is no stable policy and activities

Actions implemented by WWF

1. Since 1998, WWF Mongolia initiated a project for Mongolian saiga conservation with support from the WWF Large Herbivore Initiative. Since then, various activities have been implemented by the project with strong cooperation and support from the local authorities and herders
2. A Mongolian Saiga Conservation Plan was developed and volunteer ranger network is now fully functional in the habitat, which led to the success in increasing its population and distribution range.

4.8. Dalmatian pelican (*Pelecanus crispus* Bruch, 1832)



Legal status in Mongolia: Hunting prohibited since 1953. Included in the Mongolian Red Book (1987) and Appendix I, CITES and CMS. Habitat areas are included within Strictly Protected Areas, Khar Us Lake, Khyargas Lake, Baien of Uvs Lake, Ugii Lake, Orog, and Buuntsagaan Lakes listed in the Ramsar Convention. Dalmatian pelican is a rare summer migrant bird that settles in the Great Lakes Basin in Mongolia.

Distribution in the world: They breed from the Yellow river west to the Balkan Peninsula. In summer, a few nest in the vicinities of the Persian Gulf to Khar Lake in the Kustanai region. Pelican is distributed in the Balkans, Black Sea, Azov Sea, Caspian Sea, Aral Sea, northern part of Caucasus, Kazakhstan and Mongolia.

Distribution in Mongolia: Summer migrant to Khar Us, Khar, Airag, Hyargas, Uvs, Khunguin Khar, Boontsagaan, Orog, Kholbooj, Taaziin Tsagaan, Ugii Lakes. Dalmatian pelican migrated and lay eggs in all of the abovementioned lakes from 1950 to 1960. Unfortunately, currently only a few pelicans breed in Khar Us and Airag Lakes in summer.

Habitat: River banks and lake shores with sparse plants, reeds and no mud. Nests in the catchments areas of rivers and lakes abundant in fish and vegetation.

Breeding: Nests built with reeds and dry grass 70-100 cm high on the reed island, out of the way places. 1-2 eggs laid, sometimes 2-4 eggs, from end of May to beginning of July. After 40 days, blind and featherless nestlings hatch. After 10 days, chicks acquire white feathers and can follow their mother into the water. After 70 days, chicks can fly.

Population: There are 3200-4300 Dalmatian pelicans throughout the world. In the summer of 1956 over 300 were recorded on Shuvuun Tsuglaan, Khar Us lake. Only 207 were counted in 1972 and 13 in 1981. In 1976, 10 were counted on Khyargas Lake and 13 in Oigon Lake. 50 were counted on Kholboo Lake, Bayankhongor. One was recorded in Uvs lake in 1985. According to the recent research there are over 200 Pelicans in Mongolia.

Specific threats:

1. Poaching on Pelican
2. Poor breeding sites
3. Competition with livestock in breeding sites

4.9. Saker falcon (Falco cherrug Gray, 1834)



Status in Mongolia: They spend summer and breeding in Mongolia. Even though they are migratory birds, very few of them spend the winter in Mongolia. The Saker Falcon is listed in the 2nd appendix of CITES convention and Red book of Russia.

Habitat: Following their food, they live in open, woody areas, big rocky area and ravine where they can build their nests.

Population: During the year when Brandt's Vole are abundant, the population of falcon used to be 20,000 in Mongolia. In Europe, Hungary and Slovakia –200 pairs, near Odess- (60-80 pairs), Kreme (40-50 pairs), Basin River of Twin and Ural (about 100 pairs). Chuin steppe (60), Kazakhstan –(150-200 pairs), China (86,000- 155,000).

As for Mongolia, inventory on saker falcons' population was conducted in south part of Khangai Range in 1996 involving 3706 km route and there were 822 falcons. In 1997, when density of Brandt's Vole reduced, only 429 saker falcons were counted in the 6545 km route. Judging by this, population of saker falcons has direct connection with the increase and decrease in number of Brandt's Voles, which are main food of falcons and fluctuation in population of other small rodents, which are the main resources of falcons' food. As for the Khangai Range, when density of Brandt's Vole reaches the maximum, density of saker falcon is 0.2 in 1 km. When number of the vole decreases, density of falcon is 0.06 in 1 km. However, in other core areas, where Brandt's Voles occupy small area, the density of saker falcon is 0.8-1.0 in 1 km among other preys. (Bold, 2002).

Population of saker falcons in Mongolia is not only affected by the population of Brandt's Vole but also affected by falcons' business, and the use of poison used in rodent control (large scale poisoning of falcons in 2002 and 2003). The populaton has declined to about 1200 to 2800 breeding pairs in 2003.

Trade: According to the information booklet of MNE, following numbers of alive saker falcons are exported from Mongolia to some Arabian countries under the official permission:

80 falcons to Saudi Arabia in 1994, 80 to Saudi Arabia-1995, 25 to Kuwait-1996, 121 to Saudi Arabia- 1997, 25 to Kuwait- 1998, 40 to Kuwait-1999, 21 to Emirate- 1999, 50 to Kuwait-2000, total of 184 to Emirate, Sierra, Saudi Arabia and Kuwait- 2001. Totally 651 saker falcons were officially exported during 1994-2001. There is a data that about 300 saker falcons were exported in 2002 and totally more than 950 saker falcons have exported since 1994.

The number of falcons exported, is continually increasing in recent years and price of one falcon is 4330 USD higher than the initial price. In other words, the price has increased 5-6 times and 791,000 USD were added to the state budget in 2001. (newsletter interview with U. Barsbold and Ts. Damdin).

WWF MONGOLIA: Species Programme goals and targets

The goal of the Species Programme of the WWF Mongolia Programme Office (PO) is to ensure that "Large mammals and waterfowls are better protected in Altai-Sayan Ecoregion".

The WWF Mongolia Species Programme is focusing on the following targets:

Target 1.

By 2010 biodiversity conservation is incorporated into land use planning process at the regional level

- By 2004 inventory of species habitat conducted and detailed pasture management plans for Khar Us lake National Park, Shargiin Gobi, Turgen and Khan-Khukhii developed under consideration of climate change
- By 2005 model project on community based hunting is implemented in selected areas so that the local people benefit from wildlife conservation

Target 2.

By 2010, restoration and re-introduction activities of highly endangered species are initiated

- By 2004 Re-introduction of Przewalskii horses are introduced in Khomiin tal
- By 2005, Breeding place of Pelican in Khar Us Nuur National Park is restored

Target 3.

By 2010, number of Snow leopard, Argali and Saiga are increased and their habitats are better protected.

- Snow leopard densities and its prey species will be increased compare to the level 2002 in Turgen area
- Argali population of selected area will be increased compare to the level 2002
- By 2005 Saiga population will be increased compare to the level 2002

Target 4.

By 2010, Illegal hunting of endangered species are reduced

- By 2005 effective law enforcement mechanism will be established in selected area

Target 5.

Mongolian Gazelle is sustainable managed

- By 2005 long-term management plan in cooperation with UNDP and WCS developed and starts with implementation

Target 6.

Brandt's Vole population is properly controlled

- By 2005 poisoning of Brandt's Vole population is stopped and sound methods is in place.

REFERENCES:

1. Amgalan L. Census on Mongolian Saiga in Shargiyn Gobi. (hand writing report), 2000 (in Mongolian)
2. Amgalanbaatar. C., S.Dulamtsuren, Yo.Onon, B.Lkhagvasuren, L.Amgalan. 2002, Mongolian argalis' (*Ovis ammon L., 1758*) population structure and distribution Institute of Biology Mongolian Academy of Sciences Proceeding, #23, (in Mongolian).
3. Amgalanbaatar.S, B.Lkhagvasuren, Richard P.Reading, N.Batsukh, *Caprinae* hunting system and conservation in Mongolia, III World Conference ons Mountain Ungulates.
4. Dulamtseren S., R.Tulgat. Census on Mongolian Saiga in Shargfyn Gobi. (hand writing report), 1993 (in Mongolian)
5. Bold A., Sh.Boldbaatar. Mongolian birds, amphibians and reptiles. 2002. Mongolian Academy of Sciences, Mongolian Ornitological Foundation.
6. Dulamtseren S., L.Amgalan. Mongolian Saiga (*Saiga tatarica mongolica*), 2002, Proceeding of the Institute of Biology, #24. (in Mongolian)
7. Reading.R., S.Amgalanbaatar and W.Ganchimeg, "Argali sheep research and conservation activities in Mongolia", "*The Open Country*" journal, (in English), 2001 fall, No3,
8. Reading R.P., S.Amgalanbaatar and G.Wingard. 2001b. Argali sheep conservation and research activities in Mongolia.Journal of Zoology.
9. Sokolov M.E, S.Dulamtsuren, N.Khotolkhuu, M.N.Orlov. Rare species of ungulates in Great Gobi Strictly Protected Area (MPR). Current status and perspective. Geography and dynamics of fauna and flora in Mongolia. Moscow, 1978, Vol.10/7-1 1p. (In Russian)
10. Shiirevdamba Ts., O.Shagdarsurenm G.Erdenejav, L.Amgalan and Ts.Tsetsegmaa, 1997. Mongolian Red Book. Ministry for Nature and the Environment of Mongolia: Ulaanbaatar Mongolia. (in Mongolian, with English summaries)