

A RE-EXAMINATION OF PACIFIC WALRUS FEEDING DATASheffield, Gay¹, Fay, Francis H.², Kelly, Brendan P.³*(1) Alaska Department of Fish and Game**First Author Address: Alaska Department of Fish and Game, 1300 College Road, Fairbanks, Alaska, 99701, USA**(2) University of Alaska Fairbanks (deceased)**(3) University of Alaska Southeast*

The diet of walrus has been described from examinations of stomachs subjected to varying amounts of digestion. Walrus feed on a broad array of prey and the ability to identify prey items varies within and among prey types. Without consideration of the state of digestion, a stomach sample may not accurately reflect the species composition and size of prey consumed. A new criterion that identified stomach contents least affected by digestion was used to account for the effects of digestion on apparent prey composition. The overall diet was then re-examined taking into consideration the influence of digestion rates for each prey type. Stomach content data acquired from 1952-1991 from 798 Pacific walrus (*Odobenus rosmarus*) were compiled, and interpretations about feeding habits were re-examined. Walrus regularly consumed a wider assortment of benthic prey than was previously thought. The percent occurrence of each taxon was typically higher in fresh stomachs than in stomachs in unknown stages of digestion. The mean number of taxa present in fresh stomach contents from the Bering Sea were significantly higher (3.83, SD = 1.45) than taxa present in stomach contents in an unknown digestive state (2.73, SD = 1.37) ($t = 9.23$; $P < 0.00001$). Additionally, the mean number of taxa present in fresh stomach contents from the Chukchi Sea were significantly higher (5.30, SD = 1.78) than taxa present in stomach contents in an unknown digestive state (2.34, SD = 1.75) ($t = 11.46$; $P < 0.00001$). The diet of Pacific walrus varied regionally. Large sized clam genera (*Serripes* sp., *Mya* sp.) occurred more often in animals harvested from Bering Sea whereas, a small sized clam genera (*Yoldia* sp., *Astarte* sp.) occurred more often in animals harvested in the Chukchi Sea. Males and females consumed essentially the same food items when in the same location.

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ABSTRACTS

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