



Pinnipeds

IMPORTANCE

The highest diversity of pinniped species in the world can be found at the Channel Islands. Six species of pinnipeds use the islands to feed and reproduce. In addition to resident harbor seals (*Phoca vitulina richardsi*) and California sea lions (*Zalophus californianus*), the islands have the northernmost populations of Guadalupe fur seals (*Arctocephalus townsendii*) and the southernmost populations of northern fur seals (*Callorhinus ursinus*), who migrate from their foraging grounds in the Bering Sea to the islands where they breed and molt.

Pinnipeds are top level carnivores at the Channel Islands and are sensitive to changes in prey populations, severe weather, pollution, and disturbance. Most species were severely depleted in the past by hunting. Capture for the aquarium trade and persecution by fisherman who believed they were in competition for resources also had an impact until the Marine Mammal Protection Act (1972) was passed. Though these charismatic megafauna are now increasing in population, they will continue to face challenges from climate change, changing prey resources and increasing conflict with humans. Information collected through the pinniped monitoring program will inform park managers about the health and status of pinnipeds at Channel Islands National Park.

OBJECTIVES

- Estimate trends in abundance of California sea lions, northern elephant seals (*Mirounga angustirostris*), harbor seals, and northern fur seals
- Estimate population age structure
- Determine annual reproductive phenology and productivity



Six species of pinnipeds, including the abundant California sea lion, use the Channel Islands to feed and reproduce.



Ground counts of pups occur three times a year to measure recruitment.

MONITORING EFFORTS

Park researchers utilize three techniques to collect data on abundance, age structure, recruitment (pup production), and reproductive phenology:

- Ground counts are made three times a year to measure pup production.
- Oblique aerial photographs taken four times a year are used to determine the number of adults and distribution of rookeries and hauling sites.
- Vertical aerial photographs taken twice a year are used to determine the number and size distributions of pinnipeds on relatively flat, open beaches.

MANAGEMENT IMPLICATIONS

Results from monitoring will be used to:

- determine population health,
- identify critical seasonal use patterns to inform management decisions concerning visitor use,
- improve our understanding of these important and dynamic animals, and
- identify issues necessary to protect the species.

For more information:

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