

Other Human-Related Impacts

WHILE COMMERCIAL FISHING IS THE MOST VISIBLE HUMAN ACTIVITY WITH THE POTENTIAL TO IMPACT MARINE MAMMAL POPULATIONS, OTHER ACTIVITIES, SUCH AS OIL AND GAS EXPLORATION AND SUBSISTENCE HUNTING, MAY ALSO PLAY A ROLE.

To investigate the impact of other human-related activities on marine mammals in the North Pacific, the Board has funded two projects for just over \$150,000. One project looks at direct human impacts on the decline of Steller sea lions. Another project tackles the impacts of noise, an area of growing interest in the Arctic as the sea ice retreats and opens the Arctic to shipping and potential fisheries.

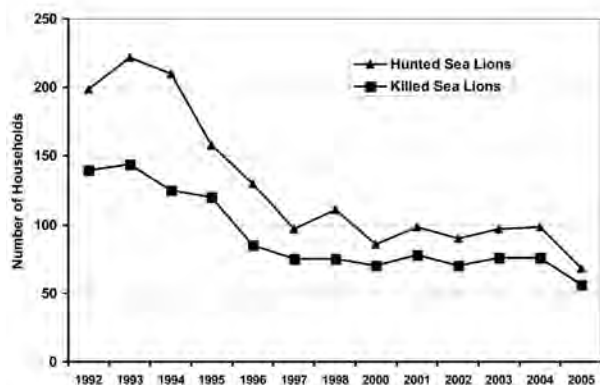
MARINE MAMMALS :: Other Human-Related Impacts

Impacts on Steller Sea Lions

Project 646

TO EXAMINE THE ROLE OF DIRECT MORTALITY BY humans on the decline of the western population of Steller sea lions, Project 646 examined the hypothesis that historical indiscriminant shooting, indirect harvesting (i.e., entanglement) in commercial fisheries, and subsistence harvesting are not primary sources of sea lion population declines.

Researchers extensively reviewed historical data and conducted interviews with fishermen involved in the industry between 1975 and 1990, when the western sea lion population rapidly declined. Results corroborated previous research that the annual subsistence harvests of fewer than 600 Steller sea lions was not a primary cause of the population decline of Steller sea lions in western Alaska.



Statewide trends in the number of Alaska Native households hunting Steller sea lions, 1992–2005.

Interviews indicated that the intensity of the encounters between fishermen and Steller sea lions was particularly high in the Shelikof Strait area during the foreign and joint venture trawl fisheries for walleye pollock in the late 1970s and early 1980s. Respondents consistently indicated that the targeting of Steller sea lions in most commercial fisheries was random and opportunistic, and was in addition to incidental catches in fishing gear. Unfortunately, these interviews provided no quantitative measure of sea lion mortality, making it difficult to assess the actual impact of indiscriminant shooting on the Steller sea lion population during the period of decline.



General areas where Steller sea lions were incidentally taken, 1982–1984, in the Shelikof Strait joint venture walleye pollock fishery.