POPULATION STATUS OF SOME ALASKAN MARINE MAMMALS, AND IMPLICATIONS FOR MARINE RESOURCE MANAGEMENT

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This paper reviews available data on population status of 12 species of marine mammals that inhabit waters off Alaska. The polar bear population appears stable near carrying capacity (K) after perhaps increasing somewhat during the late 1970's. The Pacific walrus population is at or above K and stable or declining slowly. Sea otters are abundant and increasing in numbers in parts of their range not yet fully occupied. Populations of northern fur seals and Steller sea lions are greatly reduced and the causes for the reductions are unknown. Harbor seal abundance has declined in some areas but comprehensive population assessment work has not been done. A monitoring program for ringed seals has documented large fluctuations in abundance although the population appears large and healthy. There are no recent data on belukha whales or spotted, ribbon, and bearded seals. The bowhead whale population is much larger than previously thought, numbering a minimum of 6,000 animals.

Reasonably complete data bases are available for polar bears, Pacific walrus, and sea otter, and it is likely that their populations can be managed as provided for in the Marine Mammal Protection Act (MMPA). Lack of data probably precludes management of belukha whales and most species of seals. Data for northern fur seals and Steller sea lions are adequate to document, but not to explain their population declines. If these populations are designated "depleted" under terms of the MMPA it will cause major disruptions to fisheries, even though fisheries may not be affecting population status. Improved assessment techniques have shown that the bowhead whale population is not at critically low numbers and that it is, in fact, more numerous than several other large whale stocks.

With few exceptions, it is not possible to evaluate population status of species in terms of optimum sustainable populations as defined by the MMPA. Consideration should be given to alternate methods of specifying appropriate population levels so that integrated marine resource management programs can be implemented in variable and changing ecosystems.

SEVENTH BIENNIAL CONFERENCE ON THE BIOLOGY OF MARINE MAMMALS

A B S T R A C T S

Hosted by The University of Miami

December 5 - 9, 1987
Miami, Florida
USA

Sponsored by
The Society for
Marine Mammalogy