

Does the winter range of bowhead whales overlap commercial fisheries in the Bering Sea?

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How often bowhead whales (*Balaena mysticetus*) become entangled in commercial fishing gear is unknown, although rope scars are identified on approximately 10% of harvested whales and a dead whale wrapped in 'pot' gear that apparently caused its death was found in July 2010. The cause of the rope scars is believed to be a result of entanglement in pot gear set in the Bering Sea; however, determining the distributional overlap of bowhead whales and pot fisheries has not been possible until recent satellite tagging studies. In the winters of 2008–09 and 2009–10, the distribution of 20 tagged bowhead whales overlapped the locations of pot gear set for Pacific cod (*Gadus macrocephalus*) and blue king crab (*Paralithodes platypus*), yet the fisheries concluded before whales migrated into the overlap area. The snow crab (*Chionoecetes opilio*) fishery extends from January to April and provides the greatest potential for bowhead whales to encounter active pot gear. However, whales generally remained in areas with > 90% sea ice concentration, which is too concentrated for crab boats. Although the distribution of pot gear in Russian waters is not currently available, Russian fisheries are equally limited by sea ice. Hence, bowhead whales generally frequent waters too ice-choked for commercial fishing boats in winter. As such, "ghost" gear (*i.e.*, lost fishing gear) may be the main source of entanglement. Because this stock of whales is increasing, it seems unlikely that fishery induced mortality is limiting the population. However, pot fisheries may shift northward and overlap the distribution of whales if sea ice extent decreases. As such, entanglement rates should be closely monitored.



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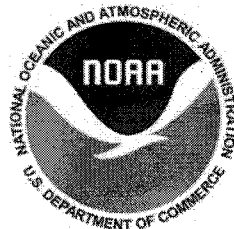
ON

THE BIOLOGY OF MARINE MAMMALS

TAMPA, FLORIDA
NOVEMBER 27 - DECEMBER 2, 2011

HOSTED BY

National Marine Fisheries Service
Southeast Regional Office
National Oceanic and Atmospheric
Administration
St. Petersburg, Florida



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