

**MOVEMENTS, HAULOUT USE PATTERNS, AND FORAGING ACTIVITY OF HARBOR SEALS IN THE KODIAK ARCHIPELAGO AND SOUTHEAST ALASKA**Small, Robert<sup>1</sup>, Ver Hoef, Jay<sup>2</sup>*(1) Alaska Department of Fish & Game, Anchorage, AK 99518**First Author Address: Alaska Department of Fish & Game, 333 Raspberry Road, Anchorage, Alaska, 99518, USA**(2) Alaska Department of Fish & Game, Fairbanks, AK, 99701*

Harbor seal (*Phoca vitulina richardsi*) numbers in the Gulf of Alaska declined by 80-90% from the 1970s through the early 1990s, whereas seal numbers increased or remained stable in Southeast Alaska. We compared the spatial and temporal patterns in seal use of at-sea foraging areas and haulout sites to enhance our understanding of the foraging ecology of harbor seals between these two regions. During 1993-1996, satellite-linked time-depth recorders were attached to adult and subadult seals in the Kodiak Archipelago (n=29) and Southeast Alaska (n=35), either in the spring prior to pupping or in the fall soon after molting. All locations with Service Argos quality ranking >1 during each haulout bout were averaged, and assigned to a specific haulout site. Based on 3,461 average haulout locations, we calculated the following parameters: number of unique haulouts used, proportional use of each haulout, mean distance between successive haulouts, maximal distance between any two haulouts, and cumulative distance traveled among haulouts. Based on all at-sea locations recorded between any two successive haulout bouts, we determined the distribution of distances from each average haulout location to the subsequent at-sea locations and the associated size and location of at-sea foraging areas. Using ANOVA techniques, we then tested for the effect of region, seal age and sex, and season on all parameters. Results indicative of differences in foraging effort will be compared with concurrent diving behavior and discussed relative to possible prey availability in the two regions.

Biennial Conference

13<sup>th</sup>



on the  
Biology of Marine Mammals

**Nov. 28 - Dec. 3, 1999**

**The Society for Marine Mammalogy**

**ABSTRACTS**

**Wailea, Maui, Hawaii**