

# Bowhead Whale in the Bering Strait Region Entangled in Commercial Crab Pot Gear

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## SYNOPSIS

Savoonga Whaling Captains Association (SWCA), University of Alaska Fairbanks Alaska Sea Grant (UAF-ASG), and the North Slope Borough Department of Wildlife Management (NSB-DWM) worked together to document a floating bowhead whale found dead and entangled in nylon line and floats during July 2015, near Saint Lawrence Island, in the Bering Strait region. This is first line entanglement of a bowhead whale where the gear provided the specific fishery and approximate location of initial entanglement.

## INTRODUCTION

Entanglement in commercial fishing gear is a leading source of human-caused mortality for whales worldwide. The bowhead whale is the only baleen whale that spends its entire life in ice-associated waters. Bowhead whales that live among the Bering, Chukchi, and Beaufort seas endure line entanglements as evidenced by healed scars and/or active insults (Reeves et al. 2012). George et al. (2015) estimated 12.1% of bowhead whales in Alaskan waters bear evidence of line entanglements.

Line entanglements are possible from actively fishing gear or from lost “ghost-fishing” gear. Overlap occurs between the bowhead whales’ northern and central Bering Sea winter range and transboundary commercial pot fisheries (i.e. crab and cod) (Citta et al. 2013).

The bowhead whale is an essential nutritional, cultural, and economic resource to coastal communities throughout the Alaskan Arctic.

## DEAD WHALE

An adult female bowhead (#2015-FD2; Figure 1.) floating dead was encountered July 7<sup>th</sup>, 2015 approximately 15-20 miles east of Savoonga on the north shore of Saint Lawrence Island SWCA members. Two floats were located under #2015-FD2’s fluke as well as lines wrapped around the base of the fluke. No pot or pot fragments were attached. All available gear was recovered for documentation.

The carcass washed ashore July 13<sup>th</sup> and it was noted that at the base of the tail “where the ropes had been, her tendons were showing”. All recovered gear was provided to NSB-DWM for archive and a skin sample was also provided for genetic analysis. Additionally, several large pieces of skin and blubber were salvaged for human consumption.



Figure 1. Adult bowhead whale found floating dead entangled in floats and lines. Photo: SWCA

## RECOVERED GEAR

- Lines: Three colored (white, yellow, and green) lines of ¾” - 7/8” diameter with a minimum total length of 40.5 m (133 ft; Figure 2).

- Floats: Two orange inflatable vinyl floats were recovered (Figure 2) attached to the lines. Both floats were marked with a State of Alaska Registration number “11022”. During gear removal, one float was full of water; the second float was uncompromised.

- Tag: A magenta vinyl Bering Sea Aleutian Islands (BSAI) Limited Entry Permit tag (Figure 3), issued by the Alaska Department of Fish and Game (ADF&G) Commercial Fisheries Division, was attached to a line directly below one float.



Figure 2. Commercial crab gear recovered from #2015-FD2. Photo: Sheffield

## RESULTS

Floats: Registration number was for the Fishing Vessel SAGA.

Tag: Required for the October 2012 – February 2013 blue king crab (*Paralithodes platypus*) commercial fishery located in waters near Saint Matthew Island in the central Bering Sea (Figure 4).

Based on the recovered gear and the detailed observations provided by SWCA, #2015-FD2 was entangled prior to death.

There is temporal overlap between active commercial crab fisheries and bowhead whale winter range.

The National Marine Fisheries Service recorded the death of #2015-FD2 as a Commercial Fishery Incidental Take.



Figure 3. Limited Entry Pot Permit tag recovered from #2015-FD2. Photo: SWCA

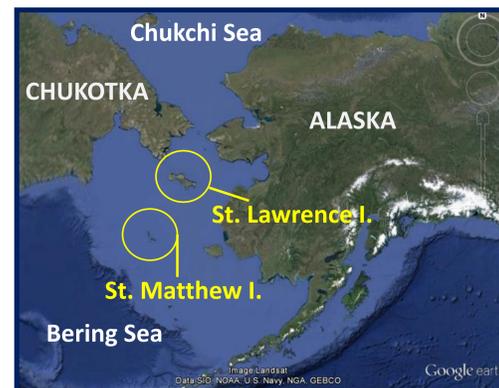


Figure 4. Location of Saint Matthew Island (Central Bering Sea) and Saint Lawrence Island (Northern Bering Sea).

## LESSONS LEARNED

- Detection of large whale entanglements in remote coastal areas is likely to occur by people actively engaged in the utilization of those resources.
- Though the date of and reason for the initial entanglement remains unknown, the Limited Entry Pot Permit tag allowed identification of the vessel, the specific fishery, and approximate location of entanglement.
- Entanglement of large whales in fishery gear in northern and western Alaska cannot be viewed as only a wildlife conservation concern. Rather, line entanglements of large whales must be viewed in terms of food security concerns.
- Determining the origin of fishing gear recovered from any dead whale (harvested or not) is a priority in order to obtain information that may mitigate entanglements.
- It is essential to involve Alaska Native subsistence whalers and commercial fishery representatives in discussions and potential solutions to line entanglement events.

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