



Opossum

by Chuck Fergus

The opossum, *Didelphis virginiana*, is one of the world's oldest species of mammal, and the only marsupial on our continent. Marsupials are born before they are well developed, compared to other mammals, and continue their growth and development in a pouch on their mother's abdomen. Most members of the order Marsupialia are native to Australia and South America. Structurally, they have changed little for millions of years; the opossum's relatives date back to the Cretaceous Period, 90 million years ago. However, the opossum didn't appear in North America until the Pleistocene Epoch, less than a million years ago.

"Opossum" is derived from the Algonquin Indian word *apasum*, meaning "white animal." A creature without specialized body structure or food preference, the opossum thrives in many settings. It is found throughout Pennsylvania, and it is classified as a furbearer.

Biology

Mature opossums are 24-40 inches long, including a 10- to 12-inch tail. They weigh 4-12 pounds. Males are larger and heavier than females, and the average adult is about the size of a large house cat.

An opossum has a long, pointed snout with 50 teeth — more than any other North American mammal — small, dark eyes and rounded, bare ears. The tapering tail is naked and scaly, like a Norway rat's. Their feet have five toes, each with a claw, except the first toe of each hind foot, which is long and capable of grasping, like a thumb.

Their long, coarse body fur is light gray; outer hairs may be tipped yellow-brown. Legs and feet are dark brown or black. Males, females and immatures are colored alike, although

fur and skin color may vary among different geographic areas.

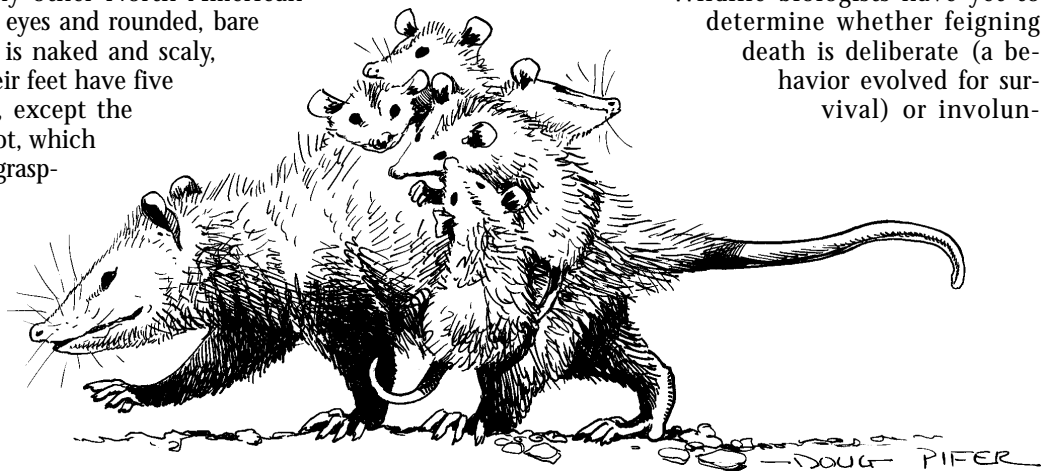
Opossums walk with an ungainly shuffle, averaging 0.7 mph; their running speed is a little over 4 mph. Excellent climbers, they ascend hand-over-hand, using their prehensile tails for gripping and balancing. They are good, but slow, swimmers.

An opossum's brain is small and of primitive structure. Senses of smell and touch are well developed, but hearing is not especially keen and eyesight is weak. When walking, an opossum sniffs the air and occasionally stops and stands on its hind feet to look around. Although normally silent, it may growl, hiss or click its teeth when annoyed.

If an opossum is threatened and cannot climb a tree or hide in rocks or brush, it may crouch and defend itself — or, if struck, may feign death.

When feigning death, also called "playing possum," an individual lies limp and motionless, usually on its side. Its eyes and mouth remain open, its tongue protrudes, its forefeet clench, and its breathing becomes shallow. This state may last from a few minutes to several hours. Feigning may help an opossum survive an attack, because some predators ignore dead prey. Opossums also exude a musky odor that may repel some enemies.

Wildlife biologists have yet to determine whether feigning death is deliberate (a behavior evolved for survival) or involun-



tary (perhaps caused by nervous paralysis).

Opossums are omnivorous and opportunistic — they eat whatever they can find. Animal food includes terrestrial and aquatic invertebrates (mainly insects), lizards, snakes, toads, the young of small mammals, bird eggs and young birds. Plant foods include berries (grapes, pokeberries, blackberries, etc.), mushrooms, acorns, cultivated plants. Opossums eat more animal than plant food. They consume garbage and carrion, including animals killed on highways. Sometimes opossums forage by day, but they are mostly nocturnal. They take shelter in hollow logs, woodchuck burrows, rock crevices, tree cavities, the abandoned leaf nests of squirrels and beneath porches and old buildings. They seldom spend two successive nights in the same den. Opossums do not dig their burrows, but they will occupy abandoned burrows.

Opossums are solitary. Females and unweaned offspring stay together, and the sexes come in contact during breeding season, late February and March in Pennsylvania. After mating, the female drives off the male. The male plays no part in raising young.

The opossum's gestation is short — 12 or 13 days. Newborn young are hairless, pink-skinned, blind and scarcely past the embryonic stage. They are about one-half inch in length and weigh 0.005 ounces. Hind limbs are rudimentary, but the front limbs and feet are well-developed and equipped with claws. The young crawl upward, with overhand strokes as if swimming, through the mother's fur to a pouch in the skin of her belly.

Most litters vary from 5-13 young, averaging 8 (as many as 21 have been reported). The pouch is lined with fur and contains mammary glands. When a young opossum attaches and begins to nurse, the nipple enlarges, forming a bulb on the end which swells in the baby's mouth and helps it stay attached. The female usually has 13 mammary glands, so offspring in excess of this number die. The mother can close her pouch to keep the young from falling out.

Young grow rapidly, increasing their weight 10 times and doubling their length in 7 to 10 days. By seven weeks, they are 2¾ inches long. After eight to nine weeks, their eyes open, and they let go of the mammary glands for the first time. They begin leaving the pouch for short periods, riding atop their mother's back, gripping her fur with their claws.

When three to four months old, young opossums begin to look for their own food and care for themselves. Soon they stop nursing, but they may stay with the female a few weeks longer. Six to nine young usually survive to fend for themselves.

Females may bear a second litter, breeding again from mid-May to early July. At least two weeks pass between weaning of the first litter and birth of the second, as the female is not sexually receptive while still nursing. Females can breed when they are a year old.

In fall and winter, opossums devote almost twice as much time to feeding and improving their nests as they do the rest of the year. Opossums do not hibernate, but may den up during cold or snowy periods. Although they add a layer of fat, they do not grow a winter pelt, and their fur is poor insulation. Pennsylvania is near the species' northern limit, and many opossums lose the tips of

their ears and tails to frostbite.

Ticks, fleas, cestodes and nematodes parasitize opossums, and the species is preyed on by foxes, bobcats, hawks and owls. Trappers also take some. Many opossums are killed by vehicles while feeding on other highway-killed animals. An opossum's life expectancy in the wild is about 1½ years, with a few reaching age 5.

Population

The opossum is common in wooded areas throughout Pennsylvania. On a continental scale, it ranges from southeastern Canada south through New England to Florida, west to Minnesota, Nebraska and Texas, and south to middle America. It has been introduced in several western states.

Opossums are unspecialized animals that can utilize a variety of foods and habitats. The species has expanded its range north and west during the past century. Their population is stable.

Habitat

Opossums are at home in farmland and woodlots, reverting fields, brushy woods, open woods, in dry or wet terrain and at varying elevations. They inhabit suburbs and the edges of towns where food and cover are available. Ideal habitat is bottomland woods surrounding streams.

An opossum's range depends on food availability and the individual's tendency to wander. In one study, biologists found that opossums had elongated, rather than circular ranges (circular being the pattern of most other land-based wildlife), following the edges of rivers and streams. The average home range was 0.6 miles, the study determined.

Where food is plentiful, an opossum may range only a few hundred yards; in intensely cultivated areas, where fencerows, rocky field corners and reverting fields have been cleared for crops, an opossum would have to range farther (up to two miles) to find food.

Habitat management aimed at helping other wildlife often benefits opossums. Forest thinning and edge planting stimulate the growth of low, food-producing plants (blackberries, wild grapes, etc.) and create thick cover for escape or daytime loafing. When managing a woodlot, sparing old wolf trees (wide-spreading trees with little timber value) preserves the hollow limbs used by opossums. Well-managed game habitat — such as a state game land — provides many wildlife species ample food and cover.

Wildlife Notes are available from the
Pennsylvania Game Commission
Bureau of Information and Education
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Harrisburg, PA 17110-9797
www.pgc.state.pa.us

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