

Living with Wildlife

Opossums

Prior to European settlement of North America, the Virginia opossum (*Didelphis virginianus*, Fig. 1) was found only in Central America and the southeastern United States. During the 1900s, its range expanded northward and westward.

Virginia opossums, also known as “possums,” first arrived in Washington in the early 1900s as pets and novelties. Some of these animals, or their offspring, later escaped from captivity or were intentionally released.

With few natural predators, the absence of hunting, and an abundance of food and shelter, opossums have adapted well to living close to people in urban and suburban environments. Except for higher elevations, opossums now occupy most human-occupied habitats in western Washington.

Opossums are marsupials (mammals with a pouch in which they carry their young), a primitive group of mammals found most commonly in Australia. Kangaroos, koalas, and wombats are other well known marsupials. Opossums are the only marsupials in North America. All other mammals are placentals, which means their young develop within a saclike membrane called the placenta inside the mother’s uterus, rather than in an exterior pouch.

In Australia and elsewhere, many species of marsupial have been out-competed and even driven to extinction by more modern mammals. Yet, the opossum has adapted to the changing environment in the Western Hemisphere, and continues to thrive.

Opossums are inhibited animals, especially in daylight or under artificial light, but are by no means stupid. Results from some learning and discrimination tests rank opossums above dogs and more or less on a par with pigs in intelligence.

Facts about Washington’s Opossums

Food and Feeding Habitats

- Opossums lived during the time of the dinosaurs and one reason for their continued survival is their ability to eat nearly anything.
- Foods include fruits, nuts, grains, insects, slugs, snakes, frogs, birds, bird eggs, shellfish, mice, and carrion (dead animals).
- Around human habitation, opossums also eat garbage, pet food, birdseed, poultry, and handouts.
- A study of Portland Oregon’s opossum population found that small mammals (dead and alive) were the most important food in winter and spring, slugs in summer, and fruits in fall.
- Because opossums eat many road-killed animals, including other opossums, they often become road kill themselves.



Figure 1. Opossums measure 2 to 3 feet in length, a third of which is a round, scaly, sparsely haired tail. The head is conical, tapering to a slender, elongated snout tipped by a pink-colored nose. The face is light gray to white, whereas the general color of the fur from neck to rump is grayish white. Because of its body shape, a small opossum is sometimes mistaken for a large rat.

(From Christensen and Larrison, *Mammals of the Pacific Northwest: A Pictorial Introduction*.)

- Because opossums accumulate little body fat for winter and don't store food, they must forage year-round.

Den Sites

- Opossums will den nearly anywhere that is dry, sheltered, and safe. Den sites include burrows dug by other mammals, rock crevices, hollow stumps, logs and trees, woodpiles, and spaces in or under buildings.
- Their fur doesn't provide much insulation, so opossums fill their dens with dried leaves, grass, and other available soft material to form well-insulated nests. Nest materials are carried in their coiled tail.
- To avoid predators, opossums move to a different den every few days. (A male opossum followed by radio tracking used 19 different dens in five months.)
- A female with young or an opossum "holed up" during a cold spell will use the same den for a greater length of time.

Reproduction

- Opossums are successful as a species due in part to the size and frequency of litters.
- The breeding season begins as early as January and may continue to mid-November.
- Being marsupials, opossums give birth to undeveloped young. Only 12 days following breeding, five to ten bumblebee-sized pups crawl into their mother's pouch, where each firmly attaches to a teat.
- Opossum pups find nourishment, warmth, and safety in the pouch. When closed, it is so well sealed that if the female swims, the pups remain dry.
- At 60 to 70 days old, the house mouse-size young begin to leave the pouch for brief periods, returning to suckle.
- At 80 to 90 days old, the young begin to ride on their mother's back with their feet and tail firmly attached to her fur (Fig. 1). (Contrary to myth, a female opossum never carries her young on her tail.)
- At 3½ months of age, the young begin to leave the den to feed on their own, and soon disperse to establish their own territories.

Mortality and Longevity

- Opossums have high mortality rates at all ages. They are killed by dogs, coyotes, foxes, raccoons, bobcats, eagles, hawks, and owls, with young opossums being the most vulnerable.
- Car kills in the fall and in winter conditions account for many opossum deaths.
- Opossums rarely live a full two years in the wild.

Viewing Opossums

Opossums are nocturnal, spending the day in dens or other protected spots. However, they can be seen at any time of day, especially in winter when food is scarce. At night, opossums forage in areas near their current dens, but can travel up to 2 miles in search of food.

Opossums are solitary animals, and except during breeding season or a female with her young, they are rarely seen together. Opossums do not hibernate.

Although they can climb and are good swimmers, opossums prefer to amble about on the ground. With a top speed of about 4 miles per hour, when "running," opossums appear to be walking quickly, with the tail rotating in circles for balance. When idle, opossums constantly groom themselves, much as house cats do.

A nighttime walk along a path bordering a stream or wetland, or down an alley lined with trashcans, will occasionally turn up an opossum searching for food. Strong but not agile climbers, opossums can be observed climbing trees to escape, search for food, rest, or to look for dens. Their tails are able to wrap around and grasp tree limbs and can support the animal's full weight for short periods. (Contrary to myth, opossums do not hang upside down by their tails when sleeping.)

Trails

Opossums readily use trails made by other wildlife or humans near creeks, ravines, and wetlands. Like raccoons and foxes, opossums use culverts as a safe way to cross under highways and roadways.

In developed areas, trails occur along buildings and fences. Wear marks and hairs may be found around the edges of entry points where opossums are entering a building or crawling under a fence. Opossum hair is long and silver to gray in color.

Tracks

Tracks can be found in mud, snow, or fine soil; also on deck railings, downspouts, and other surfaces that opossums use to gain access to structures (Fig. 2). The opossum's opposable hind thumbs create a unique print, pointing as much as 90 degrees away from the direction of travel.

Droppings

Opossum droppings are not easily found, but can be seen along trails they use and near favorite feeding spots. Opossum droppings vary in appearance according to the animal's diet and may resemble the droppings of house cats and small domestic dogs, coyotes, and foxes. Firm droppings are pointed on the ends and 1 to 3 inches long.

Calls

Opossums are among the most silent animals that live in Washington, but when frightened or threatened they growl and hiss.

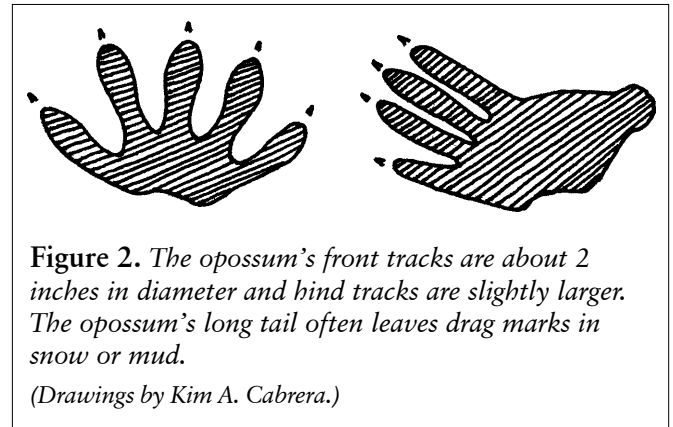


Figure 2. The opossum's front tracks are about 2 inches in diameter and hind tracks are slightly larger. The opossum's long tail often leaves drag marks in snow or mud.

(Drawings by Kim A. Cabrera.)

"Playing Possum"

The opossum is a slow runner and when threatened will usually growl, hiss, and bare its teeth or try to escape by climbing the nearest tree. However, when caught out in the daylight with little chance of escape, or when attacked, the opossum will "play possum." This is a surprisingly effective defense commonly seen in insects. In such cases the opossum will fall on its side, curl its body, open its drooling mouth, and excrete droppings—all to give the appearance of being dead.

While the opossum is in this state, which lasts several minutes or several hours, no amount of prodding will produce a response. Though it appears to be in a catatonic state, its metabolic processes are as high as when the animal is fully alert.

When the opossum believes the danger has passed, it will begin to wiggle its ears in an effort to pick up sounds. If it thinks the danger has passed, it will pick up its head and look around. If danger persists, the opossum will play dead again.

Although generally gentle and placid, opossums have 50 teeth and will use them to protect themselves, or their young (Fig. 3). So avoid close encounters.

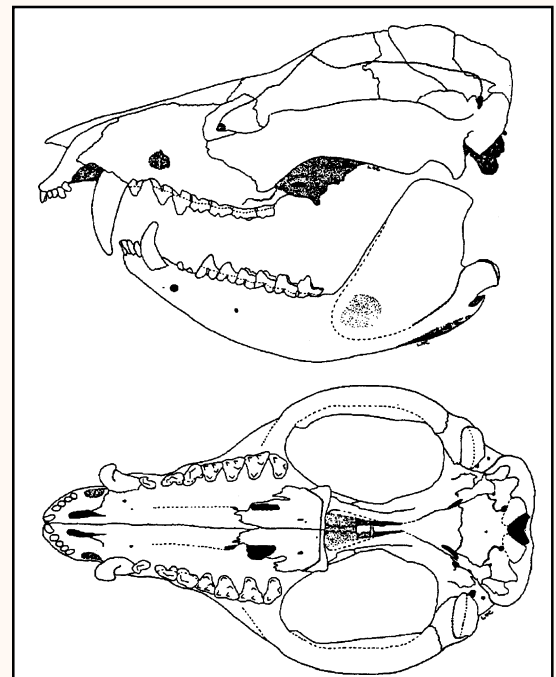


Figure 3. Their 50 teeth (more than any other mammal in North America) give opossums a menacing look when threatened.

(From Verts and Carraway, *Land Mammals of Oregon*.)

Preventing Conflicts

In urban areas, opossums are beneficial as rodent and carrion eaters. They also clean up uneaten food that might otherwise attract mice and rats. However, in rural areas the impact of non-native opossums preying upon native invertebrates, small mammals, amphibians, reptiles, ground-nesting birds, nestlings, and eggs is of concern to wildlife biologists.

An opossum's search for food may lead it to a vegetable garden, garbage can, or chicken coop. Its search for a den site may lead it to an attic, chimney, or crawl space. The most effective way to prevent conflicts is to modify the habitat around your home so as not to attract opossums. Recommendations on how to do this are given below:

Don't feed opossums. Feeding opossums may create undesirable situations for you, your children, neighbors, pets, and the opossums themselves. Opossums that are fed by people often lose their fear of humans and may become aggressive when not fed as expected. Artificial feeding also tends to concentrate opossums in a small area; overcrowding can spread diseases and parasites. Finally, these hungry visitors might approach a neighbor who doesn't share your appreciation of the animals. The neighbor might choose to remove these opossums, or have them removed.

Don't give opossums access to garbage. Keep your garbage can lid on tight by securing it with rope, chain, bungee cords, or weights. Better yet, buy garbage cans with clamps or other mechanisms that hold lids on. To prevent tipping, secure side handles to metal or wooden stakes driven into the ground. Or keep your cans in tight-fitting bins, a shed, or a garage. Put garbage cans out for pickup in the morning, after opossums have returned to their resting areas.

Feed dogs and cats indoors and keep them in at night. If you must feed your pets outside, do so in late morning or at midday, and pick up food, water bowls, leftovers, and spilled food well before dark every day.

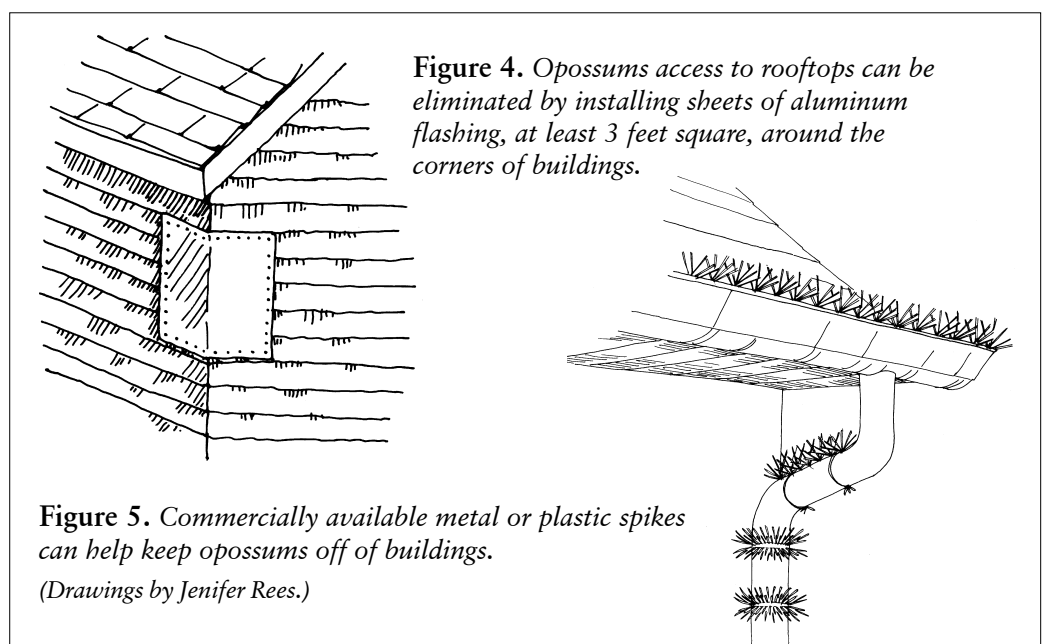
Keep pets indoors at night. If cornered, opossums may attack dogs and cats. Bite wounds from opossums can result in fractures and disease transmission.

Prevent opossums from entering pet doors. Keep indoor pet food and any other food away from a pet door. Lock the pet door at night. If it is necessary to have it remain open, put an electronically activated opener on your pet's collar. *Note:* Floodlights or motion detector lights placed above the pet door to scare opossums are not long-term solutions.

Put food in secure compost containers and clean up barbecue areas. Don't put food of any kind in open compost piles; instead, use a securely covered compost structure or a commercially available opossums-proof composter to prevent attracting opossums and getting exposed to their droppings. A covered worm box is another alternative. If burying food scraps, cover them with at least 8 inches of soil and don't leave any garbage above ground in the area—including the stinky shovel. Cover the burial site with heavy wire mesh and a weight as further prevention.

Clean barbecue grills and grease traps thoroughly following each use.

Eliminate access to denning sites. Opossums commonly use chimneys, attics, and spaces under houses, porches, and sheds as den sites. Close any potential entries with $\frac{1}{4}$ -inch mesh hardware cloth, boards, or metal flashing. Make all connections flush and secure to keep mice, rats, and other mammals out. Make sure you don't trap an animal inside when you seal off a potential entry (see the



handout “Evicting Animals from Buildings” for additional information).

Install a commercially designed and engineered chimney cap (homemade caps are often unsafe and may be a fire hazard). You can still have fires in your fireplace; however, the “cap” will keep opossums and other wildlife out. (For information on how to remove opossums from chimneys, see “Raccoons in Dumpsters and Down Chimneys” in the handout on Raccoons.)

Prevent opossums from accessing rooftops by trimming tree limbs away from structures and by attaching sheets of metal flashing around corners of buildings (Fig. 4). Commercial products that prevent climbing are available from farm supply centers and bird-control supply companies on the Internet (Fig. 5). Remove vegetation on buildings, such as English ivy, which provide opossums a way to climb structures and hide their access point inside.

Enclose poultry (chickens, ducks, and turkeys) in a secure outdoor pen and house. Opossums will eat poultry and their eggs if they can get to them. **Note:** Other killers of poultry include coyotes, foxes, skunks, raccoons, feral cats, dogs, bobcats, weasels, hawks, owls, other poultry, and disease.

To prevent opossums from accessing birds in their night roosts, equip poultry houses with well-fitted doors and secure locking mechanisms. An opossum’s dexterous paws make it possible for it to open various types of fasteners, latches, and containers.

To prevent opossums from accessing poultry during the day, completely enclose outdoor pens with 1-inch chicken wire placed over a sturdy wooden framework. Overlap and securely wire all seams on top to prevent opossums from forcing their way in by using their weight. To prevent opossums from reaching in at ground level, surround the bottom 18 inches of the pen with smaller-mesh wire.

See Figures 4-6 for examples of how to prevent opossums from climbing enclosures.

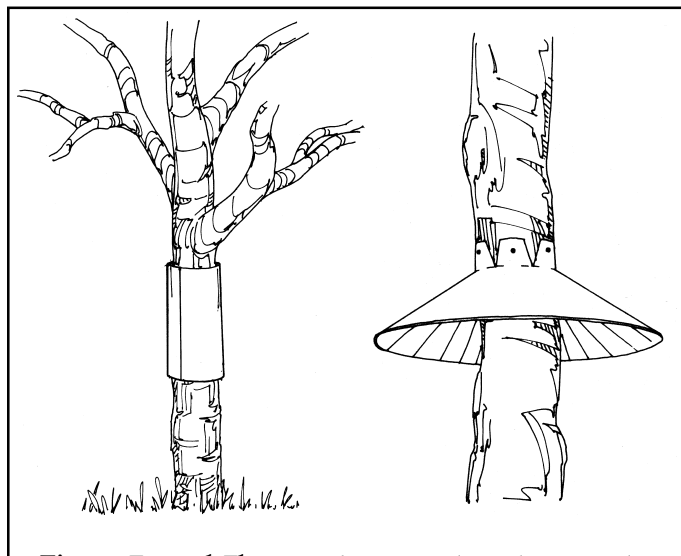


Figure 7a and 7b. A predator guard can be secured around trees, pipes, posts, and other structures to keep opossums from climbing. It can be made from a piece of aluminum flashing or sheet metal, held together with wire, nails, or screws, and painted to blend in.

(Drawings by Jenifer Rees.)

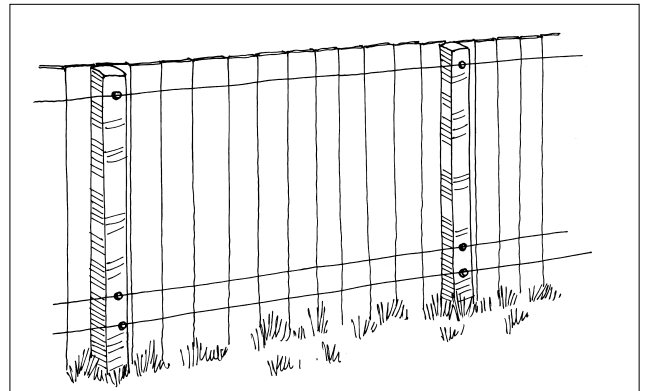


Figure 6. Install two electrified wires, 6 and 10 inches above ground and onto existing fence posts, poultry pen supports, and other structures, using the proper insulators. A single strand of wire may be sufficient, but two wires will provide added insurance against the animal making the climb. Run one or two electrified wires toward the top of the fence to prevent bobcats and other species from jumping the lower hot wires and making the climb. (Drawing by Jenifer Rees.)

Fence orchards and vegetable gardens. Opossums can easily climb wood or wire fences, or bypass them by using overhanging limbs of trees or shrubs. See Figures 6 and 7 for examples of ways to prevent opossums from climbing fences and accessing crops at ground level. Wire fences will need to have a mesh size that is no wider than 3 inches to keep young opossums out.

Protect fruit trees, bird feeders, and nest boxes. To prevent opossums from climbing fruit trees, poles, and other vertical structures, install a metal or heavy plastic barrier (Fig. 7). Twenty-four-inch long aluminum or galvanized vent-pipe, available at most hardware stores, can serve as a premade barrier around a narrow support.

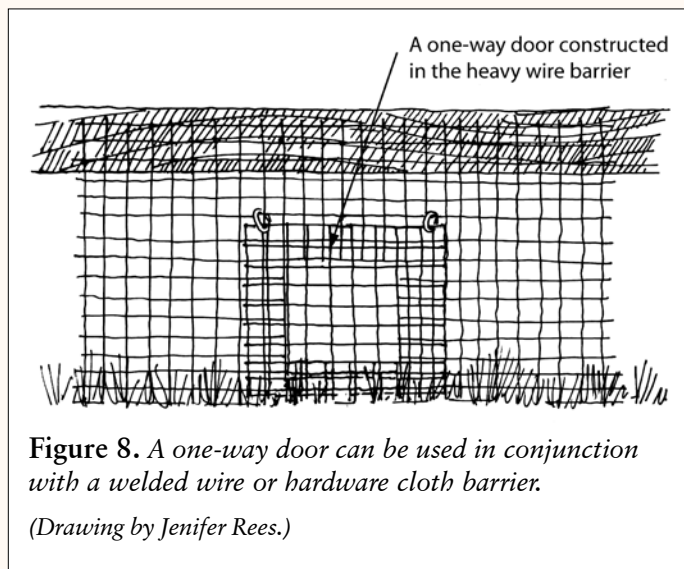
Alternatively, a funnel-shaped piece of aluminum flashing can be fitted around the tree or other vertical structure. The outside edge of the flared metal should be a minimum of 18 inches away from the support. Cut the material with tin snips and file down any sharp edges.

Regularly pick up fallen birdseed and fruit to prevent attracting opossums.

Opossums in or Under Buildings

Occasionally an opossum will find a suitable den site in or under a building. Opossums normally occupy a den site for only two or three consecutive nights. However, during the mating and nesting season, females are attracted to warm, dry, dark, easily defended areas, and will remain longer if the setting remains favorable.

Should you choose to remove the animals, a wildlife control company can be hired (call your local Fish and Wildlife office for a current list of contacts), or you can complete the process yourself using the steps below. (For detailed information, see the handout "Evicting Animals from Buildings")



1. Seal all openings except the main opossum entrance. Use sturdy wire mesh (1/4-inch hardware cloth or similar materials) to screen vents near ground level in houses and other structures. Tightly seal holes in foundations or under porches to prevent opossums from entering.
2. To determine entry points, you can use "tracking patches" of a fine layer of sand, talcum powder, or dust placed at suspected entrances. Wadded up newspaper lightly stuffed into the entry hole also works great. Opossums will push the paper out of the way when exiting.
3. After dark, when the opossum has left seeking food they will leave tracks at the den entrance. Inspect the powder or the dislodged newspaper for exiting opossum tracks.
4. Once an opossum has left the building, immediately seal the entrance with a hardware cloth "one-way door" (Fig. 8). (You will not want to permanently exclude at this point, not being sure of the number of opossums present.) The one-way door can be made from 1/2 -inch hardware cloth that is attached over the opening, and hinged at the top and left loose on the other 3 sides. It should be larger than the opening so that it cannot swing inward. The opossum will push it open to leave, but cannot re-enter.
5. Put a layer of powder on the inside and outside of the door after the one-way door has been installed for two to three nights. Any footprints should be outside the door with none inside. This means the opossum is out. If you have any doubt, then smooth out the dirt on both sides of the door with your hand or a tool, reapply the powder and observe. Once a couple of days have gone by with no footprints, the opossum is probably gone. Another way to check is to open the door and shove a few pieces of wadded up newspaper into the opossum's entrance. If the paper stays in place for two to three nights, then the opossum is gone.
6. Once you are sure all opossums are out, permanently seal the opening.

To try and drive an opossum away, consider harassing the animal. Lighting up the den site with battery operated flashing lights and adding a portable radio can cause an opossum to seek a more suitable habitat. (For detailed information, see the handout "Evicting Animals from Buildings")

Trapping Opossums

Trapping and relocating an opossum several miles away seems an appealing method of resolving a conflict because it is perceived as giving the animal a second chance in a new home. Unfortunately, in addition to being illegal (see “Legal Status”), moving opossums often will not solve the original problem because other opossums will replace them and cause similar conflicts. Hence, it is more effective to make the site less attractive to opossums than it is to routinely trap them.

It is legal to trap an opossum, and then release the animal at the site of capture. With this option, the opossum is trapped and released on site after its reentry into a structure is prevented by physical exclusion. (See “Opossums in or Under Buildings” for exclusion techniques.)

In such a case, the opossum is evicted within its home range and because it is familiar with its surroundings, it can soon find suitable food and shelter. In the event young are present but were not noticed prior to trapping, allow the female back inside to tend to her dependent offspring.

A downside to this approach is the possibility that the animal may simply enter someone else’s attic, chimney, or similar place. Then, if someone else has to trap the animal, they will be dealing with a trap-smart opossum, making its capture difficult.

If an opossum needs to be trapped, use a single- or double-door type live trap that measures 11 x 11 x 36 inches. Bait with apples or other fruit, cracked boiled eggs, or vegetables to prevent attracting dogs or cats. Place the trap where the animal, or evidence of the animal has been seen.

Public Health Concerns

Although opossums might carry several diseases of significance to humans, their role in the transmission of any of these diseases is uncertain. Anyone handling a dead or live opossum should wear rubber gloves, and wash his or her hands well when finished.

There is convincing evidence that the parasite that causes **Equine Protozoal Myeloencephalitis (EPM)**, a disease in horses, is carried by the opossum. EPM is an infection of the central nervous system; the neurologic signs that are most apparent in horses include dizziness, weakness, and spasticity.

While there are no guaranteed methods of preventing exposure to this parasitic organism, horse owners can minimize risks by making facilities less attractive to opossums. Remove or seal up food that opossums might find attractive, such as cat food left out, grain sitting in buckets, feed in uncovered bins, and garbage in open cans. If feed has been left exposed, check it for droppings before serving it to your horses. Droppings need not be fresh to be dangerous; the parasite can live outside a host and remain potentially infectious for as long as one year.

The **rabies** virus does not exist in Washington opossum populations, and for some unknown reason opossums rarely get rabies elsewhere.

If a person is **bitten or scratched**, immediately clean the wound by thoroughly scrubbing it with soap and water. Flush the wound liberally. A physician should examine all wounds caused by an opossum.

Legal Status

The opossum is unclassified and may be trapped or killed year-round; no permit is necessary. No permit is necessary for the use of live (cage) traps; however, a special trapping permit is required for the use of all traps other than live traps (RCW 77.15.192, 77.15.194; WAC 232-12-142).

It is unlawful to release an opossum anywhere within the state, other than on the property where it was legally trapped, without a permit to do so (RCW 77.15.250; WAC 232-12-271). Except for bona fide public or private zoological parks, persons and entities are prohibited from importing opossums into the state without a permit to do so (WAC 246-100-191).

Because legal status, trapping restrictions, and other information about opossums change, contact your local Fish and Wildlife office for updates.

Additional Information

Books

- Christensen, James R., and Earl J. Larrison. *Mammals of the Pacific Northwest: A Pictorial Introduction*. Moscow, ID: University of Idaho Press, 1982. \
- Conover, Michael. *Resolving Human-Wildlife Conflicts: The Science of Wildlife Damage Management*. Boca Raton, FL: Lewis Publishers, 2002.
- Hugnstrom, Scott E., et al. *Prevention and Control of Wildlife Damage*. Lincoln, NE: University of Nebraska-Lincoln, Institute of Agriculture and Natural Resources, 1994. (Available from: University of Nebraska Cooperative Extension, 202 Natural Resources Hall, Lincoln, NE 68583-0819; phone: 402-472-2188; also see Internet Sites below.)
- Ingles, L. G. *Mammals of the Pacific States*. Stanford, CA: Stanford University Press, 1965.
- Larrison, Earl J. *Mammals of the Northwest: Washington, Oregon, Idaho, and British Columbia*. Seattle: Seattle Audubon Society, 1976.
- Maser, Chris. *Mammals of the Pacific Northwest: From the Coast to the High Cascades*. Corvallis: Oregon State University Press, 1998.
- Nagorsen, David W. *Royal British Columbia Museum Handbook: Opossums, Shrews, and Moles of British Columbia*. Vancouver, BC: University of British Columbia Press, 1996.
- Verts, B. J., and Leslie N. Carraway. *Land Mammals of Oregon*. Los Angeles: University of California Press, 1998.

Internet Resources

- Burke Museum's Mammals of Washington
<http://www.washington.edu/burkemuseum/collections/mammalogy/mamwash/mamwash.html>
- Prevention and Control of Wildlife Damage
<http://wildlifedamage.unl.edu/handbook/handbook/>
- The Internet Center for Wildlife Damage Management
<http://wildlifedamage.unl.edu/>
- Tomahawk Live Traps
<http://www.livetraps.com/>
- Wildlife Control Supplies
<http://www.wildlifecontrolsupplies.com/>

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Written by: Russell Link, WDFW Urban Wildlife Biologist, Linkrel@dfw.wa.gov

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