

Meet the Pinnipeds



Updated April 22, 2026

For more details, please read the *Adventure Cove Volunteer Guide* on the portal.

<p>Sea lions Ayla (F) 06/22/2000 Baby (F) 06/11/2006 Columbia (F) 07/26/2015 Lennie (F) 06/17/2021 Nana (M) 06/04/2006 Qizai (M) 06/06/2006 Sunshine (F) 06/25/2020</p>	<p>Harbor seals Ferris (F) 7/1/17 – no tag Keaton (M) 4/21/17 – no tag Sloane (F) 5/1/17 purple (tag looks pink)</p>
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Pinnipeds: “Pinna” (latin – fin, flap, wing) and “pedis” (latin – foot). The group of marine mammals consisting of seals, sea lions and walruses. There are 33 existing species.

Comparisons	Seal	Sea Lion
Family	Phocidae (earless or true seals)	Otariidae (eared seals)
Descendants	Terrestrial weasel-like	Bear-like
Physical Characteristics	<p>Lack ear flaps.</p> <p>Front flippers are shorter/stumpy, fur covered and have longer claws/nails.</p> <p>Hind flippers point out and away (backwards) from their body, cannot rotate under pelvis and do not bear weight.</p>	<p>Visible ear flap or hood.</p> <p>Front flippers are elongated, skin covered, and have shorter claws/nails.</p> <p>Hind flippers are longer, can be rotated under the pelvis for walking and can bear weight of the animal.</p>
Locomotion	<p>On land: Moves in ‘worm like” undulations or scoots across land.</p> <p>In water: Alternate moving back flippers for propulsion.</p>	<p>On land: Pelvis can rotate under to support body and walks on hind flippers, much better suited for locomotion on land.</p> <p>In water: Use elongated front flippers to help propel them through the water.</p>

Behavior	<p>More solitary, spend most of their time alone in the water, only coming ashore to mate.</p> <p>Less vocal, more grunt-like noises or snorts.</p> <p>Relies more on vibrissae (whiskers) to detect prey.</p>	<p>Very social, can gather in groups called rafts or herds of up to 1,500 animals.</p> <p>A group of sea lions floating together on the ocean surface is called a “raft.” On land they would be a colony.</p> <p>Very vocal, often barking to communicate and establish territories.</p>
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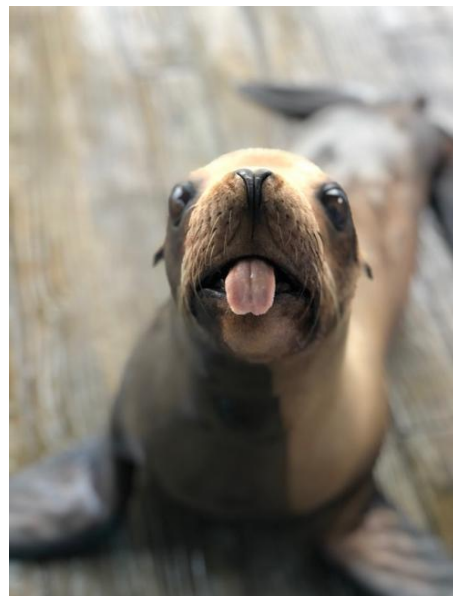
Sea lion and harbor seal photos below are courtesy of Camryn McCullers & Elli Earl. Photos appear below animal’s description.

Meet the Sea Lions

(The color descriptions provided are of wet sea lions)

Ayla (F) 06/22/2000

- Born Oceans of Fun, Inc. Wisconsin.
- Largest female.
- Deep vocalization.
- Mole looking protrusion above her right eye.
- Face slopes down.
- Nose appears to point upward.
- Some scarring (white-ish coloration) on her eyes. This is normal in animals that have had cataract surgery.



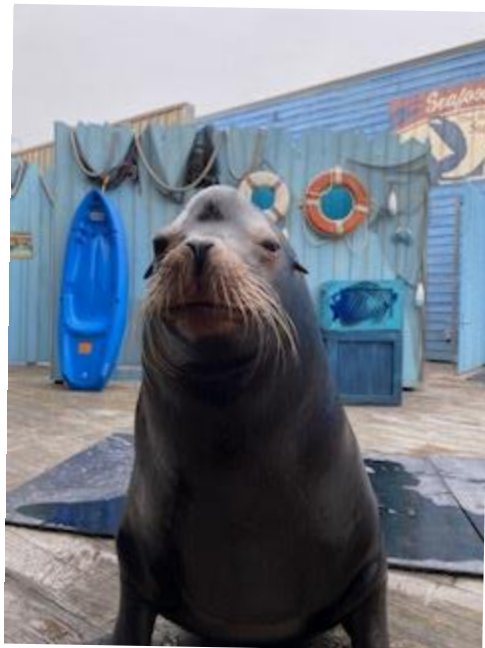
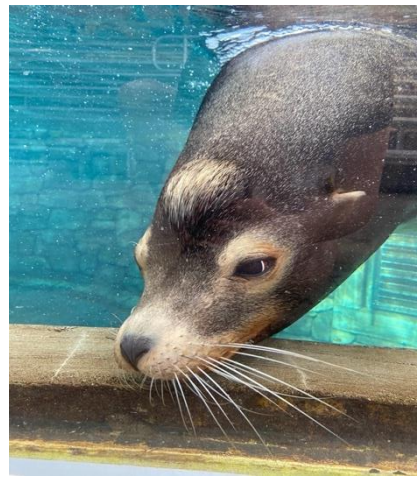
Baby (F) 06/22/2006

- Born Zoologischer Garten Basel AG (Basel, Switzerland)
- Large female.
- Baby is a twin which is very rare. Her brother's name is Darwin (whereabouts unknown).
- Mother of Banana and Norval.
- Slope of muzzle is less dramatic than Ayla's.
- Longer whiskers than Ayla's.
- Slightly lighter brown than other females.
- Often seen resting in the water column or at the surface of the water.



Nana (M) 6/4/2006

- Heaviest male.
- Pronounced “nah – nah.”
- Born Wilhelma Zoo (Germany).
- Very vocal.
- Believed to be the sire of Banana. No testing has been done, but he was the only male observed breeding Baby.
- Color varies drastically throughout the year, but he typically looks more of a gray/brown than the other males.
- Extra blonde “toupee” on the top of the head.
- Long whiskers.



Qizai (M) 6/6/2006

- Pronounced “chitz-eye.” Means “7th son of a 7th son” and refers to a Chinese legend about good luck.
- Born Wilhelma Zoo (Germany).
- Spends a lot of time resting on the bottom of the outdoor habitats.
- Lots of indentations/scars (unknown origin) on his body.
- Bug/bulgy eyes. Residual scarring is visible on both eyes. This is normal for animals that have had cataract surgery. Qizai has also had a Gunderson flap procedure done on both eyes.
- Slightly darker in color than Nana.
- Lower back mobility issues. Paresis in hind flippers.



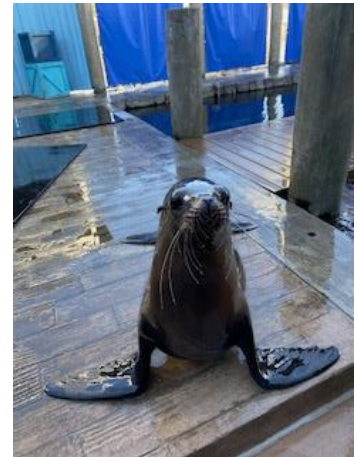
Columbia (F) 7/26/2015

- Born SeaWorld Orlando.
- Dark spots on chest sometimes noticeable.
- No longer has tag on rear left flipper.



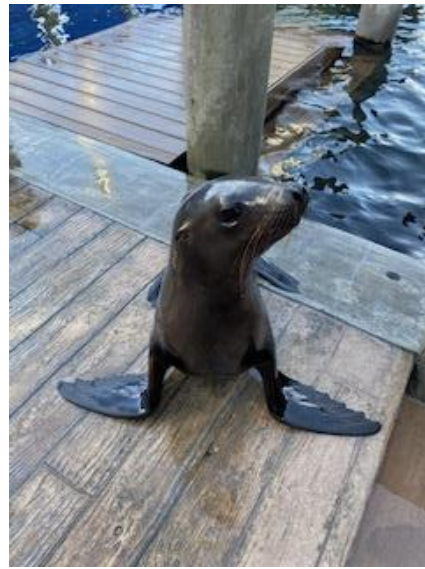
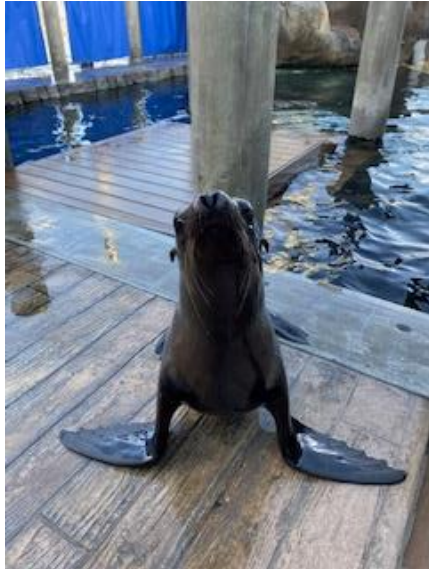
Sunshine (F) 6/25/2020

- Born at Adventure Cove. Sister to Lennie.
- Interacts with public.
- Very interested in enrichment and her environment.



Lennie (F) 6/17/2021

- Born at Adventure Cove. Sister to Sunshine.
- Mother is Lovell (now at another facility).
- Youngest animal in our population.
- Really interested in enrichment and her environment.



Zoo diet:

We serve 2 different kinds of fish and 1 invertebrate:

1. **Atlantic Herring:** Very high in calories/fatty acids. Typically caught and flash frozen in Canada
2. **Capelin:** Less caloric than herring but more caloric than squid. High water content. Sourced in Canada.
3. **Squid:** Fewer calories, but highest amount of water content. Sourced in Canada.

Diets are individualized for each animal. How much they eat varies based on age, gender, time of year, body mass and behavior. **A large adult male will consume an average of 25 lbs. of food per day while a female will consume an average of 13 lbs. of food per day.**

Sea Lions receive all of the water they need from the fish they eat (they do not “drink” water). However, because the fish that we provide the animals is flash frozen when it is caught, it naturally loses some of its water content. **To supplement for this dehydration, we teach the animals to eat unflavored, no additive gelatin or “Jello.”** This is an easy way to provide extra hydration to our animals. Jello is also beneficial because it can become a secondary reinforcer and can help us extend the length of our training sessions.

Our sea lions receive a daily Mazuri multivitamin based on the weight, specified for marine mammals. They also receive a daily Vitamin E gel cap supplement.

Median Life Expectancy (MLE): 25-30 years in human care.

Use fore flippers to swim. Short bursts of speed up to 25 mph in the water, **cruising speed 6-10 mph**. Hind flippers controlled independently allowing mobility on land.

A typical dive is 50-200 ft. for a duration of about three minutes. Adaptations enable sea lions to dive to depths of 1,000 feet for over 10 minutes due to:

1. Substantially slowing their heart rate while diving.
2. Higher blood volumes than other diving mammals to allow for greater oxygen binding capacity.
3. Muscles have a very high myoglobin (oxygen binding protein) content to help prevent oxygen deficiency.

California sea lions are among the most vocal of all mammals and they use barks, grunts and growls as means of communication between each other. They can hear both above and below the water.

Thick blubber layer aids in insulation, floatation and for males can serve as an energy reserve during breeding season.

Thermo-regulate through their pectoral flippers; **will often see their flippers extended straight up in the air for heat exchange while the animal is in the water.**

Average Size: Sexually dimorphic. **Males have a protruding sagittal crest** (bony plate that protrudes from the base of the skull) usually topped with white fur on top of their head at full maturity. **Full-grown males average around 7-8ft long and weigh 600-700 lbs. with a large fluctuation in weight during breeding season. Full-grown females average around 5-6ft long and weigh 200-220 lbs.**

Males are usually darker brown with a lighter belly and side coloring. Females are tan. Pups are born blackish-brown then molt to a light brown after one month. Molt again at 4 – 5 months to adult coat.

Reproduction/Gestation: Sea lions typically reach sexual maturity between 4 and 5 years of age.

Vision: can see both above and below the surface. All pinnipeds have a membrane at the back of each eye called a tapetum lucidum to aid in night vision. Cats also have a tapetum lucidum, which is why the eyes of both cats and sea lions glow at night. On land, their eyes are protected by a nictitating membrane, which wipes away sand and debris.

Sea lion eyes are very sensitive to changes in light intensities, and in water can adapt easily to low-light environments. We believe sea lions can discriminate color in the blue-green spectrum.

Enrichment: The design of the sea lion habitat itself provides enrichment in the form of underwater viewing (the sea lions will see movement underwater as people move through the tunnel), training sessions and programming throughout the day, treats, buoys, water hose, fire hose, Frisbees, Kong toys, etc.

Meet the Harbor Seals

Home Range: Range widely in coastal areas of the north Pacific, north Atlantic, Baltic, and north Seas. Five subspecies are recognized, based principally on geographic distribution (Eastern Atlantic common seal, Western Atlantic common seal, Eastern Pacific common seal, Kuril/Insular seal, and Ungava seal). It is the most widely distributed species of any pinniped. They can be found anywhere from cool, temperate waters to cold, arctic and subarctic waters.

Zoo diet: Same as sea lions.

Median Life Expectancy (MLE): Males 20-25 years, females 30-35 years. Females typically outlive males.

Additional Info: Also known as the “common seal.”

Harbor seal coloration can vary greatly from white or light gray with dark spots to dark brownish black with light spots, depending on where in their range they are found.

Unlike most other pinnipeds, harbor seals are primarily solitary animals, but are gregarious when hauled out and during the breeding season.

Least vocal of all pinnipeds.

Typically dive to depths of 30-500 feet, but capable of 1,500 ft. dives. Dives typically last a few minutes, but longest recorded dive lasted 31 minutes.

Have a higher metabolic rate than other mammals of comparable size, which allows them to generate heat to keep warm (typically about 1 degree warmer than the surrounding water temperature). A thick, insulating blubber layer helps them maintain their body temperature as well as provides a nutrient reserve for fasting periods. In winter months, blubber layer can account for up to 30% of a harbor seal's body mass. Can also shunt blood vessels in their extremities and skin to conserve heat at their core.

Average Size: Adult males may be slightly larger than females. **Males max out at 6'3" and 370 lbs. Females max out at 5'7" and 290 lbs.**

Reproductions/Gestation: Although their mating system is still debated among scientists, most agree that they appear to be primarily monogamous; males generally mate with one or a few females during a season. Males may fight for females both in the water and on land, but courtship and mating occur underwater.

After a nine-month gestation, females give birth to one pup (averaging around 25-30lbs) in the spring or summer, which they care for alone. Mothers will often group together to form nurseries to protect their young from predators.

Mothers nurse their pups for three to four weeks, then abruptly wean and abandon them. The mother's milk may contain as much as 45% milk fat and enables the pup to more than double its weight by the end of the weaning process.

Harbor seal pups are able to swim and dive within minutes of birth, a rare trait compared to other pinniped species. In the water, they often ride on their mother's backs by holding on with their fore flippers, and can dive for 2-minute increments at just 2-3 days old.

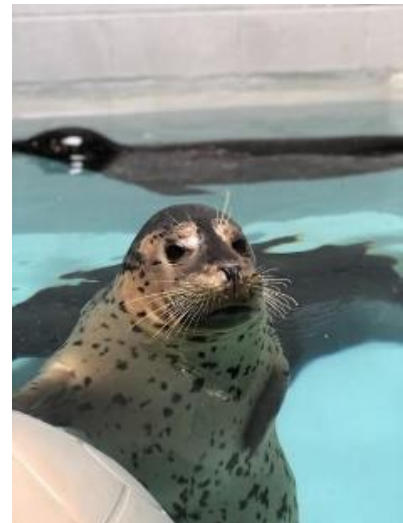
All of our harbor seals were born at Sea World in Orlando.



Sloane (F)
DOB: 05/01/2017
Purple tag (looks pink)



Ferris (F)
DOB: 07/01/2017
No tag



Keaton (M)
DOB: 04/21/2017
Green tag

Adventure Cove Tunnel

1. Made in Grand Junction, CO.
 - a. Same facility that built our “J” window in Polar Frontier.
2. 60 feet long (20 of the 60 feet have 360-degree viewing).
3. 59,512 pounds of acrylic (largest amount of acrylic in any of our habitats).
 - a. Vertical panels down the walkways are 5” thick.
 - b. The walls of the tunnel are 7” thick.
 - c. The floor is 8” thick.
 - d. Divers clean the acrylic.
4. Water depth:
 - a. Above the tunnel: 6 inches at the end of the tunnel nearest the upper deck viewing structure and 24 inches at the deepest part (middle of the tunnel).
 - b. Below the tunnel: 48 inches.
5. Roof - flat so the animals can haul out onto it, slightly sloped so fecal matter will slide off.
6. Underground ductwork conditions the space for both heating and cooling.
 - a. \$3.3 million cost.

Adventure Cove Pools

Eight pools contain almost 350,000 gallons of water.

1. Demonstration Pool (in front of stage).
 - a. Average depth is 10 feet.
 - b. 40,000 gallons.
2. Central Pool (middle pool/overlook).
 - a. Contains tunnel.
 - b. Average depth is 14 feet.
 - c. 155,000 gallons.
3. North Pool (near Auntie Anne’s Pretzel shop).
 - a. Average depth is 5 feet.
 - b. 129,600 gallons.

Underwater tunnels allow the animals to transfer between pools. The tunnels can be closed.

Rock formations have been placed throughout all the outdoor pools to provide haul out locations and enhanced viewing opportunities.

4. – 7. Holding Pools A, B, D & E
 - a. Behind the scenes.
 - b. 3,651 gallons in each pool.
8. Holding Pool C
 - a. Behind the scenes.
 - b. 8,079 gallons (large size allows the sea lions to socialize).

The Zoo's Life Support System team manages all aspects of Adventure Cove's animal habitat water quality including maintaining water temperature between 55 & 60 degrees, an ideal pH range between 7.5 – 7.6 and salinity of 25 – 30 ppm.

Common guest questions at Adventure Cove

1. **Can the animals swim from one pool to another?** Underwater gates can be opened to make the Lighthouse Theater Pool, Central Pool and North Pool become one large pool. The gates are typically closed, especially during the summer and breeding season because all the males cannot be in the same pool. We are one of the only facilities in the world to have multiple intact males living together with females in a breeding group. This same group also is involved in presentations and special interactions.
2. **Was that a green, wiggly fish the sea lion just ate?** Trainers sometime toss the animals unflavored, unsweetened gelatin cubes to augment their water intake. Training them to eat gelatin is one more option to hydrate the animals if needed. It's not rare that older animals will need extra hydration, so our pinniped team is prepared for that possibility if we encounter it in the future. Trainers feed the animals previously frozen fish. When fish are frozen, they lose some of the water the sea lions might need, so the trainers supplement the fish with Jello.
3. **Do the seals and sea lions have access to the indoors at all times?** The animals have access to the back at various times of year and various times of day, with the weather being a factor. Their wellbeing is the top priority, meaning sometimes the animals choose to be inside when given the option.
4. **Are there babies?** Two sea lion pups, Sunshine and Norval, were born in June 2020. Lennie was born June 17, 2021.
5. **Can the animals do tricks in shows?** If a guest uses the word "trick," please have the volunteers make a point of noting that they are "behaviors," not "tricks." I always say "tricks are for magic shows! Our trainers work with our animals to teach them behaviors that help us to take care of them, and to promote mental stimulation."
6. **Are the sea lions fighting?** In the summer, male sea lions enter rut. You will see them gain weight, vocalize more often and more loudly, and spar with each other for dominance. Trainers watch closely using surveillance cameras to address any big fights among animals. Volunteers also watch and inform trainers of any concerns. We want to keep natural behaviors like dominance, but not have injured animals. When the younger animals and sub-adults are playing with their mouths open and nipping at flippers, this may appear to be fighting, but they are really just playing and honing their skills in getting ready for adulthood.

7. **How cold is the water?** Between 55-60 degrees Fahrenheit in the winter. The temperature is regulated during the summer to a maximum of 80 degrees.
8. **How long can they hold their breath?** About 3 minutes for a typical dive. In the wild, sea lions can hold their breath for about 10 minutes when they are hunting and need to stay longer underwater to eat a maximum of fish.
9. **How much water is above and below the tunnel?** Water depth is as little as 6 inches above the tunnel in some areas and 4 feet of water below the tunnel.
10. **Is it OK for the sea lion to be jumping on the window?** If a sea lion jumps up on the window of the North Pool, this is just part of the sea lion's exploring the habitat and not a concern.
11. **Why is the harbor seal making those sounds?** If you see a harbor seal (Keaton) blowing air, snorting or coughing, rolling on his side and slapping the water with his back flippers, this behavior is a sign of rut in harbor seals. He is vocalizing to keep his females next to him and keep males away. Seals are usually vocal only during breeding season, or at least more vocal during breeding season.
12. **Why do the animals sometimes swim upside down?** There are a few potential reasons, though we don't know for sure. When they swim on their back, they can relax their spine. This is similar to us when we float on our back in the water. In the wild, most predators of a sea lion or seal would hunt from below them in the water column. Swimming upside down enables them to focus their eyes downward and hopefully evade any predators while they are swimming or resting. While our pinnipeds don't have predators here at the zoo, we still see them swim upside down, which suggests this is a behavior that is very natural for them. It can indicate that they feel comfortable enough to rest underwater, which shows that they feel relaxed with all the animals in their social group.
13. **Can we play with the animals?** The sea lions born at the zoo especially are accustomed to enrichment and engage with guests. They know they will not be rewarded with fish by guests and can swim away whenever they choose.