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**CONTEMPORARY SIGNIFICANCE OF HUNTING  
AND GAME ANIMALS USE IN TRADITIONAL FOLK MEDICINE  
IN NORTH-WEST MONGOLIA AND ADJACENT TUVA**

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*Summary:* Hunting is a traditional employment for the indigenous people of NW Mongolia and Tuva (Tyva Republic, Russia). Since May 17, 2012, hunting has been regulated by The Mongolian Law on Animals. A short review of modern hunting and the medical value of some game animals are given in this paper. Wolf is the most undesirable element of the pastoral ecosystems of the region and the most popular object of hunting. Decreasing the damage to cattle breeding is the main stimulus for wolf hunting. Yearly each family (brigade) of cattle-breeders loses 20-30 sheep and goats to wolves. The carcasses of wolves (together with the skin), which as a rule are sent to Ulan-Bator, are especially highly valued on the market. The price for a skin reaches US\$ 60. Export is mainly directed to China and Tyva. Hunting products are widely used in traditional folk medicine. Wolf meat is applied for treatment of respiratory organs. Some hunters even suck fresh wolf's blood right after hunting. Siberian marmot is the traditional and favorite object of hunting in Mongolia. Its population has been sharply reduced recently. Therefore, since 2012, the total protection of marmot has been legislated. However the given interdiction is not strictly followed, because the meat of a marmot is a delicacy on the festive table of any Mongolian family. Badger is bagged mostly for medical purposes: for treatment of throat cancer, for diseases of respiratory organs, stomach and liver. The basic way of hunting badgers is digging out their burrows. Market price for a live badger can reach US\$ 80. It is more than the price of one sheep. American mink appeared in NW Mongolia as a result of natural migration from Tyva in the late eighties. Its population is growing. The primary factor for the success of its invasion is predation on muskrat. In folk medicine meat of Altaian snowcock, Daurian partridges, black grouse, mountain hare, and muskrat (!) is also appreciated.

*Key words:* game animals, hunting, fur, traditional medicine, Mongolia, Tuva (Tyva)

### Introduction

Hunting is a traditional employment for the indigenous population of NW Mongolia (Shagdarsuren 1966; Tuvdendorj 1988; Sukhbat & Shagdarjav 1990) and the adjacent regions of Tyva Republic, Russia (Darzha 2009). In the early 1930's in Mongolia fur production of hunting was comparable at cost to production of animal industries - ca. 5.5 Million rubles, or 80 per cent from a total cost of skins, wool and leader from domestic animals (see Table, Kogan, 1933).

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**Table 1:** Change of the status of the most important hunting animals in Mongolia within last 80 years

| Species                                     | Annual game bag in<br>beginn. 1930's<br>(Kogan 1933) | Hunting status today                             |
|---|--|--|
| Marmot ( <i>Marmota</i> sp.)                | 2 000 000  | prohibited since 2005                            |
| Red squirrel( <i>Sciurus vulgaris</i> )     | 260 000  | permitted  |
| Tolai hare( <i>Lepus tolai</i> )            | 50 000   | permitted  |
| Mountain weasel( <i>Mustela altaica</i> )   | 50 000   | permitted  |
| Red fox ( <i>Vulpes vulpes</i> )            | 30 000   | permitted  |
| Siberian weasel ( <i>Mustela sibirica</i> ) | 15 000   | permitted  |
| Wolf ( <i>Canis lupus</i> )                 | 12 500   | permitted, no closed seasons and no quota limits |
| Asian badger ( <i>Meles leucurus</i> )      | 10 000   | permitted  |
| Manul ( <i>Otocolobus manul</i> )           | 6 000  | permitted  |
| Corsac fox ( <i>Vulpes corsac</i> )         | 5 000  | permitted  |
| Eurasian lynx ( <i>Lynx lynx</i> )          | 1 500  | permitted  |
| Wolverine ( <i>Gulo gulo</i> )              | 500  | permitted  |
| Sable ( <i>Martes zibellina</i> )           | 200  | permitted since 2001                             |

The deep historical roots of the hunting tradition are well documented in the numerous rock engravings (petroglyphs) and drawings (petrographs), which have remained to the present day (Fig. 1).



**Figure 1.** Petroglyph with pride of snow leopards (*Uncia uncia*) hunts on the Siberian ibex (*Capra sibirica*) (left), Santmargats sum of Zavhan aimag, N48°31' E95°17'; Petrograph with Altai wild sheep (*Ovis ammon*) (right), Erzin district of Tyva Republic, N50°20' E93°40'. Photos by V.V.Yarmoluk (left) and A.P.Saveljev.

Before May 17, 2012, hunting in Mongolia was regulated by *The Mongolian Law on Hunting* (Stubbe 1965), now it is defined by *The Mongolian Law on Animals*. The Supervising authority is the Ministry of Nature, Environment and Green Development of Mongolia operating with local wildlife rangers (Fig.2).



**Figure 2.** Certificate of the Mongolian state inspector for nature conservation. Photo by A.P.Saveljev

Meat production of hunting and medical derivatives from game animals is still of important utilitarian value for local people of a peripheral part of Mongolia (Zahler et al. 2004).

### Material and Methods

The material was collected from autumn 2013 till summer 2014 in Zavhan and Uvs Aymags (NW Mongolia) and Erzin and Tes-Khem kozhuuns (districts) of Tyva Republic (Russia) within Uvs Hollow (see details: Saveljev et al. 2014).

### Results

**Wolf (*Canis lupus*)** is the most undesirable element of the pastoral ecosystems of the region and the most popular object of hunting (Fig.3). Minimizing damage to husbandry is the main stimulus for hunting (Eregdenedagva, 2010). The brigade (five hunters) in Tes sum Zavhan aymag has shot 45 wolves over the period of five years. During the winter period, the population density of wolves increases at winter parking spaces of cattle. Each family (brigade) loses 20-30 sheep and goats a year from wolves (data from Tes sum Zavhan aymag). Wolf carcasses (together with the skin), which as rule are sent to Ulan-Bator, are especially highly valued on the market. The price for a skin reaches 100 thousand tugriks (US\$ 60). Export is typically directed to China and (illegally) to Tyva. Hunting products are widely used in traditional folk medicine (in contradiction with: Alves et al. 2013). Meat is applied as a treatment for respiratory organs. Some hunters traditionally suck fresh wolf blood right after hunting. However rabies is regularly registered in this region. On August, 23, 2013 the attack of a wolf on a group of people in Uvs Aymag was registered. As a result, three casualties were hospitalized.



**Figure 3.** Traditional method of hunting for a wolf in a steppe zone. Drawing from (Darzha 2009. P.341).

**Siberian marmot** (*Marmota sibirica*) is the traditional and favorite object of hunting in Mongolia. Last year's population of Siberian marmot was sharply reduced. Therefore, in 2012, the total (pan-Mongolian) protection of marmot has been legislated. However, the given interdiction is not so strictly observed, because the meat of a marmot is a delicacy on the festive table of any Mongolian family. Shooting is the most popular way of hunting (Fig.4), a rarer one is with the help of traps.

**Red fox** (*Vulpes vulpes*) & Corsac (*Vulpes corsac*). The fur of these species is used for local needs (Dawaa & Balzinnjam 1980).

**Asian badger** (*Meles leucurus*) - In NW Mongolia regular hunting for badgers is not wide-spread. Asian badgers are bagged mostly for medical purposes: treatment of throat cancer, diseases of respiratory organs, stomach and liver. The badger catching period is October-November, or – if necessary – during other seasons. The basic way is digging out the burrows without use of dogs. Some peoples catch badgers by leg traps. A hunter normally bags one badger per season, rarely – two (Fig. 5). Besides, some cases of an attack while digging badgers' burrows by shepherd's dogs were registered. Annually 1-3 badgers perish from sheep-dogs in every aymag. Total annual withdrawal of badgers within this territory is estimated at 10-15 animals. Market price for a live badger can reach 150 thousand tugriks (US\$ 80). It is more than the price of a sheep. Skin price is up to US\$ 6. In some locations a badger's head skin is used for decoration of caps.



**Figure 4.** Two photos made in 100 years. The rifle with bi-pod is still applied in hunting in the steppe and highlands of Tuva and Mongolia. Top photo from D.Carruthers (1914, Page 228), bottom – by V.A.Soloviev (Sept., 2013).

**American mink** (*Neovison vison*) appeared in NW Mongolia as a result of natural migration from Tyva in the late eighties. Since then, the population is growing in Uvs Hollow. The primary factor for the success of the invasion is predation on muskrat (Saveljev et al. 2014). The price for skins is agreeable (up to 30.000 tugriks). Most furs are exported to China.



**Muskrat** (*Ondatra zibethicus*) was translocated in the early seventies in the Russian (northern) part of the Tes River delta. The muskrat reached its maximum hunting value in 1980 and the early nineties. But now, the population and trapping impact on muskrats in the lower part of Tes River is in recession (Shar et al. 2013). Trappers catch no more than 100 muskrats per season (Fig.6). The meat of muskrats has medical value only in Tes sum Uvs Aymag as it is used for the treatment of kidneys. Price for a skin reaches 3.000 tugriks (US\$1.8 - data from 2013). Skins are mainly exported to China.

**Wild boar** (*Sus scrofa*) basically inhabits reeds around large lakes. It is also the object of hunting.



**Figure 5.** Local hunter from Tes sum Uvs aymags Mr. Chonoo has returned home from hunting. Over the 73 years of his life, he has bagged more than 120 badgers and a lot of other game. Photo by A.P. Saveljev.



**Figure 6.** Muskrat caught in a trap by a Mongolian hunter is eaten by an American mink, which is the consequence of the strong ecological relation of two invasive alien species in Uvs Hollow. Photo by A.P. Saveljev.

**Red deer's** (*Cervus elaphus sibiricus*) population is decreasing. It has not come into the delta part of the Tes River from territory of Tyva for over forty years. Stable population was preserved within the middle part of Tes valley and along the border of Russia. Shooting at casual encounters.

Meat of **Daurian partridge** (*Perdix dauurica*), **black grouse** (*Tetrao/Lyrurus tetrix*), **mountain hare** (*Lepus timidus*) is also valued in folk medicine. But meat of **Altain snowcock** (*Tetraogallus altaicus*) is especially highly valued. Its medical importance is confirmed by scientific researches (Zorig 1988, 1989).

### Conclusion

Recent dramatic development of diverse industries (especially mining and cattle-breeding) changes the pastoral life-style of the local people in Mongolia and Tyva (Regdel & Dugarjav 2010). However the deep-rooted traditions of hunting and the "renaissance" of the human interest in the development of traditional folk medicine keep the employment of hunters at high rate.

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