アクセシビリティについての文書を読み進めてください。
Some Characteristics of the Tundra Nenets Reindeer Herders of Western Siberia and their Social Adaptation

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INTRODUCTION

It is an often overlooked fact that people who are categorized as Arctic reindeer herders, such as Nenets, Chukchis and Koriaks, are actually engaged in hunting, fishing and gathering, in addition to reindeer herding. This chapter deals with the Nenets reindeer herders of West Siberia, who continue a nomadic lifestyle in the tundra zone and are engaged in a complex mode of subsistence. The chapter will focus upon several aspects of their complex subsistence economy during Soviet times and after.

The official count of Nenets as a nationality in the last Soviet census was 34,190 people (1989) [Goskmstat 1992: 5]. They inhabit four autonomous districts in the northern part of Russia: the Nenets Autonomous District (below: A.D.), the Yamal-Nenets A.D., Khanty-Mansi A.D. and the Taimyr (Dolgano-Nenets) A.D. There is a big difference in lifestyles of nomadic and sedentary Nenets. I will here refer exclusively to the nomadic Tundra Nenets of West Siberia. Administratively they are registered in several of the northernmost settlements in the Yamal-Nenets A. D. of the Tiumen oblast'. At the beginning of 1996 the nomadic herders (kochevniki) in this district numbered 13,901 (2,662 households), or 62% of all the Nenets population of the district [Lobysova 1996]. At the beginning of 1996 there were 531,150 domesticated reindeer in the Yamal-Nenets A.D.¹ (Figure 1). This represents more than 30% of all the stock of domesticated reindeer in Russia or 20% of that of the world. Therefore, in terms of comparative ethnography, this region can, for one thing, certainly be classed as one of the best representatives of reindeer herding in the world.

THE HERDING PROCESS OF THE TUNDRA NENETS

The socio-economic crisis which followed the breakup of the Soviet Union has also severely affected reindeer husbandry in the Russian North. According to a recent article on Nenets reindeer herding, from 1991 to 1997 the number of domesticated reindeer has dropped by almost one-third, from 2,260,600 to 1,357,300 head. In some regions a number of people have already given up

¹ This figure is based on the following sources: Nenets Autonomous District - Nenetsky Krai (Yamal-Nenets A.D.) Statistical Review, 1996; and Lobysova 1996.
Figure 1. Location of the study area
reindeer herding altogether. In other regions herding is close to extinction [Khrushchev and Klokov 1998; Klokov 2000: 39]. However, the West-Siberian tundra zone is exceptional. Here reindeer herding has grown in some places. The reasons for the special growth are unclear. One author has linked this to the growth of a large market for meat and hides on behalf of the gas and oil industry [Baskin 2000: 23]. However, as we will see, I believe that this is not the only factor which can explain such a phenomenon in this region.

One of the characteristics of nomadic Tundra Nenets' reindeer herding in West Siberia is that they have preserved a locally controlled reindeer herding system. During Soviet times there were many attempts to collectivize the region. Most of the reindeer herders had officially been organized in sovkhozy (state farms) or kolkhozy (collective farms). But quite a large number remained as independent herder-smallholders called yedinolichniki in Russian. In documents, they are sometimes called hunters (okhotniki) or fishermen (rybaki), depending on their secondary specialized mode of subsistence. Some also do double-duty working as herders for collective farms or working seasonally as fishermen in fish factories. However, if one looks beyond the statistics, most are at the same time also herders. As is shown in Table 1, at least 30% of domesticated reindeer in Yamal-Nenets A.D. remained under individual possession throughout the Soviet period even during the period of intensified collectivization in the 1960s. During the 1980s there was an increase in the quantity of reindeer among the private reindeer herders. This tendency has continued throughout the 1990s. After 1990 almost all herders were officially renamed individual or private herders (yedinolichniki/chasniki).
<table>
<thead>
<tr>
<th>Year</th>
<th>Total heads in both sectors (thousand)</th>
<th>Coefficient (1930 year = 100)</th>
<th>Public sector (Collective farms)</th>
<th>Individual sector (Individual household)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>heads</td>
<td>%</td>
</tr>
<tr>
<td>1930</td>
<td>346.3</td>
<td>100</td>
<td>44.1</td>
<td>12.7%</td>
</tr>
<tr>
<td>1940</td>
<td>362.2</td>
<td>105</td>
<td>99.5</td>
<td>27.5%</td>
</tr>
<tr>
<td>1945</td>
<td>241.9</td>
<td>70</td>
<td>136.8</td>
<td>56.6%</td>
</tr>
<tr>
<td>1950</td>
<td>287</td>
<td>83</td>
<td>182.4</td>
<td>63.6%</td>
</tr>
<tr>
<td>1955</td>
<td>359.4</td>
<td>104</td>
<td>243.2</td>
<td>67.7%</td>
</tr>
<tr>
<td>1960</td>
<td>335.9</td>
<td>97</td>
<td>231.7</td>
<td>69.0%</td>
</tr>
<tr>
<td>1965</td>
<td>361.3</td>
<td>104</td>
<td>253.8</td>
<td>70.2%</td>
</tr>
<tr>
<td>1970</td>
<td>414.2</td>
<td>120</td>
<td>266.9</td>
<td>64.4%</td>
</tr>
<tr>
<td>1975</td>
<td>384.6</td>
<td>111</td>
<td>245.6</td>
<td>63.9%</td>
</tr>
<tr>
<td>1980</td>
<td>363.2</td>
<td>105</td>
<td>231.9</td>
<td>63.8%</td>
</tr>
<tr>
<td>1985</td>
<td>418.6</td>
<td>121</td>
<td>252.8</td>
<td>60.4%</td>
</tr>
<tr>
<td>1990</td>
<td>490.5</td>
<td>142</td>
<td>245.5</td>
<td>50.1%</td>
</tr>
<tr>
<td>1993</td>
<td>481.6</td>
<td>139</td>
<td>218.1</td>
<td>45.3%</td>
</tr>
<tr>
<td>1998</td>
<td>531.1</td>
<td>153</td>
<td>189.6</td>
<td>35.7%</td>
</tr>
</tbody>
</table>

1998: Statistics of the Agricultural Department of Yamal-Nenets Autonomous District
Only a few remained in collective farms or fishery factories. For the most part, the private herders maintain a year-round nomadic lifestyle in the Yamal or Gydan tundra zones. By the beginning of 1998, 64% (340,739 head) of all domesticated reindeer of the district belonged to the individual sector. 

It is a popular misrepresentation about arctic tundra reindeer herding that every farm or every household has hundreds or thousands of reindeer and that the herders always work with reindeer herds. It is true that reindeer herding prescribes a nomadic lifestyle and the herders depend on reindeer as their main means of transport, by using reindeer as draught animals. They also depend upon reindeer for fur and pelts for clothes, bedclothes, tent covers and meat for food. Both wild and domestic reindeer have played an important role in material and spiritual life among the nomadic Nenets. However, it must be recognised that individual herders go fishing in open rivers or lakes, hunt for fowl in the spring-summer seasons and trap Arctic fox. They sometimes hunt for wild reindeer and do ice-fishing around their winter camps for domestic consumption. In the summer, some of them leave their reindeer in the care of a relative and go fishing to a large river or lake for a month or two. Thus their mode of subsistence is a complex one.

Gydan hunter/herders also participate in the cash economy. They often sell some domestic reindeer carcasses, Arctic fox pelts or surplus fish. After 1990 they participated in the trade of velvet antlers. They exchange meat, fish or furs for cash or they barter them for certain staples such as wheat, flour, tea, sugar, salt and so on. Arctic fox pelts have been a profitable cash product since the period of Imperial Russia. The furs are still used to sew fur hats for urban Russians. In the last few years the demand for Arctic fox has declined due to competition from imported alternatives and a change of fashion in Russia.

To demonstrate the complex subsistence economy of the Nenets, I will present the example of Nomadic Nenets in the northeastern part of the Yamal-Nenets District. Specifically, I will examine the Tazovskii Administrative County (raion) and the Gyda Rural Administrative Settlement inside this county. In this county, at the beginning of 1997, the number of domesticated reindeer was 141,019. 826 individual households held 108,270 reindeer, or 77% of all domesticated reindeer of the County (Table 2). 

By contrast, the number of reindeer in state ownership was very small. Table 2 shows a very high ratio of private reindeer ownership even when compared with the Yamal-Nenets A.D. The average number of privately-held reindeer per household is 131. Thus, it is possible to conclude that most individual households in Tazovskii County have a comparatively small number of reindeer.

The Gyda Administrative Settlement (poselok) is one of many typical settlements where a large number of individual reindeer are registered. According to the official statistics of the Tazovskii Administrative County the number of individual reindeer in the settlement was 41,477 at the beginning of 1997. In addition to the large numbers of individual reindeer there was a collective herd of 6,262 head owned by the municipal Gyda Fishery (formerly a state farm). As one of the workers of the fishery told me, the actual number of domesticated reindeer
<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Transport reindeer (sledders)</th>
<th>Castrates</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>⟨e⟩</td>
<td>⟨e/h⟩</td>
<td>⟨f⟩</td>
</tr>
<tr>
<td>Antipaiuta Sovkhoz /a/</td>
<td>15953</td>
<td>11%</td>
<td>1917</td>
</tr>
<tr>
<td>Gyda fishery (municipal enterprise of Tazovskii County /b/)</td>
<td>6263</td>
<td>4%</td>
<td>1150</td>
</tr>
<tr>
<td>Agricultural cooperative farm “Tazovskii” /c/</td>
<td>10533</td>
<td>7%</td>
<td>978</td>
</tr>
<tr>
<td>Public sector (3 public enterprises: /a+b+c/)</td>
<td>32749</td>
<td>23%</td>
<td>4045</td>
</tr>
<tr>
<td>Antipaiuta (individual; 262 households)</td>
<td>42123</td>
<td>30%</td>
<td>13510</td>
</tr>
<tr>
<td>Gyda (individual; 357 households)</td>
<td>41477</td>
<td>29%</td>
<td>22841</td>
</tr>
<tr>
<td>Tazovsky (individual; 92 households)</td>
<td>8942</td>
<td>6%</td>
<td>3314</td>
</tr>
<tr>
<td>Nakhodka (individual; 112 households)</td>
<td>15728</td>
<td>11%</td>
<td>6621</td>
</tr>
<tr>
<td>Individual sector (3 regions, 561 households) **</td>
<td>66147</td>
<td>47%</td>
<td>32776</td>
</tr>
<tr>
<td>Individual sector (4 regions, 826 households) ***/d/</td>
<td>108270</td>
<td>77%</td>
<td>46286</td>
</tr>
<tr>
<td>Total /a+b+c+d=h/</td>
<td>141019</td>
<td>100%</td>
<td>55526</td>
</tr>
</tbody>
</table>

* Statistics of Tazovskii County Administration in 1998
** The sum of individual reindeer, registered for 3 settlements (Tazovskii, Nakhodka, Gyda)
*** The sum of individual reindeer, registered for 4 settlements (Tazovskii, Nakhodka, Antipaiuta, Gyda)
held by Gyda Tundra Nenets is closer to 60,000. This is an interesting statement as to the reliability of "official" statistics of reindeer herding.

One of the main reasons for there being discrepancies between local and official numbers is the unwillingness of individual herders to declare the numbers of their own reindeer. It is almost natural for them to hide the real number or declare a diminished number of reindeer. The Tundra Nenets have learned from bitter experience to be canny. In the past, local authorities forcibly confiscated reindeer or placed limits on the number of individual reindeer (in this region the cap was set at 70 in the last years of the Soviet era). Another significant factor is the unstable condition of reindeer herding itself. The number of reindeer held by individuals fluctuates as individual reindeer are led away by wild reindeer, slaughtered by wolves, or perish from epidemics and so on. Thus by under-representing the number of reindeer in their possession, the Tundra Nenets have developed a safe strategy for relating to outside societies. Local authorities, often composed of people who are relatives of the Tundra Nenets, surely know the real situation of reindeer herding. They may even accept these underestimated declarations with tacit approval. One might categorise it as a Nenets survival strategy which has preserved their own social and cultural system while allowing the coexistence of nomadic and sedentary Nenets families and, in turn, the coexistence of Nenets and Russian communities.

As is shown in Table 2, one of the defining characteristics of the private reindeer herds in comparison with the collective sector, is that the percentage of castrated reindeer used for transport is very high: 32-55%. By contrast, the average

![Photo 2. Nenets women forming corral and rounding up reindeer to hitch them to sledges for transport, Gydan tundra, June 1996. Photograph by A. Yoshida](image-url)
percentage of transport reindeer in collective farms is only 9-18%. These official statistics reflect the number of reindeer castrates which are assumed by the statisticians to be the only reindeer used in harness. It should be noted that private herders often harness female reindeer as well. Thus the number of transport reindeer in the private sector at least is greater than merely the number of castrates (in Table 2; see the row entitled “Individual sector /3 regions, 561 households/”). These facts suggest that individual herders are highly dependent on reindeer as a means of transport.

On the tundra, transport reindeer sleds are vital for life. They are used for every activity. Reindeer are used for hunting, whether with firearms or with traps. They are used for fishing and in bartering products. Of course they are also used for short and long distance travel, movement to another pasture, moving personal effects in caravans, and so on.

Because of the importance of reindeer, Nenets try to avoid slaughtering their own animals as much as possible. This frugal behavior of the Tundra Nenets has been described in various written materials since the 19th century. The number of deer slaughtered each year in every household differs. In the case of a middle-ranked household with 100-200 reindeer in the north of Gydan peninsula, one might expect them to slaughter 15 to 20 deer, of which only 4 to 5 would be adult deer. 10 to 15 calves might be slaughtered every summer to autumn to get good quality fur material for clothes. Adult deer are usually slaughtered for clothes, tent covers and for food. Thus, in private herding practice, it is an important principle that reindeer are utilized first and foremost alive as means of transport (or for velvet antlers) and only second as sources of fur for tent covers, clothes, shoes and hats. They are slaughtered only as a last resort for meat (although obviously when they are slaughtered for other purposes their meat is also consumed).

Such a small amount of meat is, of course, not enough for the daily caloric needs of the nomadic families. I even hesitate to name reindeer meat as a staple food for private Nenets herders in Western Siberia, as some ethnographers have asserted. According to conventional accounts, the Tundra Nenets have depended upon domestic and wild reindeer meat, fish and fowl for the last few centuries. In the last century, wheat flour has been added to this food complex. Nenets bake pancakes on the fire every day. The Nenets’ dependence on a complex of foods must help the Tundra Nenets to adapt to the natural and social environmental changes of the Arctic regions in the 20th century.

On both the tundra and in settlements, I often heard that Brezhnev’s “age of stagnation” was the best period for them in terms of their access to commodities. During this period they also used to buy not only wheat flour, tea, sugar and salt, but also sushi, baranki, and sukhari (each of which is a type of dried hard bread), macaroni, vermicelli, rice and so on. Now it is next to impossible for the majority of the tundra population to buy these foods regularly, due to the low purchase prices of reindeer carcasses, arctic fox pelts and fish. The privatisation of the trade system in the Russian North has brought many changes in commercial practice. In some
private shops in outlying settlements, one can buy almost any commodity. Nomadic tundra families have great need for medical kits, knives and saws but little need for Japanese televisions or for snowmobiles, for which there is no fuel. However, they usually have little surplus cash to buy necessities such as those mentioned. In the 1997-1998 winter season, when I stayed in the Gydan peninsula in the eastern part of the Yamal-Nenets District, I saw butter only in those camps where pensioners lived. The Nenets then explained to me that only such “cash-carriers” as pensioners can buy “luxurious” food like butter or candies.

PROBLEMS OF ADAPTATION

Reindeer herders in this region are thought to be well-adapted to the various social changes of the 20th century. The nomadic Tundra Nenets are one of the indigenous ethnic groups of northernmost Russia which continue to preserve their traditional mode of subsistence. One can link contemporary private reindeer economies with the way of life of the last several centuries. In this section, I examine how the Tundra Nenets have continued to integrate their traditional lifestyle with that of the industrial economies surrounding them.

Geography must be one of the factors which underlies the preservation of their nomadic way of life. The sheer distance from local political and economic and trade centers to the rich Yamal and Gydan Tundras made it difficult for local authorities to collectivise or resettle herders as they had planned. The characteristics of reindeer herding in this region may have also made the successful realisation of such policies difficult.

It must be remarked that reindeer herding received some support during Soviet times. In the early Soviet period, the nomadic way of life of reindeer herders was estimated as “archaic” and “backward”. Reindeer herding was often called the “most primitive branch” of the economy during the first stage of Sovietization and collectivization before 1930-1950. However, later, herding became envisaged as a “high industrial branch compared with foraging” even though it was considered to be “unstable in pre-Revolutionary conditions” [Sergeev 1955: 38, 42]. To some extent it was official policy which promoted reindeer herding as one of the beneficial agricultural sectors in the Russian North.

It must be remembered that strict individual herding and state farm government herding have always coexisted in the tundra regions of West Siberia. A former director of the above-mentioned Gydan Fishery confessed to me that the individual herder’s reindeer were always fatter than the farm’s reindeer. This coexistence is not only an accomplished fact in this region but also a functional local economic structure by which reindeer herding has brought benefit both for governmental and local economy and tundra population to exist. One recent example of this coexistence can be seen in the decision of the Tazovskii local executive to construct refrigerator and export facilities on the west coast of the Gydan peninsula in order to make the individual herding system more effective for the local economy.
According to written accounts, the nomadic areas of the Tundra Nenets may have been wider in the past, stretching to the southern forest-tundra borderline. However in this century, the great migration of Russians to the north in the 1970s due to oil and natural gas exploration have reduced the pastures of northern reindeer herders. These changes can be evaluated in different ways. On the one hand there is a restriction in the space within which the traditional economy can reproduce itself to the very northernmost tundra. On the other hand herders now do not need to travel so far south to obtain goods in exchange for their natural products.

The nomadic lifestyle itself served as an adaptive mechanism for the tundra Nenets. By choice, they could avoid direct influence from the surrounding Russian majority. Also, they could borrow certain elements which are truly meaningful for themselves by choice – e.g. iron-made stoves, canvas cloth for summer tents, rubber boots, lamp oil, matches and so on. This selective integration into the market economy still continues. Nomadic herders do not strive to buy snowmobiles. Most could never afford to buy the machine, and even if they could, they would find it difficult to find fuel for it. The Tundra Nenets are convinced that reindeer sleds are the only reliable all-round way of transport in the tundra.

The appropriate consumption of local resources has also continued among Tundra Nenets. The complex manner in which the Nenets employ local natural resources and in part depend upon some foreign foods might even give them some favourable advantage for staying on the tundra and continuing their individual herding regime. Year-round fishing with gill nets, the constant consumption of fish in raw, boiled or dried forms, and the constant supply of wheat flour must be understood as helping them to migrate into the tundra zone. It is also important to note that reindeer and people feed off different resources. The Tundra Nenets do not collect wild plants or any mushrooms as food, although these are the favorite feed of the reindeer. The Tundra Nenets rarely even collect berries, unlike the immigrant and settled Nenets population.

This complex mode of subsistence also extends to the use of cash. In the former USSR, the cash economy did not have a strong influence on isolated indigenous societies like nomadic reindeer herders. For them, cash probably functioned there only as a useful means of exchange, but not as the fetishized symbol of value common in capitalist countries. Even among wage-earners in towns it was not common to find people depositing cash in the bank. If the annual per capita income of North American indigenous people is US$3600 or more, in my estimation the average Tundra Nenets herder earns no more than US$200-300 per capita per year. In present times, most cash is spent for wheat flour and other indispensable commodities.

The Tundra Nenets likewise do not share some of the disadvantages of the cash economy. Generally one finds problems of impoverishment and alcohol abuse among sedentary Nenets and not among the nomadic population. The chief doctor of the Gyda settlement observed to me that in general, the health of the nomadic Nenets is better than that of their sedentary cousins (although he also speculated
that the only threat to the nomadic population might be a problem with incest stemming from a strict rule of endogamy).

Among the Tundra Nenets, one of the most apparent influences of the Soviet system is boarding school education. As a result of such compulsory education most of them have learned to speak Russian and at the same time assimilate the behavior and values of Russian society. Despite the impact of education, as with policies of sedentarisation and collectivization, one can still meet individuals in every generation (including teenagers) who do not speak Russian at all.

Theoretically, most Tundra Nenets have had the opportunity to leave the tundra and get a job in outside society. Some people do find work in various organizations in settlements, towns or sometimes in big cities. However, after the collapse of the socialist system some of these have lost their jobs and have had to return to the tundra. Thus, one might conclude that in the case of some individuals they have chosen a traditional life in the tundra, but for others they have had no choice but to live a traditional life. The return to the tundra may now be so intense that the tundra might be considered to be overpopulated. Some administrative workers and also some tundra herders are afraid of overstocking and overgrazing by domesticated reindeer and the linked problem of massive epizootic epidemics. According to them, it has become necessary to take special measures to protect pastures for reindeer herding.

Despite the urgency for some form of land protection, legislation protecting the rights of areas of traditional land use has been suspended in both the central government and the parliament. On the other hand, the central organs have given a
priority to exploiting natural resources. It was only very recently that "the Basic Act of the Legal Status of the Indigenous Minority of the Russian Federation" was adopted. It would seem that both the central government and local authorities depend too much on the oil and natural gas tax revenue for them to have a strong interest in passing laws guaranteeing the tenure of indigenous peoples.

It is difficult to plan out an alternate economy based on local products. The largest bottleneck to economic development is the cost of transport. In northern Gydan, the helicopter is the only reliable mode of transportation, for the export of local products, such as reindeer carcass, velvet antler, arctic fox and fish. Helicopter transport is very costly. The only other alternative is water transportation, which is limited by a very short ice-free navigation period of one to two months. In addition, both the Yamal and Gydan peninsulas are surrounded by shallow seas, preventing the use of large ocean-going boats. For example, in the northern part of the Gyda peninsula, a small transport ship arrives only once a year, usually at the end of August or the beginning of September. It brings in coal and some food, including vegetables and fruit, and takes out reindeer carcasses and fish, but only in a small quantities.

Although the exploitation of local resources will inevitably bring in various negative influences to Tundra Nenets society it is nevertheless necessary for the population to survive. Reindeer venison is thought to be a delicacy in many countries and its trade may eventually be a profitable business for the Arctic regions of Russia. Trade of velvet antler has already given additional profit to local trade corporations and additional monetary income for the herders.

The Yamal-Nenets and Khanty-Mansi Autonomous Districts have become famous in Russia for their high per-capita incomes arising from the exploitation of oil and gas resources. On a statistical level, the incomes of many people in settlements are almost equal to those of residents in Moscow or St. Petersburg. There has been a recent spate of construction in oil-gas-oriented towns such as Salekhard, Novyi-Urengoi, and Noiabr'sk in Yamal-Nenets A.D., or Surgut in Khanty-Mansi A.D. In the Tasovskii Administrative Settlement, a large new airport designed for receiving heavy aircraft is under construction. It will be used mainly for the transport of the material and personnel necessary for natural gas exploration. Thus, in the northern regions of Western Siberia, there have been some recent moves towards intensive capital investment, but the purpose of the investment is largely opposed not only to the preservation of the pastures for the indigenous population, but the preservation of the local environment itself. Thus, in the short term there seems to be little support for the tundra economy emanating from outside the Tundra Nenets society itself. The main theme of this chapter is that the Nomadic Tundra Nenets have a robust ability not only to withstand outside pressures but to actively adapt to other cultures. This ability has been noted by some researchers [Golovnev 1995; Yoshida 1997; Golonev and Osherenko 1999]. In fact, the strength of their adaptive skills is such that the development of the oil and gas industry may be considered to be a favourable factor for the survival of the
Nomadic Nenets.

It seems to be more important that researchers should analyse the ability of Nenets and other tundra reindeer herders (such as the Chukchi and Koriak) to adapt to pressures from outside societies. The Soviet regime has undoubtedly assimilated, russified and sovietized indigenous herders, but on the other hand, it has functioned, in a sense, as a buffer zone free from the influence of capitalism. Whether the Soviet system has affected herders positively or negatively, it is a fact that the situation of the indigenous peoples under the former Soviet system was unique. It is important that researchers pay special attention to the life of indigenous peoples in these regions in terms of a general review of Russian 20th century history and the sociology of actually existing socialism.

NOTES

1) According to the statistics of Agricultural section of the Administration of Yamal-Nenets Autonomous District.
2) According to the statistics of Agricultural section of the Administration of Yamal-Nenets Autonomous District.
3) According to the statistics of Tazovskii Administration.
5) In 1982 the average per capita monetary income of Togiak fishermen was US$7,746 and that of Quinhagak fishermen was US$3,620 [Langdon S. J. 1991: 278].
6) In the winter season of 1997-1998 year the purchase price of reindeer meat (in carcass form) in Tazovsky county was 8500 rubles per kilogram (at that time US$1 was approximately 6000 rubles). By comparison, in Japan, Norwegian reindeer meat at some luxurious delicatessens in Tokyo costs more than US$100 per kg.

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