



# River Otter

The river otter, *Lontra canadensis*, is the most elusive aquatic mammal in Pennsylvania. It belongs to the mustelid or weasel family.

Otters are extremely curious and playful and often slide on ice or snow, shoot down slick muddy banks into creeks, play with food, sticks and stones, and wrestle each other. Few people are lucky enough to see otters in the wild, but those who do, rarely forget the experience.

## Biology

A mature male otter weighs 10 to 25 pounds and is 30 to 40 inches in length, plus a 12- to 15-inch tail. Females are about 25 percent smaller than males. An otter is muscular, streamlined and solidly built. Its height at the shoulder is about 10 inches. An otter's tail is long and tapered, thickest where it joins the body and furred its entire length. The face is broad, and the eyes protrude slightly.

Otter fur is a rich, dark brown and is lighter on the underparts. The throat and chin are grayish and the nose black and bare. Two fur layers – short dense underfur and longer guard hairs – combine with a subcutaneous layer of fat to insulate the body. In autumn, the normally thick fur grows in even thicker for extra cold resistance. All four feet are wide and webbed between the toes. The hind pair is used more than the front pair in swimming. Like other members of the weasel family, otters have anal musk glands that release a pungent odor when they are frightened.

Otters obtain most of their food from the water. Fish, including minnows, sunfish, suckers, carp and trout, are favorites. Other foods are frogs, turtles, snails, mussels, crayfish, snakes and snake eggs, worms, insects, aquatic plants, roots and, on occasion, birds and small mammals.

An otter's hearing is acute. Its eyesight is adequate above water, but superb below. It has a keen sense of smell and a set of long, stiff, sensitive whiskers just behind and below the nose. These serve as sense organs when the animal is searching for food in murky or turbid water.

An otter is a fast, graceful swimmer, the most adept in water of all the land mammals. It can travel underwater a quarter-mile without coming up for air, dive 35 to 50 feet and, if necessary, stay submerged up to four minutes. While underwater, valve-like structures seal an otter's ears and nose, and its pulse rate drops, slowing blood and oxygen circulation and making possible long submersion.

Underwater locomotion is mainly by body movement, with the feet and tail used for steering; propulsion comes from up-and-down body flexing, as opposed to the side-to-side movement of a swimming fish. An otter's top swimming speed is about 7 mph.

Otters den on the edges of lakes, rivers or streams, or occasionally on islands or patches of high ground in marshes. Dens might be excavations under tree roots or rock piles, abandoned beaver, muskrat or woodchuck burrows, or unused beaver lodges. A typical den has an underwater entrance hole, a living space above water level and several air or exit-entry holes to dry ground.

Otters mature sexually by 2 years of age. They breed sometime between January and May, with mating taking place in the water. As with many other mustelids, otters have delayed implantation. This means that after fertilization, eggs remain dormant in the female's uterus until the following December, January or February,

when they attach to the uterine wall and start to develop. Approximately two months later, from February to April, one to five (most often two to four) young are born. Females usually have their first litter at age 3.

Pups weigh 4 to 6 ounces and are blind and toothless at birth. They do not open their eyes for two to three weeks, and their mother keeps them in the den until they are 2 to 3 months old. The female might breed shortly after giving birth, but she will not allow a male near her young for several months. Males are polygamous.

By autumn, the growing pups are nearly adult size. Siblings may remain with their mother until they disperse at 12 to 13 months of age.

Adults and young both display curiosity and playful behavior. Otters romp and wrestle with each other or play by themselves. On snow, they take three or four running steps, launch themselves and slide on their bellies. While playing, they make a variety of sounds: chirps, chattering noises and low chucklings and grumbings. A scream is the danger call. Otters are mainly nocturnal, but occasionally venture out during the day.

Otter predation is not common, because few predators can catch an otter. Females go to great lengths to protect their young. Otters are generally too swift and agile to be caught in the water, but are able fighters if cornered on land. They have tremendous strength, reflexes and endurance, sturdy teeth and powerful muscles.

Otters do not store food for winter, nor do they hibernate. If lakes or rivers freeze, they swim under the ice to find food. They breathe on the surface of open water, in their dens or from air pockets lodged against the underside of the ice. In winter, they spend much time in the water, which is often warmer than the air. Otters are more sedentary in winter than in summer, especially during extreme cold spells. Winter food shortages might force individuals to cover as much as 50 miles of stream over the season.

Otters groom themselves frequently and are in the water much of the time. External parasites include ticks, lice and fleas. A variety of intestinal roundworms and flukes are the most common internal parasites affecting otters. Although uncommon, diseases including canine distemper, feline panleukopenia, hepatitis, jaundice and rabies can impact otters. In the wild, an otter's lifespan is less than 15 years. Otters in captivity might live for 25 years.

## Habitat

Otters range throughout most of North America, north of Mexico. In Pennsylvania, otters occur in every major river system and are absent only in watersheds with significant water-quality problems. Clean water supporting fish and other aquatic life is the foundation of good otter habitat. Water pollution, including strip mine runoff, industrial waste and sewage, has made some Pennsylvania streams, lakes and rivers unfit for aquatic life. Much progress has been made in cleaning up the state's polluted waterways. Tough anti-pollution laws now protect these waters from returning to the crippled state they were in

not long ago. Otter populations have benefited from these efforts and have responded positively to these habitat improvements. While otters sometimes live near towns and cities, they prefer wilder territory. Water quality, more than any other factor, will determine where otters will live.

## Population

The story of the resurgence of river otters in North America is one of the greatest success stories of modern wildlife conservation. Prior to 1900, degradation of water quality and habitat, human encroachment, and unregulated harvest led to a 75 percent decline in North American otter populations. As a result of dedicated efforts of concerned biologists and state wildlife agencies, reintroduction efforts, legal protection, improved habitat quality and regulated harvest, otter populations rebounded during the mid- to late 1900s.

Otters were never extirpated from Pennsylvania, but their numbers were vastly reduced. Beginning in the 1970s, Pennsylvania otter restoration efforts and similar efforts in neighboring states resulted in significant range expansion.

Today, otter populations in Pennsylvania are increasing or stable across their range. The most dense otter populations occur in the northwestern and northeastern counties.

Currently, river otters are protected in Pennsylvania with no hunting or trapping allowed. In all surrounding states, river otters are harvested annually. As Pennsylvania otter populations continue to increase and expand, monitoring efforts have determined a regulated harvest is feasible. Sound management will safeguard Pennsylvania's healthy otter population for future generations to enjoy.

