

The blubber layer of marine mammals is a specialized form of adipose tissue that serves many important functions, including insulation, buoyancy, body streamlining, and fat storage. Because lipids in the blubber are mobilized and oxidized based on energetic needs, the biochemical composition of blubber can provide insights into an animal's nutritive status, lipid turnover, and general lipid metabolism. The composition of blubber fatty acids (FA) can be used to examine patterns of deposition, maintenance, mobilization, and replenishment of body lipid stores. This project examined blubber FA composition in Steller sea lions (*Eumetopias jubatus*) and harbor seals (*Phoca vitulina*) in Alaska from 1998 to 2010. Steller sea lion data was collected across five regions, while harbor seal data was collected from seven regions. We found that blubber FA composition varied within and among species when compared by region, sex, age class and season. These differences are most likely due to the energetic needs, seasonal variations, and foraging strategies of each species.



// 2017: A Marine Mammal Odyssey, Eh!

ABSTRACT BOOK

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