

Clinical Findings from Stranded Ice-Dependent Arctic Seals

Caroline Goertz

Alaska SeaLife Center, carrieg@alaskasealife.org

Pam Tuomi

Alaska SeaLife Center, pamt@alaskasealife.org

Kathleen Woodie

Alaska SeaLife Center, kathyw@alaskasealife.org

Jane Belovarac

Alaska SeaLife Center, janeb@alaskasealife.org

Natalie Rouse

Alaska SeaLife Center, natalier@alaskasealife.org

Nicole Thometz

University of California, Santa Cruz, nthometz@ucsc.edu

Colleen Reichmuth

University of California, Santa Cruz, coll@ucsc.edu

Bearded (*Erignatus barbatus*), ringed (*Phoca hispida*), spotted (*Phoca largha*), and ribbon (*Histiophoca fasciata*) seals rely on seasonal sea-ice in Arctic and sub-Arctic regions. Many aspects of their biology and physiology are poorly known, and most species-typical health parameters are not available. Such information has proven difficult to obtain due to the challenges of studying Arctic seals in the wild and their minimal historic representation in aquaria. Stranded ice seals provide the unique opportunity to obtain fundamental information about physiology and health, and to follow individuals throughout their rehabilitation to better understand factors related to development and key life history events.

Animals in distress are identified to ASLC by the public and carefully assessed prior to intervention. Live seals are retrieved only if it is determined—in coordination with NOAA’s National Marine Fisheries Service—that the seal would be unable to survive on its own. Upon admission to the rehabilitation program, seals receive a physical examination that includes sampling for routine diagnostic analysis and disease screening. These tests not only guide treatment of rehabilitating animals but also provide insight into disease processes active in wild populations. Dead seals undergo thorough post-mortem examination by an experienced veterinarian. All individuals are screened for fecal pathogens and for exposure to a variety of diseases known to affect marine mammals and/or humans including seal herpesvirus, phocine distemper virus, avian influenza, canine distemper virus, brucellosis and leptospirosis.

We have compiled this veterinary data for stranded Arctic seals admitted to ASLC (13 ringed seals, 11 spotted seals, 1 bearded seal, and 1 ribbon seal) in an effort to make these data readily available to scientists and wildlife managers. By providing baseline health parameters for apparently healthy seals as well as those suffering from

detectable illnesses, we hope to contribute much-needed information about these vulnerable species.