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Napoleon Complex: Behavioral Management and Cooperative Training with Ringed Seals at the Alaska SeaLife Center

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Ringed seals (*Pusa hispida*) are among the smallest and most cold-adapted marine mammals, inhabiting Arctic and subarctic habitats in association with land-fast ice. They function as both predators and prey, but experience extreme predation pressure in comparison to other phocids. Ringed seals possess unique characteristics aside from their compact size. These include physical traits such as tremendous body fat stores, low surface-to-volume ratio, and specific physiological capacities. Ringed seals also have some common aspects of temperament and can be described as fierce, stubborn, fast-paced and impatient, with shorter attention spans than many other seals.

Ringed seals are Type II pinnipeds that are uncommon in public display settings. However, this will likely change as more live-stranded individuals are rehabilitated and deemed non-releasable in Alaska. As one of few species of ice seals managed in human care, ringed seals serve as ambassadors for their wild counterparts and have the ability to remind people of the consequences of climate change in a rapidly-changing Arctic environment. There are currently four ringed seals housed at the Alaska SeaLife Center (ASLC) in Seward, Alaska, which sits at about 60° North latitude.

Year-round husbandry activities at ASLC give us the opportunity to track seasonal and developmental patterns via diet, growth, molt and breeding displays. As part of the PHOCAS project (Physiology and Health of Cooperating Arctic Seals) in collaboration with Long Marine Laboratory at the University of Santa Cruz, we use operant conditioning techniques to maintain rigorous behavioral routines that support directed research. Cooperative assessments of body condition and physiological parameters require something that is challenging for many animals--to be reliably calm and still for extended intervals in specific contexts. Routine procedures include comprehensive ultrasounds for body condition assessments, photogrammetry, direct morphometrics, cardiorespiratory measurements, and open-flow respirometry for various metabolic studies. Similar data are collected with other species at both facilities, but undoubtedly, ringed seals have posed the greatest training challenges given their cryptic nature and hypervigilant behavior. Building trust with these individuals to overcome the instinctual response to hide or flee when presented with unexpected stimuli has required creative conditioning approaches. Patience and a consistent gradual routine, while shedding the occasional tear, has proven key to setting these extraordinary animals up for success. Working with ringed seals provides daily opportunities to learn, re-learn, evaluate, and adjust our tools for training, communication, and relationship building. The little things in life sometimes have the biggest influence and ringed seals are capable of accomplishing great things with the support of a tailored training program that takes into account their particular biological and behavioral needs.