

PRESENT SITUATION OF FURBEARER HUNTING IN NORTHERN YAKUTIA: TURNING POINT OF TRADITIONAL HUNTING ACTIVITIES

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Siberia is well known as a rich repository of wild animals. Hence, hunting - an age-old activity - is popular not only among the indigenous people, but also among the Russian people who have migrated there. Due to the severe environmental conditions, the flesh and the fur of wild animals had been vital for the life of the people. However, today, many town dwellers are opposed to furbearer hunting due to concern for wildlife protection. In recent times, the collapse of the Soviet Union and the subsequent introduction of a free-market economy has resulted in drastic changes in hunting activities, the mainstay of the Siberian people in the past. In this article, I would like to focus attention on the changes that have taken place in furbearer hunting in the Northern Yakutia (the Sakha Republic) and analyze these changes from a socioeconomic and ecological perspective.

NATURAL ENVIRONMENT AND PEOPLES IN NORTHERN YAKUTIA

Yakutia (the Sakha Republic) is located in eastern Siberia. It faces the Arctic Ocean to the north and the Lena River runs through the middle of the Yakutia. The Verkhoyansk Mountains are located on the eastern part of the Lena River, and the Siberian Highlands on the western part.

The gross area of the Sakha Republic is 3,103,200 km², which corresponds to 18.2% of the gross land area of Russia. Of this area, 80% of the land consists of forests known as taiga. The population of this area in 1995 was 1,035,800 and the ethnic composition in 1979 was; Yakut 36.9%, Russian 50.4%, Ukrainian 5.4%, Evenki 1.4%, Tatar 1.3% and others 4.6%. The capital city of the republic is Yakutsk.

The Sakha Republic is divided into 33 regions. The geographical area of my research is the Eveno-Bytantaikii region located in the north and consists of 52,300 km². This is an area of highlands and valleys located between the Verkhoyansk Mountains and the Bytantaikii River - a branch of the Yana River - which runs from north to south. The weather here is typically continental. It is severely cold, but has little snow. Temperatures

range from -54 C° to $+25\text{ C}^{\circ}$. The soil belongs to the eastern Siberian permafrost. A large part of the flora can be classified as northern taiga, which consist of open larch. The central village is Batagai-Alyta, which has a population of 1,710. Other large villages are Kustur with a population of 937 and Dzhargalakh with a population of 401. The ethnic makeup of the region in 1989 was; Yakut 60.2% and Even 34.5%. The Eveno-Bytantaiskii region covers a wide area from the north of the Sakha Republic to the river basins near the Okhotsuk Sea. Most of the Even people speak both the Yakut language and Russian. Today, very few Even people speak the Eveno language. The main form of subsistence of the Yakut people is cattle and horse breeding, and that of Even people is reindeer herding. Recently, they have a mixed subsistence with 59.4% of the total area being utilized for pasture for reindeer herding. There are no serious feuds between the Yakut and Even people, and there are many inter tribal marriages

Until the beginning of the 1990s many people were engaged in hunting. Not only professional hunters but also many of reindeer herders were engaged in hunting. They were acquainted with wildlife through reindeer herding. Therefore there was an intimate relationship between hunting and reindeer herding.

HISTORY OF HUNTING ACTIVITIES IN SIBERIA

The major means of subsistence in Northern Yakutia today is cattle breeding and reindeer herding, but hunting had been a very important means of livelihood for Siberian people. Especially fur has been very useful to shelter them from the cold and have also been a valuable article of merchandise.

Fur has also attracted Russians. Taiga has been a treasure house of high quality furs, and it is widely known that Russians invaded the East in order to acquire expensive furs such as sable, fox, ermine and so on. When fur coats became universally fashionable, their prices rose and influenced the hunting activities of Siberians in many ways.

How were the hunting activities in Siberia affected by external pressure? Before modernization, The Siberian people used furs mainly to protect themselves from the cold, and occasionally they bartered fur for other goods. At that time, when Siberia was thinly populated and trade was conducted on a small scale, the impact of furbearer hunting on the natural environment was negligible. After fur coats became popular in Europe and fur became valuable merchandise Russia invaded Siberia beginning from the latter half of the 16th century. The importance of fur for the Siberian economy is reflected in the facts that the Tyumen city, which is the first Siberian central city established by Russia used pictures of the sable and ermine as the emblem of the city (Yamanaka 1995). Moreover, Queen Ekaterina II adopted a double-headed sable as a part of the emblem when she established the Siberian kingdom (Yamanaka 1995). We can see the sable in the emblem of the city of Irkutsuk even today. The eastward invasion by Russia in pursuit of fur started in the latter

half of 16th century and extended to the Pacific coast within just 300 years.

When Russia began to control the Siberian peoples, the emperor of Russia imposed a type of poll tax known as “iasak” on the Siberian peoples. The number of furs collected through “iasak” system was more than 2,000,000. At the time, it accounted for 30% of the national budget (Yamanaka 1995). According to Shcheglov (1943), 200,000 pieces of sable fur, 10,000 pieces of fox fur, and 500,000 pieces of squirrel fur were paid from Siberia to the National Treasury in 1586. In 1698, 85% of the trade with China consisted of fur. Two to four million pieces of squirrel fur and 140,000 to 400,000 pieces of ermine fur were traded every year in those days (Yamanaka 1995). After this increasing demand for furs, reckless hunting began and hunters went deeper and deeper into the mountains to get furs.

In the Sakha Republic, the Tungus peoples started hunting at first. However, as they depended mainly on the natural economy, the influence of the fur trade was not significant. Then, the Yakut people invaded Verkhoyansk steppe from the south via the Lena River and started cattle and horse breeding in central Yakutia. Deforestation due to cattle and horse breeding increased, though not as severely as in the surrounding areas. However, after the invasion by the Russians and the imposition of the “iasak”, the furbearers decreased in number. In particular, the sable was threatened with extinction.

After the Russian Revolution, the Soviet Union commenced the development of Siberia primarily. Furs were still called “soft gold”, and a large quantity of fur was collected as an important resource. Though in the days of the Czarist Russia certain furbearers such as sables and foxes were almost extinct due to reckless hunting, after the 1917 revolution, there was a new growing tendency towards protection of wildlife due to ecological concerns. Some of the measures adopted for this purpose were: (1) Providing a reward of five roubles for each wolf - a natural enemy of the furbearers - that was caught; (2) Designating certain areas as game reserves to protect endangered animals; (3) Reintroducing live animals caught alive into inhabitable places to increase the number of furbearers; (4) Replanting Himalayan cedars because sables preferred Himalayan cedar forests (Morimoto 1962). As the furbearer numbers recovered due to these measures, kolkhoz and sovkhos started to organize professional hunting groups and to manage furbearer hunting. The hunting license and quotas issued for fixed hunting season were helpful to prevent the extinction of furbearers. There were about 4,000,000 professional hunters and 1,500,000 amateur hunters in early 1960s, and more than 4,000,000 pieces of furs were traded through the fur market in Leningrad (Morimoto 1962). Furthermore, many kolkhoz and sovkhos started the artificial breeding of valuable furbearers such as sables and foxes.

In this way, the furbearer hunting in Siberia underwent some drastic changes, but after the collapse of the Soviet Union, it was confronted with another problem.

TURNING POINT OF FURBEARER HUNTING

In the past, people living in a northern district could keep off the cold only by wearing fur. But the development of synthetic fibers provided the northern people with an inexpensive material to keep off the cold. Overcoats made of synthetic fiber are cheaper than fur coats and people could buy them easily. The fur products, especially fur coats were very expensive. One of the reasons for the high price was the labor needed to create a suit or a coat. For example, the typical long mink fur coat needs 70 to 80 minks and therefore much time and labor is needed to select furs of equal quality. Some modern people tend to value fashion above function, and help to raise the price of fur coats.

Another reason for the decreasing demand for fur is the consumer's boycott of fur products in the 1970s due to concern for Animal protection. Even in Japan, the import of furs has been decreasing drastically since the latter half of 1980s. This worldwide tendency to avoid natural fur products has had a great influence on furbearer hunting in Siberia.

With regard to the domestic fur market of the Sakha Republic, in addition to international factors that affected the demand for fur, furbearer hunting changed radically after the collapse of the Soviet Union when the economic system changed from a socialist economy to a free market model. This change liberalized the import of fur products. Low-priced and good quality furs of artificially bred animals, such as mink, began to flow into the Sakha fur market in large quantities from Italy, Greece, China and the United States. In the past, the Sakha Republic exported furs in keeping with the planned economy of the Soviet Union, but now it has to import many low-priced good quality furs from other countries. This change had a direct impact on hunting activities in fur-producing districts.

Table 1 shows the change in the number of professional hunters and game of "Leninskii agriculture enterprise" in Batagai-Alyta. It is clear from the table that the number of hunted game decreased suddenly. The number of hunters also decreased. In this town, for a long time in the past, sovkhos had organized professional teams of furbearer hunters, but the number of such professional hunting teams was decreasing. In 1995, there were no professional hunters in this town. Table 2 shows the total number of fur purchases and prices in "the Bytantaiskii sovkhos" in Kustur. In 1992, sovkhos kept twelve hunters including nine professional hunters, and the total purchase price of fur was only US\$358.76. In 1994, only four amateur hunters engaged in furbearer hunting, and the total purchase price of fur was only US\$282.12. The change has been so drastic that, now there are no professional furbearer hunters in Eveno-Bytantaiskii region, and recently furbearer hunting by a few amateur hunters has been reduced to a leisure activity for retired professional hunters who are now pensioners.

In Eveno-Bytantaiskii region, hunting activities have been popular among most men, not only professional hunters. Unfortunately there are no sables in this region, which are the most expensive furbearers in Siberia. Once attempts were made to introduce sables to this region, but this attempt was not successful because of the cold. So men could hunt

Table 1. Change in the number of professional hunters and game of " Leninskii agriculture enterprise " in Batagai-Alyta.

Year	Number of hunter teams	Number of hunters	Arctic hare	Ermine	Eurasian red squirrel	Sable	Red fox	Arctic fox	Eurasian lynx	Badger	Gray wolf
1985	1	26	97	1385	2791	10	1	4	0	0	0
1987	1	18	4078	1127	3179	8	1	35	0	0	0
1988	-	-	9329	3434	5711	19	1	1	2	3	0
1990	1	27	5857	595	3501	41	0	10	0	0	0
1991	1	29	6751	259	3462	9	0	0	0	0	0
1993	1	15	1156	60	1012	0	0	0	0	0	3
1994	1	-	1843	66	1021	0	0	0	0	0	6

Table 2. Fur purchases and prices in " the Bytantaiskii sovkhos " in Kustur.

Dec. 1992 *Number of hunters : 12 (Professional : 9, Amateur : 3)*

Species	Size	Quality	Damage	Unit price (rouble)	Unit price (US\$)	Number	Subtotal (rouble)	Subtotal (US\$)
Arctic hare	-	I	no	60	0.14	594	35640	85.88
	-	I	little	54	0.13	610	31940	79.37
	-	I	medium	45	0.11	712	32040	77.2
Ermine	large	I	no	426	1.03	36	15336	36.95
	large	I	little	383.4	0.92	27	10351.8	24.94
	large	I	medium	319.5	0.77	10	3088.5	7.44
	middle	I	no	319.5	0.77	16	5112	12.32
	middle	I	little	287.55	0.69	13	3738.15	9.01
	middle	I	medium	239.55	0.58	3	814.25	1.96
Red squirrel	-	I	no	123	0.3	47	5781	13.93
	-	I	little	110.7	0.27	34	3763.8	9.07
	-	I	medium	92.25	0.22	14	1278	3.08

Total : 148883.5 roubles (US\$358.76)

*Exchange rate : 1US\$ = 415roubles

Dec. 1994 *Number of hunters : 4 (Professional : 0, Amateur : 4)*

Species	Size	Quality	Damage	Unit price (rouble)	Unit price (US\$)	Number	Subtotal (rouble)	Subtotal (US\$)
Arctic hare	-	I	no	800	0.23	128	102400	29.88
	-	I	little	640	0.18	66	42240	12.33
	-	I	medium	480	0.14	57	27360	7.98
Ermine	large	I	little	3780	1.1	1	3780	1.1
	large	I	medium	3150	0.92	3	9450	2.76
	middle	I	little	3150	0.92	3	9450	2.76
	small	I	no	2100	0.61	2	4200	1.23
Red squirrel	-	I	no	3000	0.88	167	501000	146.19
	-	I	little	2700	0.79	74	199800	58.3
	-	I	medium	2250	0.66	20	45000	13.13
	-	II	little	2460	0.72	9	22140	6.46

Total : 966820 roubles (US\$282.12)

*Exchange rate : 1US\$ = 3427roubles

only furbearers that produce cheap furs, a fact that discouraged them from continuing hunting activities. As of December 1994, the average monthly wage in Russia was 354,200 roubles (U.S.\$99.8). In comparison to this, incomes from hunting activities in Eveno-Bytantaiskii region are very meager. Hunters could no longer maintain themselves by hunting activities alone, and could not purchase hunting gear and bullets. In a hunting gear shop in Yakutsk, as of November 1995, the prices of new types of rifles were 1,400,000 roubles (U.S.\$305.8) to 2,000,000 roubles (U.S.\$436.9) and the prices of bullets were 15,000 roubles (U.S.\$3.3) to 40,000 roubles (U.S.\$8.7) per 20 bullets. The hunting gear and bullets were too expensive for furbearer hunters. Because of these economic reasons, it was very difficult for hunters to continue hunting activities. It seemed that some hunters sold their hunted furs directly in the black market in Yakutsk without the mediation of agriculture enterprise or sovkhov. As for the artificial fox breeding projects, the drop in the fur price made it difficult to continue them.

In spite of this, the Sakha Republic still emphasizes that the fur industry is a major industry of the Republic, and it appears determined to conduct a major restructuring program of the fur industry. In 1993 the ethnic hunting corporation "Sakha Bult" was established to manage hunting activities and control the fur trade. This corporation has monopolized the issue of hunting licenses, as well as the purchase and sale of fur. Hunters generally have to enter into a contract with "Sakha Bult" to purchase hunting licenses and hunting gear, and they have to supply furs to "Sakha Bult". Before that, hunters used to buy hunting gear and sell fur through sovkhov or kolkhoz. But because of the fall in fur prices and the rise in prices of hunting gear, the Sakha government, in cooperation with the Ministry of Environment, established "Sakha Bult" and tried to revive furbearer hunting by controlling the fur trade and protecting natural resources and hunters. "Sakha Bult" handles the furs of red squirrels, ermines, Siberian weasels, muskrats, sables, arctic hares, red foxes, arctic foxes, Eurasian lynxes, wolverines, brown bears, polar bears, gray wolves, etc. Each item has its own preset price. It is noteworthy that black-capped marmot hunting is prohibited.

Table 3 shows prices that "Sakha Bult" paid to hunters for their fur. With the exception of certain valuable furs such as sables, the prices paid were very low. Although the Sakha Republic is trying to revive furbearer hunting, the success of this undertaking depends mainly on the market price for fur. The hunting officer of Batagai-Alyta stated that the future prospect for furbearer hunting really depends on the demand for fur. If the demand goes down then fur will be hunted for home consumption only.

Table 3. Prices that “ Sakha Bult ” paid to hunters for fur in 1994 and 1995 (rouble).

<i>Species</i>	<i>1994</i>	<i>1995</i>
Eurasian red squirrel	3000	6000
Ermine	4200	8000
Siberian weasel	4800	-
Muskrat	7000	-
Sable	130000	900000
Arctic hare	800	2000
Arctic fox	50000 ~ 150000	90000
Red fox	160000 ~ 200000	140000
Eurasian lynx	150000	300000
Wolverine	90000	-
Brown bear	150000	500000
Gray wolf	130000	150000
*Exchange rate	US\$1 = 3427roubles	US\$1 = 4470roubles

HUNTING ANIMALS AND HUNTING REGULATIONS IN SAKHA REPUBLIC

Table 4 is a list of land mammals in the Sakha Republic. Animals marked with a gray rectangle are mainly hunted in Northern Yakutia. Animals marked with an asterisk are recorded in the red data as endangered species and protected by the Sakha Republic. In 1987 the Yakutian version of the red data was established.

The system for the issue of hunting licenses in the Sakha Republic is not comprehensive but has separate demarcations. Hunters have to pay a prescribed fee to get a license for each catch. But some ethnic minorities can get a specific license free of charge. The Northern Minority Association of the Ministry of Minority, issues this type of licenses. According to this license, people of certain minorities can hunt one animal of Siberian bighorns, bears, moose and wild reindeers respectively. But it seemed that this system did not work, because once they got this license, some people disregarded the limits and hunted freely. In the Eveno-Bytantaiskii region, the free licenses for minorities are given only to Even people.

The prices of hunting licenses are enacted by a government ordinance. The government sets the license fees for amateur hunting, such as sport hunting, and for professional hunting. For example in 1995, professional hunters had to pay 28,000 roubles per catch of wild reindeer, while amateur hunters had to pay 88,000 roubles. Foreign hunters have to pay in U.S. dollars to get hunting licenses, and prices for foreigners are higher than that for local inhabitants.

Among the hunted animals, sables are considered the most important furbearer contribution to the national income. Therefore, special attention is given to the management of sable numbers. Hunters who want to hunt sables have to pay 5,000 roubles to get a license for each catch. Limits on hunting are strictly set for each region. In

Table 4. List of land mammals in the Sakha Republic.

Order	Family	Species (English)	Scientific name	
Insectivola	Talpidae	Siberian mole(*)	<i>Talpa altaica</i>	
		Soricidae	Arctic shrew	<i>Sorex arcticus</i>
			Laxman's shrew	<i>Sorex caecutiens</i>
			-	<i>Sorex centralis</i>
			Large-toothed Siberian shrew	<i>Sorex daphaenodon</i>
			Least shrew	<i>Sorex minutissimus</i>
			European pygmy shrew	<i>Sorex minutus</i>
			Giant shrew	<i>Sorex mirabilis</i>
			Flat-skulled shrew	<i>Sorex vir</i>
			Eurasian water shrew	<i>Neomys fodiens</i>
Chiroptera	Vespertilionidae	Daubenton's bat	<i>Myotis daubentoni</i>	
		Common long-eared bat(*)	<i>Plecotus auritus</i>	
		Northern bat	<i>Eptesicus nilssoni</i>	
Lagomorpha	Leporidae	Arctic hare	<i>Lepus timidus</i>	
	Lagomyidae	Alpine pika	<i>Ochotona alpina</i>	
Rodentia	Sciuridae	Siberian flying squirrel	<i>Pteromys volans</i>	
		Eurasian red squirrel	<i>Sciurus vulgaris</i>	
		Siberian chipmunk	<i>Tamias sibiricus</i>	
			Black-capped marmot	<i>Marmota camtschatica</i>
			Arctic ground squirrel	<i>Citellus undulatus</i>
	Muridae	Norway rat	<i>Rattus norvegicus</i>	
		House mouse	<i>Mus musculus</i>	
		Large Japanese field mouse	<i>Apodemus speciosus</i>	
		Harvest mouse	<i>Micromys minutus</i>	
		Muskrat	<i>Ondatra zibethicus</i>	
		Northern red-backed vole	<i>Clethrionomys rutilus</i>	
		Gray red-backed vole	<i>Clethrionomys rufocanus</i>	
		Siberian lemming	<i>Lemmus sibiricus</i>	
		Wood lemming	<i>Myopus schisticolor</i>	
		Siberian arctic lemming	<i>Dicrostonyx torquatus</i>	
		Large-eared vole	<i>Alticola macrotis</i>	
		European water vole	<i>Arvicola terrestris</i>	
		Narrow headed vole	<i>Microtus gregalis</i>	
		Middendorff's vole	<i>Microtus middenforffi</i>	
			-	<i>Microtus hyperboreus</i>
			Field vole	<i>Microtus agrestis</i>
			Tundra vole	<i>Microtus oeconomus</i>
	Carnivora	Canidae	Gray wolf	<i>Canis lupus</i>
			Red fox	<i>Vulpes vulpes</i>
			Arctic fox	<i>Alopex lagopus</i>
		Ursidae	Brown bear	<i>Ursus arctos</i>
			Polar bear(*)	<i>Thalarchos maritimus</i>
Mustelidae		Ermine	<i>Mustera erminea</i>	
		European common weasel	<i>Mustera nivalis</i>	
		Siberian weasel	<i>Mustera sibirica</i>	
		American mink	<i>Mustera vison</i>	
		Sable	<i>Martes zibellina</i>	
		Wolverine	<i>Gulo gulo</i>	
		Eurasian river otter(*)	<i>Lutra lutra</i>	
			Eurasian lynx(*)	<i>Lynx lynx</i>
Artiodactyla		Moschidae	Siberian musk deer	<i>Moschus moschiferus</i>
		Cervidae	Roe deer(*)	<i>Capreolus capreolus</i>
	Red deer(*)		<i>Cervus wlapshus</i>	
			Moose	<i>Alces alces</i>
			Reindeer	<i>Rangifer tarandus</i>
	Bovidae	Siberian bighorn(*)	<i>Ovis nivicola</i>	

Source: Modified from the data of Tavrovskii, B.A. et al. (1971).

Note: Animals marked with a gray rectangle are mainly hunted in Northern Yakutia, and animals marked with asterisk are recoded in the red data as endangered species in the Sakha Republic.

Eveno-Bytantaiskii region, a person can hunt only 50 sables per year. Once hunters get sable licenses, they have to supply the same amount of sable fur to “ Sakha Bult ”. If the hunter cannot supply them, he will be punished. Through this special licensing system, “ Sakha Bult ” has made an attempt to ensure that a minimum amount of sable furs will be provided while protecting this important natural resource.

Table 5 and 6 show the hunting season and restrictions on hunting in Yakutia. Autumn to winter is the best hunting season. I could not clarify the criteria for setting hunting limits, but I was informed that the Institute of Biology (Siberian Branch of Russian Academy of Science) uses helicopters to estimate the number of animals, and that biologists decide the limits based on the findings of this research.

Table 5. Hunting periods in the Sakha Republic in 1995.

<i>Species</i>	<i>Period</i>
Wild reindeer (tundra)	Aug. 1 ~ Dec.15
Wild reindeer (forest)	Sep.10 ~ Dec. 1
Siberian bighorn	Sep.10 ~ Nov.15
Brown bear	Sep.10 ~ Dec.31
Sable	Sep.20 ~ Feb.15
Moose	Sep.15 ~ Nov.15

Table 6. Restrictions on hunting in the Sakha Republic.

<i>Species</i>	<i>Least upper bound</i>
Species	
Siberian bighorn	500
Brown bear	450
Sable	25000
Wild reindeer	37000

AMATEUR HUNTING IN NORTHERN YAKUTIA

As I mentioned before, at present, only amateur hunters hunt in this region. Amateur hunting is classified into two types. One is big game hunting by rifles. Game animals are animals such as reindeers, Siberian big horns and moose. In a sense, this type of hunting is a sport, and in another sense it is hunting for food storing. Mainly young hunters in this area enjoy this type of hunting. Wild reindeer has a special meaning for native big game hunters. In Eveno-Bytantaiskii region wild reindeer migrate from the Arctic region. Sometimes wild reindeer herds absorb domestic reindeer and take them back to the Arctic. Therefore, wild reindeer are considered pests by domestic reindeer herders who are eager to exterminate them. On the other hand, wild

reindeer meat is considered more delicious than that of domestic reindeer; therefore by hunting wild reindeer, hunters can kill two birds with one stone. However, wild reindeer furs are of poor quality and have little market value. As most hunters in this region have had experience in reindeer herding or related jobs, they are well acquainted with hunting the grounds through their nomadic life. In addition to wild reindeer hunting, Siberian bighorn hunting is also popular because of the delicious meat. Usually big game hunting is conducted in groups.

Another type of hunting is personal, purely as a form of leisure activity. These hunters usually hunt alone and use traditional traps or snares to catch small furbearers such as ermines, red squirrels and arctic hares. They are usually old hunters, who enjoy hunting after retirement from professional hunting and sell the fur for pocket money. However, seemingly, pleasure rather than money is the goal of their hunt.

It is interesting that while young hunters prefer modern hunting gear, old hunters such as the pensioners prefer traditional traps. An old pensioner I met in Kustur village contrived traps according to the season. He utilized fallen trees for his ermine trap body in the summer but used ice for the trap body in the winter. It is adaptive to use natural materials for trapping. He also seemed to enjoy conversations with animals.

TRADITIONAL CONSCIOUSNESS TOWARD ANIMALS AND UTILIZATION

While modern sport hunting activities have become fashionable even in Northern Yakutia, traditional rituals and attitudes concerning animals still continue. In 1993, I investigated the hunted species and the utilization of hunted animals at a reindeer herding camp near Batagai-Alyta. Almost all my informants were Even, who hunted when they had free time from reindeer herding. They hunted reindeer, Siberian big horns, snow grouses, wild geese, and wild-ducks for food, and red foxes, Eurasian lynxes, ermines, Eurasian red squirrels for fur. They seldom hunted bears and wolves because these animals were dangerous. As bears are objects of veneration, when they hunted bears, they inevitably held a ceremony. When they killed horses, a similar ceremony was held. Curiously enough, they told me that after eating the meat, they hung the skulls of horses on a tree because they believe that skulls of animals should not be put on the ground, but should be kept above the ground. In fact, I saw many skulls of horses and cattle hanging on a tree near the farm. Other animals that they hunted and purposes for various uses are as follows:

Alpine pika: toasted skin is used as a medicine for burns

Siberian flying squirrel: not caught now because they have few uses.

Siberian weasel: not usually found in this region, people take its skin if they find one.

Wolverines: used fur for caps and collars.

River otter: found near the Zhigan River. Used for fur.

Sable: first introduced in 1952. Hunted and the fur is sold as it is very expensive.

Siberian chipmunk: numbers are decreasing.

Polar bear: Now, not found in this area, but three times the number was caught before.

Moose: Similar to the reindeer, all parts of the body are used.

Muskrat: Found but not seen yet.

Beaver: Extinct

Brown bear: Killed in former times, but now it is considered a crime to kill a bear.

Arctic hare: Caught by traps, eaten and fur is used for blankets, mittens, and caps

Arctic fox: Found in the tundra but not in forest. The fur is sold.

Arctic ground squirrel: Usually not caught.

Black-capped marmot: It is prohibited to catch this animal but oil is used for medicine and the meat is eaten.

OUTLOOK FOR SIBERIAN FURBEARER HUNTING

Because of the decline of fur prices, at present, only leisure hunting of small furbearers by elderly pensioners, and big game hunting for sport and food storage is continuing in Northern Yakutia. In a sense, the extent of hunting activities has returned to that of pre-acclturation level. It is no longer possible to get an income from furbearer hunting. However, cattle and horse breeding activities, as well as reindeer herding are also in decline. As a result, since recently, big game hunting for food storage is has becoming important again.

In this region, a new attempt to gain an income from hunting is being made gradually. One such attempt is the management of sport hunting by foreigners. Well-trained local hunters guide foreigners who are eager to get trophies of big game. The hunters get an income in return for their service. Because of the depreciation of the rouble, foreign hunters can enjoy big game hunting at a lower price compared to hunting in their own country. Moreover, almost all foreign hunters keep only the trophies of hunted animals. Therefore, local hunters get not only money, but also meat and fur. In some respects however, preparations for accepting foreign hunters such as transport facilities, food, accommodation and sanitary facilities are still insufficient. For the success of this venture, it is essential that these facilities are improved.

As mentioned before, furbearer hunting is no longer the main subsistence of the people in this region. But I would like to point out the necessity to protect traditional furbearer hunting techniques and indigenous knowledge of wildlife. Major subsistence activities seeking a profit tend to be affected by socioeconomic and political condition, but minor subsistence activities such as leisure hunting of small furbearers continue to

maintain their traditional style. We can learn about sustainable use of natural resources from indigenous knowledge of native people. One day, I saw a skeleton of arctic fox hanging on a tree near the reindeer herding campground. I asked why people in this region did this. They answered that they only followed tradition and did not know the origin. Traditional attitudes towards animals still continue in this region to some extent even today, but they will surely disappear in the near future. We have to look again at the traditional aspects of furbearer hunting in Northern Yakutia and make an effort to pass on their knowledge to the next generation.

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