

THE HEAT IS ON

Species feeling the effects of climate change



California Sea Lion

Zalophus californianus

Region:

West Coast

Area affected:

California

Climatic change:

Warming oceans

Impact:

Diet changes

ABOUT THIS SPECIES

California sea lions are one of our most visible marine mammal species, gathering by the hundreds on beaches and rocky shorelines in California and up and down the West Coast. They are large seals—females reach up to six feet and males over seven feet long—and solid brown in color, sometimes with tan across the front. Sea lions feed on the schools of anchovies, mackerel, sardines and other small fish that abound in areas where currents and wind patterns allow for upwellings of cold, nutrient-rich water. One such area, around the Channel Islands near Santa Barbara, is a key breeding ground for the sea lions. Pups are born from May to July and are weaned after about 10 months.

DESCRIPTION OF IMPACT

In January 2015, sick and starving sea lion pups began stranding in alarming numbers on California's beaches. These pups, born the previous summer, should have still been with their mothers, nursing and fattening up to a weight of 70 pounds or more. **Instead, many were closer to the weight of a newborn (20 pounds), dehydrated and suffering from ulcers and respiratory infections, indicative of stress and malnourishment.** All told, nearly 4,000 sea lion pups stranded in 2015, and above-average pup mortality continued into 2016. The likely cause was a vast "blob" of exceptionally warm waters that played havoc with the food chain off the California coast. Persistent high pressure weakened the winds that normally drive the cold-water upwelling, and the fish that are normally abundant near the sea lions' breeding grounds withdrew to deeper, colder water farther offshore. Female sea lions, in turn, had to abandon their pups for long periods of time and venture much farther afield to forage, leaving the pups undernourished.

References

Milstein, M. 2014. Unusual North Pacific warmth jostles marine food chain. https://www.nwfsc.noaa.gov/news/features/food_chain/

NOAA Fisheries. 2016. 2016 Elevated California Sea Lion Strandings in California. http://www.westcoast.fisheries.noaa.gov/protected_species/marine_mammals/sea_lion_UME.html

NOAA Fisheries. California Sea Lion (*Zalophus californianus*) (species profile). <http://www.fisheries.noaa.gov/pr/species/mammals/sealions/california-sea-lion.html>



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