

# First records of killer whales (*Orcinus orca*) depredation on Greenland turbot (*Reinhardtius hippoglossoides matsuurae*) and Pacific halibut (*Hippoglossus stenolepis*) fisheries in Western Bering Sea.

Belonovich O.A., Novikov R.N., Terentev D.A.

[uichers@gmail.com](mailto:uichers@gmail.com)

Kamchatka branch of the Russian Federal Research Institute of Fisheries and Oceanography (I'NIRO) («KamchatNIRO»), 18, Naberezhnaya St., Petropavlovsk-Kamchatsky, 683000, Russia



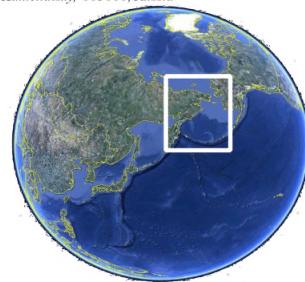
Killer whales



Greenland turbot partially eaten by killer whales

## Introduction

Killer whales depredation on longline fisheries has been known worldwide. In Bering Sea and north Pacific first depredation cases occurred off Alaska and Hawaii Islands in 1960th. Currently killer whales and sperm whales depredate on longlines in eastern Bering Sea, Alaska, Pribilof Islands. At the same time, there is no information on toothed whales depredation on fisheries in western Bering sea.



## Methods

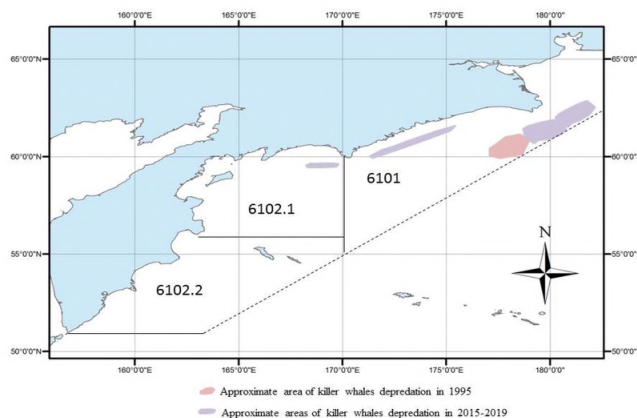
In 1995 4 vessel working on longline fisheries in western Bering Sea (from Olutorsky Gulf to Navarin cape) had a scientific observes on board. The longlines fished mostly for Greenland turbot and Pacific halibut on a continental slope (220-450m) from June till October.

## Results

In June killer whales were observed near the vessels, but did not depredated on its catch. Later in season, in August, killer whales started to take Greenland turbot from the longlines. To avoid depredation, fishing vessels moved from one place to another within the fishing area, but this tactic had limited effect: killer whales started to depredate again in a few days. Only when fishing vessels relocate south (to 6102.1 and 6102.2 subzones) (Pic.1), killer whales were not observed depredating anymore. Based on the interview data, killer whales were not observed depredating on bottom net fisheries in the same area in 1997-1999, when they were fishing for different species of halibut and other bycatch species.



Killer whales usually leave nothing for fishermen, but sometimes halibut's jaw left on longline hooks.



Pic.1. Map of approximate areas of killer whales depredation in 1995 and 2015-2019.

Probably, 1995 is one of the first years when killer whales depredation on Greenland halibut have been observed in western Bering Sea.

Currently killer whales continue depredating on longline fisheries in 6101 and sometimes observed in 6102.1.

Only killer whales have been observed depredating on longlines in western Bering Sea and they have been observed taking only Greenland halibut.

More data need to be collected to estimate effect of killer whales on fisheries in Russian Far East.



ВСЕРОССИЙСКИЙ  
НАУЧНО-ИССЛЕДОВАТЕЛЬСКИЙ ИНСТИТУТ  
РЫБНОГО ХОЗЯЙСТВА И ОКЕАНОГРАФИИ