

## **Rationale of subsistence and cultural needs for Gray whales and Bowhead whales by indigenous people of Chukotka (Russian Federation) in 2013-2018**

*(submitted by the Russian Federation)*

**Prepared by:**

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### **Introduction**

The Chukotka Autonomous Okrug is the only place in Russia, where traditional whaling is the point of special importance. Chukotka is one of the farthest and out-of-the-way territories of Russian North. The living conditions here are extremely severe. At least, 5 indigenous ethnic groups live in this region. These aboriginal people are primarily the Coastal and Inland Chukchi, the Bering Sea, Yupik Inuit and also, the Even, the Chuvantsi and the Yukagir. Human life in all coastal settlements of Bering, Chukchi and East-Siberian seas is inseparably linked with the sea, and particularly, with sealing and whaling. This traditional dependence dates back thousands of years and still ensures survival of people in this subpolar area. The very process of hunt for gray whales and bowhead whales and further use of whale products in life are essential for preserving culture and spirit of aboriginal population of Chukotka. Besides, gray whales and bowhead whales are, in fact, all-purpose resource for the people of Chukotka, because all edible parts of these cetaceans are included in diet, while inedible parts are totally used in household. Meat, organ meat and fat are used as food. Whale bones and baleen are used for thousands of years to make equipment, weapons, tools, decorations and toys, parts of reindeer and dog sledges and parts of marine kayaks. Skull, large jaw bones and ribs of whale are used in construction of storages for food, to store kayaks, other parts are used for drying clothes, meat and fish in open air. Skin of marine mammals is also used in clothes and boots, belts and covering of kayaks. Sinews of whales are used for sewing fur clothes and for sewing together walrus skins and making envelopes of skin boats. Whale products are also used for sled dog food. Therefore, any whale product finds its application in either material or spiritual life of Chukotka indigenous people, and traditional hunt for marine mammals is generally based on the principle of rational use and waste-free consumption.

Whale harvest defines social, cultural and economic structure of Chukotka's coastal villages and plays a significant role in traditional relationship between reindeer herding families and maritime hunters. Economical relations go further than simple change of meat, blubber and other food. Equipment of reindeer herding families often includes parts of marine mammal skins. Cloaks made of whale intestines are highly valued by «reindeer people» because of their evaporation features, which allow man to stay dry through the day.

Therefore, traditional whaling is a part and parcel of existence of Chukotka's native people, both from the point of physical survival and from the point of cultural continuity, which finally defines uniqueness and originality of the people of Far North.

### **Contemporary status of populations and harvest of gray whale and bowhead whale in Chukotka.**

IWC Scientific Committee concluded in 2010 and 2011 that eastern gray whale population as a whole was in a healthy state. Both observation data and modeling show growth of population since 2000. The population size was previously estimated about 22,000 individuals and it could be assumed that the stock abundance was over MSYL in 2009. Taking into account the PCFG data, stock structure still remains unclear, that was the reason for IWC Scientific Committee to encourage careful studies of gray whales in Chukotka waters. Russian Federation takes efforts in this direction, but it seems unreasonable to make any changes in present quotation system until obtaining new data and clarifying the stock structure.

People hunt for gray whales in Chukotka since prehistoric time. In the modern period (XX-XXI centuries) the most intensive whaling was in 1960-1990, when annual take reached about 160-170 whales (Fig.1). After that, harvest declined due to political, economic and social changes in Russia in 1992-1997. Since 1998 till present time the average annual take of gray whales has been about 120 individuals. Consequently, the decline in number of taken whales was 28% comparing to the Soviet Union period. Same as in recent years, the volume of subsistence harvest is now still limited by the following reasons:

- lack of boats of appropriate size/power and equipment, (outboard engines, weapons and ammunition);
- lack of fuel limits the area of hunt and distance of towing large whales;
- lack of skilled crews in some villages;
- absence of refrigeration equipment for storing edible whale products during the non-hunting season;
- poor weather and ice conditions make hunting difficult.

At present, native communities and family enterprises are involved in traditional whaling in over than 20 villages and settlements of Chukotka (Fig.2).

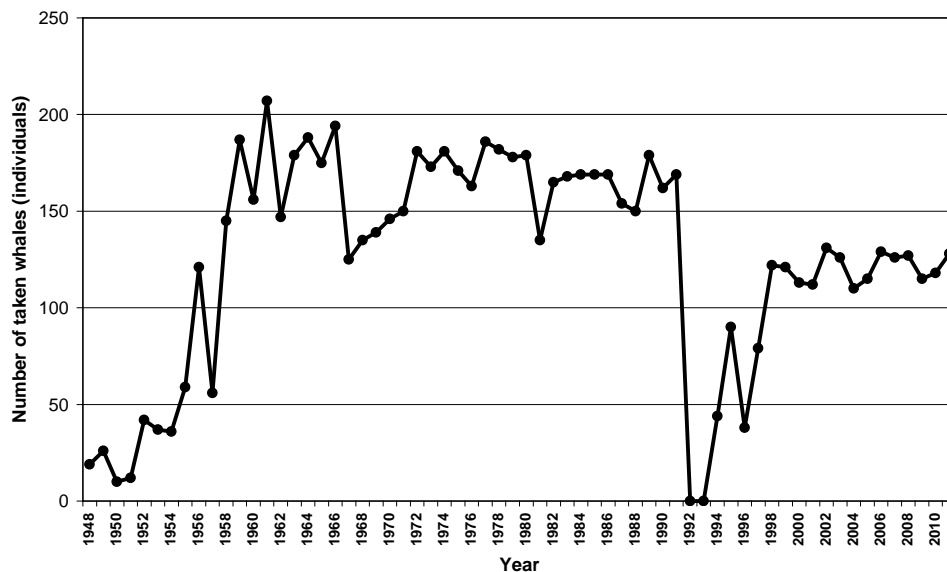
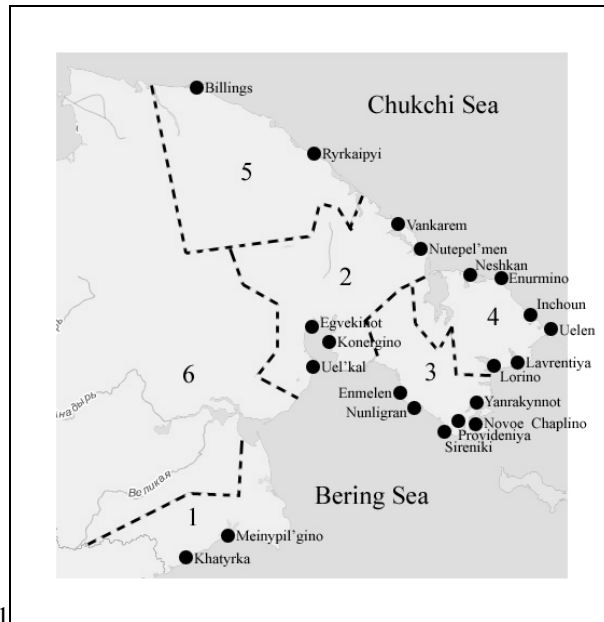


Figure 1. Number of gray whales taken in 1948-



2011

Figure 2. Coastal settlements of Chukotka, where people are involved in traditional whaling. Figures are standing for districts: 1 – Beringovski, 2 – Iul'tinski, 3 – Providenski, 4 – Chukotski, 5 – Shmidtovski, 6 – Anadyrski.

The numbers of annually taken gray whales differ drastically among the districts (Fig. 3). This situation is defined by quantity of whaling settlements, whale migration routes and local distribution of whales in summer feeding areas. Most of whales are taken in 12 villages of Chukotski peninsula. About 75% of all whales taken in Chukotka are harvested in Chukotski district, 17% - in Providenski district. Iul'tinski district has its coastal areas both in Anadyrski Gulf of the Bering Sea and in the Chukchi Sea. Whaling activity here takes place in 5 settlements and it is not very intensive (about 5% of total take in Chukotka). Finally, people in 4 villages of most southern Beringovski and most northwestern Shmidtovski districts of Chukotka take less than 3% of total. There are no whaling settlements in Anadyrski district at all.

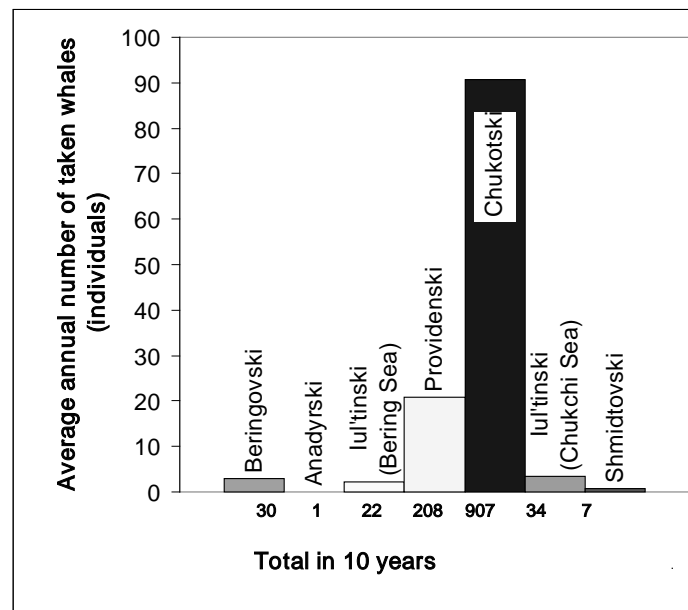


Figure 3. Average and total take of gray whales in the districts of Chukotka in 2001-2010

Whale hunting methods and other aspects of harvest have changed after the Soviet Union period due to obsolete whaling fleet. Qualitative composition of taken animals has changed in past 10 years. The stable trend is an increase in number of younger animals harvested. These whales have less body length and body weight, and they are preferable targets for indigenous hunters. The reasons for it are easier kill, easier towing and easier cutting. All these points define targeting of the whale to much extent.

On the other hand, easier killing of smaller animals leads to shortening of time to kill (Fig. 4). This is a positive factor from the point of humanization of whaling. The trend demonstrates almost one-half decrease in average whale killing time through last 10 years.

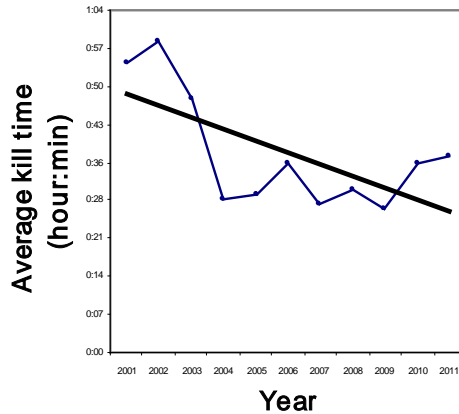


Figure 4. Dynamics and trend of average killing time in 2001-2011

During past decade, the average numbers of harpoons and darting guns used to take a whale remain almost stable, while the average number of used carbine cartridges has increased by 20% through the same period (Fig. 5).

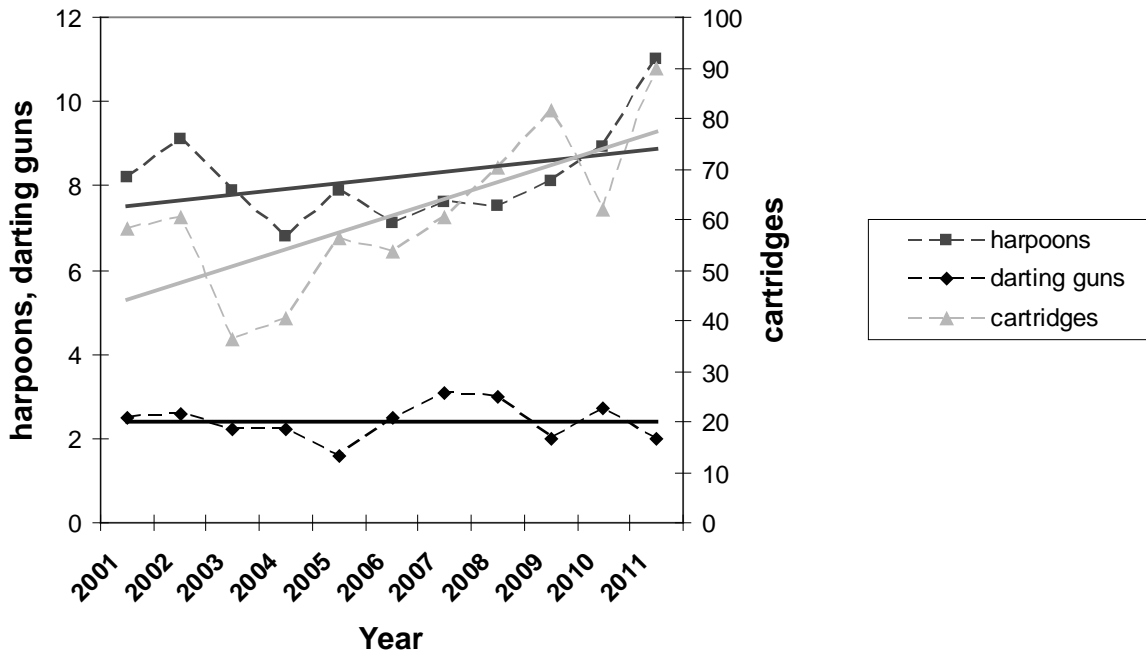


Figure 5. Average use of weapons/ammunition per whale in 2001-2011

Bowhead whales are harvested in Chukotka in small numbers, and the take is irregular. The data for last years are given in Table 1.

**Table 1. Harvest of bowhead whales in 2001-2011**

Year	Take (individuals)
2001	1
2002	2
2003	3
2004	1
2005	2
2006	0
2007	0
2008	2
2009	0
2010	0
2011	0

**Needs of native people in products of whaling and appropriate quota**

Severe climate of Chukotka defines very specific needs in nutrition for indigenous people. Rich in protein and fat food, such as marine mammal meat and blubber, is essential for the people's diet. Studies of diet in native residents show that absence of whale meat in meals causes a number of potentially lethal diseases such as atherosclerosis, diabetes and others. Therefore, replacement of gray and bowhead whale products by any other food is impossible due to many social, cultural, psychological and physiological reasons. Substitution of bowhead whale meat by meat of gray whales is also unfeasible, because their tastes differ, these animals are available for hunt in different time and their cultural value for native people is not comparable.

Total annual consumption of all marine mammal products in middle 1980-s was about 1600 tons, what means that over 100 kilograms of meat, blubber, etc. were available for each person per year. Consumption of whale products had decreased sharply in 1992-1996, primarily because of small numbers of taken whales. The reason for it was a lack of small and equipped whaling vessels and boats after obsolesce of large-scale Soviet whaling fleet. Since 1997 the harvest of gray and bowhead whales raised back to such level that whaling had become again a basis for survival and a way of life for native people of Chukotka, especially taking into account the fact that import of food to Chukotka had been almost stopped in 1992-2000. However, average annual gross weight of 160-170 whales taken in 1969-1991 was about 3000 tons, while gross weight of 120 whales taken in recent years is only 1200-1300 tons per year. So, 28% decrease in a number of taken whales (Fig. 1) has caused 57% loss in actual production due to changes in targeting of whales with a preference to smaller individuals (Fig. 6).

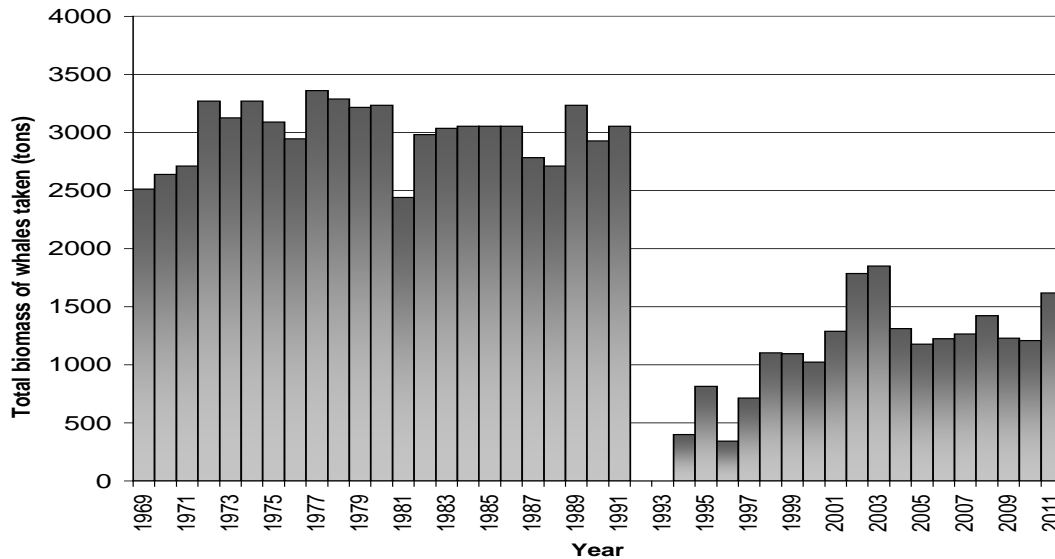


Figure 6. Biomass of gray whales taken in 1969-2011. Calculated mass is given till 2000, actual weighted mass is given for period of 2001-2011

Interviewing of local residents shows that about 8.500 people, who live in coastal settlements, mainly use marine mammal meat in their diet. One-third of native people in continental, inland part of Chukotka, (about 3.000 people) also have need in marine mammal products because of tight traditional relationship between reindeer herding families and coastal whaling communities. This means that 11.500 residents of Chukotka depend directly on sealing and whaling. Migration processes do not touch the native part of population in Chukotka. Any substantial decrease or increase in population of Chukotka Autonomous Okrug is mainly caused by moving of newcomers and non-indigenous people, therefore total needs in products of sealing and whaling have not changed in recent years. At least 1150 tons of meat annually is required to provide the personal consumption of meat products at level about 100 kilograms per year. About 120 gray whales are taken annually in recent years and their gross weight is approximately 1200 tons. Total weight of meat products from those whales is roughly 400 tons, what is slightly higher than 30% of required. Consequently, 750 tons of products more are necessary to meet the nutritional needs of indigenous people. Reindeer and any kind of imported meat cannot fully substitute whale products. Taking into account the average weight of whales recently harvested, the annual additional take of 225 whales is necessary for obtaining those 750 tons of meat products. Therefore, total requirement in whales is 345 individuals per year. To meet these needs, smaller number of animals could be taken if the average size/weight of harvested whales will increase, but this will consequently require larger boats and more powerful outboard engines. These technical improvements cannot be achieved in short time. Moreover, the hunt after a large and aggressive whale causes higher risk of loss.

The Russian Federation consider that needs of native people of Chukotka in 350 gray whales and 5 bowhead whales are well-grounded. That is based on historical harvest, present stock state, cultural and nutritional requirements of people, and includes an assumption that taken whales will be of the same size, as animals that have been harvested in recent years. This take is below MSYL, earlier recommended by IWC for both species. Taking into account losses of animals during hunt (struck and lost) and “stinky”, inedible gray whales (totally assumed about 10 individuals per year), sustainable level of strikes and landings for eastern gray whales will be 150 and 7 bowhead whales individuals per year, if blocked quota for the population will not exceed. That should be taken into consideration on future quota together with presence of inedible stinky whales in total catch. However, the reality is that due to technical reasons native people are not able now to take as many whales as they need in fact.

The Russian Federation takes active part in IWC SC work and annually provides IWC with all necessary information on stock state and harvest of gray and bowhead whales.

All above-mentioned factors set the framework for recommendations on forthcoming quota. Therefore, the Russian Federation considers that it is reasonable and documentarily proved to maintain status-quo for gray whale and bowhead whale quotas in 2013-2018 years for traditional needs of native people in Chukotka.

**Conclusions**

Stressing that eastern gray whale stock is close to its carrying capacity;

Understanding the need to increase efficiency and humanity of traditional whaling;

Noting that current requirements of indigenous people in whale products in Chukotka are met only by 30% at present;

Recognizing importance of control over “stinky whales” problem;

The Russian Federation considers that it is reasonable to maintain status-quo for the years 2013-2018 the number of gray whale landed in Chukotka shall not exceed 720 eastern gray whales, and annual number of landings shall not exceed 135 (except “stinky” whales).

The Russian Federation considers that it is reasonable to maintain status-quo for the years 2013-2018 the number of bowhead whale landed in Chukotka shall not exceed 30. For each of these years the number of bowhead whales struck shall not exceed 7, except that any unused portion of a strike quota from any year (including 2 unused strikes from the 2008-2012 quota) shall be carried forward and added to the strike quotas of any subsequent years, provided that no more than 2 strikes shall be added to the strike quota for any one year.