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TRADITIONAL KNOWLEDGE OF THE NATIVE PEOPLE OF CHUKOTKA ABOUT WALRUS

FINAL REPORT

Prepared for

Kawerak Inc.

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«Traditional knowledge being a basis for traditional life of the peoples of the North is an endless fabric in which each person of each generation weaves in his thread in such a way that it touches as many other threads as possible».
L.S. Bogoslovskaya

INTRODUCTION

Today, it is universally recognized that traditional knowledge of Native people is the result of intellectual activity based on their traditions. It includes ability, skills, innovations, methods that form systems of traditional knowledge, and manifests itself in a traditional way of life and knowledge that is passed through generations. This knowledge is not limited to any specific technical field and may include knowledge about the environment and genetic resources. The need to protect such knowledge became recognized only in the 1990s, following the signing in 1992 of the Convention on Biological Diversity, which emphasized the need for support and preservation of traditional knowledge.

Since time immemorial, Native people and local communities have used traditional knowledge and resources relying on the customs rooted in their spiritual cosmology. A huge proportion of traditional knowledge, including customs and folklore, was seriously undermined in the course of the twentieth century when different systems of laws, knowledge and worldview were imposed on Native people; however, traditional knowledge was not completely destroyed. Today, a more clear understanding and appreciation of the value and potential of traditional knowledge has formed, and it has rightfully taken its place in the system of scientific knowledge of humankind about the world surrounding us. The enormous wealth of perceptions of Arctic marine mammal hunters provides needed primary information based on which many results useful for modern science can be obtained. Authors of this report know about one such example when biologists from Barrow (Alaska, USA), following up on information provided by Inuit whale hunters about the intensive spring migration of bowhead whales under thick multiyear ice, confirmed that migration through hydrophonic research.

In 2009, a project aimed at researching the traditional knowledge about walrus was started by Chukotka Association of Traditional Marine Mammal Hunters (CHAZTO) under the Eskimo Walrus Commission initiative within the framework of the «Walrus Harvest Monitoring Program in Chukotka». The entire project was funded by the U.S. National Park Service. The main objective of this part of the project was to understand whether traditional knowledge of the Native people of Chukotka still exists today, in the twenty-first century. The authors of this report set a goal of gathering and documenting information about what knowledge hunters have about walruses, their behavior, areas of their feeding concentrations, patterns of seasonal

migrations, and their relations with other marine mammals, as well as finding out how the traditional methods of hunting walrus have changed, how the harvest results are used and whether spiritual aspects are part of every stage of the hunting process and to what degree. In the course of project implementation, a need to expand and further develop the initial research objectives emerged; however, due to time constraints, in the present report we will only be able to provide an outline of our approach to the research topic and a general description of its main aspects based on the initial information gathered from the residents of the coastal Native villages:

1. Sources of knowledge about walrus and its habitats. (Identification of sources of information about walruses used by the respondents).
2. Knowledge about walrus habits and behavior
3. Areas of coastal haulouts.
4. Pattern of seasonal movements and migrations (Seasonal dynamics and prevailing directions of migration. Sex and age composition of migrating walruses depending on the season and (geographical) area).
5. Natural mortality. (Sightings of sick and famished (emaciated, under-nourished) walruses. Encountering dead walruses).
6. Walruses and other animals.
7. Traditions of Native peoples of Chukotka associated with walrus (Traditional and contemporary methods of hunting and butchering walruses. Traditional and contemporary behavior of hunters during walrus hunts. Traditional and contemporary use of walrus harvest products).
8. Description of customs, beliefs and rituals associated with walrus and its harvest. (Following customs, beliefs and rituals in the past and in the present time).
9. Present state of the walrus population based on the opinion of the interviewed hunters.

The stage of gathering information in the field was completed in the course of a three-month period. It demonstrated that traditional knowledge of the Native people of Chukotka about walrus is carefully maintained by the older generation and that it is necessary to continue to study it. The current report presents a preliminary overview in regards to the above identified research topics.

MATERIALS AND METHODS.

Based on many years of CHAZTO's experience in gathering traditional knowledge in Chukotka, we designed this study as a series of individual conversations or interviews with experienced hunters and elders in Native villages located in Eastern Chukotka. We modeled our study after a similar project implemented within the framework of polar bear research (Kochnev, 2003 -Кочнев, 2003).

The main principle of this methodology is to conduct the interview in the form of a free flowing conversation on the chosen subject while the interviewer steers the conversation by using a series of defined questions under each theme.

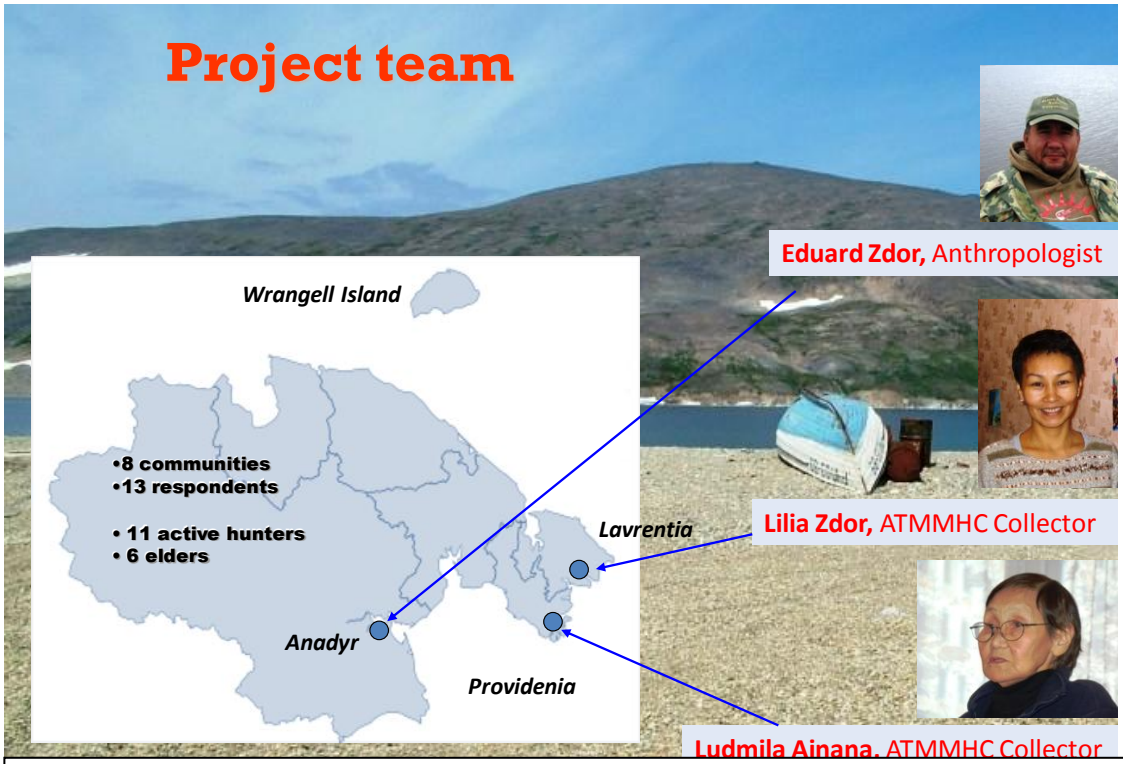

Fig. 1. Organizational structure of the project «Gathering traditional knowledge of the Chukotka Native people about the walrus »

1. Data gathering organization

The work was organized in the following way. CHAZTO Pacific Walrus Commission designated regional project coordinators in Chukotksiy and Providenskiy regions of the Chukotskiy Autonomous District (area - okrug) (Fig. 1). Coordinators identified and interviewed sufficiently experienced and knowledgeable hunters and elders in those villages in Eastern Chukotka that could be reached relatively easily (due to time constraints). Then, the results of the interviews and the reports of coordinators were passed to the Project research supervisor. In our work organization we applied the experience obtained during a similar project on traditional knowledge about polar bears.

The first two interviews were recorded by regional research coordinator Lyudmila Ainana in Providenskiy region in December 2009 - January 2010. The chairman of the CHAZTO Walrus Commission I. Makotrik answered the questionnaire independently. Second regional research coordinator (Lilia Zdor) traveled to the villages of Chukotskiy region and recorded eight interviews in the villages Neshkan, Lorino and Lavrentiya in January of 2010. Due to lack of time and funding, two interviews/questionnaires were filled out by the experienced hunters from Inchoun and Uelen on their own (Fig. 2). Stages of the project field work are shown in Table 1.

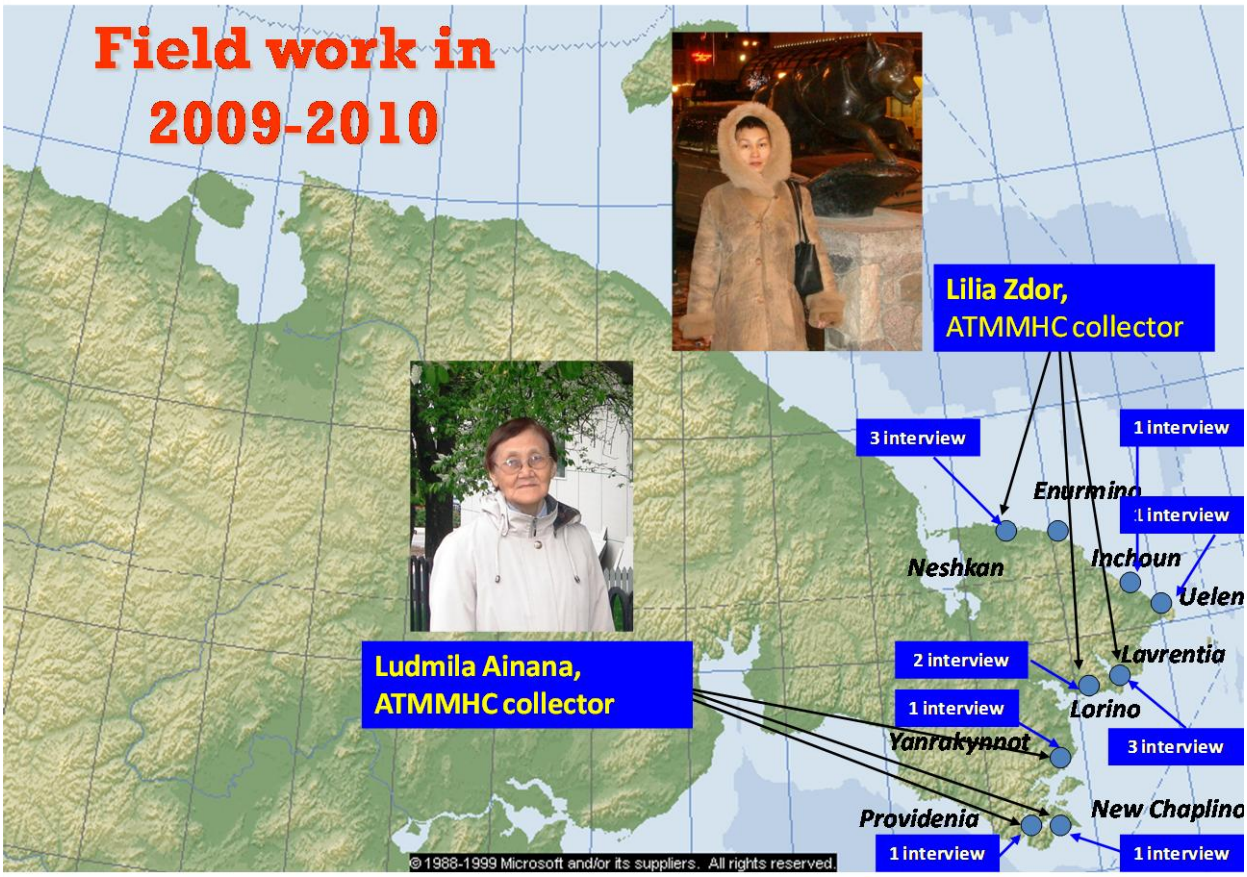

Fig. 2. Village locations and respondents interviewed under the project «Gathering of traditional knowledge about walrus of the Native peoples of Chukotka»

In late March 2010, data gathered in the villages of Chukotksiy and Providenskiy regions was processed and submitted in electronic form to the project research supervisor.

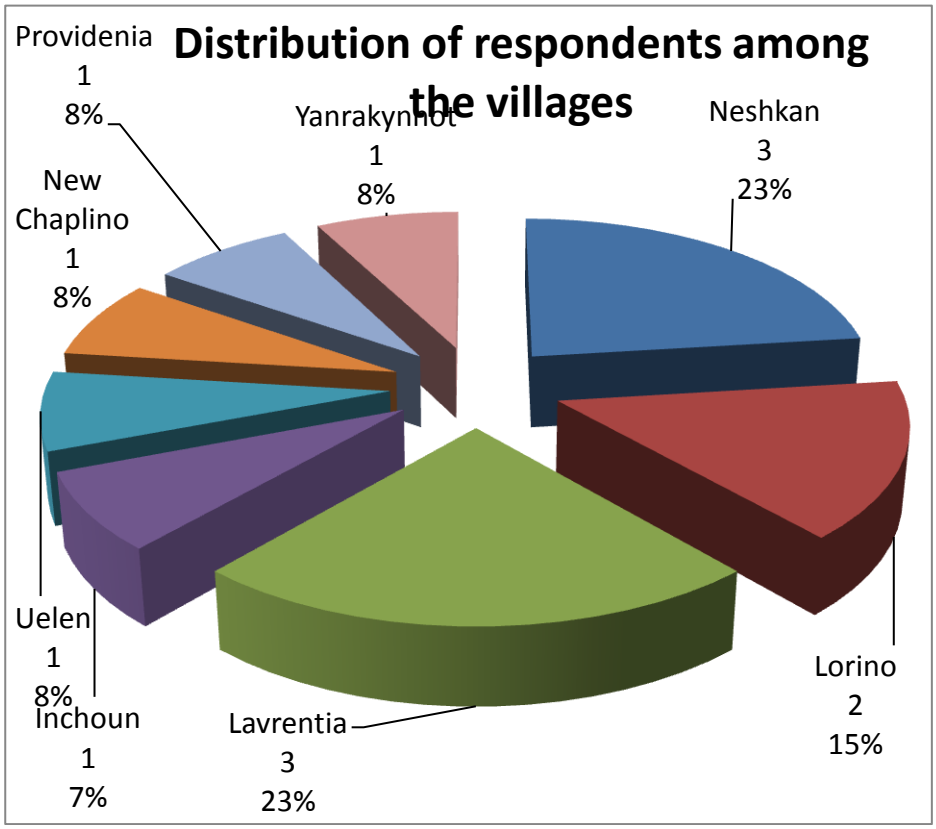

Fig. 3. Distribution of respondents among the villages

A the otal of 13 individuals from eight Chukotka Native villages were interviewed in the course of the project (Fig. 3). All the respondents were Native residents (Fig. 4); majority of them spoke their Native language (Fig. 5), and belonged to the older generation of people

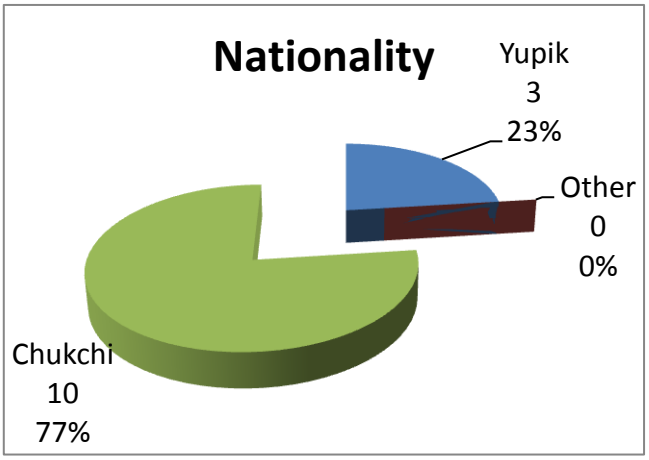

Fig. 4. Ethnic composition of the respondents

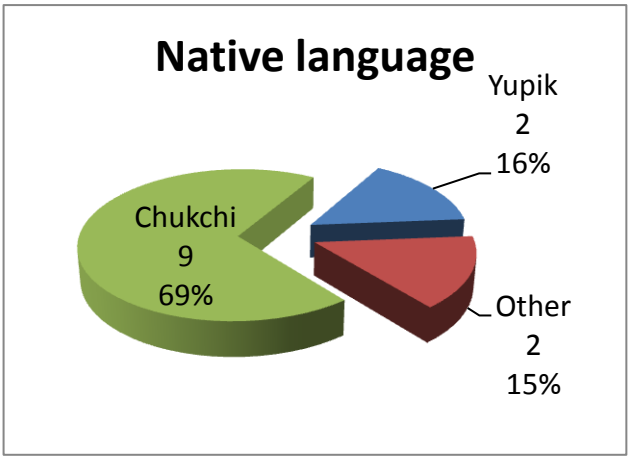

Fig. 5. Knowledge of their Native language by the respondents

living in the Native villages (Fig. 6). Unfortunately, due to the short time available for gathering the information for the project and insufficient funds, only 10 hunters were interviewed, the other three hunters had to fill out their questionnaires on their own.

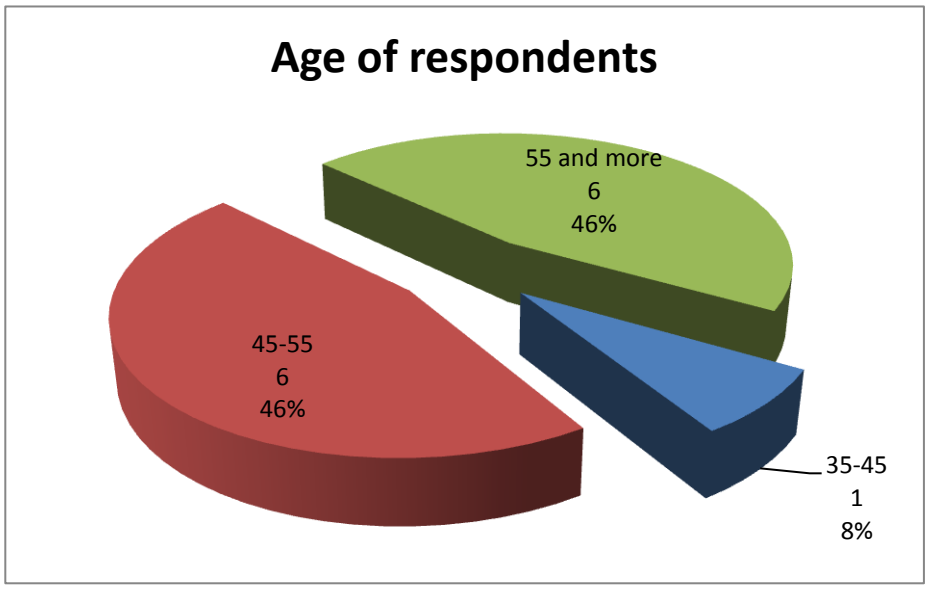

Fig. 6. Age of respondents

According to the opinion of the authors, this sample provides the best quality information on the degree to which traditional knowledge about walrus is preserved. When the interviews under this project were planned it was suggested that the research should include at least one elderly woman. Considering that the life expectancy of women in Native villages is significantly higher than the life expectancy of men, those interviews can provide primary information (personal observations of a respondent) extending farther into the past. Out of the total of 13 respondents interviewed during the project, two were women 71 and 75 years old.

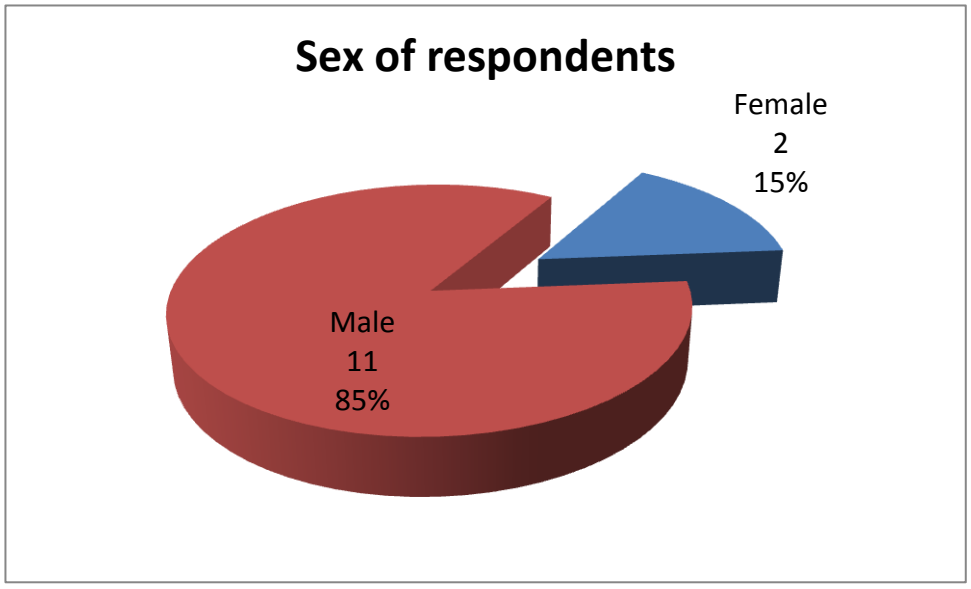

Fig. 7. Sex of the respondents

2. Methods of interviewing.

Research was conducted in the form of individual formalized interviews, which were performed one-on-one with the respondent and followed the questionnaire. The respondent was given an opportunity to give detailed answers and express their opinions on the target issues. The interviews were taken from the most active hunters and elders living in the Native villages where the walrus harvest is most intensive compared to other coastal villages of Chukotka. The project questionnaire was developed based on the final version of a questionnaire used in a similar project conducted in 1999-2003 within the framework of polar bear research in Chukotka (Kochnev, 2003).

RESULTS.

Interviews about traditional walrus-related rituals gathered from contemporary Native Chukotkan marine hunters in the course of this project demonstrated relative uniformity of those traditions along the extensive stretch of the coast of the Bering and Chukchi Seas, which points to the cohesiveness of the unique culture of marine mammal hunters of Chukotka.

1. Walrus behavior.

Gathering traditional Native knowledge on walrus biology was not the main purpose of our study-- we mostly wanted to understand how well hunters are familiar with the main object of their harvest, how well they know the walrus behavior, and how well they can recognize and interpret specific elements of that behavior and the intents of the animals. First, we asked them to give a general description of what walruses are:

«Walruses are mostly calm animals, they are social. They are fairly big and it is obvious at once if they want to attack or leave».

«Walruses are group animals, they protect each other and help their wounded relatives to escape/leave; females protect calves, if there is danger males try to create diversions by attracting attention to themselves. I once observed how a calf who never saw a boat started swimming towards it, when a female walrus caught up with him and smacked him on the head ("gave him a thick ear") with a flipper».

«When they rest on a ice floe, one of them is always on the look out and if there is any danger he claps his flipper against the ice or hits other walruses with the flipper or tusk, that is how he wakes up the rest».

«They attack only when they protect themselves and also, females attack when they protect their young. They are deadly scared of killer whales».

«Walruses can sense the approach of a storm and leave for lee areas several days ahead».

When speaking about migration routes, hunters point out that walruses always tend to move with the edge of the pack ice (multi-year ice): in spring, they move north, and in autumn, they move south. Near Lorino village, walruses move in northwestern direction along the coast in any season. In the Chukchi Sea, if there is no ice, walruses stay for a long time on the coastal haulouts. In the Bering Sea, if there is no food near summer haulouts, only a few walruses stay, the rest move north.

G. Inankeuyas' describes seasonal migrations in the following way: «*In early summer, they go from south to north with current following the ice; sometimes herds of up to 1000*

animals pass. Females go first to keep the young safe, and males go afterwards. In autumn, in October-November, everybody moves together and there is no separation by sex or age». V. Eyneucheyvun from the neighboring village pointed out the same feature and then added that walruses «*migrate from south to north in summer. Females with calves go first; females carry some very small ones on their backs. And if there is ice and it is carried north by a current, then the herd migrates on ice floes. The main herd shows up some time later; like females with calves, members of the herd also swim in the water or travel on ice floes. Nunyamo is an intermediate haulout. Now, 1500-2000 walruses come to this haulout, and in 1993, we observed a small herd of about 500 walruses. On the way back from north to south, all walruses go together in October-November. Walruses return to the same haulout guided by the smell that they leave at the haulout while lying there*».

All hunters answering the question about diet related as common knowledge that walruses feed on benthos in shallow waters (mollusks etc.). By the way, the stomach contents of a harvested walrus are considered a special delicacy.

When talking about the sounds made by walruses, none of the respondents mentioned any sounds indicating communication or even any direct specific sounds signaling danger. Everybody talked about loud throat sounds and rumbling. Three respondents gave an additional characteristic of the walrus sounds: A. Tulyun from Lavrentiya heard the sounds that reminded him of grunting; V. Roskhinaut pointed out that walruses «*cough as old people*»; and Yevgeniy Sivsiv also noted that «*sick walruses chatter their teeth*».

Respondents knew practically nothing about mating behavior; they haven't seen any themselves and haven't heard about it from elders. V. Rokhinaut was the only one who told us that walruses «*hit with their tusks and utter loud whoops*» during the mating period.

Several hunters observed walruses copulating (most of them from the Arctic coast of Chukotka); they pointed out that it took place on moving ice floes in spring. G. Inankeuyas said the following: «*Once, in the summer of 1986, at the Yandogay haulout-- it was still visited by walruses then-- I saw how a male forced a female to mate with him, he copulated with that female about three times*».

Hunters told us that when butchering females they found fetuses in May, August, and October. Walrus calves are born in spring on ice, the latest instance mentioned was in June on ice near Neshkan.

It was everybody's opinion that calves stay with their mothers for 2-3 years after they are born. N. Ettytegin also added that «*a calf stays with his mother until 3 years old. She may have with her a suckling and an older calf; when migrating, she carries the suckling on her back*».

None of the respondents mentioned anything about walruses' playful behavior (games), neither in regards to adults or calves. Answering direct questions, some hunters said that they had never seen such behavior themselves or heard about it from other hunters.

Since the best and most efficient time for hunting walruses is when animals are resting, all interviewed hunters described in detail how walruses, after they have enough to eat, sleep anywhere they can – on ice floes, coastal haulouts, and in the water, and usually sleep for a long time.

V. Eyneucheyvun said that «*they can sleep afloat. They take in air in their underskin air sacs and sleep while bobbing vertically in the water with their head above and body under the water. The other position they sleep in is with their back above the water and their head under, every several minutes they lift their head up to inhale and then submerge it again*». All hunters know about sleeping walrus body positions.

When speaking about walrus natural mortality, the respondents named several main causes:

(1) Relatively high mortality resulting from trampling on the coastal haulouts. Most of the walruses killed this way are calves and sick animals.

(2) Killer whales are the main enemy of the walrus. Walruses washed ashore often have broken ribs, internal injuries and large bruises/hematomas. N. Ettytegin: «*in 1973 counted 18 walruses killed by killer whales along the 10-km stretch of coast*».

(3) Walruses die from diseases. It was most conspicuous in the autumn of 2007. Such walruses are also washed ashore. Hunters, when butchering those carcasses for dog food or polar fox bait, often see pus in their joints and spinal column. Evgeniy Sivsiv told us that in 1999, he saw many carcasses of walruses that most likely died from diseases.

All interviewed hunters pointed out that ice was the key habitat for walruses and that they suffer without it. As an example, hunters mentioned that walruses migrate with ice and that in 2007, when there was no ice, large numbers of walruses died.

During storms, walruses try to come ashore or haul out on large ice floes, and if they don't have such options they leave for the open sea. N. Ettytegin explained that «*walruses leave for*

open sea if the weather changes and there are eastern winds and storms. Walruses that come to Nunyamo don't like eastern wind».

Walruses behave in a calm way towards humans (hunters); only when they are in small groups do they behave cautiously, and become alert if they hear noise and try to escape if there is any hint of danger.

Walruses are either tolerant of all other animals (whales, seals, and birds) or indifferent to them – as towards «*neighbors*». Polar bears are the only ones that are treated «*with caution*» (polar bears present real danger only for calves). Walruses are very afraid of killer whales and when they see them they try to haul out on land.

G. Inankeuyas': «*Once, I watched two walruses through binoculars, when all of a sudden killer whales appeared. There were five of them. Walruses were quite far from shore. Having noticed the killer whales, they dove, and the killer whales followed them. After a short while one killer whale emerged, and then another one. One of them helped another to stay afloat and there were traces of fat on the water surface. Walruses must have wounded the killer whale while fighting back. More often, walruses don't have a chance to survive encounters with killer whales*». E. Sivsiv also considered it important to point out that walruses do not tolerate the smell of terrestrial animals.

Names associated with walruses

Ryrkaypyn, Ryrkaypiyan – literally means ‘the place covered with walruses’;

Ryrkaypyye – name of a narrow area located in the Chukchi Sea, that had been once packed with huge number of walruses; now this place is called Ryrkaypiy, and it is the name of a village on the coast of the Chukchi Sea;

Ryrkavytysgyn (ukkensi)– waterproof parka (kuspuk) made of walrus intestines;

Vankarem – the name of the village, the word means ‘tusk people’;

Ryrkalyavyt – the name of a place in tundra, the word means ‘walrus head’.

Changes in walrus habitat, numbers, and behavior over the last 20-30-40 years.

Everybody who was interviewed was confident that the numbers of walruses have noticeably declined, due to reduced pack ice; sea ice retreats north earlier and comes back later. No considerable changes in walrus behavior have been noticed. G. Inankeuyas' pointed out that

due to regular flights of the local airlines, walruses stopped coming out on Yandogay and Arakamchechen coastal haulout sites.

«*There are many abandoned haulout sites*» (Ye. Vetosheva).

L. Kutylin from Yanrakynnot gave an interesting explanation: «*There are fewer walruses in Senyavin Strait now, the most likely reason is higher number of killer whales (predation) and gray whales (competition on the feeding grounds)*».

2. Size of annual walrus harvest.

The authors of this report consider it necessary to point out that all the respondents gave very approximate estimates of walrus harvest that match official statistics only partially. Possibly, we should have formulated our questions differently and first asked how many walrus were harvested by the respondent himself or by his immediate circle over different periods of time. As a result, the obtained numbers reflect only general trends of harvest in selected villages. We asked to give a walrus harvest estimate for four tentative periods:

1st period – prior to1930's

2nd period – prior to1990 (during Soviet times);

3rd period – prior to 2000 (transition from so-called socialist economy to capitalism);

4th period – until 2010 (economic stabilization of contemporary Russia)

Only some respondents could remember the approximate numbers of walrus harvested in the village where they live or used to live. Answering the question about level of harvest during pre-Soviet period, one of the hunters said: «*I don't know. However, elders had always told young people that they should take enough to sustain them until the next hunting season, not more and not less*». We constructed graphs that describe the level of harvest in selected villages only during the three last periods, thus covering a 30 year timespan (Fig. 8).

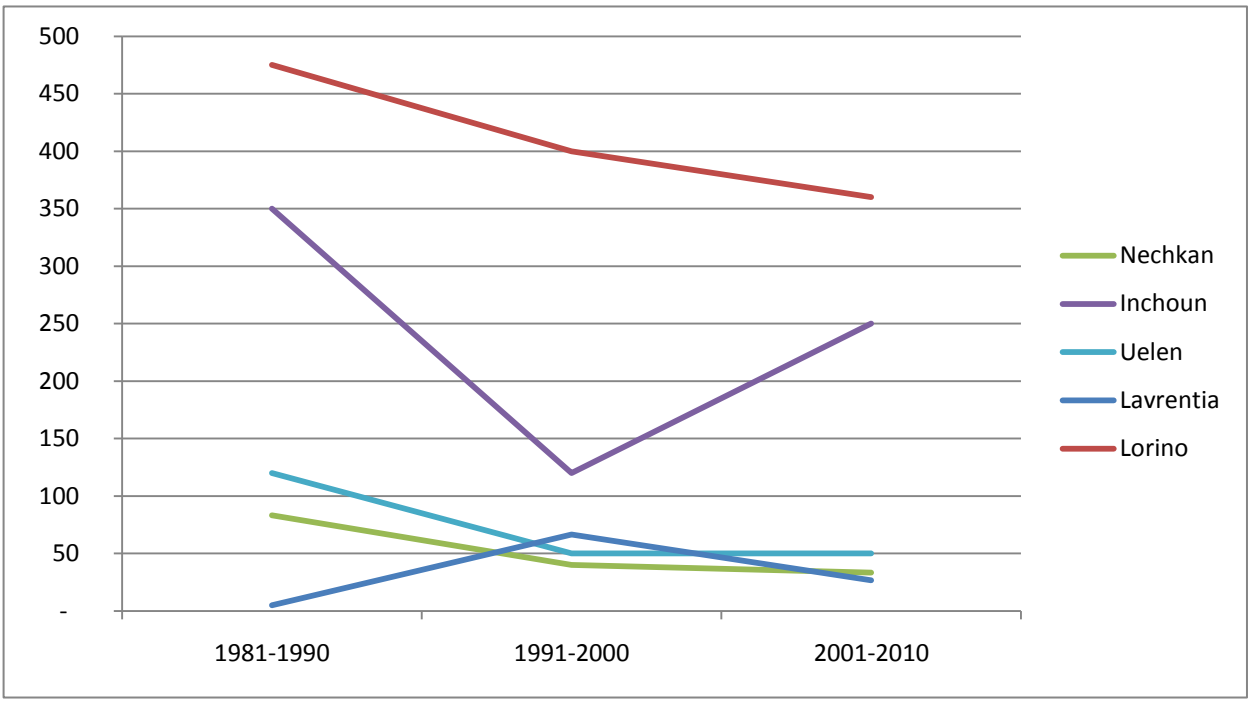

Fig. 8. Walrus harvest trends in the villages based on the estimates provided by respondents

The diagram shows a noticeable drop in harvest levels in the 1990's. Hunters themselves explain this by serious shortages of fuel and ammunition. The authors of the report think that the decline of walrus harvest occurred primarily due to elimination of fox farms, which used to be the main consumers of the marine mammal harvest products during the Soviet period. This is supported by the fact that when the supplies of fuel and other materials for marine mammal harvest were restored during the relatively stable 2000's, the level of walrus harvest did not change in any significant way. The only exception is the harvest trend in Lavrentiya village: during the Soviet period, there was hardly any traditional harvest in this village due to larger proportion of non-native residents (population of the village was mostly non-Native). During the economic crisis in 1990's, the non-Native population moved out to the central parts of Russia and Native people from remote arctic villages moved in, which resulted in a significant push towards the subsistence use of traditional sources of food.

3. Ways of hunting. Traditional and contemporary methods of walrus harvest.

As was already pointed out, all respondents are directly involved in walrus hunting. They live in places close to areas of active walrus migration, and usually use for harvest the coastal haulouts located in the vicinity of their villages. The only exception was the two older women, who were included in the interviews in an attempt to obtain first-hand information about the mid-twentieth century.

The decision to go to sea nowadays, as well as in old times, is made by the owner of the umiak/baidara, or by the captain of the crew. A hunter from the village of Inchoun pointed out that the decision used to be made by the head of the most important clan in the village. Respondents from Lavrentiya told that in their village, the decision to go to sea is made jointly by all members of the crew. The authors think that this difference can be attributed to the fact that marine mammal harvest there had been restored by people from the former surrounding villages, and marine mammal harvest is not their main occupation but mostly a supplementary one.

It is clear that captain of the crew who usually steers the boat makes a decision which group of walruses – on ice, in the water, or on shore – to approach. He is also the one who assigns roles and responsibilities within the crew.

According to what interviewed hunters told us, there is no strict specialization among the members of the crew. Some are certainly sharpshooters, some are stronger with harpoons, and some are just more successful hunters altogether. This explains why during each hunt, the captain determines who is supposed to do what. As a rule, only the steersman and motorman are permanent roles. The steersman is the most experienced and successful hunter of the crew (he can also be the owner or captain of the boat), and the motorman is the most knowledgeable specialist with engines. Lives of all the hunters depend on the qualification of those two members of the crew.

The same approach is typical in regards to professional training of a marine mammal hunter. There is no special training to become a professional hunter. Kids are introduced to hunting starting around 6-8 years old. [See photo to the right]. The main principle is ‘observe and do as I do’. The training is comprehensive – i.e. each must know how to do everything: throw harpoon, shoot, row, paddle, and steer a boat.

G. Inankeuyas', a hunter from Lorino says: «*First a father or an uncle take a boy hunting along with them, and give him assignments manageable for a kid. They teach him everything they know: how to kill walruses on the haulouts, in the water, and on ice floe, and how to react to different situations during a hunt. They teach him to be attentive, not to risk without a need. And to remember that nature is generous as long as we respect it, and therefore one should not take more than he needs to eat*».

V. Eyneucheivun spoke about the same: «*A boy is taken hunting beginning with early childhood – 7-8 years old - he learns hunting skills by example watching concrete actions of a grownup. First, he is given simple assignments with explanations of what he should do; gradually, depending on his learning abilities and progress, his tasks become more complicated. In addition to direct hunting skills, he is taught to be attentive and calm, react quickly and find the way out of complicated situations, take precise actions, finish what is started, recognize danger, and not to risk without a need to*».

Over many centuries of their history, the marine hunters of Chukotka developed an amazingly effective **method of hunting walrus** using human muscle power.

The key factor of success is the right choice of a good hunting location. All ancient villages were located on spits and capes protruding into the sea and located in close proximity to the migration routes of walruses. The most successful hunters managed to settle near traditional walrus haulout sites. This in combination with possession of a skinboat (baidara) and a toggling harpoon provided them with good nutrition throughout the incredibly long polar winter.

Answering the question where they hunt walrus, all hunters gave the same fairly logical answer: ‘we hunt everywhere we can find it’. Naturally, hunters know where to find walruses by constantly observing walrus migration timeframe and routes.

Having analyzed the answers obtained from the interviewed hunters, the authors of this report identified four types of hunts: (1) on the water, (2) on ice floes in summer, (3) on shore, (4) on ice in winter. While the first three types of hunting are characteristic of the entire Chukotka, the winter hunt on sea ice is a unique way of hunting practiced only by Chaplino hunters. The village being situated at the edge of Sireniki polynia where walruses overwinter made it possible for locals to hunt both in summer and in winter. This type of hunting is also an extremely dangerous one, since the ice at the edge of the polynia can be broken off and carried out to the open sea.

L. Ainana told us about this hunt: «*Winter walrus hunting is called «Savgak'». It is the most dangerous and strenuous type of hunting. They used to come out on young (thin) fast (ice) and take small skin boats that they pulled on sleds made of wood with blades from walrus tusks. Sleds were low and wide, and slid on ice very well. They used to start out for hunting early in the morning since the daylight was very short.*

After a walrus was harvested, it was quickly butchered; they took skin, meat, and guts, loaded everything on the sleds and then ran towards the shore without any rest. They rested

only when they reached the shore; they were so hot that steam was coming from their parkas soaked with sweat. When back at home they took off their clothes and women wrung them out or sometimes rinsed them in water and hung to dry.

Hunters sometimes were carried away on ice floes while hunting. In those cases, hunters never tried to run towards the shore; they looked for pack ice and then drifted on it; sometimes, they managed to kill a walrus. They stuffed its heart with snow and then drank water mixed with blood. When the ice moved towards the shore, hunters took intestines and wrapped themselves in them not to get too cold. They took meat but not much, because it is too heavy to carry. Sometimes, they would successfully come on shore, but there were instances when hunters drowned. Some people got frost-bitten feet, which caused swelling and then, knowing that they would be a burden to others and wouldn't be able to get out on their own, they asked to help them die (depart from this life)».

Over the centuries, hunters, hunting in these conditions, developed an effective set of rules for cases when an ice floe is carried out to sea. S. Tag'yek tried to record those rules from the words of Sireniki hunters: «*When you hunt, the edge of an ice floe can be very dangerous, particularly, if thawing started and ice began to break off. Young hunters should know how they should behave if they are broken off on an ice floe. First and foremost one shouldn't panic. One should find the pack (multi-year) ice and try his best to get there. If one doesn't have a small skin boat that is when hook and line can be very useful. Using your hook and line you can hook on to pack ice floe and pull it close towards you and then carefully walk over on to it.*

Without nervousness or despair, examine the situation. If the wind is carrying your ice floe away you need to calm down. Sometimes, a hunter can drift for several days or even a month. Even in such case one shouldn't lose his composure and presence of mind.

If a hunter realized that he would have to spend a night on the drifting ice floe, he should use his knife to build a shelter.

Before he has run out of food, a hunter should try to kill a marine mammal or a duck.

A hunter must have matches even if he doesn't smoke. If he shoots a duck, he should skin it and use its feathers as firewood and burn them. This way, he can also fry the meat and eat it hot. When a man is hungry he doesn't worry too much about what kind of food to choose or about the taste of the food he managed to get.

If a hunter gets very thirsty (generally, it is best to withstand the thirst as long as possible), the skin of that same duck can be used as a kettle. He should cut out a piece of ice, put it in the skin and warm it on fire. First, the very salty ice from the surface will melt. That melted

water should be poured out. Melted sea ice has the taste of seawater, but it is suitable for drinking. But one shouldn't drink a lot of that water, only two or three swallows and that's all.

If there is completely no snow on your ice floe and you are very thirsty, look for pieces of ice floating around and rubbing against each other. Most of the salty sea ice gets rubbed off and what is left is more suitable for making drinking water.

- How should a hunter orientate himself amidst the ice so that he doesn't get lost?

- He should always know the direction of the wind and position of the sun and stars, to be able to determine in which direction the land is. Remember the location of mountains and of the shore. If the wind has been blowing from the west for a long time, the ice will move away from land.

- How should one behave on an ice floe so as not to freeze?

- When one is on an ice floe, he should watch that snow and water do not get into footwear and try to keep feet warm and dry. If boots freeze, you should beat ice or snow out of them. But one should be careful not to damage the footwear».

G. Inankeuyas' gave a detailed description of three other ‘classical’ types of hunting:

«If a walrus was killed in the water, the actions took place in the following way: first it was harpooned, then the line was pulled with an abrupt motion – jerk-like – so that harpoon head turned inside the walrus, then a float (pyg-pyg) was thrown in the water, pulled the walrus closer to the skinboat and speared it through the side aiming to reach the heart or penetrate the stomach cavity, depending on how the walrus was pulled up to the skin boat. In detail, everything looks as follows: the harpoon consists of several parts; a line is attached to its head and pyg-pyg is tied to the other end of the line (pyg-pyg is a float made out of a whole seal skin); harpoon is thrown, it stick into the animal, the line is pulled back abruptly and the shaft is disconnected and falls out and at the same time, the harpoon head rotates inside the animal and settles across the penetration wound. Before the pyg-pyg is thrown into the water, another rope is tied to it. After the shaft fell of,f the entire combination looked like this: walrus with a harpoon head turned across the wound inside, line coming from the harpoon head, then pyg-pyg and then another rope that was used by the harpooners to hold the walrus. More rope was let out if the walrus submerged or was pulled in when the walrus surfaced; the pyg-pyg prevented the walrus from going deep under water. After walrus stopped going under, it was pulled up by the line and speared through the side, trying to reach the heart or the stomach cavity. The spear was removed quickly and the skin boat moved away from the walrus in case the animal was not killed. The goal is always to kill from the first strike. If walruses were spotted on a big ice floe, hunters approached quietly on a skin boat, stepped out on ice and hit the animal with spears. The butchering was done at that same place.

When killing on a coastal haulout, in order for walruses not to get scared and leave and also for safety purposes, they used to (and still do) approach a haulout from the side and selected walruses for spearing; they tried not to take old ones because they have thick skin and their meat is tough. Then, they would hit walruses with spears while watching each other's back, in case other walruses attacked. But generally, walruses that were not being speared would retreat away from the spearing place or go into the water. After hunters take away the speared walruses, the area where spearing took place would fill with walruses again. In autumn, harvest at coastal haulouts was done for storing «kymgyts» (meat rolls) for winter.

For 50-60 years, Akkaniyan (?) hunters took off for Inchoun in their skinboats to do the spearing on a haulout in order to store kymgyts (meat rolls) for winter, and in winter they moved them to Lorino on dog sleds. When getting ready for spearing, hunters picked youngish

walruses (avoiding old ones) at the edge of the haulout, then decided who would spear and who would be on the lookout. The spear was thrust in the left side into the heart. It was done in the following way: the spear was thrust in and quickly pulled out, then hunter stepped back and meanwhile another hunter stood ready in case the animal was not killed at once (from the first attempt). Hunters always tried to kill with the first thrust.»

Those types of hunting are also described by other hunters in detail. There are only minor differences in details of the gear; sometime the use of additional devices is mentioned. *«When harvest took place on the water, they approached closer and hit the water with special devices made of skins. Walruses think that a killer whale hits water with its tail and stop diving because of the panic. At that moment, they were harpooned and already after that, shot»,* - told us Leonid Kutylin. Or for example, an unusual use of hook and line when hunting walrus from the edge of the fast ice (similar to seal hunt) was mentioned to us by respondents from Uelen and Yanrakynnot.

The main special feature of hunting on water is an extra effort needed to come close to the diving walrus and to secure it with the harpoon it so that it doesn't drown. That is why hunters prefers to harvest walrus on shore or on ice. Wrapping up the conversation about the old hunting methods, hunters pointed out that prior to use of engines and firearms, preparation and training of hunters was more serious; for instance «*they used to throw harpoon up to 20 meters*» and «*speared quickly and precisely*».

Answering the question about the methods of hunting existing in the present time, all hunters said that hunting methods practically had not changed. It just became easier to hunt due to the use of motors and contemporary aluminum boats. There is no need to make gear yourself: floats are made of plastic, harpoon and spear heads are made of steel, and lines are made of sturdy synthetic materials.

Carrying on the theme about traditional spearing of walrus on coastal haulouts - harvest done without use of firearms - V. Eyneucheyvun mentioned that elders still play an important role when identifying the area where to do the spearing on the haulout: they determine which edge of the haulout to select for spearing. N. Ettytegin particularly pointed out the importance of precise spearing so that animal doesn't suffer.

V. Roskhinaut from Neshkan gave a detailed description of how to make sure that walrus is actually killed and of ways to tie walrus to the boat to pull it to the place where it will be butchered: **«***Hunting methods have not changed, we kill walruses wherever we meet them. We come out on boats and wooden whaleboats (baidaras) with motors. If walruses are on the water*

we shoot them with rifles. Certainly, to make sure that walrus doesn't drown, we first harpoon it (one end of the line is tied to harpoon head and the other end is attached to pyg-pyg (float)). After the walrus is struck by the harpoon, one should abruptly jerk the line (harpoon head inside the animal turns across the wound, and the shaft detaches itself) then throw pyg-pyg overboard (pyg-pyg prevents walrus from submerging for a long time or drowning after it was shot), and then shoot in the neck. In order to make sure that walrus is dead, it is poked with a long object (paddle, harpoon shaft); if-- judging by its eyes-- the animal doesn't react, it is pulled up to the boat, then they make a cut in its cheek and pull a rope through it; in addition, the rope is wrapped around the tusk and made fast to the side of the boat, and then the walrus is pulled to shore or a large ice floe for butchering.

If walruses are on ice, we stop the engine and paddle within shooting distance and fire. We butcher harvested walruses on that same ice floe.

Walruses periodically come to our Ililyn Island. There is always somebody among hunters watching the sea, the island is right in front of the village, and when walruses show up there, everybody in the village knows about it very soon. Hunters stop their motors before they reach the island and paddle to the shore. They come on shore and spear walruses at edge of the haulout».

We already pointed out in the beginning of this report, that almost all our respondents were active hunters. More than that, they have participated in walrus hunts since their childhood. V. Eyneucheyvun started hunting with his father when he was seven, and at the age of 12, killed his first walrus: «*I took my first walrus when I was 12, when I still lived in Nunyamo. I fished in the river that is located very close to the village. Saw a walrus, it was asleep, I ran to get a rifle (carbine), came back and killed the walrus at once, it was a female. Then it turned out the people from the outlook post were watching me from above during all that time. I called them. The old Pynoy, was very quick by the way, was the first who showed up next to me. Without saying a word he jumped at me and tried to pin me down. Of course, I knew that according to an old tradition, if any elder wrestles with somebody who took a walrus for the first time, he wants to claim his kill. I fought back with all my strength and he was not winning, then another elder joined him, he grabbed me by my feet and only then they managed to stretch me down on the ground. That was not fair on their part. According to the custom, if old men wrestled me down,*

then my first take belonged to the winner. And that is what happened – I was left with nothing. Old men and women came running with their sharp knives and buckets and started butchering my walrus. I felt so hurt then. I came up to my grandmother and complained to her. She was comforting me, saying that that is how it is supposed to be, that giving your first take to the elders is a tradition, a ritual of making one a hunter.

I took my second walrus when I was 13 already as part of a crew. We saw walruses on the water, I harpooned one and shot it».

V. Roskhinaut told us: «*I started hunting when I was still a kid. Now, in one hunting season, I take 1-2 walruses. Last season took three walruses. The first was in August, we were in the boat going towards Kolyuchin, saw three walruses on the coast, came to the shore, I stepped out on land, sneaked up and killed one with a spear, other walruses walked to the water and swam away. We decided not to chase them.*

In September, again on shore, we saw three walruses, big ones, and fat. They didn't let us get close; they lifted their tusks and roared, but we managed to take them anyway. I speared one in the side. He died from the first strike. The other walruses were taken by my fellow crew members».

Our respondents gave very different answers to the question to whom a harvested walrus and its most commercially valued part – tusks – belong. Ye. Vetosheva and Ya. Vukvutagin said that tusks belong to the one who first spotted the walrus; A. Tulyun said that they belong to the one who harpooned it; G. Inankeuyas' and V. Eyneucheyvun said that they belong to everybody who hunts (translator’s note: meaning those who participated in the hunt?), and N. Kelepkir said that the decision should be made by consent among the participants. In our opinion, Evgeniy Sivsiv's answer was the closest to the truth: tusks belong to the owner of the boat (captain of the crew), and he distributes them based on his judgment, taking in consideration the contribution of each crew member in the hunt, and paying special attention to the harpooner.

In regards to walrus behavior when it is wounded, hunters told us that most of the animals try to swim away if they can, however there are occasions when they attack. It happens for the most part when **(1)** a female walrus protects her calf; **(2**) young walruses are especially aggressive; **(3)** and, walruses that happened to be too close to the boat can attack (it is assumed that they do not see any other way out). Possibly, one more factor can be added: **(4)** instinctive self-defense, when a walrus attacks because there is nowhere to escape, for example, if a boat rides over the top of walrus's back.

V. Roskhinaut tells: «*More than once, I saw females protecting their young ones. If one approaches walruses close and there are calves there, females come forward and raise their tusks*».

Basically, all hunters have a sufficient number of experiences with aggressive walrus behavior throughout their hunting history. For example, here is what V. Eyneucheyvun told us: «*And here is one more incident: in autumn, when the main walrus migration was taking place, we started out in three boats to Nunyamo basecamp to store up kymgyt (meat rolls) for winter. We reached the place, came on shore and went up to watch over the sea from the top. In a short while, a group of 25 walruses showed up. We quickly went out to sea and «attacked» that group, harpooned one, and at that very moment felt a blow on the bottom of the boat in which my son and I were. I realized that we were attacked by a walrus other than the one we harpooned, since we had shot it already. We quickly started towards the shore; the boat was feeling heavier and heavier, getting filled with water. And my boat finally sank before we reached the shore-- good that it was already shallow there. With others' help, we pulled the boat out of the water, there were two jagged holes in it. Already after we had harpooned one walrus we realized that that group consisted of young walruses and young are aggressive*».

N. Ettytegin told us about an ‘instinctive’ self-defense behavior of a walrus: «*There was one incident in 1974, we hunted in three boats. One boat carelessly approached a group of walruses and bumped into one of them; it turned over on its back at once and struck at the bottom of the boat with the tusks. Those in that boat were really lucky that it happened really close to the shore*».

All hunters point out that walruses attack when they don't have any other way out, meaning that it is better not to provoke them by approaching too closely. For that, one should be attentive and very cautious, and keep distance. And if one gets into an unpleasant situation, they should stay cool and collected. Hunters emphasized many times that it is always better to avoid dangerous situations. Therefore they teach kids starting at an early age to be focused when at sea, not to get excited when hunting, be cool-headed and self-restrained. One of the hunters also added that it is important to have intuition and be able to sense danger.

R. Rinetegin told: «*My father in law, Netepkir used to say to me: Be attentive, particularly on the water. If you are in the boat drawing up with a herd that is swimming, you should not*

come close to it; if you ride over walruses, there is nothing left for them to do but attack the boat. Both on an ice floe and on a haulout site, it is absolutely necessary to back each other up».

Just as in the case of winter hunting, many centuries ago hunters developed universally accepted precautionary measures during a hunt: the **most important** including being watchful and alert, always watch the sea, the sky, ice, and animals and always back each other up.

V. Eyneucheyvun describes the rules in the following way: *«It is necessary to be always attentive. Grown-ups always repeat: «Kygitetkurkyn. Konpy kygitetkurkyn» - which means «look, observe, be attentive, take note, and memorize»*. This rule applies throughout the entire coast of Chukotka. V Roskhinaut also told us: «*When a boy is taken hunting he is told all the time: «Look, observe, be watchful, take note, memorize»*.

All hunters gave the same answer when they were asked how to react if a **walrus attacked a boat or a person** and how to prevent such attack: start making noise, but the best thing is not to come close in the first place. If a walrus shows up close by, then one should poke him on the nose with a paddle – «walrus doesn't like to be touched».

«*Hit against the bottom of the boat, or frame of baidara or board of a whaleboat with your feet, a paddle, or a shaft. They used to make crackers in old times that imitated killer whale hitting the water with its tail. Hit the water surface with a paddle or any piece of board. This way, it is possible to mislead the walruses; as a result, they will stop moving, get in a tight group and will stay in one place. Nowadays, hunters shoot with a gun in the water close to the target, this has the same effect as a cracker: walruses think that a killer whale is slapping its tail against the water*», - V. Eyneucheyvun.

Beliefs and customs relating to walrus attacks.

Any mishaps in the life of marine mammal hunters hunting (trouble during the hunt, absence of marine animals, a storm etc.) is an effect of outside forces «Nyrgynen» according to the cosmogonic view of the world of the Native people of Chukotka. This explains why the main beliefs guide hunters to treat the surrounding world with respect: then people can expect the same treatment back. V. Eyneucheyvun from Lavrenitya said: *«Not to take more walruses than is needed for life is the first and foremost rule of coastal dweller»*. This rule was mentioned by everybody who was interviewed in the context of most of the questions. The appeal to the external forces for a successful hunt and a ritual of giving thanks described by Ya.Vukvutagin are used by all the hunters: *«Before a hunt, bring gifts to the place where you hunt. After a successful hunt, smear some blood of the harvested animal on the bow of baidara»*.

One respondent – Ye. Vetosheva - remembered the words that hunters used in extreme circumstances: *«During a storm, to calm down the sea, they used to say to the sea «Merynre» which means «quieter, quieter, calm down». Similar words were used to calm down the attacking walruses «Merynre kytvarkynetyk» (quiet, calm down). And walruses would retreat».*

However, since hunting is a very practical activity, which requires maximum investment of strength, knowledge, and time, the main part of recommendations included unspoken rules that were also very practical:

«If a walrus swimming in the water has not been harpooned, he should not be shot, because he will drown», - G. Inankeuyas'.

«*Should not kill females nursing calves, because a young one (if orphaned) can become a «keglyuchin» - a walrus who eats other animals. Most of the calves left without a mother die, but in rare instances they survive feeding on what they find on shore. After growing up, it becomes dangerous; it is bigger than a normal walrus, mean, eats ringed and bearded seals and his own kind. Can be dangerous to people»,* - told by V. Roskhinaut.

«One shouldn't attack a very large herd – it is protected by a herd master », - told A. Tulyun. Most of the taboos are based on some logic. For instance, the authors of this report think that an attempt to take a walrus in a very large herd may provoke panic among animals that may very likely lead to an accident that is hard to avoid.

Ye. Vetosheva told us that one of the taboos is «*not to take women hunting*». It sounds like a commonsense statement, but the authors know one hunting captain who had only daughters in his family, and so he included one of them in his crew. We also heard from one of the hunters in Nome (Alaska), that in their family, a daughter also takes part in walrus hunting.

There are certain kinds of beliefs that are impossible to interpret to date. It may become possible during future research by learning more about the history of their origin and details of expression. The authors include in that category the following beliefs:

«If hunters in the boats could not draw up with walruses, it means that wife of one of the hunters is pregnant», - told in Neshkan and Lavrentiya.

N. Ettytegin told : *«In 1965, when I was still a kid, my uncle took me hunting. We saw a walrus on an ice floe; he was lying covering his snout with his flippers. Uncle forbade to shoot. Don't know why».* Ye. Sivsiv told us about a similar belief.

Several hunters remembered, that «if a walrus yawns then the weather will turn bad and it one should go back to shore».

4. Butchering of a walrus.

Walrus harvest is hard work, requiring special knowledge, skills and hunting qualifications. Experienced people say that «*it is not enough to harvest the walruses, it is very important to process them in a timely way and preserve harvested meat properly*».

The authors of the report made a special effort to identify whether there are any special rituals or traditional requirements for positioning the carcass of a harvested animal in a certain way before butchering it according to some belief. Most of the hunters thought that there were no special requirements. Only three hunters mentioned that the head should point in certain direction (north, east, towards land); one of them said: «*The head should point to the North. But walrus is heavy, therefore it is done only when there are many people or if it's easy*».

The methods and sequence of butchering was well known to all the interviewed hunters. In their descriptions, they pointed out that there are three main approaches to butchering, depending on the intended use of the harvested animal: **(1)** use of skin for a boat; **(2)** skin for straps; **(3)** for meat rolls. The methods are the same throughout Chukotka with the only exception of Uel'kal' village (A. Kochnev, personal communication). There, hunters when butchering a walrus separate skin with fat from the meat, the same way it is done in seal butchering.

There are two conditions that must be followed during the butchering:

- Eyes must be removed first, so that the walrus’s spirit does not see the butchering;
- Butchering must be done with a knife only (neither an ax nor a saw can be used)

G. Inankeuyas' described a standard butchering of a walrus: «*Butchering is done using only a knife and a carcass is carved up across the joints. First, we remove the eyes, so that the spirit of the walrus doesn't see what we do. We cut off the head.*

If we need a skin for baidara, then we do it in the following way: one cut is made from the throat along the body and to the flippers. The skin is carefully taken off without any additional cuts. Next, the carcass is butchered: breast muscle is cut off, insides are taken out, front and hind flippers are cut off, shoulder blades are removed, all bones are disjointed; we cut meat off the large bones, and throw them out into the sea, since they are too heavy; smaller bones we take with us, because dogs like them.

If skin is to be used for straps, then after head and flippers are removed, the skin is pulled off like a sock and after that the carcass is butchered: breast is cut off, a cut is made along the body (stomach) and all the guts are taken out, and then bones are separated (across joints)».

A.V. Roskhinaut commented about the butchering done for meat roll supplies: *«Butchering is done using only a knife, and there are different ways depending on how skin and walrus itself are going to be used. For instance, I make and store for winter kamgyts (rolled up skin with fat and meat). We lay the walrus on its back, cut its head off, make a cut across its breast from shoulder to shoulder, make 0.6-1m cuts along shoulders on both sides and then cut across; as result there is a rectangular piece that we take out along with the breast meat. We cut the throat open and pull out the throat (trachea) together with lungs. Starting from the place where breast part was taken out we start a cut through the middle as far as groin, open up the belly and take out the guts. We make cuts on hips, in order to take out bones and take bones (shoulder blades, shoulder bones, backbone with ribs) out of the upper part too. This way we get one large section of skin, fat, meat with front and hind flippers attached. We cut it up in 6-8 parts, roll up each part so that meat and fat are on the inside and then stitch it up with ropes».*

Rolls prepared in this way are stacked in special meat pits cut out of the permafrost, where they gradually ferment at a temperature of zero to ten degrees Celsius and acquire their unforgettable and delicious taste and aroma.

5. Use of harvest products.

According to hunters, practically all parts of walruses are used for food, and only a small part is used for building skin boats/baidaras, straps, and particular tools and devices for everyday life, and also for traditional handicrafts.

«*Walrus liver is used raw, frozen or fermented. Intestines are used boiled and air-dried, after curing/tanning, craftsmen use intestines to make souvenirs, kayaks and baidaras in particular. Brains are used raw and boiled,» - I. Makotrik*

«We used to air-dry diaphragm, meat, and ribs with meat on them, intestines and lungs. Intestines of large walruses (likely, males) were first cleaned, then soaked, then inflated and stretched on the ground. Dried intestines large and small were cut, rolled up (for storage?) and then raincoats were sewn out of them,» - L. Aynana.

«Entire walrus is used for food, except for eyes, gall and bones. Fat and blood mix is added to purées (kashi) made of greens, people pour the mix over berries and eat it. Meat taken out of the head together with tongue and cheeks is sewn into a roll and stored in a meat pit. Kidneys, liver, and intestines are also rolled in kamgyts (meat rolls) for winter storage», - G. Inankeuyas'.

« Almost the entire walrus is used for food, only gall, eyes and some large bones are thrown out into the sea. Bones are usually given to dogs. Blood is collected and used for making green kasha (purée made of greens). Meat is taken of the head and rolled into kamgyt together with tongue, sewn up and stored in meat pit along with large kamgyts (meat rolls)», - V. Eyneucheyvun.

Having analyzed the data that was collected, the authors identified only a few walrus parts that today are not used by the residents of coastal villages of Chukotka; they include gall, eyes, bones, tendons/sinew, bladder, and stomach (although, sometimes it is used for making drums).

Answering the question: « what exactly is done with unused walrus parts?» - N. Kelepkir answered: «*For example, gall and eyes are thrown into the sea, bones are given to the dogs, stomach is used for «yarars» (drums). There isn't any taboo or a strict rule about how walrus parts should be used.*» (Underlined by the authors)

V. Eyneucheyvun answered in about the same way: «*Gall and eyes are thrown into the sea, bones are given to the dogs, and stomach is used for making drums. Don't know anything about any taboos».*

Ways of cooking the edible parts. Clearly the authors should have interviewed more women on this topic, but even the answers given by the hunters still show the richness and diversity of the traditional foods made of walrus by the Native people of Chukotka:

«Flippers are slightly fermented first and then boiled. Bone cartilages are slightly «aged», and then eaten by knocking them off», - I. Makotrik.

«Before eating, meat is usually boiled, same with intestines, heart, and kidneys. Lungs, intestines and meat can be also dried; they are easy to take as snacks when going hunting. In the fall, we make kamgyts (meat rolls) for long-term storage. They are put in a meat pit for keeping», - V. Roskhinaut.

«Meat, intestines, heart, kidneys, and liver are usually boiled. Intestines, lungs, and meat are

also air-cured or dried. In the fall, kamgyts (meat rolls) are prepared for winter storage», - N. Kelepkir.

«We boil, air-cure, ferment and store meat and guts for winter. We also make kamgyts (meat rolls) for winter», - N. Ettytegin.

«Ways of cooking: everything edible is boiled; lungs, intestines and meat are dried; meat rolls while stored in the meat pits get fermented and «kopal'gen» (walrus meat with skin and fat) acquires sour taste. In the storage, meat rolls are periodically turned», - V. Eyneucheyvun.

«All edible parts are boiled. Lungs and intestines also can be air-cured. Only walruses harvested in autumn are used for long-term storage. Walrus is butchered, sewn in rolls and kept in meat pits. While stored, it gets fermented and acquires special sour taste», - G. Inankeuyas'.

«Everything can be boiled. Intestines, whole head, and lungs are also air-cured. In the fall, they make meat rolls for long-term storage», - A. Tulyun.

We boil it and air-cure it and eat raw and fermented... We use «kopal'gyn» (meat with fat and skin) frozen as well (frozen slices)» - Ye. Vetosheva.

«Usually, edible parts are boiled; intestines, diaphragm, and lungs are dried and air-cured. Meat rolls are made only in the fall to store for winter. The process of fermentation gradually takes place, which results in a specific taste of the product. After fermentation, kopal'khen (meat with fat and skin) has a lot of vitamins in it», - R. Rinetgin.

Traditionally, without using modern techniques of storing and keeping food products, there are two main methods of keeping food for a long period of time – up to one year guaranteed, and possibly longer:

(1) Rolls (kymgyts) in a meat pit;

(2) Drying (air-curing).

We have already described the preparation of meat rolls for storage in a meat pit in this report. As far as air-curing, here is what I. Makotrik from New Chaplino told us about it: « *Ribs with meat on them are hung in a windy or breezy place and that is how they air-cure it. Air-cured meat can be kept for a long time*; *it is convenient for a hunter to take it with him as a food supply, to be able to eat right in the boat without coming on shore».*

Ye. Sivsiv speculated about the use of walrus parts for medicinal purposes (traditional medicine): *«Aged meat rolls (kymgyt) provide everything needed to stay healthy (not to get sick): vitamins, minerals, etc. ».*

N. Ettytegin said: «*Kymgyt goes through the process of fermentation when it sours. This product contains a large quantity of vitamins, one can say, that it is a cure against vitamin deficiency. If one cuts himself while butchering, the film from between walrus intestines should be pressed firmly against the cut and it will stop bleeding*».

Traditional and contemporary **use of non-edible parts** (skin, skull, bones, teeth, and tusks).

All respondents gave an overall short and similar answer to this question: skin is for boats and leather straps; skull, bones, teeth, and tusks are for handicrafts. It used to be that teeth were used for making fishing tackle and slingshots to kill birds. Leather straps made of skin are hardly made anymore; it is easier to use manufactured lines and ropes.

G. Inankeuyas' provided us with a description of how to make a hunting sled: *«Also very good sleds can be made out of tusks. Many hunters have them. In order to make such a sled one should take two large tusks, drill 5-6 holes along their entire length (with spaces between the holes). If tusks are set parallel to each other a hole in one tusk should line up with the hole in the second tusk.*

Then a certain number of sticks or little boards of the same length are taken, each is put across the tusks and attached with a rope to the tusk crosswise by pulling the rope each time through the hole made in the tusk. Holes are also made through the tip of each tusk, and the rope is pulled through them. Sleds are very comfortable, they glide very well, they are used for transporting harvested animals – up to eight seals tied together with a rope can be put on such sled.

Teeth are used for fishing tackle for a fishing pole (lures and weights/sinkers) and for making slingshots (epplykytten). Jaws are used to make sledge runners. Bones, tusks, and teeth are also used for handicrafts».

All respondents gave a similar description of the process of preparing walrus skins for three main uses: skin-boat, straps, and cover for yaranga.

«If a skin is needed for a baidara/boat, then the butchering is done in this way: the head is removed, the cut is made along the body from throat to lower flippers, flippers are removed, skin is removed carefully so as not to do any damage. The skin is cleaned of fat, rolled up and put in a container to ferment it; when it starts smelling in a specific way and hair can be easily removed, they take it out and divide into two layers. Those layers are not separated from each

other, and the skin is pulled over the frame of the boat/baidara. It takes approximately four skins to make one baidara.

If the skin is needed for straps, they remove the head and pull the skin off as a sock, then ferment it the same way as for baidara, when it is ready they take it out of the container and cut in a continuous spiral. The width of the strap can vary from 1 to 3 cm depending on what it is intended for. Also skins are used for yarangas; in that case, after fermenting, the skin was layered, spread on the ground, pinned at the edges with wooden pegs, and dried it in that position. Then it was cut to fit the frame of yaranga and sewn», - N. Kelepkir.

«Skins are used to make straps, and to fit skin boats. First, the skin is taken off and cleaned of fat; then it is put in a container so that it ages and the upper layer starts to separate; then the skin is taken out and the split is made, which is by the way the most difficult aspect: the skin is layered into parts (usually two); after the split, without separating the parts, the skin is fit over the boat/baidara frame. For straps, they also ferment the skin, then take it out and cut in spiral to make straps: if one needs thin ropes, he cuts a narrow strap, or wider if they need wider straps. Walrus carcass is butchered differently depending on the how the skin is going to be used. For baidara/boat, a cut is made along the entire body, and for straps, the skin is pulled off as a sock,» - R. Rinetegin

Contemporary use of walrus products.

All the respondents pointed out that walrus products bring them some profit. Apart from nutrition, it is used for barter exchange with reindeer herders to get meat and reindeer skins. Tusks are mostly sold to carvers or commercial entrepreneurs.

R. Rinetegin: *«I exchange two meat rolls (kymgyts) for a deer, and a tusk to bone carvers».*

V. Roskhinaut: *«We exchange with reindeer herders more often: kymgyt for reindeer meat, we sell tusks to entrepreneurs. We negotiate the price with each person individually.»*

N. Ettytegin: *«I exchange kymgyts (meat rolls) for reindeer: two kymgyts for one reindeer. I don't know exactly how much a tusk costs».*

V. Eyneucheyvun: *«We exchange skin and meat with reindeer herders for reindeer meat. We sell tusks to entrepreneurs».*

6. Rituals associated with walrus harvest.

A ritual of thanks giving is a universal way to interact with the higher (divine) powers; it gives a hunter a feeling of confidence at sea and in everyday life. The one who thanked higher powers (ocean spirits, and spirits of that particular area) «Nargynen» for the opportunity to hunt,

harvest, feed his family and his kin can be confident that sooner or later the ocean will share its gifts with him. «*If you treat ocean spirits with respect, then you always will have your take and will return home*».

Conditionally, the ritual of giving thanks (as some sort of address to the higher powers) can be divided into several stages or types depending on the timing of performance: before going to sea or after returning back:

(1) First launch of baidaras, whaleboats, and other boats at the beginning of the hunting season;

(2) First harvested walrus celebration;

(3) Before each hunt;

(4) After each successful hunt;

(5) At the end of the season.

First launch of baidaras, whaleboats and other boats at the beginning of the hunting season – is a symbolic event in the life of hunters, of their kin, and in villages; a special ritual is dedicated to that event.

N. Kelepkir from Neshkan village speaks about it in the following way: «At the first whaleboat launch, the ritual of feeding of the spirits is performed and each does it in his own way. Little pieces are cut off all different food supplies that one has, if one has some then some tobacco can be crumbled, matches are also included – they throw all of that into the sea saying «Igyr ytvyt mytturnel'kyinet, nutku leyvyligyt ynkam nymytvalegyt notkenat kimityt kytaangynat. Ivke machynan konpy ytvytku mynagnovmyk, ynkan-ym murgin leyvyn nymelev nytvargyn» – *Today, we launched whaleboats (boats and baidaras). You are the one who lives here, walks here, is master of these places, these gifts are for you, taste them. We are asking for your benevolence: so that we always have a good take and have a good travel*».

Words may vary but the meaning is usually the same, which is supported by the way V. Roskhinaut, a resident of the same village, describes the ritual he performs: «*Early in the season, I take a little bit of tea, bread, deer fat, dried meat, cigarettes, and matches, and go to the ocean to perform* ***Enantaaronatgyrgyn*** *– the ritual of feeding the spirits of the ocean. I say to them: «Notkenat kimityt kytaangynat, inkun konpy getekisg'ye muri mytvarkyn, ynkam-ym konpy masynan murgin tylen nym'yelev nytvarkyn» - «These gifts are for you, accept them. I am asking for good fortune in hunting, so that we always come back with a take, and I am asking for safe travel». And I throw those bits of food into the sea*».

G. Inankeuyas' from Lorino described it in the following way: *«At the first boat launch, I perform **Taaronatygryn** – the ritual of feeding the spirits-- so that they are favorably disposed towards us. I buy tea, bread, take some supplies from our stash at home (deer fat, pieces of dried meat). Pinch or cut off little bits and throw them (ninegnitkytkuygym) into the sea and say: «Amyn-ym vay ytv'yt mynturnel'kynnet. Velynkykun anky. Igyr-ym ankagynette turtekigsyt yaral'a nerenuvynet» - We put our boats (baidaras, whaleboats) in the water. Thank you, Sea. Our household is waiting for the harvest».*

N. Ettytegin from Lavrentiya described it in such a way: *«At the very beginning of a hunting season, I perform a ritual; I throw gifts into the sea in the place where I plan to hunt (in order to please the spirits of that place), and ask for good fortune in my hunt, so that there are no accidents, and we have good luck in everything. **Nenanepervkenat**: «Notken toryky, keymitgytky inkun gynnik nymyky nytvaken konpy. Inkun nymelev konpy nyvarkyn murgin lyayvyyan». – Feeding of the spirits: « Accept out gifts, I am asking for good fortune in the hunt and so that there are no bad accidents on the way».*

A. Tulyun told us the following: «*I remember, when I was a boy, we gathered at the water edge, first fed the ocean spirits – gave gifts, cut small pieces (of food) and threw them towards the sea saying: accept our gifts, we are asking for good fortune. We pulled whaleboats using dogsleds, and when we got to the very edge, hunters smeared blood on the bows of the whaleboats. After the first walrus is harvested, they cut small pieces of its meat, liver, kidneys, intestines, and heart and throw them to the spirits by throwing the pieces up in the air, saying: this is our first harvest, thank you for good fortune, take our gifts*».

The celebration of the first harvested walrus is a truly joyous event, when after a long polar winter, when all the winter supplies have run out and the diet becomes fairly poor, the hunters bring a fresh first-harvested walrus in the village.

One statement from Eyneucheyvun from Lavrentiya seemed rather unusual to the authors: that the ritual of greeting the first harvested walrus in the village is similar to that of greeting a seal. None of the interviewed hunters mentioned that kind of a ritual: *«The first walrus in the beginning of a hunting season is a very welcome take. Everybody in the village who is interested in a successful harvest sees the hunters off for the first hunt. It is a trying and anxious wait for the hunters' return. But when they come back, old men and women come out and greet the first harvested*

animal as a guest – they give him 'a drink of water', pouring it over its snout. The animal is butchered, then, the animal is divided and shared, and the best parts are given to the elders (Ninineyvetkinet – old traditional and contemporary ritual). If butchering was done at the place of the kill, then small pieces of meat and guts are cut off and thrown in the direction where the walrus was killed, then they sprinkle blood and say: «Velynkykuneygyt nutky valyget. Notken murge geymillin, ivke nemykey kytaangyn». – «Thank you, the Master of this area. This is our take, please, have a taste of it too».

N. Kelepkir said: «*We have a custom to organize a running competition for young hunters after the first hunt and after walruses were butchered. The winner gets two tusks*».

G. Inankeuyas' told us: «*If it is the first kill of the hunting season, then a small piece of heart and guts is pinched off when the butchering is done, and thrown into the sea in the direction where the walrus was harvested, then we sprinkle the blood and say: «Velynkykunet nutku leyvylyt, velynkykuneygyt nutku nymytvalegyt, epte torgynan kytaagytky». – «Thank you to the one who inhabits this place, treat yourself to what we harvested here*».

V.Roskhinaut: «*After the first kill, the thanksgiving ritual is performed (**enantaaronatgyrgyn**). I cut a piece from any first animal taken – could be a seal (ringed seal), a walrus, a bearded seal – pieces of meat, or guts and throw them into the sea saying: «Velynkykuyneygyt nutku valegyt, notken morgynan geymillin nemykey-ym kytaangyn». – «Thank you the Master of this area, we had a successful hunt, have a taste of it too».*

N. Ettytegin: «*After the first take, thanksgiving is performed – returning back what was taken – I cut off small pieces of guts, throw them in the water, sprinkle blood and say: «Velynkykukenturi, epte notkenat torgynan kipirigytky*» - «*Thank you for the good fortune, and this is for you, accept those gifts from me (us)». All that is done in order not to lose connection with the spirits, so that they know we remember them, worship and respect them. I teach my son all the rituals that I know myself».*

Descriptions of rituals before and after every hunt were hardly mentioned in the hunters' interviews. Perhaps we should have emphasized this aspect in our interviews more, since a lot has changed with time, and some things become forgotten, as we were told by N. Ettytegin: «*There had been rituals before, but in Soviet times, particularly at the beginning, it was dangerous to perform traditional rituals*; *therefore, parents, in order to protect their children, performed those rituals secretly. As a consequence, many rituals have not been passed along to us and have been lost forever*». He also added that most of the rituals are usually performed at the place of the kill or butchering. We found a description of such a ritual in the response from

N. Kelepkir: *«When a walrus is butchered, small pieces of meat, liver, kidneys and intestines are cut off and thrown into the water (action in the course of a ritual when something is thrown into the water as a sacrifice is called* ***Iinegnytkun****). The entire ritual of thanksgiving or «feeding» is called* ***Taarynatgyrgyn****.* The ritual is accompanied with a speech: *«Notken morgynan geymillin. Velynkykuygyt nutku valygent. Keluk-ym igyr gankagyttenmuri. Nemyley-ym gygan kytaangyn morgynan pereye» – «Here is our harvest. Thank you, Master (Inhabitant) of these places for letting us have it. You, too, have a taste of it».*

Due to the small number of replies to those questions, we can assume that at the present time (when residents of coastal villages have become less dependent on the sea), rituals do not accompany every hunt. They may be performed if there is a long gap in the walrus harvest or if walruses stopped showing up near the village, in which case addressing the spirits becomes a stronger necessity.

Unfortunately, interviewed hunters also did not say anything about the **rituals associated with the ending of the hunting season**. Two respondents from the Provideniya region presented a report about the «walrus heads» celebration, that can be to some extent regarded as a ritual dedicated to the successful completion of the walrus hunting during a certain stretch of the season e.g., the end of walrus spring migration. L. Kutylin told us that *«they used to gather walrus heads and conducted a farewell ritual – thanksgiving. Nowadays, they do not perform that ritual. Heads had been never left behind, and they did not lie around on the beach. I don't know rituals very well, I grew up on the tundra in the family of a reindeer-herder»*. Unlike him (L. Kutylin), L. Aynana is very familiar with that ritual, both based on her own recollection and also on the documentary photographs of the «Walrus heads celebration at the Eskimo Matlyu place» that were taken by Fronstein, the schoolteacher from Chaplino: «*According to the tradition, walrus heads were put in an inner porch, and then the skull was cleaned of skin and whiskers. The celebration used to be organized upon the decision of the clan or family elders. A thanksgiving was organized, fellow villagers were offered food and tea outside, near the yaranga where the celebration took place. After the celebration, skulls were taken to a certain place. Walrus heads celebration was photographed by a schoolteacher Fronstein, he photographed the family of the hunter Matlyu and their guests. During the Soviet time, he became a director of the collective farm (kolkhoz) and people's deputy from Kamchatka area of the Khabarovskiy krai».*

V. Roskhinaut made a very short comment, but it specifically mentioned the celebration dedicated to the completion of the harvest season: *«When I was a child, I watched hunters*

gather after the end of the hunting season. They took out a fermented walrus head, put it in the middle; each hunter approached it, cut off little piece of meat and ate it following a drink. They talked between themselves for a long time, but I don't remember what about – I was too small».

Thus, based on the interviews we can identify only one special walrus heads celebration.

Hunters answering the question about celebrations dedicated to walrus stated that when the first walrus of the season is harvested, an obligatory ritual is always performed, that in fact is a small celebration. They also told us that even the sharing of a harvested walrus is a sort of a celebratory ritual. N Ettytegin said: «*Walrus is our main food product, therefore its harvest is considered a celebration. We always divide the first walrus together as well as all the walruses following after the first one. Dividing walrus is a ritual: first meat is given to the elders to show them respect, and then it is given to everybody else».*

There were very few answers to our question about the ritual associated with a young hunter taking a walrus for the first time, but when we posed the question differently- what is the ceremony of initiation of a young hunter performed at his first harvest? – there was no shortage of responses. It is logical to assume that in the culture of Chukotka Natives, when a hunter initiation ritual or ceremony is performed, it does not depend on exactly what species of a marine mammal was harvested. Since seals are the easiest to harvest, the ritual of initiation usually happens after a seal harvest. A very brief description of what happens after a young hunter kills his first walrus was provided to us by G. Inankeuyas': *«The meat is distributed and the tastiest parts are given to the elders. Sometimes, they also organize a running competition».* N. Kelepkir also described the same custom.

Other respondents, in a consistent and clear way, provided basically the same description of a young hunter initiation ritual at his first harvest of a walrus, or a bearded seal, or a ringed seal. N. Ettytegin: «*My first ringed seal was greeted in the following way: I brought it, Mama came out and gave it a drink of water. It was carried inside the house, Mama cut it up and took a piece to each old woman among our neighbors. And the first seal harvest by my son was taken to an old woman, our neighbor. She gave it a drink of water, butchered and performed* ***Mullykeliken*** *(painting with blood) - a ritual of the first seal harvest by a young hunter. She painted my son's face with the blood of the seal he harvested: she drew one line across his forehead, and on each cheek, she drew one line from the temple to the lips and from the bridge of his nose to the center of each cheek».*

V. Eyneucheyvun: « *When I brought my first seal, my grandma gave it a drink of water, then it was brought inside the house and grandmother butchered it. According to the ritual,*

using her forefinger, she drew a dot on my forehead with the blood of the seal. Traditionally, the first harvested marine animal is taken away from the young hunter, to inspire him to take yet another one. They do it in the following way: an elder (the one who comes first) claims his right to the harvested animal. He sais: «Ynken-ym gymnan geymillin» - «Here is my trophy». The young hunter answers: «Vane, ynken gymnan geymillin»- «No, it is me who harvested it». And then the elder starts wrestling with the young one for possession of the trophy».

G. Inankeuyas': «*When the first seal was harvested (by a young hunter), the elder that came first says: «Oh! Gymnan geymillin memyl'kay». – «Oh! I harvest a seal». The young hunter tries to stand his ground and says: «Vane, ynken gymnin memyl'. Gymnan tynmyye». – «No! It is my seal. I harvested it». The elder says: «Nyr'igyt, opopy gygyt trenteykevetgyt». – «You are lying! Then we'll wrestle for this seal». And he starts to wrestle with the young hunter for the seal. The young hunter should yield so as not to hurt the elder's feelings, and the take goes to the elder*».

A. Tulyun: «*When I harvested my first seal I was seven years old. An elder came and according to custom pushed me down on the seal and rubbed me on it, and then he rubbed the right hand separately and licked it. That same elder made two walking sticks for me, a hook-and-line, and crow's feet, and told me that I should use them. That's how I was initiated as a hunter*».

Concluding this chapter about rituals and beliefs associated with walruses, the authors would like to point out, that despite certain prohibitions (*translator's note* -- official Soviet prohibitions), marine hunters of Chukotka managed to preserve traditions that had been passed down to them from older generations. As in old times, the fundamental link in passing traditions to the younger generation is the father-son (uncle – nephew). Since there is no specially-recorded code of rituals and traditions, all our respondents (interviewed hunters) follow the rules that their older relatives taught them. V. Eyneucheyvun stated this in the following way: «*My father passed to me the traditional customs that he followed, I don't know anything about the rest of them*».

When asked whether shamans have used any walrus parts, almost all the respondents answered that they did not know anything, since it was persecuted when they had been children. Reluctantly, they told us that the stomach was used for making drums, and the skull bone used to make a handle.

V. Roskhinaut: «*I heard that they had been used, but don't know how, haven't seen it myself. I know that when I was a child our people were afraid even to mention shamans, and used mention of the police (militsia) to frighten*».

«*Bladder and stomach were used for yarars (drums). A jaw or a tusk –to make a handle for a yarar*», - V. Eyneucheyvun.

When discussing the sacrificial sites made of walrus skulls, the majority of the hunters told that existence of such sites in the vicinity of a village is almost an essential feature. «*We have one near out village. I also know that they exist in each village*», - Ye. Sivsiv.

«*There had been sacrificial sites, it is forbidden to visit them (nytayynken – ban/prohibition). I usually keep away and walk around them*» - Ettytegin.

V. Eyneucheyvun: «*I saw sacrificial sites between Maynopyl'gino and Al'katvaamo, walrus heads were arranged in a semicircle as if the contours of yaranga. They used to say that the shaman who owned the spirits of walruses lived there. People always lay gifts there when they pass by*».

G. Inankeuyas': «*I saw a sacrificial site past Nunyamo, 16 km to the north along the coast on an elevation near abandoned village Chini. The burial (sacrificial site) was very old, covered with the ground and overgrown with grass. The sacrificial place was a circle marked/lain with stones, the diameter of the circle was 1-1.5 m. Older people say that one shouldn't/must not touch them (stones) and keep away and walk around them. Some hunters say that there are burials also near Akkani (village) on the mountain, I haven't seen it myself*».

R. Rinetegin: «*I saw a sacrificial site or a burial - don't know what it should be called – made of walrus skulls, it was in the southern part of Ililyn Island that is located across Neshkan village. Some time ago - 15 or 20 years – they were put in one pile, but the island is visited by people from time to time and now, the skulls are scattered around. There is a similar pile of walrus heads in the place called Sonvyn. It is located west of Neshkan, past Neskepil'gyn. The pile is also scattered around, it is likely the work of the tusk scavengers*».

Celebrations, burials, wakes and relevant walrus parts

Based on the obtained interviews, the authors of this report suggest that in the culture of marine mammals hunters of Chukotka, parts of walrus (skin and skull) have not been used in any celebratory ceremonies or rituals. Only Roskhinaut (from Neshkan) told us: «*It seems like they were used but I don't know how*».

However, handicrafts made from tusks and teeth were always used during celebrations (as prizes, or parts of drums or other accessories) and during burials.

Also, nobody recalled the existence of any rituals involving imitations of walruses. Hunters said that walrus is mentioned in ceremonies dedicated to the opening of harvest season and in the rituals of thanksgiving after a successful hunt (or hunting season). However, no special rituals are dedicated specifically to the walrus and the walrus is never mentioned in this context. This fact was pointed out to us by Ye. Sivsiv from Inchoun. Other respondents did not answer those questions at all, or said that they did not know anything on this topic.

7. Glossary.

Chukchi names defining the age of walruses.

K'yeglyuch, Keglyusyn, Keglyuchin – solitary dangerous walrus, feeding on walruses or other animals, walrus-killer;

K'yesyk, Kesyke, Kesykey, Kesykeykey – walrus calf under one year old;

Ketvaye, Kitveyu, Eketveyu – big walrus (male);

Kitv'eyut – old;

N'oyaryrka, Navryrky – female;

Penvel' – adolescent of 1-3.5 years old (subadult);

Torketvaye – young male;

Tykvayeygyn – big/large male walrus;

Chukchi words and expressions associated with walrus harvest and use, and walrus rituals.

(*Translator's note*: glossary words in parentheses added by translator for clarity)

A-arel'gyn, Arel'gyn – rope.

Agnov – haulout site.

Ankal'yt – marine.

Ankasormyn – shore or coast.

Anky – sea.

Gyntoe tukken – harpoon came off, came out.

Il'il – ice.

Kalymalgyn – finish off (a wounded animal).

Karegyn, K'arerkyn – hold, keep him by the rope.

Keluven – finish off with a gun or a spear.

Kylkeynev ryrky – hit (shoot) walrus with a gun;

Kyl'keynev – shoot.

Kyl'keynevgyn – shoot it up.

Kymytat – sew in a roll (meat roll)

Kypoygygyn – poke with a spear, stab.

Kypoigygyn – hit with a spear,

Kytegrygyn – harpoon it,

Kytol'ymatge – assemble a harpoon,

Milger – a gun.

Mynygton – let's pull it out;

Mynytvytku, mynytvytk'u – let's go hunting in a boat, whaleboat, baidara.

Mytryrkal'o – saw walruses.

Neviikinet – (they) are eating.

Nel'kekinet – (they) are jumping into the water.

Nyketvytkykinet – they do spearing at the haulout.

Nymaravken – mean or angry, attacking.

Nypenrytkokenat – (they) are attacking.

Nyrovtykenat – (they) are coming (hauling) out on ice.

Nyryrkagtokenat – (they) are pulling out a walrus.

Nyryrkanymyttykenat – (they) harvest walruses.

Nyryrkanyttykenat – (they) kill walruses.

Nyryrkatylaken – walruses are coming, swimming.

Nytakymgytkenat – (they) make meat rolls out of walruses.

Pivergi, piverg'i, pivrei – came up, emerged, surfaced.

Poygyn – spear.

Poygytkaat – a thrust with a spear.

Pyg-pyg – float made of a whole seal skin.

Rovtynvyn – part of the haulout area.

Rylumkyn – many walruses on a ice floe.

Ryrkal'vatgyrgyn – butchering walrus.

Ryrkanymyttylyt – (those) killing walrus.

Ryrkanyttyn – walrus hunt.

Ryrkapenrat'at – (they) chased the walruses.

Ryrkapenryat – (they) threw themselves at walruses (charged the walruses).

Ryrkat neviikinet – walruses are feeding.

Ryrky pivreg'i – a walrus came up, surfaced, emerged on the surface of the water.

Ryrky rovtyen – came out on land.

Seyvylyt – when there is no open water, walruses move on their bellies (over ice).

Tagryye – harpooned (walrus or other animal).

Tegrytkuyet – (they) harpooned.

Tegrytkul'yn – harpooner.

Tegrytkuet – (they) harpooned.

Tolym – assembled harpoon.

Torryrky – the first walrus killed in the season is distributed equally between all the people in the village.

Tukken – harpoon.

Ytvyn – boat, baidara, whaleboat.

CONCLUSION.

The traditional use of natural resources by the Native peoples of Chukotka, based on the harmonious relations with the surrounding world, made possible the survival of coastal dwellers in the difficult conditions of the polar Arctic. Religious restrictions and taboos restrained the anthropogenic pressure on the walrus population. Observing rituals and beliefs was essential not only for survival of the coastal population of Chukotka in difficult arctic conditions, but also for developing harmonious and sophisticated culture and spirituality. Many years ago, at an international conference, the authors of this report were fortunate to hear a presentation by two Native residents of the Bering Strait area, the philosophical and spiritual content of which made a profound impression on them: *«Following our traditions gives us confidence; they help us live and not to get lost in the immense world. Our reasoning is such: our ancestors had lived hundreds and thousands of years following traditions, and we are confident that they survived only thanks to that»*.

Traditions in observing the rituals and beliefs is our cornerstone. Obviously, nothing is unwavering, everything changes, but it is clear that things evolve gradually and native peoples have a chance to adapt by gradually changing the unwritten code of rules of life. Unfortunately, there are bitter facts in the history of Chukotka, when people were abruptly forced to move (so-called «enlargening» of Native villages) that led to interruption or cessation of subsistence lifestyle. As a result, the proud, confident marine hunters were forced to become loaders, or street sweepers-- practically bums. People were losing the meaning of their lives, they stopped being providers for their families. As a consequence, small ethnic groups –e.g., Asian Eskimo that have many distinct dialects, with each village community a separate people – lost their identity. The absence of traditional lifestyle led to the loss of language, and descendants could not identify themselves as a separate people; and more than that, they were ashamed to belong to marginalized social groups. As a result, a people (ethnicity) would disappear through both assimilation and simply dying out. Today, Kereks do not exist as a separate people in Chukotka. Yupiks are desperately fighting for their survival, and the last native speaker of the Sireniki dialect died two years ago.

Keeping and passing along from one generation to another the traditional knowledge of the Chukotka Natives about walrus constitutes an important component in the preservation of Chukchi and Eskimo peoples as ethnic entities. The authors are proud of the fact that they had a chance to contribute to this difficult and important process. We realize that this is only a small

step towards knowing this big and important topic. Even so, it gave us general understanding of the relations between Native people and walruses.

Our research demonstrated that today, the older generation of marine hunters of Chukotka carefully keeps the traditions of their ancestors in regards to such an important aspect of the life of coastal people as their relationship with the walrus. The entire chain of interactions between men and walrus - respectful attitude to nature and those marine giants, observations of their behavior and application of obtained knowledge towards effective and sustainable harvest – is penetrated by following traditions and rituals and thus, structured by that established set of unspoken rules. The authors define it as a harmony of efficient practicality and high spirituality.

Although beliefs and customs described in this research may have different explanations, they have one important feature in common – they are directed at effective and safe management of harvest, reasonable hunting restrictions, and respectful attitude to the surrounding world. Those rules are based on clear environmental principles, and ensured sustainability of traditional subsistence use. For now, we can be confident only about traditional knowledge kept by the representatives of the older generation, since no research has been conducted among the hunters of young and middle age.

Realization by marine hunters that their knowledge about the natural environment accumulated throughout their lives has high informational value and is called upon by the scientists was yet another important outcome of this project. Conversations with the hunters persuaded the authors of this report that similar projects change a lot in the consciousness of their participants – they start to understand more clearly the degree of their responsibility for the living resources that they use. We think that this may play an important role in protection of the Chukotka natural resources traditionally used by Native people, and would lead to conscious participation of marine hunters in the management of those resources.

The authors are confident that further detailed studies of traditional rituals and beliefs and their extension to contemporary hunters is an important task for the Association of Traditional Marine Mammal Hunters of Chukotka (CHAZTO) and will be a valuable contribution in preservation of the Pacific walrus population.

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Appendix 1.

QUESTIONNAIRE

«Traditional knowledge of the native people of Chukotka about walrus»

Name of the village and number of the informant

Name

Year of birth

Date of the interview

Time of the interview

Ethnicity (Native language)

Short biography (place of birth, places of work, places of residence)

Brief information about area adjacent to the village (haulouts, capes suitable for observations of walrus migrations and gathering other useful information about walrus).

Hunting areas (units) used by the hunter.

1. <u>The size of annual harvest.</u>

1.1. How many walruses per year (approximately) are harvested by village hunters in the village where the interviewed hunter is currently a resident (since year 2000).

1.2. How many walruses per year (approximately) were harvested by village hunters in the village where the interviewed hunter is currently a resident during so-called «hungry years» (1990s).

1.3. How many walruses per year (approximately) were harvested by village hunters in the village where the interviewed hunter is currently a resident during Soviet times, before 1990's.

1.4. How many walruses per year (approximately) were harvested by village hunters in the village where the interviewed hunter is currently a resident prior to Soviet regime.

2. <u>Hunting methods. Traditional and contemporary methods of hunting walrus.</u>

2.1. Who makes a decision to leave on a walrus hunting trip, decision about harvesting walrus in the water, on ice, and on the haulout site?

2.2. Did the hunter receive any special training? What specializations exist in walrus hunting (harpooner, shooter, etc.)?

2.3. What methods of hunting walrus existed in the past (on the water, on ice, on coastal haulout)?
Auxiliary questions:
- *What weapons or gear are used during walrus harvest (spear, harpoon, etc.)? How are they used?*
- *What are the differences between the methods of walrus harvest used in different environments/habitats (on shore, on fast ice, amid sea ice, on open water)?*

2.4. What hunting methods do currently exist?
Auxiliary questions:
- *What weapons or gear are used during walrus harvest (spear, gun, rifle, etc.)? Has there been any new gear added at the present time (snowmobiles, boats etc.)? Describe how it works.*

- *Has the informant harvested walruses himself? (describe 2-3 instances).*
- *Has the informant ever heard about military personnel, tourists or other harvesting walruses?*

2.5. To whom does the harvested walrus and his tusks belong (owner of the boat, owner of the weapons, one who saw walrus first, one who harpooned it or killed it)?

2.6. What is the behavior of a wounded walrus (on the water, on the haulout): does it swim away, or attack, or dive, or behave in any other way?

2.7. What safety and precautionary measures existed during hunting?

2.7.1. Have there been any cases of walrus attacking a man or a boat (give detailed description).

2.7.2. What should be done in a situation when a walrus attacked a boat or a human being. What needs to be done to prevent a walrus attack? Have there been any traditional methods of deterring a walrus that came too close?

2.7.3. What precautionary and safety measures are taken at the present time to avoid an accident?

2.7.4. Customs and beliefs associated with walrus attacks.

2.8. What prohibitions, omens, beliefs, and customs were associated with harvest? How are they followed at the present time?

3. <u>Walrus habits and behavior.</u>

3.1. Does the informant know walrus habits and behavior? How to recognize different behaviors and intentions of walruses?

3.2. Taboos and beliefs associated with walrus behavior and habits?

3.3. Walruses and their environment; other animals and birds of the sea and tundra:

- Winter, spring, summer, and fall migrations: places, dates, specific features;
- diet;
- sounds made by walruses;
- mating dances (behaviors);
- copulation: when and where;
- pregnant females;
- female- calf;
- playful behavior;
- sleep: places and specific features;
- mortality in nature and its main causes, finds of dead walruses;
- walruses and their relation and connection to sea ice, shore and open water;
- sightings/encounters at sea and on ice – walrus reaction to hunters;
- behavior under different weather conditions;
- walrus and whales: bowheads, gray, belugas and killer whales;
- walrus and polar bears;
- walrus and seals (bearded seal, spotted seal, ribbon seal, and ringed seal);
- walrus and terrestrial animals;
- walrus and seabirds and waterfowl;
- walrus and fish;

3.4. Place, people and other names associated with walrus.

3.5. Changes in walrus habitats, their abundance and behavior over the last 20, 30, and 40 years.

4. <u>Rituals following the harvest of walruses.</u>

4.1. Traditional and contemporary rituals accompanying walrus harvest (prior, during, and following the hunt, and butchering). Thanksgiving ritual at sea, on shore and in the village.

4.2. Positioning of walrus carcass after it is killed, prior to and after the butchering. Are there any differences?

4.3. Ritual performed immediately after killing a walrus (do they give a drink of water to a killed walrus?)

4.4. Butchering walruses (sequence of butchering, different ways and methods)

4.5. Ritual back at home (in the village). Ask in details about the «thanksgiving» ritual dedicated to harvested walrus.

4.5.1. Find out the meaning of all actions and words.

4.5.2. Have there been any celebrations dedicated to walruses and their harvest (detailed description)

4.6. Taboos, omens, beliefs and customs associated with butchering and how they are reflected in the rituals. Are they maintained at the present time?

4.7. Traditional and contemporary rituals performed when a young hunter kills his first walrus.

4.7.1. Do they use parts of walrus in that ritual (tusks, skin, and skull).

4.7.2. Are there any rituals imitating walrus behavior that are performed after initiation of a young hunter? What do they mean?

4.7.3. Is there any ritual of a young hunter initiation, after he harvested his first walrus, bearded seal, or ringed seal?

5. <u>Other signs, rituals, and customs.</u>

5.1. What other signs or omens associated with walruses exist?

5.2. What rituals, beliefs, omens are still observed at the present time? How is it done?

5.3. Does the informant perform and observe those rituals himself? What about other hunters in the village? How about young people?

5.4. When did people stop following/performing certain rituals?

6. <u>The use of walrus harvest products.</u>

6.1. How were walrus meat, blabber, visceral fat and internal organs (intestines, liver, lungs, stomach, heart, gall, blood, meat from the head, tongue, eyes) used?

6.2. If some parts were not used for food, what were they used for otherwise (thrown away, fed to the dogs, anything else) and why? If there had been any prohibition to use certain walrus parts, then what parts and why?

6.3. What are the ways (methods) of preserving the products of walrus harvest?

6.4. Use for medicinal purposes (traditional medicine).

6.5. Are there any taboos, beliefs, customs associated with use of walrus products for food?

6.6. Traditional and contemporary use of walrus skin, skull, bones, teeth, and tusks.

6.7.1. How was the skin tanned? What was it used for?

6.7.2. How are walrus parts used at the present time (sale, barter)? What price do hunters of this village sell walrus skin for (lowest and highest)? With whom is the business (sale or barter) done (entrepreneurs, ship crews etc.)? For what and in what quantities the skin and tusks can be traded?

6.7.3. Use for other purposes. Does the informant have any suggestions on how to improve the use of walrus products? What does the informant think about the production of canned walrus meat in the village of Lorino?

6.7.4. Had any parts of walruses been used by shamans?

6.7.5. Are there any sacrificial sites made of walrus skulls? When were those sites visited? Where are such sacrificial sites located in the village area? Animal sacred for kin or family is never mentioned or discussed.

7. Celebrations. Traditional and contemporary celebrations of marine hunters.

7.1. Use of walrus parts (tusks, skins, and skulls) in festive ceremonies of marine hunters.

7.2. Are there any rituals imitating walrus that follow the thanksgiving ritual and what does it mean? Are there any other rituals that involved the use of walrus parts or its image, or was it mentioned during the ritual (beginning of the hunting season, launching baidaras on the water, etc.)?

8. Burials, wakes. Traditional and contemporary burials and wakes of marine hunters.

8.1. Have parts of walrus (tusks, skin, and skull) been used during the burial ceremonies?

8.2. Are there any rituals imitating walrus after burial and what does it mean?

9. Glossary.

9.1. Chukchi and Eskimo words, describing the walrus age.

9.2. What Chukchi and Eskimo words and expressions associated with walrus harvest, use, customs, rituals etc. Does the informant know? Remember as many as possible.

10. Legends, myths, folk tales (dances)

Record in detail folk tales and legends that include walrus as a character or a harvested animal. If the informant doesn't know any, write that he doesn’t know.

11. DREAMS.

11.1. Tell about dreams associated with walrus (your own, or those that somebody told you).

11.2. Meanings of dreams. How were those dreams explained? For example, wounded walrus, hunting walrus, walrus attack, and other.

11.3. Beliefs about dreams.

11.4. Coincidences of dreams and life events.

12. APPENDICES

- *Comments, additions and other information, that informants consider to be important (not necessarily about walruses).*
- *Photographs of informants and their short biographies.*
- *Drawings and maps of regions and relevant to research objectives.*
- *List of species mentioned in the text*
- *Short explanations of the meanings of some words and concepts.*

Appendix 2.

Table 1. Stages of gathering information in the villages of Chukotka in 2009-2010.

Year	Village	Dates of gathering info	Number of respondents	Researcher (interviewer)	Comments
2009	New Chaplino	24 December	1	I. Makotrik	Self-interview
	Yanrakynnot	20 December	1	L. Aynana	
	Provideniya	December	1	L.Aynana	
2010	Neshkan	04 January	1	L. Zdor	
	Neshkan	05 January	1	L. Zdor	
	Yanrakynnot	05 January	1	L. Aynana	Repeated interview
	Lavrentiya	06 January	2	L. Zdor	
	Lorino	10 January	1	L. Zdor	
	Lorino	12 Januray	1	L. Zdor	
	Yanrakynnot	15 January	1	L. Aynana	Repeated interview
2010	Uelen	10 March	1	L. Vukvutagin	Self-interview
	Inchoun	12 March	1	Ye. Sivsiv	Self-interview

Appendix 2.

Information about the respondents.

Lyudmila Ainana

75 years old

Born in Ukig'yazak' – small place at the end of the southern spit Unazik' (Cape Chaplino) – in the family of a hunter.

Finished elementary school in Un'azik, middle school – in Provideniya. Between 1954 and 1959 studied in St. Petersburg (then Leningrad) A.I. Gertsen State Pedagogical Institute, graduated as a teacher of Russian language and literature, and Eskimo language. Worked as a teacher at school for 20 years and after that, between 1979 and 1990 as a member of research staff of the Institute of Ethnic Issues in Education.

Familiar with hunting harvest since childhood, heard stories told by father and grandfather, and other hunters, who lived in the only yaranga in Ukig'yasak when hunting/trapping fur animals.

Chairwoman of the Yupik Eskimo Society.

Yekaterina Vetosheva

71 years old

Was born in Akkani village, in 1969 moved to Lorino, has four children, also has grandchildren. Worked as a cook in a preschool. Now, retired. Honorable resident of the Lorino village.

Yakov Vukvutagin

61 years old

Was born in Nunyamo tundra. His mother is a tundra Chukchi, and his father is a coastal Chukchi from Yangoday village.
Worked as a reindeer herder and a builder.
In 1980 became a marine mammal hunter, at the present time, he is a mentor to young marine mammal hunters in Uelen village.
Has been a permanent participant of research projects on marine mammals.
Special skills and hobbies: bone carving, breeding sled dogs, building baidaras. He built his first baidara in 1995. He built total of five big baidaras (7-9 meters long = 21-27 feet long) and three one-person small boats/baidarkas.

Gennadiy Inankeuyas'

51 years old

I was born in Akkani, started school in Lorino and finished in Lavrentiya in 1976. Studied in Technical vocational school in Blagoveshchensk to become a bulldozer operator, served in the Soviet Army, after the service returned to Lorino and worked as a bulldozer operator at the Construction and Building Division. Starting in 1984 worked (was employed) as a hunter in the Lenin State Farm. Now, I hunt independently. I started hunting when I was seven years old, or rather that is when my father started taking me hunting along with him. I am married, have 5 children.

Chairman of CHAZTO

Nikolay Kelepkir

55 years old

Was born in Neshkan, started hunting since I was twelve years old, worked as a hunter after graduating from high school, now retired, but continue hunting – need to feed my family and dogs. Married, have children.

Leonid Kutylin

71 years old

I was born in a small place called Rymkaramka located on the northern coast of the Penkigney Bay (Senyavina Strait) in the family of a reindeer herder.

Went to school in Yanrakynnot village and then moved there to live permanently.

Because of the «enlargening» (*translator's note* --Soviet policy) of the villages, many small reindeer herders moved to Yanrakynnot. As a youth, I was a reindeer herder, but later, started working in marine mammal harvest just as all other former reindeer herders. I was selected to be an engineer in marine harvest.

In 1990's, when all state farms fell apart, I became a marine hunter again.

Igor' Maktorik

51 years old

I was born in Chaplino. After serving in the army, started working as a marine mammal hunter. Now, I am the head of the family clan of the marine hunters of the New Chaplino village. I serve as a chairman of the CHAZTO Walrus Commission.

Rodion Rinetegin

38 years old

I was born in Neshkan, started working as a construction worker in 1989. My parents – mother Lidiya Ivanovna Rinetegina and father Yuriy Nikolayevich Rinetegin-- come from several generations of Chukchi reindeer herders. My father-in-law Yuriy Petrovich Netepkir taught me to be a marine hunter, he comes from Enurmino village, from several generations of marine hunters. I have been hunting since 1993.

Vasiliy Roskhinaut

53 years old

I was born in a reindeer camp Toygunen, but they (*translator's note* --Soviet authorities) moved camps to Neshkan village. So, I have been living in Neshkan since 1967. Having finished school, I started working as a hunter in the state farm «50-year Anniversary of the Great October», we hunted in baidaras in summer, there were eight people in our team, I remember we had a Swedish motor/engine that was called «Penta». I am a hunter.

Yevgeniy Sivsiv

49 years old

I was born and lived all my life in Inchoun.

Hunter.

Anatoliy Tulyun

51 years old.

I was born in Nunyamo, went to elementary school there, then went to middle school in Lavrenitya. Studied in a Professional Technical Vocational School in Magadan, became a professional mechanic for mining equipment, and bulldozer operator, graduated from the Vocational School in 1977. Worked in the gold mine in Yagodino region of the Magadan area. Served in the Military Fleet of the USSR. In 1984, moved to Lavrenitya village, in 1988 started hunting with «Naukan» Cooperative during my spare time. I first went hunting with my father when I was seven years old.

Vladimir Eyneycheyvun

50 years old

I was born in Nunyamo village in the family of a hunter. My father is Eyneucheyvun and my mother is Tnanvaal'. Mama worked as a seamstress at the state farm, she sewed fur coats. When I was a kid about seven years old, my father started taking me hunting as it is customary in Chukchi families. I studied at school, after that went to Magadan and graduated from a vocational school as a mechanic for mining equipment and a bulldozer operator. I worked in the gold mine «Severovostokzoloto» with the Yagodino ore-enrichment plant. Served in the Soviet Army. Worked in Lorino at the power station as a diesel operator, then worked as a bone carver in Uelen, and have been a hunter since 1988. Now, I am a chairman of «Daurkin» commune, married, have two children.

Nikolay Ettytegin

62 years old

I was born in Nunyamo village of the Chukostkiy region in Magadan area. I went to school there, but after fourth grade we moved to Lavrentiya. In 1964, I went to a vocational school in Ust'-Omchug to become a tractor mechanic and operator. In 1966, I started working in Lorino as a diesel operator, and then became a motorist on a whaling ship. Our whaling ship serviced Nunyamo, Akkani, and Lorino. In 1977, I moved together with my family to Lavrentiya, worked in «Sel'khoztekhnika», then as a tractor driver and retired in 1996. Since early childhood, from the age of 10, during summers, I went hunting with the hunters from our village. My uncle taught me everything he knew, now I teach my son, and he is happy to learn my experience. I still hunt, my son helps me during his spare time. I am married, have two children, and also have grandchildren.

Chairman of the CHAZTO Polar Bear Commission.