

LINCOLN PARK ZOO
EDUCATION DEPARTMENT

Seal and Sea Lion Talk (Kovler Sea Lion Pool)

Station: Kovler Sea Lion Pool

Introduction: Welcome to the Kovler Sea Lion Pool which reopened Memorial Day weekend, 1999, after extensive renovations. This has been a favorite spot for visitors not only to see the animals but also as a meeting place and as a great place to learn about marine mammals. For our return visitors, you will notice the color of the water has changed from the light blue reminiscent of a swimming pool. The pool surface is now a reddish brown giving the water a more natural appearance.

Before we begin our talk, we ask that you not throw anything into the pool as the animals could be seriously harmed if they eat any foreign objects.

Key Ideas

Things to Point Out

Seals/Sea Lions are mammals

All seals and sea lions are mammals just like humans. Their bodies are covered with short hair that looks slick when wet.

They are warm-blooded which means they generate their own body heat internally. The food they eat provides energy to create this heat – just like the food we eat.

The babies of these animals drink milk from their mother's mammary glands. All of these animals give birth to one baby called a "pup". Female seals are called cows and male seals are called bulls. Seals and sea lions must come ashore to give birth and nurture their young – this activity is called "hauling out". Mothers identify their young by scent and by vocalizations.

Seals/Sea Lions are specially adapted to life in the water

Look closely at the animals. What do you see that would make them suited for life in the water?

All of them have long, streamlined, torpedo-shaped bodies that help them glide through water.

They all have 4 flippers that propel them through the water. Animals that have flippers instead of feet are called *pinnipeds*.

They also have a thick layer of fat or blubber under their skin which keeps them warm in cold water or if lying on snow or ice. Most seals and sea lions live in cold climates.

Like all mammals, seals and sea lions breathe air with their lungs and need to come to the water's surface for oxygen. But what happens when they are underwater? All *pinnipeds* have special muscles that close the nostrils when the animals are underwater. Can you think of another animal that can do this? (otters) Some seals can stay underwater for more than 20 minutes before coming to the surface for air.

Pinnipeds have long whiskers on their faces that help them "feel around" in dark, murky water and to detect fish through vibrations. What other kinds of animals have long whiskers? (cats)

Seals and sea lions have large eyes that are adapted to low light. Also, light reflects through their eyes a second time. They can see very well in deep ocean waters. Can they see color? No.

What do seals eat?

All of these animals are carnivores which means that they all eat some kind of meat. Seals and sea lions eat fish and shellfish that are found in the waters in which they live.

In icy waters, seals might have to swim around under the ice for a long time to find food. Eventually they will have to find a hole in the ice so they can get some air. When ice forms over the hole, the seals dig it out with their teeth and with claws found at the ends of their flippers.

At Lincoln Park Zoo, they are fed an assortment of herring, capelin and mackerel. The animals eat between 6-10 pounds of fish in the summer and 8-15 pounds in the winter.

Target training and enrichment

Here at the zoo, animal keepers work with the seals to target train them. This training is called "operant conditioning". At feeding time the keepers hold targets over the water and if the animals touch the target with their nose, the keepers sound a whistle or clicker (called a bridge) and give the seal a fish. The fish

is the positive reinforcement, or reward, for the behavior of touching the target. During training sessions, the animals are not fed if they do not touch the target. This type of training allows the keepers and vets to get close to the animals to see if they are healthy and behaving normally or for performing a medical procedure without taking them out of the pool. An example: to collect a blood sample from a flipper.

This training also provides mental stimulation and gives some variety to the daily activities of the animals. It also allows the visitor a better understanding of the animal's natural abilities and intelligence. The animals make the decision whether or not to touch the targets.

The Sea Lion Pool is home for these animals

Our newly renovated Kovler Sea Lion Pool, for the first time in LPZ history, has an on-site building dedicated to the care of marine mammals (located behind me at the east end of the pool). The building houses:

- a small kitchen for food storage and preparation
- a holding area to care for sick animals or for animals in quarantine
- an 8,500 gallon pool for off-exhibit animals
- space to separate animals for one on one training
- scale to weigh animals

How is this different from the old pool? Before, in order to treat animals, the pool had to be completely drained; a crane lifted the animal into a crate which was then transported to the Large Mammal area. This was very invasive and stressful to the animal.

The new main pool, about 8 feet deep, holds 200,00 gallons (3,930 square feet) of saltwater with slight chlorination. In fact, the water is saturated with 23 tons of salt! The water circulates every 90 minutes -that means that the flow rate of the water is 2,200 gallons of water per minute through a sophisticated filtration system. Surface cleaning can be done with a pool vacuum system manually operated from the pool edge. The pool should not have to be drained for cleaning.

The water is heated in the winter to keep the pipes from freezing. Temperature is maintained at about 45 degrees.

How does this differ from the old pool?

The water volume of the new pool is about a 14% increase over the volume of the old pool at 175,00 gallons. The water also was freshwater before. Since these are ocean, saltwater animals it is more natural for them to live in saltwater than in freshwater.

The artificial rockwork, which was prefabricated in Minnesota and delivered to LPZ, provides more beaching area for the animals. You may notice that Brown Pelicans are also keeping company with our seals. The rockwork was connected on-site and hand finished to make it look as natural as possible.

Our animals can also be viewed from the underwater viewing areas. This will give you an opportunity to see how these animals move through the water using their flippers. **Our current underwater viewing area is 3 ½ times the size as before – an increase from 75 square feet to 340 square feet.**

Do you know?

How sea lions got their name? Adult males develop a hairy mane around their heads just like male lions.

A group of pinnipeds on land is called a rookery; when in water, it is called a herd. What other animals are referred to by these names? (birds, cattle or horses)

Pinnipeds are very intelligent animals. For example, they are famous for being able to balance objects, like a ball, on their noses.

Seals can spend days in the water without going on land. They can even sleep in the water. In deep water, they often float upright with just the tips of their noses above the water.

Seals do not have tear ducts that normally remove tears, so sometimes they look like they are crying.

Only sea lions “bark” to communicate with one another. True seals cry, moan or growl.

Our collection We have 3 species or kinds of marine mammals here: Gray Seals, Harbor Seals and California Sea Lions.
Can you see the differences and similarities among these animals using the following information?

	Gray Seals	Harbor Seals	Sea Lions
Color:	Dark and light gray Dark and light brown	Pale to dark gray	Dark chestnut brown
Weight:	up to 730 pounds-males up to 375 pounds-females	up to 250 pounds-males up to 190 pounds-females	well over 700 pounds-males up to 200 pounds
Length:	up to 7 ½ feet-males up to 6 ½ feet-females	over 5 feet-males about 5 feet-females	over 7 feet-males about 6 feet-females
Flippers:	<front flippers used like feet on land. In water, rear> flippers do the propelling while the front ones steer		both pair of flippers more well-developed and used to walk on land-in water, front flippers used to swim, rear ones used to steer
Diving:	Some species of seals can dive to about 330 feet.		Sea lions dive up to 240 feet.
Ears:	<Seals do not have ear flaps>		Sea lions have tiny ear flaps on the sides of head
Range:	Shores of Nova Scotia and New England, Atlantic Ocean and also the Baltic Sea (Scandinavia)	Northern Atlantic Ocean <u>and</u> Pacific Ocean regions south to Baja California and Japan in the Pacific	West coast of North America, Pacific Ocean
Habitat:	Sub-arctic and temperate waters and shoreline	Ocean shorelines	Coastal areas
Predators	Killer whales, sharks, man	Whales, polar bears, man	Killer whales, sharks, man

