

The management and utilization of reindeer in China

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Reindeer (*Rangifer tarandus*) are economically valuable in China for their hides, meat, velvet antlers and milk. Reindeer are raised and trained by the Owenke, a minority nationality who depends on the reindeer for their food and livelihood. Thus, reindeer have an important role in economic and cultural development of the Owenke.

Since the founding for the People's Republic of China in 1949, the Communist Party and the People's Government have given attention to the protection and development of reindeer resources. The regional veterinary station sent veterinarians to the countryside to inspect the reindeer and, in 1960, set up a branch veterinary station. In 1967 a «Dongfanghong» (Red in the East) hunting team was organized which has worked hard to protect reindeer and to construct Oluguya village.

Owenke hunters have a complex system to manage and raise reindeer based on the annual biological cycle of the animals, as follows.

Spring (April-May)

Reindeer fawning begins with snow melt and greening of vegetation. The Owenke choose a sunny, sheltered site near water to live in preparation for the birth of fawns. They herd the reindeer back near their tents and feed them salt. For those reindeer that are about to give birth, the Owenke hang sticks about 40-50 cm long and 5-6 cm thick on their necks. The sticks hinder the movement of the reindeer and therefore they will not get loose and wander away. At the same time, the Owenke look after the reindeer during the critical period of birth. When the reindeer have fawned, they and their newborn are tied up to prevent them from running away. If some reindeer refuse to nurse or have a weak maternal instinct, the Owenke will force them to nurse

and care for the fawn or will find a substitute reindeer mother whose newborn has died. Sometimes they also use artificial feeding. To individualize the newborn reindeer, the Owenke usually give them names. The newborn fawns are usually 6.5-7.5 kg in weight and can follow their mothers about 4 h. after their birth.

Summer (June-August)

Rising temperatures create favourable conditions for the spread of disease and the production of mosquitoes, gadflies and other insects (reindeer are also chased by wolves or bears). To help the reindeer grow well, each day the Owenke herd them back, feed them with salt, and burn moistened mosses for smoke to keep blood-suckings insects away. They also practice disease prevention and cure: for example, they often cure reindeer arthritis by acupuncture treatment or local medicines.

Around the end of May and the beginning of June, velvet antlers are ready for collection. The Owenke get antlers first from stags then from does. The reindeer is tied to a sturdy tree, and the Owenke put the reindeer's head in a frame made from two sticks about 4 m long and 10 cm thick crossing into a «V» form, and saw the antlers off. The Owenke boil the antlers and hang them in a shady and windy place to dry to keep them from rotting.

Since 1961, China has begun to systematically use reindeer antlers in Chinese medicines. The average annual collection of antlers in China has been about 300 kg. In recent years the output has declined slightly from about 400 kg in 1974 to slightly more than 200 kg in 1985 because of low prices.

During the lactation period (May-October), the Owenke milk reindeer once a day in the morning. When doing this, the Owenke leave the

front two nipples for the fawn and milk the other two nipples. Each time, they obtain 200-300 g of milk. The milk contains a high percentage of protein, and the Owenke usually boil it for making tea.

Autumn (September-October)

The main work of the Owenke in autumn, as the weather becomes cool, is to prepare for the reindeer rut. In early September, the yearling male reindeer are castrated by pressing the reindeer down on the ground, wrapping its testes, and then biting the testes to pieces. As well, the herders saw off the ossified tips of the antlers of male reindeer to prevent injuries during the rutting fights. The rut starts in early October and lasts about a month during which time breeding males eat little or nothing, but drink more and chase female reindeer constantly. As at that time, it is easy to lose reindeer, the Owenke keep them in pens until evening when they are let out to look for food.

Winter (November-March)

The weather becomes cold and temperatures can reach -50°C . Reindeer excavate craters in the snow with their hooves for lichens. They also can eat tender branches of bushes or withered grass. For the Owenke, winter is the main hunting season, primarily for gray squirrels (*Sciurus vulgaris*). Owenke hunters move camp from time to time to hunt. Therefore, reindeer carry women and children or goods weighing 30-35 kg, and even up to 60 kg. Five to 10 and even up to 15 reindeer are fastened in a row and follow a person through forest and marshlands at an average speed of 5-6 km/h. To train a draught reindeer, a castrated male reindeer 3-4 yr old is tied up for several days to make it

exhausted, hungry and thirsty. It is then fed with lush grass but kept hungry and thirsty and accessible to man. Finally it is led to a river to drink while loaded with some goods. This is done repeatedly until it obeys people and carries a heavy load. The whole process takes about 10 days.

Reindeer are exhibited in large zoos in China. According to incomplete statistics, the sale of reindeer to zoos from 1971 to 1984 totaled 324.

As previously mentioned, the utilization of reindeer in China is restricted primarily to living animals for antlers, milk, draught and exhibition. Meat and hides are seldom used because of the small historical increase in numbers (Table 1), due to a variety of reasons.

In June 1985, The First Symposium on the Development of Reindeer Resources in China was convened in Erguna Zuoqi County. At the Symposium, measures to improve reindeer management and to develop reindeer resources in China were advanced. I believe that the development of reindeer resources in China has a positive prospect.

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Table 1. Numbers of reindeer and Owenke in China over the last 50 years.

Year	Population of Owenke	Numbers of reindeer	Data sources
1939	253	853	Nagata (1939) pp. 9-10
1945	170	400±	Qiu Pu (1962) p. 6
1957	146	629	Qui Pu (1962) pp. 31-32
1967	—	795	Helin, Oct. 1967, records
1976	167	955	Surveys in July-Oct. 1976
1985	195	904	Helin, April 1985, records