

## G. SHEFFIELD

### **Bowhead Whale Feeding in the Northern Bering Sea Near Saint Lawrence Island**

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We studied feeding of bowhead whales taken by Alaska Natives at Saint Lawrence Island in the northern Bering Sea during the spring (April-May) and fall (November) migrations from 1972-2008. Our objectives were to: 1) identify the proportion of harvested whales that had been feeding based on historical harvest records and 2) describe the prey identified from the stomach and/or intestinal contents of eight whales harvested during 2005-2008.

Harvest records (1972-2008) were reviewed for information on feeding status during the spring. Six whales (30%) harvested during the spring had evidence of feeding. Three whales (100%) harvested during the fall had been feeding shortly before death. The sample sizes for feeding status between seasons is small and we recommend caution when interpreting these results. However, there are indications there may be a seasonal difference in the proportion of whales feeding as has been determined in bowhead whale diet studies in the Beaufort Sea.

Of note, there was no difference ( $P=0.73$ ) in the proportion of bowhead whales feeding in the Bering Sea (30%;  $n=20$ ) and the Beaufort Sea (34%;  $n=91$ ; Lowry et al. 2004) during the spring migration.

Five whales harvested during spring (2007-2008) provided the first spring prey data from the northern Bering Sea since 1982. Copepods occurred most frequently and were identified in 87% of the whales sampled.

The three whales harvested during late November 2005 provided the first prey data from bowhead whales during their fall migration into the northern Bering Sea. Euphausiids dominated the diet samples of whales sampled during late November. Euphausiids were not present in any whales sampled during the spring. The sample sizes for diet samples are small and we recommend caution when interpreting these results.

The data we document are consistent with bowhead whale feeding behavior observed by Alaska Native whalers from Saint Lawrence Island. Bowhead whales feed near Saint Lawrence Island during spring and fall migrations.

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