



Wildlife Note — 11  
LDR0103

# River Otter

by Chuck Fergus

The river otter, *Lutra canadensis*, is an elusive aquatic mammal. It belongs to the mustelid or weasel family and is closely related to the sea otter, mink, badger, wolverine and weasels.

Otters 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 slightly smaller. An otter is muscular, streamlined and solidly built, somewhat like a dachshund; 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, lighter on the underparts; the throat and chin are grayish, 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, although the hind pair are used more in swimming than the front pair.

Otters obtain most of their food from the water. Fish are favorites: minnows, sunfish, suckers, carp and trout. Other foods are frogs, turtles, snails, mussels (an otter crunches the shells with its teeth), crayfish, snakes and snake eggs, worms, insects, aquatic plants, roots and, on occasion, muskrats.

An otter's hearing is acute, its eyesight adequate above water and 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 turbulent water.

An otter is a fast, graceful swimmer, probably the most

adept in water of all the land mammals. It can travel underwater a quarter-mile without coming up for air, dive up 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, making long submersion possible.

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 seven miles per hour.

Otters den on the edges of lakes, rivers or streams, or occasionally on islands or patches of high ground in marshes. Dens may 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 two years of age. They breed sometime between January and May, 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



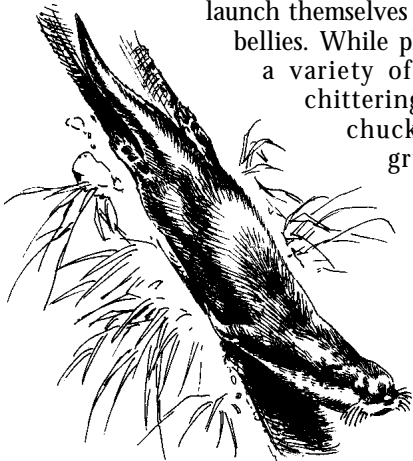
(most often two or three) young are born. Females usually have their first litter at age three.

Pups weigh 4 to 5 ounces and are blind and toothless at birth. They do not open their eyes for five weeks, and their mother keeps them in the den until they are three or four months old. The female breeds shortly after giving birth, but she will not allow a male near her young for several months. Males are polygamous.

When a young otter emerges from the den, its mother must teach it to swim. First she carries or pushes the pup into the water; then she submerges, remaining nearby as the pup tries to swim and letting it climb onto her back when it tires. After several such lessons, young otters begin to enter the water on their own and eventually play, hunt and feed in it. By autumn, they are nearly adult size. They may remain with their mother until she is ready to bear another litter.

Curious and playful, otters romp and wrestle with each other or play by themselves, even as adults. 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, chittering noises and low chucklings and grumblings. A



scream is the danger call. Otters are mainly nocturnal but occasionally venture out during the day.

Otter predation isn't common as few of our predators can

catch an otter and females go to great lengths to protect their young. Too swift and agile to be caught in the water, otters 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; 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 — although winter food shortages may 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, so external parasites are not too common; however, lice have been found on some pelts. Internal parasites include liver flukes and stomach and intestinal worms. An otter's lifespan is 10 to 20 years.

### Population

Various types of otters are found throughout the world, except in Australia, New Zealand, the extreme arctic and

antarctic regions, and desert areas. In North America, otter populations remain large in the lake region of eastern Canada, Florida, Louisiana, the Carolinas, Alaska, the Pacific Northwest, Michigan and Wisconsin.

In Pennsylvania, the species has been protected since 1952, with no hunting or trapping allowed. Because otters are secretive and nocturnal, it's hard to estimate the population. Many of the state's otters are found in our northeastern counties, but they can be found in every major river basin in the state.

Both New York and Maryland have substantial otter populations. Their numbers are fairly stable, and trapping is permitted in both states. This situation is brought about by the large amounts of suitable aquatic habitat — numerous lakes in New York, and the Chesapeake and seaboard areas of Maryland.

The Game Commission, Wild Resource Conservation Fund, Pennsylvania State University and other partners have funded otter restocking efforts in the state since the early 1980s, and related research and management efforts are ongoing.

Water pollution — strip mine run-off, industrial wastes, sewage — made many Pennsylvania streams, lakes and rivers unfit for aquatic life, otters included. But much progress has been made in cleaning up many of the state's polluted waterways. A direct benefit of that is the return of river otters.

### Habitat

Clean water supporting fish and other aquatic life is the foundation of good otter habitat. Although otters have been sighted miles from water — usually during the breeding season — they were probably en route to another water source.

Otters are found in extremely varied habitat in North America, including high Rocky Mountain lakes, spruce and birch forests in the North, marshes and swamps in the South, and major river basins.

While otters sometimes live near towns and cities, they seem to prefer wilder territory. Water quality, more than any other factor, will determine where otters will live in the future. Right now, the future's bright as fish and other aquatic life are prospering in many of our once-polluted waterways. Moreover, tough anti-pollution laws now safeguard these waters from returning to the crippled state they were in not too long ago. For the otter's sake, that's good news and should translate into continuing range expansion for some time to come.

Wildlife Notes are available from the  
Pennsylvania Game Commission  
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