



Lacy, female ringed seal

Ringed Seal

Phoca hispida

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
Family:	Phocidae	"Phocids" are also known as "true seals"
Genus:	Phoca	Greek word meaning "seal"
Species:	hispida	hisp = shaggy, rough
Subspecies:	ladogenis	Found only in Lake Ladog in Karelia Russia
Subspecies:	saimaa	Found only in Lake Saimaa in south east Finland
Subspecies:	hispida	Arctic coast of Europe, USSR, Canada, Alaska
Subspecies:	ochotensis	Okhotsk sea
Subspecies:	krascheninikovi	North Bering sea
Subspecies:	botnica	Baltic sea, Gulf of Bothnia, Gulf of Finland

Range	Arctic and sub-Arctic distribution. Widespread and abundant population. Population density depends principally on winter ice conditions. Prefer stable land-fast ice. Found in eastern Pacific; northwest Canadian coast, throughout the High Arctic. The Alaskan coast in the Bering Sea, Nunivak Island and Bristol Bay. Northeast Pacific: north Chukchi and Beaufort seas. Northwest Atlantic: Hudson Strait, Hudson and James bays, Labrador and Newfoundland. Eurasian Arctic: sporadically off northern coast of Norway and eastern Baltic Sea. Western Pacific: Okhotsk Sea.
Predators	Polar bears, arctic fox, walrus, occasionally ravens, wolves, dogs and wolverines.
Prey	Prey upon a variety of plankton, nektonic and benthic organisms. These include; amphipods, cod, various crustaceans, squid and sculpin.
Size	Maximum size is 1.6 m in length and 110 kg. Males are somewhat longer than females. Pups average birth weight is 4.5 – 5.5 kg and the average length is 60-65 cm.
Life Span	The maximum life span is close to 40 years. A 43-year-old specimen was reported from the eastern Canadian Arctic.
Reproduction	<p>Females reach sexual maturity at approximately 4 years of age. Males reach this at 7 years. Pups are born in March / April. They are nursed 5 to 7 weeks. Ovulation and mating occur near time of weaning. Implantation onto the uterine lining is delayed for close to three months. The gestation period is about 10 months. Ringed seals use subnivean (snow covered) birth lairs. Pups are born and nursed in the lair. An opening approximately 30 cm at the surface is maintained for access to the water. This is a unique behavioral feature. Other pinnipeds give birth on exposed ice surfaces or beaches.</p> <p>Pups begin shedding lanugo (white, woolly fur) at 2 to 3 weeks, with complete loss at 6 to 8 weeks. Newborn pups are covered with white lanugo; slightly older pups are gray with a lighter belly.</p>
Seasonal Change	<p>An annual molt will occur between May and July. (Varying with population) in which the animal will lose old hair and grow a new coat. Considerable blubber loss occurs during the molting season. Adult ringed seals have a dark gray dorsal side, silver aboral side and light gray or silver “rings” on their dorsal side.</p> <p>There may be seasonal migrations following food, but most animals stay in the same area year round.</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. Ringed seals use the heavy claws on their fore flippers to maintain breathing holes in ice up to 2m thick. 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>supracilliary</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>****Phocids lack external ear pinnae (ear flaps)---this does not affect their ability to hear.</p>
Unique Facts	<ul style="list-style-type: none"> Phocids (including ringed seals) are more abundant than Otariids (sea lions). This is mostly due to the fact that Phocids tend to live in more productive

	<p>habitats.</p> <ul style="list-style-type: none">• Phocids have blubber as insulation.• Ringed seals can produce low-pitched barks, and high-pitched yelps or yowls.• Phocids have a hearing range of 10-30 kHz in the water and 3-10 kHz in the air. <i>**People have a hearing range of 20 Hz – 20 kHz with 20 kHz being the threshold of pain**</i>
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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.