

VITAL STATISTICS

Sea otters belong to the family Mustelidae, along with weasels, minks, skunks, badgers, wolverines, fishers, martens and about 11 species of otters. Like other members of their family, otters have long, slender bodies, scent glands and high metabolisms, but several distinctions set them apart. The sea otter, *Enhydra lutris*, is not only the second smallest marine mammal and the largest member of the weasel family, but the only member of the family Mustelidae that is a true marine mammal.

Sea otters breed throughout the year. Females give birth to one pup after a gestation period of six to eight months. Southern sea otter pups weigh three to five pounds at birth. Adult males are typically larger than females. Male southern sea otters weigh an average of 65 pounds and adult females weigh an average of 45 pounds. (Northern sea otters can weigh as much as 100 pounds.) The average length of a southern sea otter is four feet. Male sea otters live an average of 10 to 15 years and females live an average of 15 to 20 years.

Pelage color in sea otter adults varies in shades of brown. As they age, their fur can take on a lighter color due to loss of **pigmentation** in the guard hairs, which also gives the fur a grizzled look over the head, chest, neck and forepaws. This lighter hair is most pronounced in older adult males. Newborn pups have a woolly pelage characterized by lighter shades of brown or yellow. This fur is replaced by the adult pelage by 13 weeks of age.

Sea otters have the thickest fur of any mammal. The underfur ranges from 250,000 to one million hairs per square inch. This thick fur is the only protection sea otters have against the cold water in which they live. They do not have insulating blubber like other marine mammals, such as whales, seals and sea lions. Instead, a layer of air is trapped within the fibers of the underfur, providing insulation and buoyancy and enabling the skin to remain dry when immersed. Maintenance of these air pockets is one reason sea otters groom so much, along with the necessary cleaning of their fur to get rid of **debris** and **contaminants**.

A high metabolic rate also helps sea otters stay warm. They are very active in **foraging** for food, since they must consume 20 to 30 percent of their weight in food each day. In fact, they spend about 35 to 50 percent of their day expending energy to find nourishment.

Sea otters often are seen swimming on their backs in a behavior known as sculling. While sculling, **propulsion** is accomplished through the use of their extremely powerful hind legs and by **undulating** motions made by their horizontally flattened tail. The forelegs do not aid in propulsion, but rather are used primarily for grooming and foraging.

Sea otters generally swim at speeds of 0.5 to 1.25 miles per hour (mph). However, speeds of 5.5 mph can be attained for short distances underwater. Although it is not

common, sea otters can dive to a maximum depth of 300 feet, but they generally forage at depths of 60 feet or less. Sea otters can hold their breath for almost five minutes, as their lungs are nearly two and a half times larger than the lungs of similar-size mammals.

Sensory organs in sea otters are poorly understood because they are difficult to study. Sea otters seem to have good sight both on land and in water during the day and night. They also seem to have a keen sense of touch. They use their paws to forage for food and their long whiskers are sensitive enough to allow them to detect vibrations. The nose of a sea otter contains many bones that suggests they also have a keen sense of smell. Little is known about their sense of hearing.

These various characteristics of sea otters, from their thick fur to their swimming techniques, make them a unique marine mammal. They also share many other characteristics, such as slender body length, possession of scent glands, and high metabolic rates with other members of the weasel family.

VOCABULARY

pelage

the coat of a mammal, as distinct from bare skin

pigmentation

coloration of tissue

debris

the remains of something broken down or destroyed

contaminants

something that makes impure or unclean by contact or mixture

foraging

the act of looking for food

propulsion

the act of driving forward or onward by, or as if by, means of a force that imparts motion

undulating

to form or move in waves

Check Your Reading Skills

Vital Statistics

- 1) What makes the sea otter an unusual member of the Mustelidae family?
- 2) Why do sea otters have such thick fur?
- 3) Why do sea otters constantly groom themselves?
- 4) What enables the sea otter to hold their breath under water for as long as five minutes?
- 5) What other animals groom themselves? Why do they groom?

Reading Comprehension Check

Answers

1) It is the second smallest marine mammal and the largest member of the weasel family but the only member of the Mustelidae family that is a true marine mammal.

2) Sea otters have the thickest fur of any mammal because it provides protection from the cold water in which they live. Sea otters, unlike all other marine mammals, lack blubber.

3) Sea otters must maintain the air pockets since they do not have blubber to keep warm. They also must rid their fur of debris.

4) Sea otters have lungs that are two and half times larger than the lungs of similar sized mammals.

5) Answers will vary.