

Foraging Behavior of Lactating Northern Fur Seal (*Callorhinus ursinus*) Females near the Lovushki Island Complex of the Kuril Islands, Russia

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In the last half of the century, the northern fur seal (*Callorhinus ursinus*) eastern Pacific stock declined significantly, leading to its listing as “depleted” in 1988 under the Marine Mammal Protection Act. While this population continues to decline at 6% per year, fur seal numbers along the Kuril Islands, Russia are near their historical high. One hypothesis for the decline of Pribilof fur seals is reduced prey availability – a factor which could be examined in terms of diving effort. By studying the dive behavior of seals from an increasing population and contrasting that with published information on seals from the declining Pribilof population, we hope to gain insight into whether prey limitation may explain the different population demographics between these populations. In the first phase of this project our objectives were to: (1) characterize diving behavior of females in the vicinity of Lovushki Island, Kuril Islands, Russia; (2) investigate the potential effects of tag size on diving behavior and; (3) examine the potential for using stomach temperature data to characterize dives associated with foraging. Five lactating females in 2005 and an additional eight in 2006 were captured on the rookery, measured, and equipped with data logging telemetry. Blood and milk samples were also collected to evaluate the health status of each female. Data loggers provided depth and stomach temperature profiles’ over the entire period of deployment. A separate group of five lactating female seals were instrumented only with very small, low-profile time depth recorders (TDRs) in 2006. Preliminary analyses revealed that Lovushki Island fur seals typically exhibited nocturnal, pelagic foraging patterns, although in a few cases seals engaged in benthic foraging, making flat-bottom dives during the day, close to the rookery. For the seals with small TDRs, maximum dive durations (= 2.6 min) and dive depths (= 72 m) were limited compared to previously reported values for seals from the Pribilof Islands. The presentation of final results will provide the basis for a more thorough discussion about the influence of prey availability on population dynamics for northern fur seals throughout the Pacific.