



The Marine Mammal Center.

The Marine Mammal Center advances global ocean conservation through marine mammal rescue and rehabilitation, scientific research, and education.

Marine Mammal Superpowers

All mammals are warm-blooded, have hair or fur, breath air through lungs, bear live young, and produce milk through mammary glands to nurse young. The ocean environment presents extreme conditions for marine mammals that require extreme, almost superpower-like, adaptations in order to thrive. **Adaptations** are physical or behavioral traits that can be passed to offspring that help an animal survive and reproduce. Dense fur or blubber acts to protect marine mammals from cold temperatures. The otter's ability to use tools, like rocks, to crack open shellfish is a great way to eat foods that others can't access, allowing them to ensure a meal. Below are some other marine mammal adaptations for living in the ocean.



Dense fur or blubber made from a thick layer of fat to keep warm in the ocean.



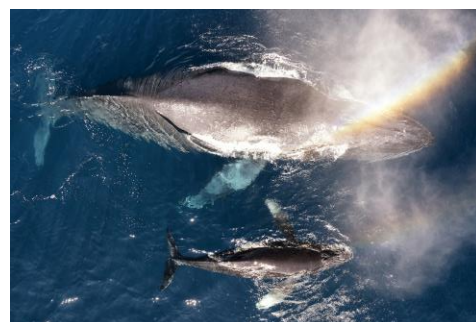
Streamlined bodies and modified appendages (fins or flippers) to swim fast through water.



High levels of hemoglobin and myoglobin store extra oxygen in blood and muscles while diving.



Use sound (**echolocation**) or **vibrissae** (face whiskers) to navigate through water with limited visibility.



Exhale prior to diving to tolerate pressure changes by removing air from their body.



Find some adaptations: Look around you and explore. Can you find all these adaptations? How does this behavior or physical trait help the plant or animal to survive?

Something that flies	Something that swims	Something that blends in	Something that walks	Something that crawls
Something with claws	Something with a beak	Something with hooves	Something with leaves	Something with eyes
Something that smells good	Something that is colorful	Free Space!	Something that has thorns	Something that is fast
Something with paws	Something with hands	Something with flowers	Something with ears	Something with whiskers
Something tall	Something with a nose	Something with scales	Something with fur	Something short

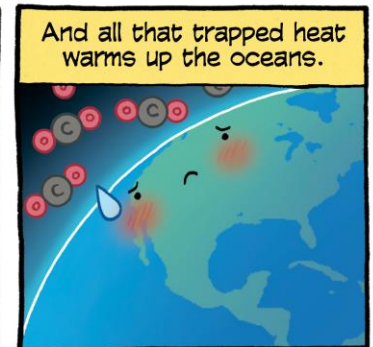
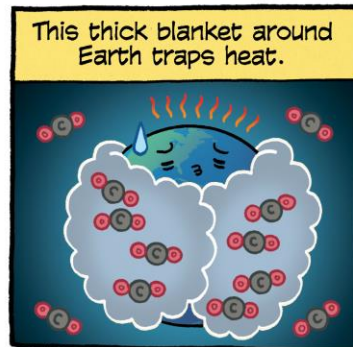
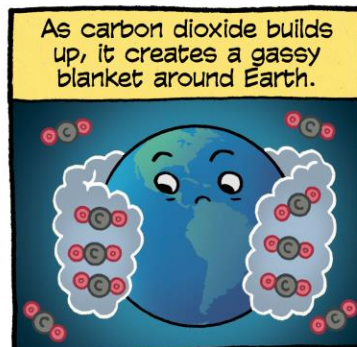
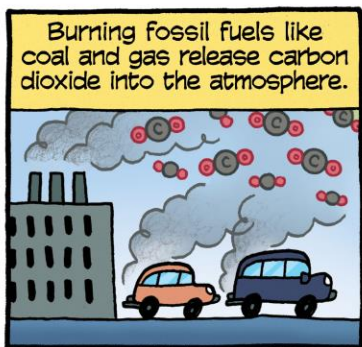


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How Climate Change affects our Super Seals

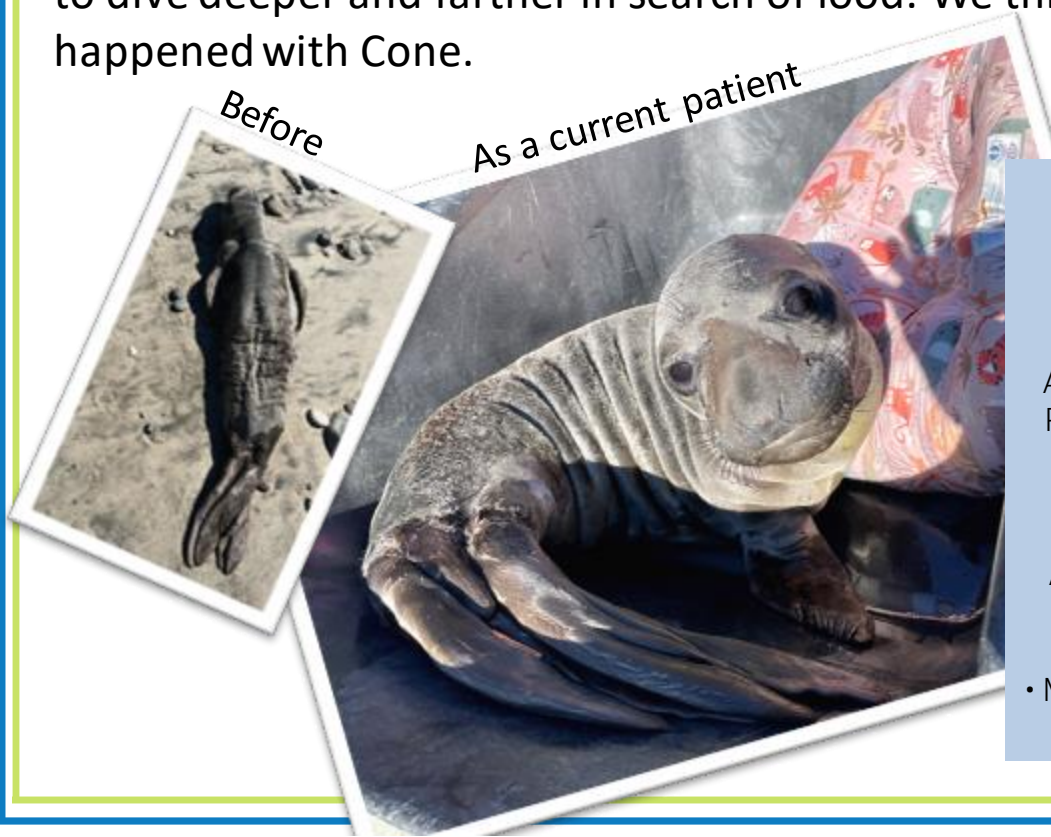
Just as humans have preferred temperature ranges, so do many of the animals that call the ocean home. While marine mammals have been shown to be quite resilient to changing ocean conditions, the food that seals depend on has been shown to change locations due to warming water, typically travelling deeper and further offshore to find colder water.



This extra distance means that sea lions must spend more energy hunting than before. This can result in sick seals on the beach as mothers leave their pups early due to the more difficult foraging environment, and pups struggle to dive deeper and farther in search of food. We think this might be what happened with Cone.

Before

As a current patient



Meet Cone

Northern Elephant Seal

Male Pup

Rescue Location:
Ano Nuevo Bay (Ano Nuevo State Reserve) - Pescadero, San Mateo

Admit date: 2/16/2022

Admit Weight = 28 kgs (61.7 lbs)

In treatment for:
• Malnutrition



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You can make a difference!

The Climate changing not only affects seals, but affects how effective each of the adaptations from activity is with helping the organism to survive. Earth is nearing a tipping point, but it has not passed that point yet. It's important that we make a commitment to act quickly to give ecosystems a fighting chance. Carbon dioxide and methane linger in the atmosphere for extended periods of time, so we must take action now to prevent future changes.

LESS MEAT=LESS HEAT



**Join the global Meatless Monday movement.
It's a simple step to help cool the planet.**

Become an ocean hero:

Rethink your meals! From the energy it takes to produce the food, to how it gets to our plates, what we eat can have a big climate impact. Eat lower on the food chain – skipping just one meat dish a week is the equivalent of driving 1,100 miles less each year. Explore how you can support seals on our [website](#).