



Angelica, female elephant seal

Elephant seal

Mirounga angustirostris

Taxonomy

Kingdom:	Animalia	Anima = soul, spirit
Phylum:	Chordata	Chord = a string, musical instrument. Chordata = having a notocord or “back-string”.
Class:	mammalia	Mamm = breast, pap, teats
Order:	Carnivora	Carn = flesh
Suborder:	Pinnipedia	Pinna (penna) = a wing, also a feather. Ped = a foot
Family:	Phocidae	“Phocids” are also known as “true seals”
Genus:	Mirounga	
Species:	angustirostris	Latin term angustus = “narrow” Latin term rostrum “ = snout”

Range	Restricted to northeast Pacific ocean. Historical distribution and abundance are poorly known. During non-breeding seasons, range along the coast of Oregon, Washington and British Columbia. Also found in the Gulf of Alaska and eastern Aleutian Islands.
Predators	Have no significant predators. Occasionally great white sharks and orcas have taken them. Small numbers of bacteria and viruses cause skin lesions. Goose and stalked barnacles may attach to the skin, particularly juveniles. Parasitic copepods may imbed in the tissue surrounding bites left by cookie cutter sharks.
Prey	Prey on mesopelagic cephalopods (at least 13 species of squid and two of octopus), fish and small sharks.
Size	Adult males grow to 4 m in length and 2000 kg; females grow up to 3 m in length and 600 kg. The inflatable proboscis and their broad, callused, scarred chest easily recognize males. Hair is sparse in both sexes.
Life Span	Males live for approximately 15 – 16 years. The oldest known female lived to 18 years. She was tagged at birth.
Reproduction	<p>Male elephant seals are polygynous (mating with multiple females) but not territorial. Very gregarious during the breeding season. Females give birth to one pup between December and March. Nurse for approximately 27days, then abruptly wean.</p> <p>Females reach sexually maturity as early as two years of age. Most give birth by the time they are four. Males reach sexual maturity at 6 to 7 years old. Males compete with each other for estrous females. Males establish dominance hierarchies through visual and vocal threats, and through physical combat.</p>
Seasonal Change	<p>Most females depart rookeries in mid-February / March and remain at sea for approximately 75 days. During the breeding season females may loose 45% of their mass. They return to land in April / May to molt. Adult males depart rookeries in February, having lost up to half of their body mass and return to land to molt in late June, early July. During a molt an elephant seal will shed the upper layer of skin and hair in large patches.</p> <p>Newborns have a black fur coat that they shed between 3 to 4 weeks of age. It is replaced by a shiny light gray / silver one, which lasts for approximately 6 to 8 weeks. At 2 to 3 months, pups are brown on back with pale yellow undersides. As adult females vary from blonde to dark brown, males are generally darker. Both sexes are lighter ventrally (undersides).</p> <p>Both sexes make two foraging migrations each year, returning to haul outs to molt and breed. Males tend to migrate north toward the Gulf of Alaska females tend to remain south of the Aleutian Island chain.</p>
Morphology And Function	<p><u>Fore Flippers</u>: used mostly for steering while in the water and pulling their bodies along while on land they have nails to help move around on the rocks / ice as well as for defense. Phocids also use their front flippers to scratch.</p> <p><u>Rear Flippers</u>: used for propelling through the water; animal uses a lateral motion where one flipper will close while the other sweeps through the water in a back and forth motion. These also have nails, which are not known to serve any purpose.</p> <p><u>Whiskers (also called vibrissae)</u>: three types; <i>supraciliary</i> (above the eye), rhinal (above the nose), <i>mystachial</i> (beside the nose---most noticeable). These are the main tactile structures and are used during navigation, foraging, etc.</p> <p>Elephant seals are sexually dimorphic in size and shape of canine teeth. Male canines can grow to 15 cm long with as much as 6 cm exposed above the gums. They are used for fighting other males during breeding season.</p>

	<p>****Phocids lack external ear pinnae (ear flaps)---this does not affect their ability to hear.</p>
<p>Unique Facts</p>	<ul style="list-style-type: none"> • Phocids (including elephant seals) are more abundant than Otariids (sea lions). This is mostly due to the fact that Phocids tend to live in more productive habitats. • Phocids have blubber as insulation, like all types of seals. • Female elephant seals dive from 13-22 minutes. Males can dive up to 80 minutes. These animals typically reach depths of 370-480m. • Record for the deepest dive by an air-breathing vertebrate was a bull elephant seal, 1581m. A small microprocessor based time-depth recorder was used to record it in 1989. • Phocids have a hearing range of 10-30 kHz in the water and 3-10 kHz in the air. **People have a hearing range of 20 Hz – 20 kHz with 20 kHz being the threshold of pain**

References:

Bonner, Nigel. 1994. *Seals and Sea Lions of the World*. New York: Facts on File.

Reeves, Randall R., Brent S. Stewart and Stephen Leatherwood. 1992. *The Sierra Club handbook of Seals and Sirenians*, San Francisco: Sierra Club Books.

Renolds, John E. III ed., and Sentiel A. Rommel ed. 1999. *Biology of Marine Mammals*, Washington: Smithsonian.