

**DOCUMENT 11**

**Killing methods and Time to death (TTD) in the Greenlandic large whale hunt in 2007-2014**

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**INTRODUCTION**

There are three types of hunting of large whales in Greenland: hunting of fin whales, bowhead whales and humpback whales with harpoon cannon, hunting of minke whales with harpoon cannon and the collective rifle hunt for minke whales. Not all local communities have a vessel with harpoon cannon (in 2014 8 out of 16 communities in Greenland did not).

In recent years, of the approximately 60 fishing vessels originally equipped with harpoon cannon, some 20-40 are approved for hunting and active in whaling during the season. Gunners must be trained and formal approval of the harpoon cannon is mandatory and required every second year. Courses are provided to the use of the harpoon cannon and whale-grenade and are compulsory to obtain a license for the hunting of large whales.

The size of the vessels varies (9-20 m) with 75 % < 15m. A 20 foot (6m) vessel is required for minke whale hunting and 30 foot (11m) vessel for fin whale, humpback whale and bowhead whale hunting. Crew size also varies from around 4 to up to 7. The vessels operate opportunistically and seasonally i.e. they are not full time whaling vessels but are also fishing vessels and crew members may also have other seasonal employment. The monthly distribution of catches of minke whales by the harpoon hunt has a peak from June-October while for fin whale it is August to September. Bowhead whale is caught in April-May, and humpback from April-December.

Hunting generally occurs in good sea conditions only (Beaufort 3) as the main method of hunting is stealth. Trips generally last less than 24 hours and once a vessel has caught a whale it rows it to the nearest suitable floating ice. Flushing usually occurs within 60m, either of the bow or part of the vessel and depending on conditions up to 100 metres offshore.

Improvement of the whale killing method has been made continuously, with a focus on hunter's safety and animal welfare. Data is collected at each hunt by the hunters and reported to the Ministry of Fisheries, Hunting and Agriculture.

**WHALE KILLING METHODS**

**Fin whales, bowhead whales and humpback whales with harpoon cannon**

Fin whales and humpback whales are caught in West Greenland, south of Umanarsuaq. Fin whales are caught either by two boats of a maximum length of 20 ft, working together, or by one boat of a maximum length of 30 ft. One boat with a maximum length of 30 ft, is required for the humpback whale. Bowhead whales are caught in West Greenland in the Disko Bay area. They are caught by three boats of a maximum length of 30 ft, working together. The majority of the minke whales are also taken by this method. The boat length is 30-70 ft.

Each boat should be equipped with one certified 50mm Kingsberg cannon, which is checked every second year.

The primary weapon is a harpoon with the Norwegian patentite "Whale Grenade 99". This whale-grenade was originally produced for hunting minke whales, and it has been modified for the hunt of the larger whales by extending the length of the triggering cord (from 60 cm to 90 cm) and an increase in the amount of explosives (from 30 g to 65 g of patentite). The secondary weapon is the same as the primary weapon. Gunners shoot in the heart and lungs region by aiming at an area close to the pectoral fins.

The secondary weapon for the minke whale is either a harpoon with the "Whale Grenade 99", or rifles of a minimum calibre of 7.62 mm (30.06) and full metal bullets. Some hunters use cold reloaded bullets together with rifles with higher calibre (3.75), due to their better penetration. Rifle shots are aimed at the neck, in the back of the animal's head.