

Rationale for Needs of Aboriginal People of the Russian Federation for Gray and Bowhead Whales Harvest in 2008-2012

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The Native people of Chukotka (Russia) depend on gray whale and bowhead whale hunting for nutrition and as a source of cultural vitality. The Chukotka Autonomous District (*Okrug*) is the farthest northeast territory of Russia (Fig.1). These Native people are primarily Yupik, Eskimos and Chukchi, and also include the Even, the Chuvantsi and the Yukagir. This traditional dependence dates back thousands of years (Krupnik, 1994; Krupnik, 1987; Krupnik, 1984; Krupnik *et. al.*, 1983; Stoker and Krupnik, 1993; Krupnik *et. al.*, 1982). The Native people of Chukotka have a vital bond with these two species of whales what is only emphasized by the recent economic changes in Russia.

No doubt that harvesting and consumption of the gray whale and the bowhead whale are essential to the cultural and spiritual unity of the Chukotka Native people (Freeman, 1994; Krupnik, 1994; Zemsky and Bogoslovskaya, 1997). In addition, gray whales and bowhead whales are an indispensable part of the nutrition of the Native families (Zemsky, 1999). Subsistence whale harvesting defines the social, cultural and economic structure of Chukotka's coastal villages and plays a significant role in the traditional relationship between reindeer herder's families and maritime hunters (Zemsky, 1997b; Krupnik, 1994; Freeman, 1998).

It is essential to recognize, at all times and under all conditions, dependence on whale harvesting has assured the survival and cultural continuity of the Chukotka Native people. Whales have provided for Chukotka's people from prehistoric times to the present. Thanks to the traditional use of marine mammals' sources, Chukotka Native people were able to endure the economic collapse triggered by Russia's transition to a market economy. Today, as market relations become a part of Russia's economic structure, the subsistence whale harvesting continues to be a material and spiritual sustenance for Chukotka's Native people.

The Native people's spiritual, cultural, nutritional, social and economic need for gray and bowhead whales have been clearly demonstrated in various reports and documents presented by the Russian Federation at the International Whaling Commission meetings, since at least 1982. A classic survey of Chukotka needs was carried out in 1985 (Wolfson, 1985). In 2002, much of the previous needs were summarized in two reports submitted to the IWC by the Russian Federation and also a recent update (Borodin *et al.*). Yearly harvest data has been consistently submitted to the IWC for over thirty-five years. Recent studies carried out by the Federal and Regional authorities and the Native organizations, with the participation of independent scientific experts and scientists, and show how the aboriginal need has adapted in the face of drastic political, social and economic change within the last fifteen years (Solovenchuk and Litovka, 2002; Ainana *et. al.*, 1999; Zelensky *et.al.*, 1997; Tichotsky and Callaway, 2002). The use of whale products was significantly less from 1992 through 1996, primarily because of low harvest numbers. The low harvest numbers, in turn, was because the Native people lacked the equipment and boats in order to conduct a subsistence hunt for whales. Since 1997 gray and bowhead whales harvest levels have resumed so that whale products have become, once again, the staff of life for Chukotka's Native people.

The specialists prepared this report for the Russian Federation determined that as many as 350 gray whales and 5 bowhead whales are necessary to fulfill the cultural and nutritional needs of the Native people. This finding is based on historic, cultural needs, demography and nutritional requirements. Findings are summarized in greater detail in this paper.

The Government of the Russian Federation, the Administration of the Chukotka Autonomous District and Native non-governmental organizations recognize that the ability of Native people to act upon their need for bowhead and gray whales limited by practical considerations, specifically the ability to harvest the animals. During the last ten years, the Native hunters have harvested up to 126 gray whales and 1-3 bowhead whales per year (Fig. 2).

The subsistence harvest volume is currently limited by:

- lack of equipment, including outboard boat motors, whale harvesting weapons and ammunition;
- lack of boats and lack of boats of appropriate size (especially for pursuing larger gray whales that are highly energetic and being able to tow larger whales to shore);

- lack of fuel, which limits the area where hunting is possible and makes towing large whales the problem;
- the lack of trained crews in some villages;
- absence of equipment (refrigerators) to keep significant amounts of edible whale product during the non-hunting season;
- poor weather conditions and ice conditions that makes whaling difficult or impossible.

All edible parts of bowhead whales and gray whales are used for human consumption. Inedible parts of the whale are used for tools, decoration, crafts, fuel and feed for sled dogs.

Diversity of food sources is important when a subsistence hunt relies on opportunism and a village must achieve an adequate level of food security. The difficult environment of the extreme northeast of Russia determines very specific needs of the Native people. Food rich in protein and energy, like the meat and fat of marine mammals, is the basic food of the population. Scientists testify that marine animals can provide necessary a full compliment of amino acids and microelements (Nobmann *et. al.*, 1994). Some scientists claim that the Native people of Chukotka have adapted to a diet rich in marine mammal meat and blubber and they cannot be healthy having a lack of traditional subsistence marine mammals' natural foods (Zemsky and Bogoslovskaya, 1997b; Nobmann *et. al.*, 1994). Studies of nutrition of indigenous people reveal that absence of whale meat in food causes a number of serious diseases like atherosclerosis, diabetes, etc. (Kozlov, IWC 2002).

Substitutions of the whale food products by western style food has never been and never will be tenable for a myriad of social, cultural, psychological and nutritional reasons (Zemsky and Bogoslovskaya, 1997b; Bockstoe *et. al.*, 1982). The IWC Aboriginal Whaling Sub-Committee generally recognizes that bowhead whales and gray whales cannot be replaced by alternative food resources for any of the Native people who traditionally harvest whales (Bockstoe *et. al.*, 1982). Certainly, this is a self-evident truth.

From the Native people of Chukotka point of view whale harvesting as an activity and the many products from gray whale and bowhead whale harvesting cannot be replaced by any substitutions (Ainana *et. al.*, 1999; Zelensky *et. al.*, 1997). Other subsistence foods can occasionally substitute whale products, as the nature dictates. Native people diet is an active and dynamic process of balancing factors to assure the meal for the village. Occasional replacement among subsistence foods must not be confused with permanent replacement.

Substitution between gray whales and bowhead whales is also not feasible, since each animal has a different taste, and available in different month, and serves a completely cultural purpose. This is why in 1987 the USSR made a request for 5 bowhead whales per year and the Russian Federation requested bowhead whale quotas for Chukotka Native people in 1996, 1997 and 2002 (IWC, 1987; IWC, 1996; IWC 1997; IWC 2002). The inability of bowhead whales and gray whales from being substituted for each other is well documented at the IWC as well as by anthropologists who study the subsistence practices of Chukotka and Alaska (Bockstoe *et. al.*, 1982; Freeman, 1998).

The Russian Federation believes that the nutritional and cultural need for 350 gray whales per year and 5 bowhead whales per year is reasonable and fully documented. Furthermore, the harvest level is lower than the maximum sustainable yield recommended for both species by the IWC Scientific Committee (Borodin *et al.* 2002). It is reasonable to maintain the status quo in the aboriginal subsistence whale harvest quota for the next five years considering the limitations described above and given realistic expectations regarding harvest levels in Chukotka.

It is necessary for cultural survival to support the age-old tradition of a subsistence marine mammal harvest. This tradition supports the coastal residents, as well as the communities reliant upon reindeer herding. More generally, modern international law, the national law of sovereign states and inter-governmental agreements on environmental protection, documents of international organizations all support the unique rights of Native people to harvest such important biological resources.

In the Russian Northeast, marine mammal harvesting, especially whale harvesting, is an indispensable element of an interconnected network of subsistence resource use. An example that demonstrates the complex and indivisible inter-relationship between the various subsistence activities is the inter-dependence of marine mammal hunting and reindeer herding. The coastal marine mammal hunting cultures are strongly intertwined with their reindeer herding cousins. Harvesting marine mammals is critical for the development, support and increase of herds of domesticated reindeer. The relationship between marine mammal hunter and reindeer herder was an example of early risk management. When an area has a large loss of domestic reindeer due to

harsh weather conditions, reindeer herders are able to avoid starvation by the sharing food with marine mammal hunters. By using marine mammal products for food, reindeer herders can avoid using of the domestic reindeer for food and allow their herds to recover. Conversely, reindeer herders help marine mammal hunting communities in years when harvests are low. In Chukotka, the Native people subsistence life-style depends on the harvesting of marine mammals, especially whales. The Chukotka Native people continue the process of returning to a more traditional subsistence lifestyle, that they began after the collapse of the Soviet Union.

Major results of the recent survey include:

- The change from a government sponsored whale-catcher boat to hunter-based small boat harvesting has the universal support of the Native population.
- Native people are returning to a more traditional subsistence lifestyle.
- Whale harvesting is considered one of the most important activities for the Native people.
- Native people believe whale harvesting as being essential for a great variety of reasons from food to a source of spiritual fulfillment.
- Whale meat and other products are extremely important as a source of food for the Native people.
- In 1985, there were more whales harvested and more whale products used by the Native people than at present time, even when the local stores were full with cheap outside food products.
- Nowadays, marine mammal meat represented about 90% of the meat used by Native people in their diet, this figure was about 50% in 1985.
- There is a recovery in the use of whale products by Chukotka Native people, as harvest levels recover also.
- Native people feel they need more whale meat and other edible whale products.
- There is universal recognition among the Native people that gray whale harvest numbers need to be increased.

In 1992, the states farms had their subsidies greatly curtailed and could no longer afford to pay the government sponsored whale-catcher boat. After two years of no whale harvesting (1992 and 1993) the hunters organized their own harvest crews and began a return to the subsistence harvest of whales using small wooden whale boats and skin boats. The method of harvesting whales was enthusiastically accepted by the local communities from elders. Over the last several years, Native whalers established the Association, conduct science programs, make improvements in a safety, increase efficiency and develop the harvest more humane. During the ten years, whalers have re-established a subsistence harvest that has contributed significantly to satisfy the cultural and nutritional need of people. Seventeen villages now harvest the whales. Providing villages with gray whales, the subsistence whalers have successfully restored valuable bowhead whale. Gray whale harvesting reached its peak in the early 1960s. The late 1960s showed decreased harvesting and then a slow increasing that reached a sort of plateau during the 1970s and 1980s. The absence of whaling efforts in 1992 and 1993 took place due to the government whale catcher-ship no longer harvested whales. Whale harvesting resumed in 1994, when Native people resumed harvest from their small boats. There is a slow recovery in the volume of meat harvested.

The difference in the volume of use of whale meat and whale products supports the Native people's assertion that their needs in whale meat and other edible whale products are seriously under-supplied. At present time, the demand is high for whale and other marine mammal meat and products because people are returning to a more traditional lifestyle, there is very little "imported" meat available in village stores, and due to poverty and limited resources people have less food to eat. Besides the demonstrated unmet need, there is also a universal recognition among the Native people that gray whale harvest numbers need to be increased.

Native people recognize that gray whale and bowhead whale meat is vitally important to their life. As for preference, the meat of marine mammals is considered three times more important to Native people than "imported" meat. Finally, Native people would prefer to eat more whale meat. Besides using the whale as a source of food there are many other recognized values for whale harvesting as an activity. These values include a way to preserve tradition, a source of employment, spiritual fulfillment, food for sled dogs, and teaching the new generations.

In the first half of the 20th Century, Chukotka communities used over 2,500 tons per year of edible marine mammal product.

In the mid-1980s, Chukotka Native communities used an average of 1,600 tons of edible marine mammal product per year. This represents more than 100 kilogram's of edible whale products per person per year. It needs to be noted that these represented years when Chukotka was well supplied by considerable volume of beef, pork, mutton, grains, canned goods and other western products. The western products represented at least an

additional 100 kilogram's per capita a year. Extreme climatic conditions prevent from development of fisheries, and fish consumption in those years was less than 10 kilogram's per capita a year.

From 1992 to 2000, "imported" supplies from outside of Chukotka Autonomous Okrug were virtually stopped. Chukotka's Native people need about 100 kg of whale meat per person per year for their survival (now about 30 kilogram's only).

About 19,000 Native people make up the population of Chukotka Autonomous Okrug (in more than 30 villages). Over 9,000 Native people live in coastal areas. These people consume primarily on the marine mammals. One third of the Native population of interior Chukotka, over 3,000 people, also need marine mammal products.

To provide a very conservative average of 100 kilogram's of edible whale product per capita a year, it is necessary to have at least 1,200 tons of edible whale products per year.

About 400 tons of whale products were obtained from 129 gray whales in 2006; therefore the demand of Native people of Chukotka is three times higher than the current level of harvesting. This demand is equivalent to 350 gray whales and 5 bowhead whales per year, of a size and weight of whales harvested in 2006.

To summarise:

- (1) eastern gray whales are close to their carrying capacity (i.e. above their maximum sustainable yield level;
- (2) the Scientific Committee has completed its work on a *Strike Limit Algorithm* for providing advice on gray whale catches (and the data requirements for this) and this has been accepted by the Commission, although a full AWMP has not yet been adopted by the Commission;
- (3) the cultural and subsistence needs of the native people of Chukotka have been demonstrated;
- (4) the present catches fulfil only 30% of the documented need;
- (5) although there is no request for a greater quota during the forthcoming five-year block, further consideration needs to be given to
 - (a) fairly accounting for the problem of whales with a 'medicine' smell; and
 - (b) making progress towards better fulfilling the documented need in the longer term.
- (6) control over whaling is managed by the Border Office, Environmental Inspection Office and the whaling captains; and
- (7) controls to ensure that total quotas are not exceeded have been agreed by the Russian and US Commissioners under the annual Whale Harvesting Monitoring Memorandum (harvest reports are exchanged each month).

In conclusion, the Russian Federation proposes no changes to the current gray and bowhead whale catch limits for the forthcoming five-year block.



Fig. 1. The Chukotka Autonomous District (*Okrug*) is 8,635 kilometers. With about 737,700 square kilometers, it is the size of the UK and France combined or twice the size of Japan. It has a dispersed population of about 65,000 people. About 19,000 Native people, residing in four cities, 15 settlements and in more than 40 villages.

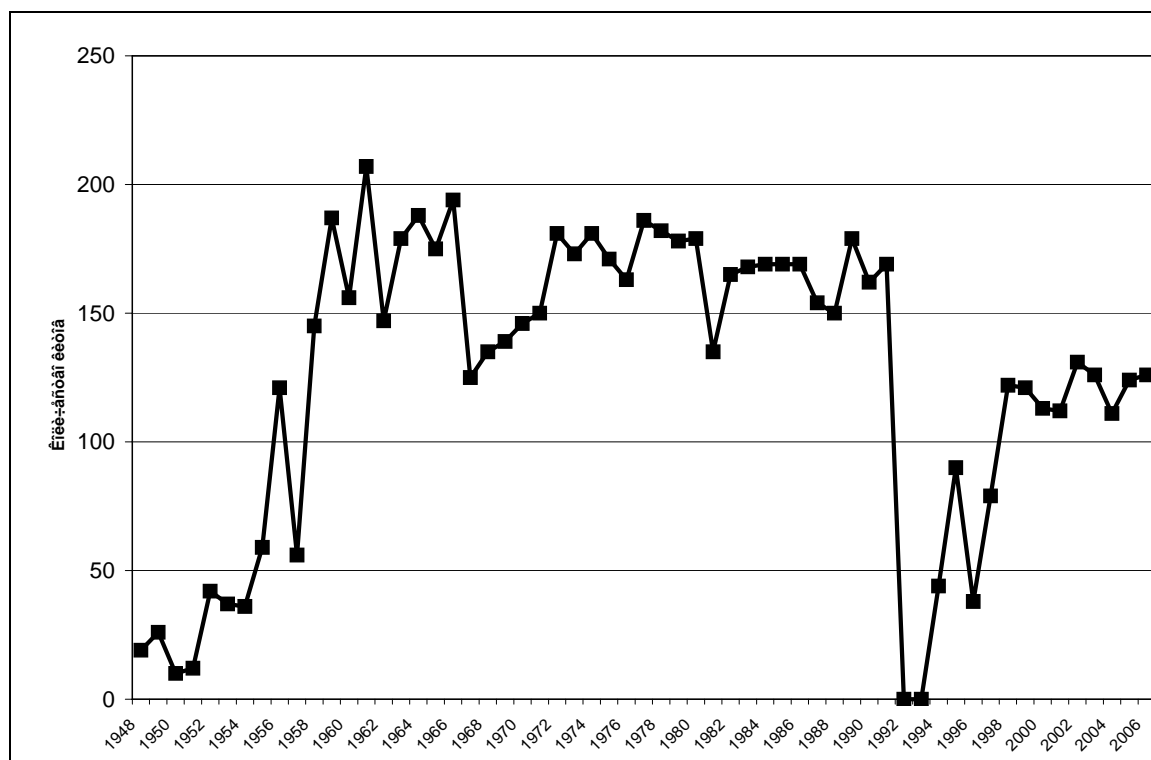


Fig.2. Number of gray whales harvested between 1948 and 2006.

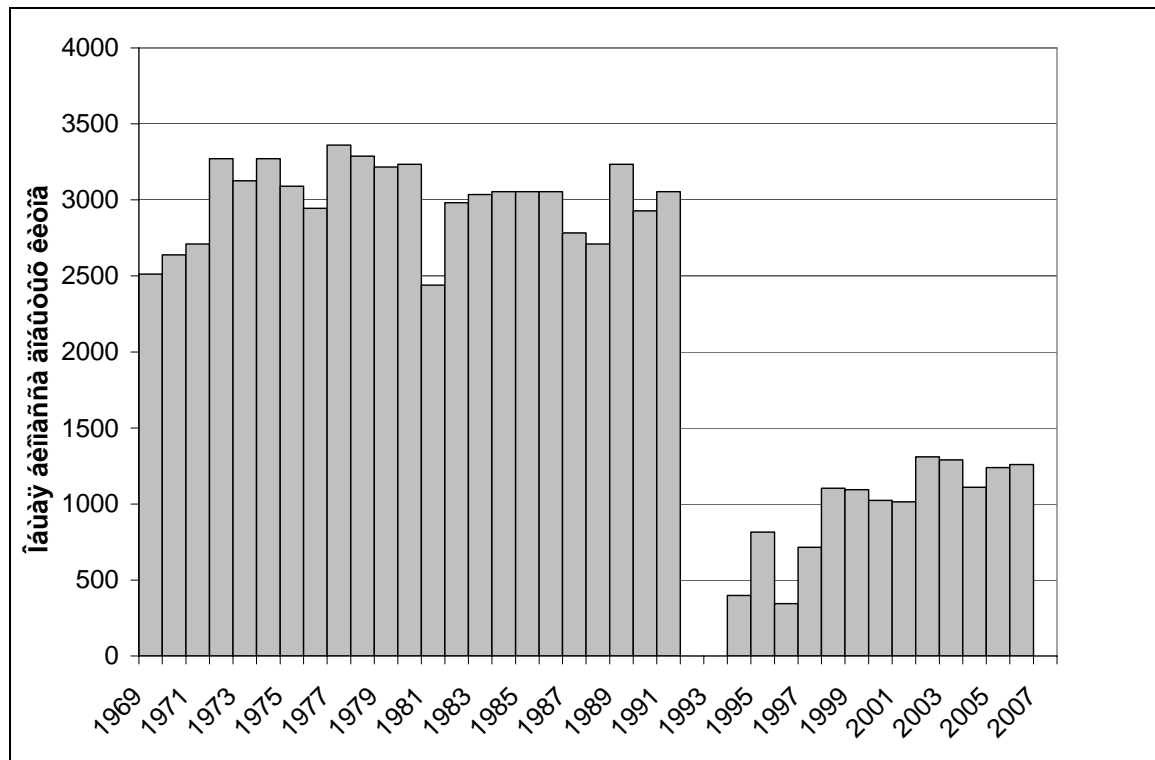


Fig.3. Estimated biomass (weight of animal in tons) from harvested gray whales from 1969 to 2006. Native people are landing a considerably lower amount of whale biomass than was brought in during the Soviet period. This illustrates that the need is greater than the present capability of the Native people to harvest the whales.



Fig.4. Cremation of Gray Whale with medicine smell.