

pathogens can chronically infect animals and cause disease or increased shedding during times of stress. *Chlamydia*, herpesviruses, adenoviruses and possibly caliciviruses are known to act in this way in other species. Future disease research would be directed towards determining differences between populations in disease prevalence, genotypes of these disease agents and immune response to the pathogens.

Historical and Current Serology in Steller Sea Lions in Alaska

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Within the Gulf of Alaska and Aleutian Islands, the Steller sea lion population has declined 80% since the 1970s, while numbers in Southeast Alaska have nearly doubled. Although inadequate nutrition is the leading hypotheses for explaining the decline, disease is an alternative mechanism of decline or slowed recovery. The most important disease agents are those that are most likely to act at the population level, such as new agents introduced to a naive population, enzootic agents that affect fecundity, and agents that are transmitted by a sympatric reservoir species. The objective of this project was to determine whether there are differences in exposure to selected disease agents between the western and eastern stocks. Historical serologic data was gathered to determine what data was missing over time and geography. Stored serum and serum collected currently were analyzed to fill in these gaps retrospectively and prospectively. There is evidence of exposure to a phocid herpesvirus, *Chlamydia psittaci*, caliciviruses, *Toxoplasma gondii* and canine adenovirus in both regions of increasing and decreasing sea lion abundance. However, there is no convincing evidence of significant exposure to influenza A, morbilliviruses, *Brucella abortus*, and *Leptospira* sp. Because these agents are either present throughout the ranges examined or were not evident in the animals examined, it is unlikely that these diseases caused significant mortality or caused the population decline of sea lions. However, some

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