

Diet

Harbor seals and sea lions are predators. Seals and sea lions use their sensitive whisker-like vibrissae to find their prey; they use back molars to crush shells and crustaceans. The prey is then swallowed whole or torn into chunks. The diets of seals and sea lions vary depending on the food supply. Seals hunt 10-18 lb. of squid, crustaceans, mollusks, and a variety of fish, and sea lions eat 15-40 lbs. of over 50 species of fishes and cephalopods every day. Both seals and sea lions generally obtain enough water from their food. However, when food intake is decreased, their metabolism breaks down stored fat and produces water.

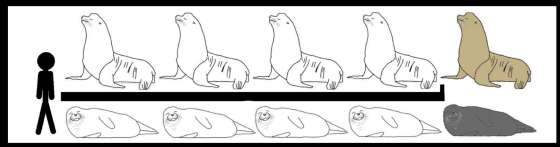
Seals



Children's Pool

Harbor seals have long inhabited the Children's Pool and can often be seen on the sand, especially early in the morning when few or no people are present. Unfortunately, due to uninformed or ignorant visitors, the Children's Pool (Casa Beach) is closed from December 15 to May 15 to protect the newly-born seal pups, when it is crucial that there are no disturbances. There has been a constant debate between environmentalists and visitors about the seals. Seals are protected by the Marine Mammal Act and flushing is illegal. Since the beach has been set to close each pupping season, no seals have been spooked by the visitors. During the times the beach is open, a yellow rope is in place to protect the wildlife.

Stay at least 20 feet (about 4 seals or sea lions) away from the nearest seal or sea lion



La Jolla Cove

La Jolla Cove is open year-round. Its inhabitants are California sea lions and their pups. It is a great place to watch and photograph the sea lions. Sea lions are generally harder to scare, but people must take precaution to stay far away for the safety of both species. A minimum length of three adult sea lions should be between you and the closest sea lions at all times. If a seal or sea lion looks up or moves near you, back away even more to make sure you are not disturbing it. If you spend enough time watching seals and sea lions, you can learn their body language and the warning signals they give when disturbed.

Create a Nature Journal

Creating a nature journal allows deeper connections with nature and more in-depth observations. Observe seals and sea lions carefully to learn more about them and make new discoveries. Notice the number of seals and sea lions in the area. To start, answer these questions about their behaviors: Where are they? What are they doing? How do they move? Record the information in a journal. Write down the date, time, and location of your observations. Write notes and describe the behavior and surrounding habitat. Draw simple sketches of what you see, e.g., a simple outline or description of the animal's movement. Ask your own questions. Maybe there are no answers to them, but one can make experiments to try to find explanations or be left in wonder of nature. Ask questions about the behaviors and write them down. Make guesses that may explain the behaviors. Here is an example: Why do the sea lions have so many different sleeping positions? What behavior indicators occur before the seal or sea lion is spooked by people? Which spots do the seals and sea lions prefer for sleeping?

If you see a sick or injured marine mammal, call the Seaworld Marine Mammal Rescue at (800) 541-SEAL. Make sure not to touch or come close to the animal as this can cause unnecessary stress to it.

The Seals and Sea Lions of San Diego County



California sea lions belong to the Otariidae, or sea lion family group, which is believed to descend from a terrestrial bear-like ancestor. Sea lions, also called "eared" seals, have a visible external ear flap, unlike harbor seals. Harbor seals belong to the Phocidae, or true seal family, that is thought to descend from a terrestrial weasel-like ancestor. Seals have no visible external ear flap and are known as "earless." Harbor seals will never be seen piled over one another. Unlike sea lions, they take extra precaution to stay away from each other and never touch. Moms and their pups are the only ones who may be seen nuzzling noses.

"Animal Rescue & Rehabilitation Program." SeaWorld Parks & Entertainment, seaworld.org/animals/all-about/rescue-and-rehab/.

"Harbor Seal." SeaWorld Parks & Entertainment, seaworld.org/animals/all-about/harbor-seal/.

"The La Jolla Cove Seals: 8 Things You Need to Know Before Visiting." LaJolla.com, 15 Sept. 2019. www.lajolla.com/article/la-jolla-cove-seals-8-things-need-know-before-visiting/.

"Preserving a Unique Natural Treasure." Seal Conservancy, sealconservancy.org/.

"Seals and Sea Lions, What Is the Difference?" National Parks Service, U.S. Department of the Interior, www.nps.gov/redw/learn/nature/true-seals-versus-fur-seals-and-sea-lions.htm.

Tremor, Scott, et al. San Diego County Mammal Atlas. San Diego Natural History Museum, 2017.

For more printable information pamphlets about San Diego's nature, visit www.wildsandiego.org/



Seals or Sea Lions?

The hind flippers of sea lions are capable of rotating toward the front of the body. They are often used to walk or gallop on land. Harbor seals' hind flippers extend directly behind their bodies, unable to rotate. On land, seals flop forward with caterpillar-like hitching movements called galumphing.



Harbor Seals
(*Phoca vitulina*)



California Sea Lions
(*Zalophus californianus*)



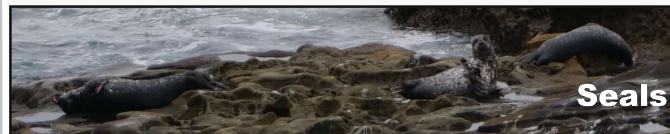
Adaptations

California sea lions and harbor seals spend much of their time swimming. Harbor seals move their hind flippers from side to side to reach speeds up to 12 mph.

Meanwhile, sea lions move their foreflippers in wing-like strokes as they “fly” slightly faster than seals. Both species are incredibly agile swimmers.

Most of the harbor seal's and California sea lion's food lives in shallow waters, so they usually aren't required to dive very deep. When California sea lions dive, they can remain submerged up to 10 minutes. Two-day-old harbor seal pups are already capable of submerging for up to two minutes, and the adults can dive for up to 30 minutes.

Like all marine mammals, sea lions and seals have special adaptations for diving. First of all, their heart rate slows considerably, seal's lowering down to four to six beats per minute. Secondly, both have a higher blood volume with greater oxygen-binding capacity than non-diving animals. When diving, oxygen is stored in the blood and muscle tissues, not the lungs, which are emptied. The muscles of sea lions and harbor seals have 10 times as much of the oxygen-binding protein myoglobin as humans. Myoglobin stores oxygen and prevents muscle oxygen deficiency. California sea lions sleep on land or in the water. In the water, they can float on the surface with only their head exposed, bottling. On land, California sea lions can be seen with all four flippers tucked under their body. They commonly rest and sleep upright with their heads thrown back. Seals usually sleep laying down on their sides. Heat loss in water is about 27 times faster than in air, so seals and sea lions must have thick blubber to keep them warm. Most of their body fat is stored in the blubber layer as an excess energy reserve, which also functions to insulate and streamline their bodies'. The energy reserve is especially important for male sea lions because they fast during the breeding season. Sea lions and seals regulate their body temperature by lifting and exposing one or more flippers. Their blood vessels just under the skin dilate and absorb or release heat to the environment. To prevent heat from escaping through the flippers, seals and sea lions hold them close to their bodies.



Seals



Sea Lions

Pups



Sea Lions

Females usually give birth to one pup each year at a rookery, two rookeries are located in La Jolla.

California sea lion pups are born on land, mostly in June, and harbor seal pupping season is between February 8 and March 8 at the Children's Pool. Pupping usually lasts up to an hour and pups are born dark chocolate brown to black with open eyes. A strong mother-pup bond is established in California sea lions with vocal interaction soon after pupping. During the first few days, sea lion mothers are quite aggressive, performing open-mouth threats to other females.

Harbor seal mothers leave their pups during the nursing period to forage at sea. Their pups nurse both on land and in the water. A pup nurses every three to four hours for four to six weeks. The female is an attentive parent during the nursing period and allows the pup to ride on her back, nip at her flippers, and chase her through the water.

When a mother returns to the rookery she recognizes her own pups by vocalizations and smell. Sea lion pups begin to group together at two to three weeks of age to develop vocal, social, and swimming skills. These social groups break up by the end of the breeding season when the adults leave the rookery. As the pup grows, the mother leaves for progressively longer foraging trips, although nursing normally continues for six to twelve months. Pups begin eating fish at about two months and undergo two molts before they stop nursing. Unlike California sea lion mothers, who continue communication with their young, after a mother harbor seal's pup is weaned, she shows no interest in the pup. Her pup learns to catch and eat shrimp and bottom-dwelling crustaceans after it is weaned, and later, it learns to catch fish.