

Chukchi Reindeer Grazing and Changes to Grazing Territory in Northeastern Siberia

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Chukchi Reindeer Grazing and Changes to Grazing Territory in Northeastern Siberia

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INTRODUCTION

There have been many recent studies by British, American and Japanese anthropologists, focusing on the changes in reindeer grazing economies which have followed upon the collapse of the state socialism system in the former Soviet Union. Such studies include those by Montaigne [1998], Klokov [2000] and Yoshida [1998] on the Nenets on the Yamal and Gydan Peninsulas; studies by Vitebsky [1989a, 1989b] and Takakura [1998, 1999] on the Even and Yakut of the Sakha Republic; a study by Oshima [1998a, 1998b] on the Koriak living on the Kamchat Peninsula; and studies by Kwon [1993] on the Uilta (Orochon) living in the northern part of Sakhalin. These texts have focused on many different aspects of reindeer economies, such as diet, ritual, the family relationships of reindeer herders, and systems of ownership. Despite these differences, they have all described the formation of private enterprises following the breakup of state-run farms. Some have also focused on the increases in the numbers of privately owned reindeer.

However, there appear to have been no reports except Gray [2000] on changes in the reindeer grazing of the Chukchi. Therefore, this report aims to provide information on various aspects of reindeer grazing by the Chukchi, as well as to provide an outline for understanding the processes of various changes in reindeer grazing in Russia following the collapse of the Soviet Union. The specific aim of this report will be to clarify whether or not all of the changes in reindeer grazing were actually forced upon the Chukchi or if the changes were due to Chukchi responding to changes in the politico-economic system.

This report is based on a survey conducted by the author at Rytkuchi Village, located in Chaun District of the Chukotka Autonomous Okrug of the Russian Federation. It reports on the way that the state utilized and managed the reindeer herders' traditional culture. It also documents the responses of Chukchi nomads to the government's involvement in their traditional culture. As such, it documents many struggles common to rural hunters and herders worldwide, as do the contributions in this volume by Taylor [Chapter 10], Ziker [Chapter 4], Anderson [Chapter 2] and Porath [Chapter 8].

The specific research which led to this report was conducted by the author over a 34-day period from 20 October to 22 November, 1997. Within that time, the author spent about one week living together with and observing the lifestyle of the Chukchi in the camp of Brigade No.2. The author also stayed in the house of the village head, where he collected statistical information from the state farm office and the village administration office. The author also was able to interview many Chukchi living in the village.

The Chukchi are an indigenous people of the Chukot Peninsula in the northeastern part of Russia. The population of the Chukchi in 1989 was about 15,000 [Vakhtin 1994: 34]. In the latter half of the nineteenth century, the Chukchi were divided by ethnographers into two groups, one group tending herds of reindeer

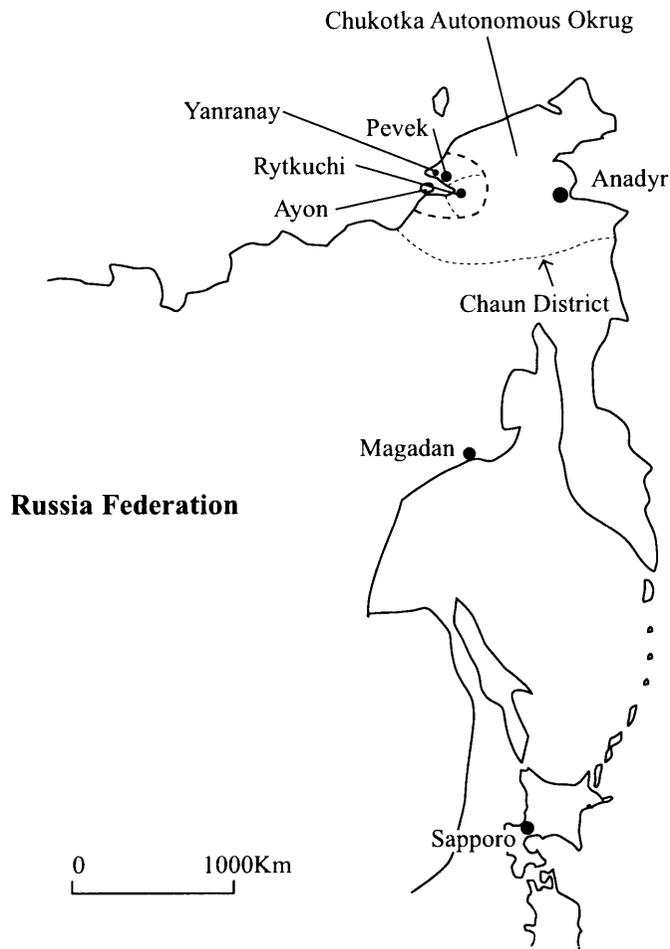


Figure 1. Location of the survey site

(Reindeer Chukchi) and the other group living along the coast and depending primarily on hunting sea mammals (walruses, seals, etc.) for their subsistence (Maritime Chukchi) [Bogoras 1901]. However, due to the spread of socialism in the Soviet era, many of the Chukchi now work on state-run farms (hereafter called “sovkhozy”).

Chaun District is located in the northwestern part of the Chukotka Autonomous Okrug (about 72 square kilometers in area). The Chukotka Autonomous Okrug became independent from the Magadan Oblast in 1990 (Figure 1). The population of Chaun District in 1997 was about 10,800, with about 8,000 people living in the administrative center of Pevek. Originally, there were three sovkhozy in Chaun District (Chaun, Yanranay and Aion). The Yanranay Sovkhoz was organized into a private enterprise consisting of 24 Russians and Chukchi in 1953. The numbers of reindeer on the Chaun, Yanranay and Aion sovkhozy in 1997 were 13,000, 2,792 and 9,664, respectively.

LIFE IN RYTKUCHI VILLAGE

Figure 1 shows the location of Rytkuchi Village (lat. 69° N and long. 171° E). The village is located on the coast of Chaun Bay, a bay leading to the Arctic Ocean, about 100 kilometers south of Pevek. Rytkuchi is a Chukchi word meaning “the sound of gunfire”. In Russian, the village is known as Ust'-Chaun. The village lies within the territory of a large sovkhoz extending about 240 kilometers north-south and 200 kilometers east-west. This vast tundra is used for grazing reindeer.

The village is surrounded by undulating lowlands through which rivers flow. Mountains lying to the south form a watershed. There are many lakes along the rivers. According to data for 1996, the average temperature in August, the warmest month of the year, was 14°, and the average temperature in February, the coldest month of the year, was -27.5° (Figure 2). Maximum and minimum monthly rainfall in 1996 was 47mm and 5mm in August and January, respectively. The flora of the region is mainly shrubbery and lichen, including reindeer moss, which reindeer feed on. In Brigade No.5's reindeer grazing area, located in the tributary region of the Kolyma River, there is a sparse forest of trees of 2-3 meters in height at the foot of the mountains. The wood from these trees is used to make sleds.

The population of the village in October 1997 was 493 (Figure 3), of which about 110 were living in seven camps as separate brigades. Except for one Ukrainian, two Even and two Koriak, the inhabitants of these brigade camps in 1997 were all Chukchi. The majority (65%) of village inhabitants in 1997 were also Chukchi, with most of the remainder being Russian and Ukrainian. Since reaching a peak of 1,000 around 1970, the population has shown a continual decline, to 890 in 1988 (a decline of 110) and to 493 in 1997. This is a decline of about 400 in a period of only ten years.

The layout of buildings in the village is shown in Figure 4. The buildings include one-story and two-story apartment buildings, a school, kindergarten,

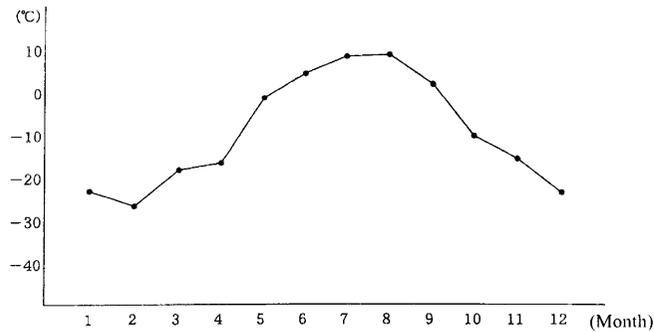


Figure 2. Monthly temperatures in Rytkuchi (1996)
Source: The meteorological agency in Pevek

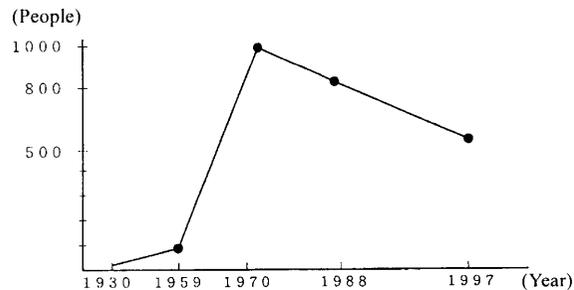
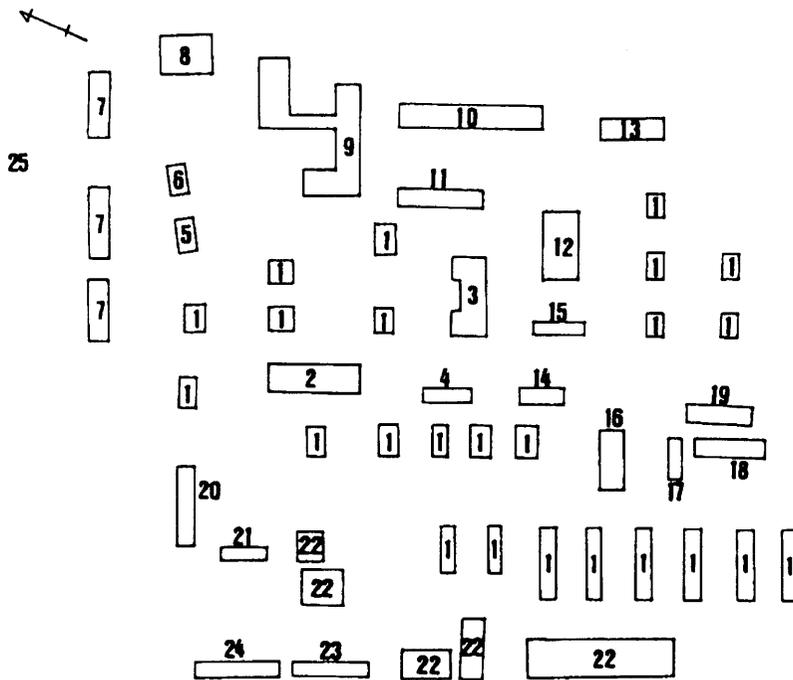


Figure 3. Changes in the population of Rytkuchi
Source: Population in 1959 and 1970 taken by interview
Population in 1988 [NHK Broadcasting 1989: 12]

hospital, village office, sovkhos office, thermoelectric power plant, a general store run by the sovkhos, a communal bathhouse with a sauna and a library. There are 194 apartments in the village. In recent years, Chukchi have been moving into apartments vacated by Caucasians, particularly Russians, who have moved out of the village. Thus, nowadays, even Chukchi who spend almost the whole year outside the village tending reindeer have apartments in the village. Each apartment is equipped with pipes for heating and has appliances such as an electric stove for cooking in the kitchen, a colour television and a refrigerator.

All of the top positions in the village are held by Russians. These include the positions of village mayor, sovkhos director, school principal, doctors and nurses, etc. The Chukchi have fewer and lower-status positions; three Chukchi work in the accounting section of the Rytkuchi Office, one Chukchi works as a teacher of the Chukchi language, and two or three Chukchi work in other village offices such as the post office and cultural center. A few Chukchi also work in a recently opened school for teaching traditional Chukchi craft, painting and music. According to historical records kept in the village museum, in 1930 two Russian hunters, who



1. apartment buildings (194), 2. culture center, 3. museum, 4. library,
 5. fire department, 6. general store, 7. warehouse 8. meteorological station,
 9. school, 10. student dormitory, 11. hospital, 12. kindergarten and nursery,
 13. clothes factory (closed in 1992), 14. warehouse, 15. originally apartments
 for single people, 16. communal bathhouse, 17. antler processing factory,
 18. pensioner's home, 19. shed for snowmobile, 20. Sovkhoz Office,
 21. Village Office 22. sovkhos warehouse, 23. heating facility,
 24. thermoelectric power station, 25. heliport

Figure 4. Layout of buildings in Rytkuchi Village

were brothers, lived where the village is now located. The records show that they first came to the site of the present village in 1920, but there is no record of where they came from. From 1931 to 1932, a village was established around the site of a bird research center that had been set up by the Academy of Sciences of the Soviet Union. The village was moved to the present site in 1933-34, and a school, school dormitory and bread factory were constructed.

The first census was conducted in the village in 1939. In 1940, the first kolkhoz (collective farm) was established. In 1941, a teacher from Moscow came to the village, and a cultural center and clinic were set up. The first sovkhos was established in 1957. A census conducted in 1959 showed that the majority of the 80

inhabitants of the village were Russian. Twelve brigades were established in 1965, each owning a vezdikhod (all-terrain vehicle) and a tractor. In 1980 the manufacture of traditional Chukchi crafts was started in the village, and a museum was opened in the village in 1986.

LIFE IN A REINDEER CAMP

The reindeer are grazed on a vast tundra, which extends inland from the village. At the time of the survey conducted by the author, there were seven brigade camps herding reindeer on the tundra. The following is a description of life in the camp of the No.2 brigade (Photo 1), with whom the author lived.

1) Camp composition

Figure 5 shows the family structure of the 17 inhabitants of No.2 camp in 1997. At that time, all except one of the inhabitants were Chukchi. The camp was comprised of three households, headed by Antolgen, Treseyve and Ivan, each living in one tent. The two children in Ivan's family attended school and only lived in the village from June to August. The three households were linked through marriage, Ivan being the brother of Antolgen's wife and Treseyve's wife being the daughter of Antolgen. Three men in the camp did not have blood ties to the three households. Tono was originally a member of Brigade No.4 and joined Brigade No.2 with his father-in-law after all of the reindeer managed by Brigade No.4 were lost. Valeria's deceased mother was a member of Brigade No.2, and Waasha's deceased father was



Photo 1. A reindeer camp of Brigade No. 2
Photograph by K. Ikeya

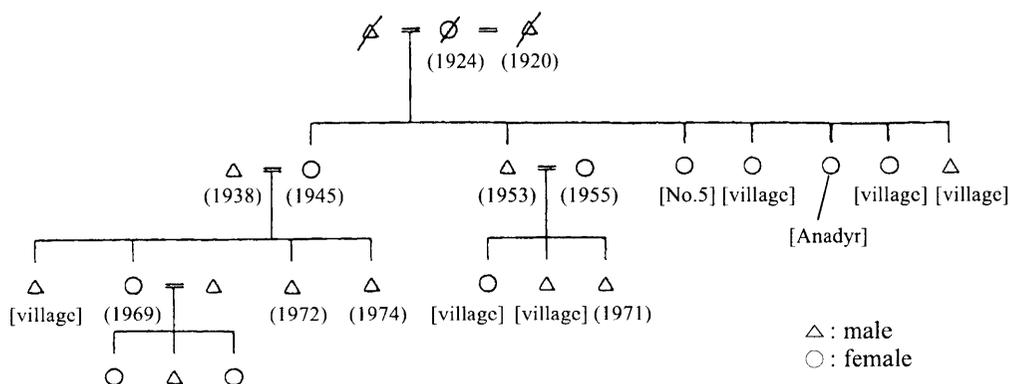


Figure 5. Members of Brigade No. 2
Source: Interview

also a member of Brigade No.2.

At the time of the author's survey, there were three children less than 10 years old (7 months, 3 years and 6 years old, respectively), but there were no people between 10 and 20 years of age. There were some men in their twenties and thirties, who, after finishing their education in the village school, had performed the compulsory two-year military training course and then returned to the village. Two elderly camp inhabitants (Qoravye and Sergeenov) died in 1996. Treseyve and his wife moved to No.2 camp from the camp of the No.10 brigade, where their parents were living in 1992.

Each brigade has a leader who is appointed by the Sovkhoz Office in Rytkuchi. At the time of the author's survey, Ivan was serving as leader of Brigade No.2. Before Ivan's appointment, Antolgen served as brigade leader. Before Antolgen the position was held by Qoravye, the husband of Antolgen's mother-in-law. Antolgen has four children. One of them, Roma, has been living in the village since getting married in 1994. Roma often visited the camp, sometimes to help other family members. For instance, when his sister's 7-month-old baby became ill in November 1997, Roma went to the camp by snowmobile to take his sister and her family to the clinic in the village.

2) Migration routes

Figure 6 shows the migration routes of Brigade No.2 from August 1995 to October 1997. The patterns of migration in the winter and non-winter months differ. In winter, all of the brigade members move together, while in summer the brigade members form two new camps, one camp for the men who tend the reindeer and one camp for the elderly and women, who make products from reindeer hide.

As can be seen in Figure 6, the camp was located beside the Reto River at its

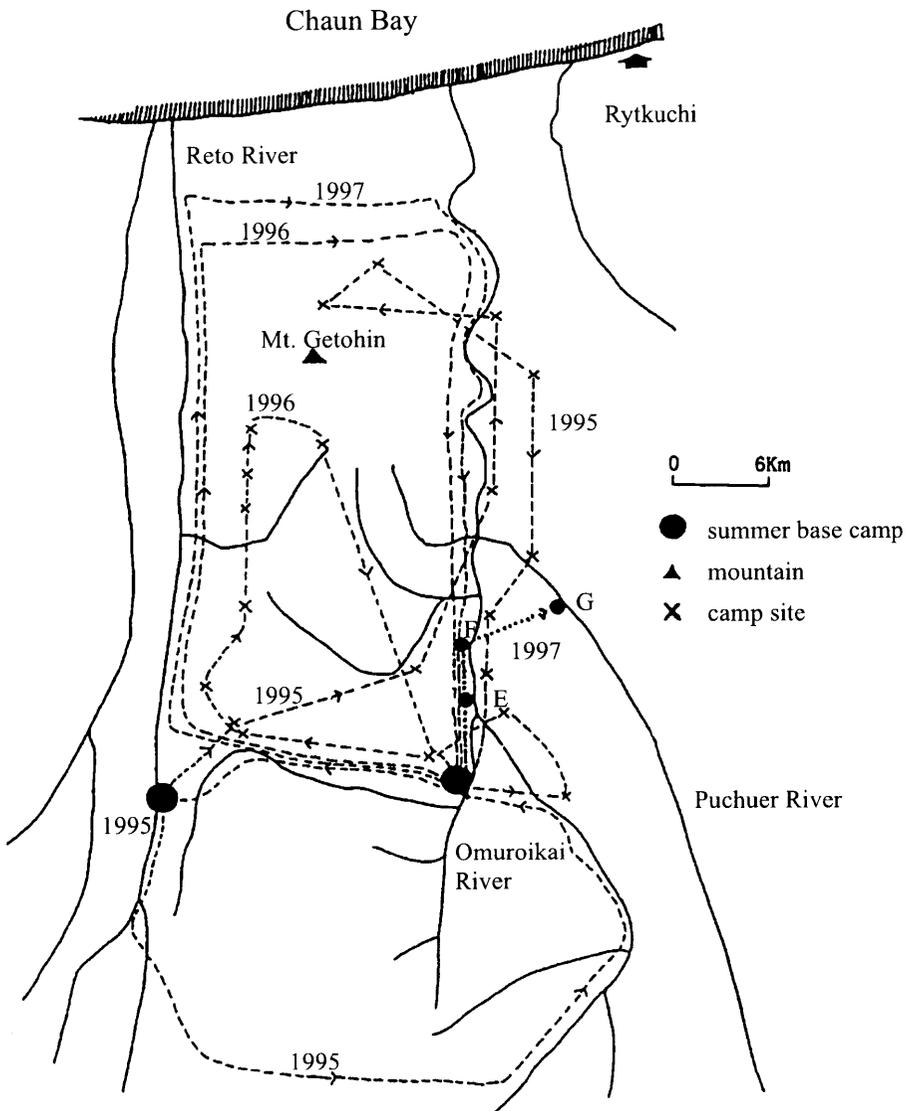


Figure 6. Migration routes taken by Brigade No. 2
(From the summer of 1995 to the winter of 1997)
Source: Interview and direct observation

middle course in the summer of 1995 and beside the Omuroikai River at its middle course in the summers of 1996 and 1997. In the winters of 1995 and 1996, the herders migrated towards the coast and then returned to the site of the summer camp. In April 1996, the camp was set up on the south side of Mt. Getohin, which offered protection from the cold northerly winds blowing inland from Chaun Bay. During the two-year period, the camp was moved more than ten times, each time a distance of between 6 to 20 kilometers. The reindeer herders moved their camp on the upper portions of the river in the summer of 1995 and around the downstream portions of the river in the summers of 1996 and 1997. Thus, the area needed to graze their herd of about 2,500 reindeer during the two-year period extended from the Reto River to the Omuroikai River.

The following is a detailed description of migration during October 1997. Since the rivers and lakes freeze over at the start of October, the reindeer herders use sleds to travel to the summer base camp, where they join up with the other brigade members. From the summer base camp, the brigade members all moved first to site E in Figure 6. This site was chosen by Antolgen, since Ivan, the brigade leader, was taking paid leave at that time. On 29 October, the camp members split into two groups, some going to two huts next to the Omuroikai River and the others going to a hut at the summer camp site 7 kilometers away. On 30 October, the brigade members moved to site F, about 7 kilometers from site E. They moved again on 3 November from site F to site G, beside the Puchueru River. New camps were always set up by a river to use the trees for firewood and the ice for water. On the day before the camp was moved from site E to site F, one of the herders (Aliusha) did not arrive back at camp until late at night because the reindeer grazing area was far from the camp. The distance from the camp to the grazing area seemed to be the main factor determining movement to a new camp site.

Decisions on both the timing for moving camp and the area for grazing reindeer were made by Ivan, the brigade leader, or when he was absent by his brother-in-law Antolgen. During camp movements in the winter, the tents were left at the summer base camp.

Snowmobiles owned by Aliusha and Andore were used for moving to a new camp site. Ivan also helped with the moving on 30 October. It took about 26 minutes to travel by snowmobile to the new camp site on 30 October. When they arrived at the new camp site, they first cleared away the snow and then set up their Russian-style tents.

Thus, as described above, the migration patterns in the winter months and in the other months of the year are different. The routes and range of migration are almost the same every year. Although the members of each brigade move to new camp sites to find new grazing lands for their reindeer, it is not clear whether this migration has a sustainable or destructive effect on the range ecology.

3) Management of reindeer

Although the Chukchi tend to regard the reindeer they use for pulling sleds as

their own animals, the Sovkhoz Office in Rytkuchi considers all of the reindeer to belong to the state.

The herders take turns tending the reindeer in 12-hour daytime and night-time shifts. On 28 October, Tono left the camp at 6:50 p.m. and returned the next morning at 8:40 a.m. For the night shift, the reindeer herders take a rifle, lasso, binoculars, knife, lamp and a small burner for heating water to make tea.

The reindeer disperse over a large area of the tundra when they are grazing, feeding on leaves and mushrooms in summer and plants that have survived under the snow in winter. They are sometimes herded to the camp site. Wolves sometimes attack the reindeer, and the herder fires his rifle to scare off any wolves approaching the herd of reindeer.

At the No.2 camp, six reindeer herders share three tents, and one herder keeps watch over the herd during the winter. There is no fixed system for rotation of herders to keep watch over the reindeer. For example, Vasia and Valeria both kept watch over the herd for two consecutive days, Vasia doing the daytime shift on 28 October and night-time shift on 29 October and Valeria doing night-time shifts on 30 and 31 October. Ivan, the brigade leader, was taking 90 days of paid leave at that time and therefore did not participate in the rotation. Antolgen also did not participate in the rotation to watch over the herd.

Only one herder is needed to watch over the reindeer in winter (Photo 2). In summer, a dog is also used. The herders in Brigade No.2 tend a total of 2,568 reindeer (Table 1). Only Ivan, the brigade leader, knows the exact number of reindeer in the herd. He regularly counts the number of reindeer and reports the

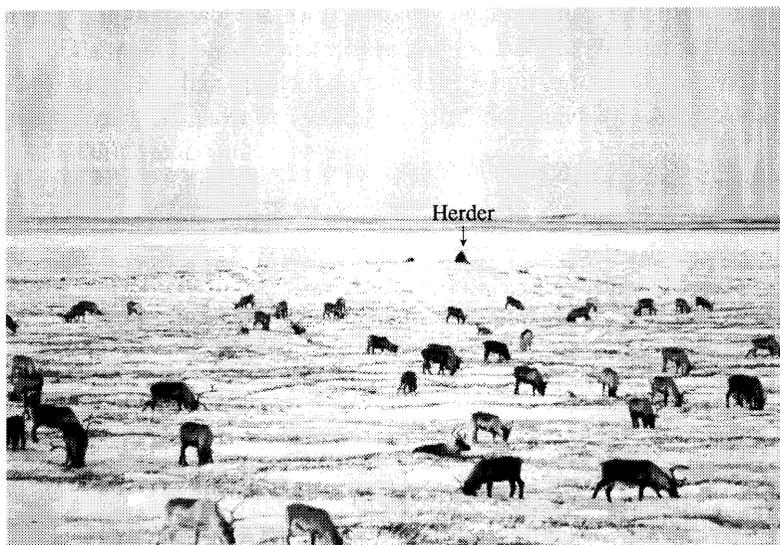


Photo 2. One herder watching a total of 2,568 reindeer on the grazing land
Photograph by K. Ikeya

Table 1. Numbers of reindeer according to age and sex managed by each brigade in October 1997
Source: Data provided by statistics of the state-run farms

Kind of reindeer	No. of brigade							
	1	2	3	5	8	9	10	
Adult female	454	1,008	479	965	235	1,483	393	
Female aged one year and six months	148	247	100	61	18	328	89	
Reindeer aged six months	341	704	315	507	19	1,013	250	
Male aged one year and six months	132	319	117	79	12	360	116	
Male aged two years and six months	1	53	57	73	6	49	19	
Stud male	55	78	60	95	35	302	1	
Castrated male	321	159	353	436	45	662	6	
Total	1,452	2,568	1,481	2,216	370	4,197	874	

number to the Sovkhoz Office in Rytkuchi.

During the winter, the reindeer graze on lichen, eating only some of it the lichen and then moving on to find new lichen. However, when there is little lichen in the grazing area, the reindeer tend to become agitated. Some reindeer will approach humans to be fed bread.

Some of the reindeer have bells hanging from their necks so the herder can easily locate them if they stray from the herd. The herder can control rightward and leftward movements of the reindeer by different command sounds. The reindeer will proceed in a forward direction if the herder comes up behind them. The herder can also gather the reindeer together by using a whistle. Castration is carried out from the beginning of May or the end of August until the beginning of September. At the time of the author's survey, there were 159 castrated reindeer (Table 1).

The reindeer, which graze some distance away from the camp, will not return to the camp site unless they are herded there. The herders use lassoes to capture reindeer to be slaughtered. Three herders approach the herd of reindeer, and the reindeer chosen for slaughtering is lassoed by its horns. On October 31, four reindeer, including a 10-year-old male, a 5-year-old female, a 2-year-old male and a 3 or 4-year-old female, were slaughtered (Photo 3). The meat from two of the reindeer was used for food for the camp inhabitants and the rest was taken to the village.



Photo 3. A reindeer slaughtered by a Chukchi woman
Photograph by K. Ikeya

REINDEER GRAZING UNDER STATE CONTROL

Although the reindeer are kept by Chukchi herders, there are a number of different principles that the herders must respect in order to comply with state regulations. At the time of the field research for this project, the control of the state was just beginning to weaken.

1) Changes in the number of reindeer and management strategy

The number of reindeer must be increased in order to increase the profits of the state-run farms. As mentioned in the previous section, not all of the herders know the number of reindeer in their herd. The Sovkhoz Office in Rytkuchi keeps records on the numbers and sexes of reindeer managed by each brigade. Staff from the office visit each camp four times a year (between the end of March and the beginning of April and in May, October and December) to count the numbers of reindeer. Based on these data, the number of reindeer that can be slaughtered by each brigade is determined. Each brigade leader also reports the number of reindeer to the Sovkhoz Office every month, and 1,500,000 (old) rubles are deducted from the wages paid to each brigade for each reindeer that is slaughtered for meat.

According to the records kept by the Sovkhoz Office in Rytkuchi, the total number of reindeer fluctuated between 10,000 and 30,000 in the period from 1980 to 1997 (Figure 7). The number decline drastically from 27,000 in 1980 to 12,000 in 1985 and then increased to about 25,000 in 1990. The decline in the number of

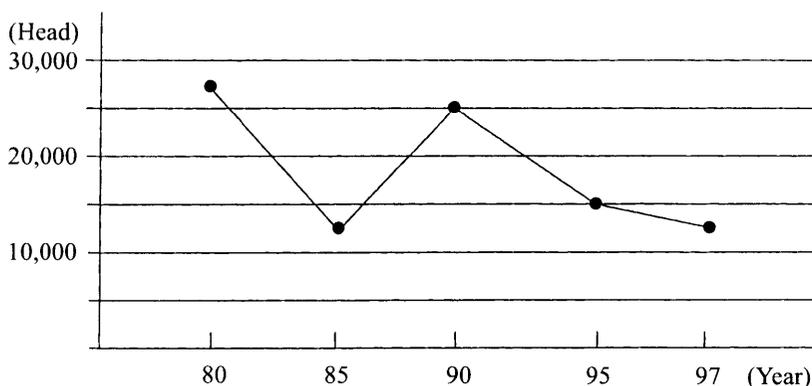


Figure 7. Annual changes in the total number of reindeer on the Rytkuchi state-run farm
Source: Records kept by the Sovkhoz office in Rytkuchi

reindeer is mainly due to reindeer joining wild herds, starvation in winter, and wolf attacks, while the increase is due to natural breeding.

Table 1 shows the numbers of various types and ages of reindeer managed by each brigade. The data are for October 1997. At that time, Brigade No.9 had the largest number of reindeer (4,197). Brigade No.2's herd included 1,008 adult female reindeer and 704 reindeer of 6 months of age. This indicates that the herd of 2,599 reindeer has a natural increase of about 700 (35%) per year. Brigade No.2's herd also included 319 males aged 18 months, 53 males aged 2 years and 6 months, 78 breeding males, and 159 castrated males. However, in addition to the reindeer slaughtered for meat, 148 adult females, 182 reindeer aged 6 months, and 17 castrated males had died.

Based on the data for each herd, the number of reindeer that can be slaughtered each year is determined by the Sovkhoz Office in Rytkuchi. The total numbers of reindeer slaughtered in 1996 and 1997 were about 1,200 and 1,100, respectively. The numbers of reindeer slaughtered by each brigade in 1997 were as follows: 500 by Brigade No.9, 103 by Brigade No.1, 200 by Brigade No.2, 202 by Brigade No.3, 100 by Brigade No.5, and zero by Brigades 8 and 10.

The slaughtering of reindeer in the village is quite different to that in the camps. Reindeer are slaughtered near the village on cold days from 15 to 20 November so that the meat can be preserved.

The meat from the slaughtered reindeer is sold to people in the village and some is sent to the Sovkhoz Office in Pevek. The meat is sold for 15,000 rubles per kilogram to people in the village involved in reindeer meat production and for 30,000 rubles per kilogram to other people. Since 50 to 70 kilograms of meat is obtained from one reindeer, the meat from one reindeer sells for 1,500,000 to 2,100,000 rubles.

2) State management of reindeer grazing and salaries for the herders

As discussed above, the farm run by the Sovkhoz Office in Rytkuchi extends over a large territory.

The inhabitants of each of the reindeer camps have wireless devices through which they communicate with the people in the village every day. According to a Japanese NHK survey, the villagers and camp inhabitants communicated with each other three times every day (at 10:30 a.m., 1:00 p.m. and 7:30 p.m.) in 1988. At the time of the author's survey in 1997, the communication times were 10:30 a.m., 2:00 p.m. and 7:00 p.m. every day. However, communication was not possible on many days due to bad weather. During the author's stay at Brigade No.2's camp at the end of October 1997, there was no communication with the village due to a faulty microphone. Often the radio dialogues are used for accounting purposes such as for deducting money owed by the camp inhabitants, due to slaughtering a reindeer, money owed to the general store in the village, fines for losing reindeer, and monthly apartment rents (600,00 rubles or 300,000 rubles in the case of pensioners or families with three or more children).

During the summer, the herders leave their tents on their camp site and move with their herd of reindeer. The *vezdikhod* owned by the Sovkhoz Office in Rytkuchi is used to carry their tents and food. The village doctor travels by helicopter to each of the brigade's camp sites to check on the health of the camp inhabitants.

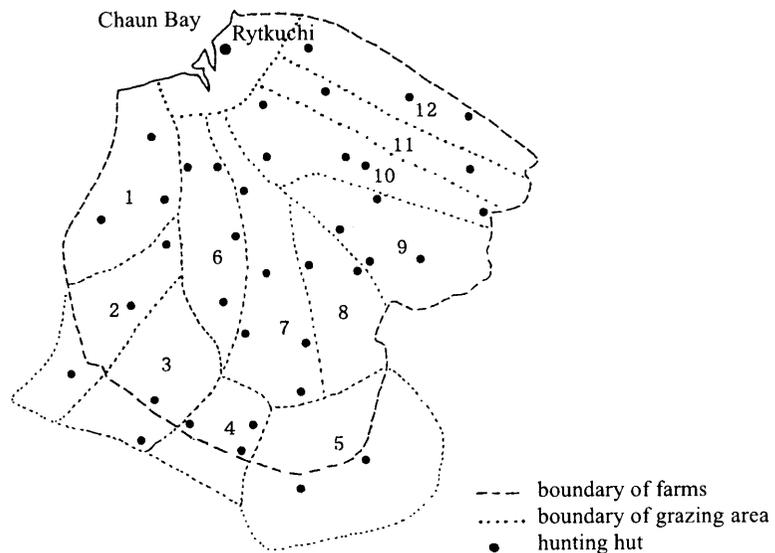


Figure 8. Grazing areas used by each of the brigades on the Rytkuchi state-run farm in 1968
Source: Division map of each brigade in 1968

The person in charge of accounting in the Sovkhoz Office in Rytkuchi, who works from Monday to Saturday every week, calculates all of the monthly salaries to be paid to the herders. There is a great variation in the amounts of salary paid to the brigade members. For example, even among the brigade leaders, the leader of Brigade No.9, which has the largest number of reindeer, receives the highest monthly salary of 3,100,000 rubles, while the leader of Brigade No.2 receives only 2,500,000 rubles. The younger men who watch over the herd receive 1,500,000 rubles a month. In Brigade No.2, Liudmila receives 780,000 rubles a month for cooking, while Antolgen receives a salary and allowances totalling 1,620,000 rubles a month.

CHANGES IN THE REINDEER GRAZING TERRITORY AND MEASURES TAKEN BY THE CHUKCHI TO DEAL WITH THESE CHANGES

1) Reorganization of the grazing territory (1968-1997)

The grazing territory includes all of the areas for grazing allotted to each brigade. The brigades were formed when the sovkhos was established in 1957 and areas were allotted to them. However, there are no records showing the boundaries of territories before consolidation, if any existed.

Figure 8 shows a map of the grazing territory in 1968. The area of land for each brigade was determined by the Sovkhoz Office in Rytkuchi. Many of these areas were rectangular with one border near the village, presumably so that the

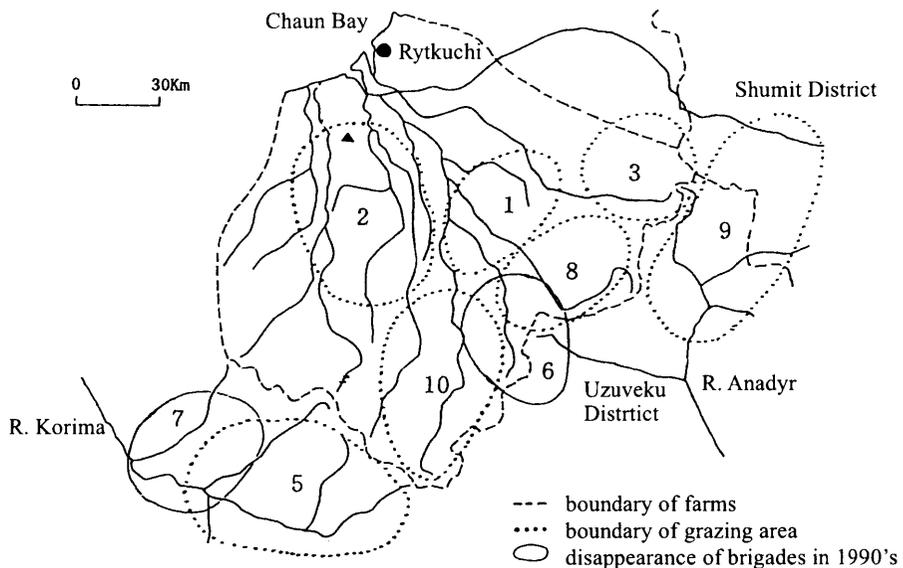


Figure 9. Grazing areas used by each of the brigades in 1997
Source: Interview and direct observation

reindeer could be slaughtered near the village. The borders of grazing areas allotted to Brigades No.2, No.3, No.4 and No.5 extended beyond the sovkhos. There were a total of 42 huts used for hunting within the grazing territory (4 huts in Brigade No.1's grazing area, 3 huts in Brigade No.2's grazing area, 2 huts in Brigade No.3's grazing area, 3 huts in Brigade No.4's grazing area, 2 huts in Brigade No.5's grazing area, 4 huts in Brigade No.6's grazing area, 5 huts in Brigade No.7's grazing area, 4 huts in Brigade No.8's grazing area, 4 huts in Brigade No.9's grazing area, 5 huts in Brigade No.10's grazing area, 3 huts in Brigade No.11's grazing area, and 3 huts in Brigade No.12's grazing area).

Figure 9 shows the grazing territory in 1997. As can be seen in the figure, the grazing areas allotted to each brigade were no longer rectangular in shape. This is because in 1997 the grazing areas were not determined by the Sovkhoz Office in Rytkuchi but by the brigades themselves. The grazing areas allotted to Brigades No.5 and No.9 were completely outside the territory of the sovkhos. Three rivers, the Reto, Omuroikai and Puchueru, flowed through the grazing area allotted to Brigade No.2. Brigade No.5's grazing area, which had many trees, was also known as "Lesnoi" (literally meaning "forested"). Brigade No.5 (not shown in the figure) and Brigades No.6 and No.7 were no longer in existence at this time. At this time there were also no longer any huts used by hunters in the grazing territory since the wild animals had all been exterminated.

The changes in the grazing areas were due to the following reasons: A fire in the grazing territory caused by lightning in 1969 destroyed the lichen, on which the reindeer feed. As a result of the fire, the brigades were forced to reorganize their grazing areas. Brigades No.5, No.7 and No.9 moved their grazing areas to within the territories of adjacent farms, Brigade No.9 moving their grazing area to within the Uzuveku District and Shumit District, and Brigades No.5 and No.7 moving their grazing areas to the upstream region of the Korima River.

There was also another reason for Brigade No.7 moving their grazing area. They moved it near to that of Brigade No.5, when many of their reindeer died from starvation after the land in their grazing area became covered with ice caused by rain melting the snow. In 1995, following a decline in the number of herders and in the number of reindeer due to the death of the brigade leader, Brigade No.7 was incorporated into Brigade No.5.

Brigade No.4 came to an end in 1994 after losing all of their 1,200 reindeer. On December 28 of that year, all of the reindeer left with a larger herd of wild reindeer. Tono was in charge of watching over the reindeer at that time, but they disappeared while he was taking lunch at the camp about 5 kilometers from where the reindeer were grazing. After losing their reindeer, two families in Brigade No.4, including Tono, joined Brigade No.2. Brigade No.6 is said to have ceased to exist before 1992, although the reason is not clear.

2) Increase in the number of brigade members – Brigade No.9

Between 1988 and 1997, the number of members in each brigade increased. In

Brigade No.9, for example, the number of members increased from 12 (4 families) in April 1988 to 29 (10 families) in November 1997. In the same period, the number of reindeer only increased slightly from 4,000 in April 1998 to 4,199 in November 1997.

This increase in the number of members is due to the recent extension of grazing areas to within the territory of adjacent farms, which resulted in intermarriages and new members joining the brigade. For example, three people from Shumit District and two people from Uzuveku District joined Brigade No.9. In 1993, an acquaintance of Vakvukay from Shumit District joined Brigade No.9. The population of the brigade was also increased by babies born to newly married couples as well as some single women.

EMERGENCE OF THREE NEW TYPES OF REINDEER GRAZING FOLLOWING THE COLLAPSE OF THE SOVIET UNION

In this section, I will present a classification of reindeer herding types based on recent literature from Siberia.

The reindeer grazing practised by the Chukchi following the collapse of the Soviet Union was a type of production nomadism combined with traditional nomadism. This type of reindeer grazing could be called the “reindeer-breeding type” of pastoralism. This type is also practised by the Koriak.

According to a survey conducted by Oshima in Surautoioie in Penzhina area in the Koriak Autonomous Okrug, 362 of the 670 inhabitants in 1996 were Koriak, involved in reindeer nomadism. At the time of Oshima’s survey, there were five brigades, each with 6 male herders and 2-3 women, and each man was permitted to own up to 50 reindeer [Oshima 1998: 123]. Although the brigade system was the same as that of the Chukchi, the Chukchi were not permitted to individually own reindeer.

The second type of system is the “reindeer-ranching type” involving mainly production nomadism. This type is practised by the Uilta and Even. According to Kwon [1993], there were 15 Ul’ta male herders in the sovkhos system and the women lived in the village. Of the population of 655 Even living in the Sakha Republic, 101 are reindeer herders, 82 men and 19 women. The herders work from 5 o’clock in the morning until after 9 o’clock at night. Six or seven herders form a group and stay in camps 80-320 kilometers from the central village. Two women are employed by the sovkhos office as cooks for each group [Vitebsky 1989]. This type is also known as “occupational herding”. A group is formed by herders sharing individually owned reindeer, and lactating female reindeer are used to increase the reindeer population [Takakura 1998: 37-38].

The third type is the “nomadic type” in which there are brigades but a large proportion of the reindeer are individually owned. The Nenets individually own about half of the total number of reindeer and the individually owned reindeer are grazed on different land. The Nenets also employ herders to look after the reindeer

[Yoshida 1998]. The Nenets who live on Yamal Peninsula have formed 50 nomadic brigades, each comprising 12-50 people [Montaigne 1998: 160].

With regard to reindeer grazing, the Chukchi are different from the Ul'ta and Even in the following aspects. Firstly, the Chukchi have a shorter history of semi-settled lifestyle than do the Uilta and Even. Moreover, since the Chukchi have traditionally raised large herds of reindeer on the tundra, their "traditional" type of reindeer grazing has been preserved. The Chukchi camps are still basically comprised of family members, with some family members now living in the village. Secondly, unlike the production nomadism practiced by the Uilta and Even, the reindeer grazing practiced by the Chukchi is controlled by the state, although the Chukchi do maintain their independence, as seen by their marriage to people living in neighbouring grazing territories. The most striking difference between the Chukchi and the Koriak and Nenets with regard to reindeer grazing is the system of ownership: while individual ownership is increasing among the Koriak and Nenets, state ownership of the reindeer managed by the Chukchi was still maintained as late as 1997.

The main reason for these differences is the differences in reindeer grazing before the establishment of sovkhozy. The Uilta and Even, who had only small herds of reindeer and were not principally involved in reindeer grazing before the establishment of sovkhozy, were forced into their type of reindeer grazing due to the state's policy of increasing the number of reindeer. The Nenets and Chukchi, on the other hand, for whom reindeer grazing was the principal means of subsistence before the establishment of sovkhozy, adapted easily to the new system of sovkhozy while maintaining their traditional family structures.

The Chukchi continued to raise reindeer under the control of the Sovkhoz Office in Rytkuchi even after the collapse of the Soviet Union. While the numbers of reindeer that can be slaughtered by each brigade are determined by the state, the Chukchi have managed to maintain some degree of independence, as seen by their own reorganization of grazing areas and by their marriage to people living in neighbouring territories. The people belonging to Brigade No.9 are currently demanding privatisation of reindeer grazing, but the Sovkhoz Office in Rytkuchi is strongly opposed to such demands. With the dwindling population of Russians in Rytkuchi, it will be interesting to see whether the Chukchi will be successful in their efforts to establish their own independent system of reindeer grazing in the future.

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