

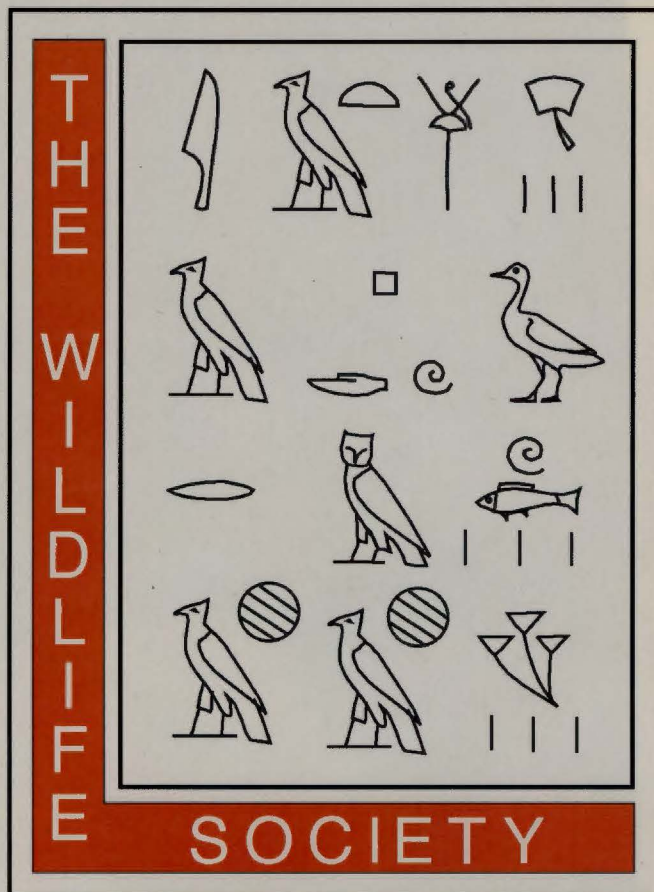
(47) EXAMINATION OF HOOKWORM BURDENS IN STELLER SEA LION, *EUMETOPIAS JUBATUS*, PUPS AT THREE ROOKERIES IN SOUTHEAST ALASKA: FECAL EGG COUNTS AND HEMATOLOGY

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Abstract: The Steller sea lion, *Eumetopias jubatus*, was listed as threatened throughout its range in 1990; and the western stock in Alaska was listed as endangered in 1997. It was hypothesized that original decline was due to low juvenile survival rates. Recent disease surveys have detected the presence of a parasitic hookworm (*Uncinaria* sp.) that may affect health and survival of Steller sea lions in Alaska. Hookworm infestations produce mortalities or affect host fitness in the northern fur seal, *Callorhinus ursinus* and California sea lions, *Zalophus californianus*. Anemia is highly correlated with parasite burdens in fur seal pups, reducing the pup's ability to oxygenate and hookworm-associated intestinal ulcers may be sources of lethal bacteremias. *Uncinaria* may produce similar effect in Steller sea lion pups and significantly effect survival. In this preliminary survey, we examined the potential correlation of parasite infections as determined by egg shedding in 38 pups, and enumerating intestinal worm burdens from intestinal tracts of 11 dead pups with ante-mortem hematological indices ($n = 24$) collected at 3 rookeries in Southeast Alaska in July 2002 and 2003. Worm burdens were higher at Hazy Island (mean 1,757) than White Sisters or Forrester Island complex (mean 180). The percent of patent infections in feces at 2–3 weeks of age were similar between Hazy Island (50%, $n = 26$) and Forrester Island complex (41%, $n = 12$). Pups with patent infections had significantly lower hematocrits ($r = -0.427$, $p = 0.04$). Results of this study may led to increased research efforts to determine the distribution and health effects of this parasite throughout the Steller sea lion range which may help with a more effective recovery plan for the population.

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