

Humpback whale predation on winter aggregations of Pacific herring in Sawmill Bay, Alaska: Problem for herring population?

¹ Katherine A. McLaughlin, ¹ Andrew T. McLaughlin, ² John R Moran, and ² Stanley D. Rice

¹McLaughlin Environmental Services, PO Box 8043, Chenega Bay, Alaska 99574

²NOAA/NMFS, Alaska Fisheries Science Center, Ted Stevens Marine Research Institute, 17109 Pt Lena Loop Rd, Juneau, Alaska 99801

Kate McLaughlin

Background

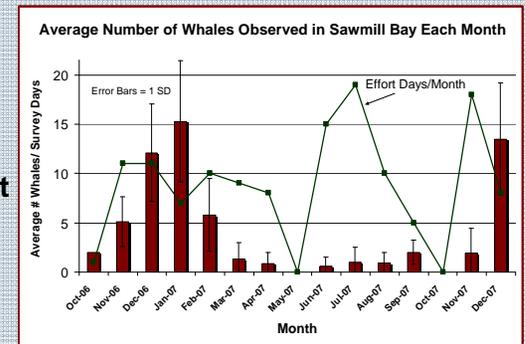
Humpback whales (*Megaptera novaeangliae*) feed on herring (*Clupea pallasii*) in the winter in Sawmill Bay.

Herring populations in Prince William Sound have been depressed since 1993, and predation by whales in the winter may be a dominant factor in preventing their recovery.



Results

- 52 individual humpbacks were identified in Sawmill Bay during the study period.
- Whale presence peaked in mid-January with 26 animals, and was down to zero by early March.
- Winter observations suggest that humpbacks are feeding almost exclusively on herring while foraging in Sawmill Bay (~ 99% of observations).



Methods

We evaluated the abundance and residency of humpback whales in Sawmill Bay using photo-identification and shore/boat-based surveys, from November 2006 through December of 2007.



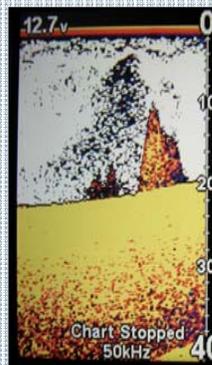
Andy McLaughlin



Kate McLaughlin



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Screen shot of depth sounder showing herring schools



Andy McLaughlin

We identified humpback whale prey visually, using hook & line, and hydro-acoustics.

Future Research

Data collection will continue through winter 2007-8. These data will be modeled to quantify the biomass of herring removed by humpback whales, in order to assess the impacts of humpback predation on PWS populations of herring.

Herring predators:
Humpback, Sea Lions
and Birds



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For comparison, similar observations of humpback whale abundance and foraging are also being conducted at two other locations: Lynn Canal where herring populations are also struggling, and Sitka Sound where herring populations are robust.

Acknowledgements

This study is supported primarily by the EVOS Trustee Council, and with the assistance of Auklet Charter Services and the Native Village of Chenega.

