SULTAN CITY COUNCIL
AGENDA COVER SHEET

ITEM NO: SR-4

DATE: August 26, 2010

SUBJECT: Community Service Officer

CONTACT PERSON: Victoria Forte', Community Service Officer
Robert Martin, Community Development Director

ISSUE:
Transmitting report from Victoria Forte, Community Services Officer

STAFF RECOMMENDATION:
Receive Report, no action required.

BACKGROUND:
Current Update On Animal Control Program; Community Service Officer and public outreach and education

ATTACHMENT

Attachment A: Community Service Officer Work log
Attachment B Outreach and Education

Animal Control Monthly Record Log

	Animal Impounds				Calls										
2010	Returned to owner	Adopted	Sent to rescue	Euthanized	Dogs at Large	Barking Dog Complaints	Dead on arrival (DOA) Domestic and Wildlife	Animals Hit by Cars	Animals Abandoned	Aggressive Animal Complaints	Bite Dogs	Cruelty/Neglect Investigation Complaints	Other	Cat Complaints/Calls
January														
February														
March	1	1	1	0	12	1	0	0	0	0	1	0	1	n/a
April	2	0	0	0	15	3	2	0	0	3	0	2	2	n/a
May	2	1	0	0	12	4	1	1	1	0	0	0	1	n/a
June	3	0	0	0	9	9	1	0	0	1	1	1	5	3
July	4	0	0	0	9	8	0	1	0	0	0	1	4	3
August (to date)	0	0	0	0	3	3	1	0	0	0	0	1	1	1
September														
October														
November														
December														
Yearly Totals														

Living with Wildlife

Cougars (Mountain Lions)

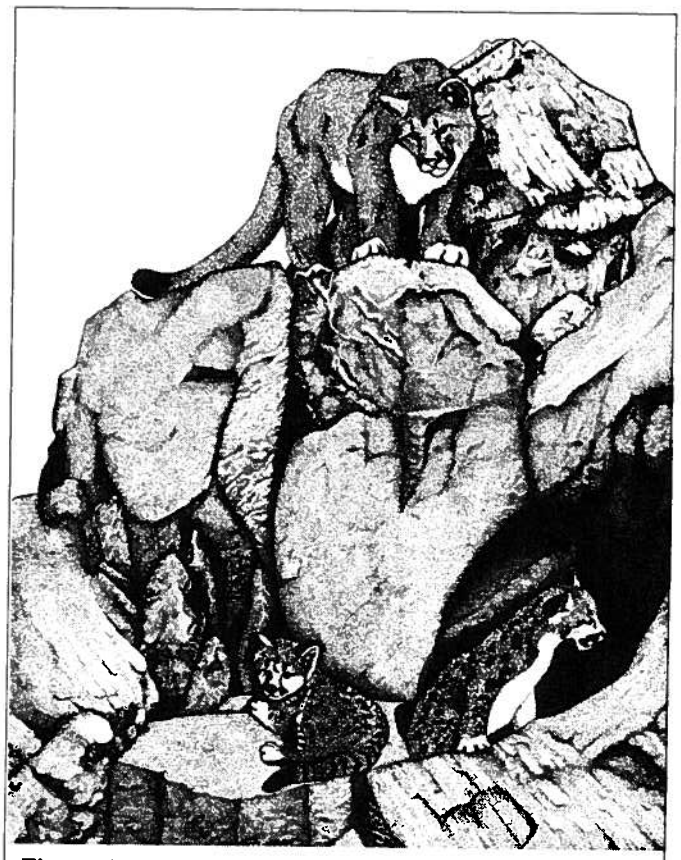

Figure 1. *In rough terrain, cougar daybeds are usually in a cave or a shallow nook on a cliff face or rock outcrop. An average of two kittens are born every other year.*
(From Christensen, Mammals of the Pacific Northwest: A Pictorial Introduction.)

Sleek and graceful, cougars (*Puma concolor,* Fig. 1) are solitary and secretive animals rarely seen in the wild. Also known as mountain lions or pumas, cougars are known for their strength, agility, and awesome ability to jump. Their exceptionally powerful legs enable them to leap 30 feet from a standstill, or to jump 15 feet straight up a cliff wall. A cougar's overall strength and powerful jaws allow it to take down and drag prey larger than itself (Fig. 2).

Cougars are the largest members of the cat family in North America. Adult males average approximately 140 pounds but in a perfect situation may weigh 180 pounds and measure 7-8 feet long from nose to tip of tail. Adult males stand about 30 inches tall at the shoulder. Adult female cougars average about 25 percent smaller than males. Cougars vary in color from reddish-brown to tawny (deerlike) to gray, with a black tip on their long tail.

Cougars occur throughout Washington where suitable cover and prey are found. The cougar population for the year 2002 was estimated to be 2,400 to 3,500 animals. Statewide, the cougar population is likely declining. The Department of Fish and Wildlife has nine management zones around the state designated for "maintain" or "decline," and adjusts harvest levels accordingly.

Wildlife offices throughout the state receive hundreds of calls a year regarding sightings, attacks on livestock and pets, and cougar/human confrontations. Our increasing human populations and decreasing cougar habitat may create more opportunities for such encounters.

Facts about Cougars

Habitat and Home Range

- Cougars use steep canyons, rock outcroppings and boulders, or vegetation, such as dense brush and forests, to remain hidden while hunting.
- Adult male cougars roam widely, covering a home range of 50 to 150 square miles, depending on the age of the cougar, the time of year, type of terrain, and availability of prey.
- Adult male cougars' home ranges will often overlap those of three or four females.
- Female home ranges are about half that of males and there in considerable overlap in female home ranges.
- Often female progeny will establish a territory adjacent to mother, while virtually all males disperse considerable distances from the natal area.

Food and Feeding Habits

- Cougars are most active from dusk to dawn, although they sometimes travel and hunt during the day.
- Adult cougars typically prey on deer, elk, moose, mountain goats, and wild sheep, with deer being the preferred and most common prey.
- Other prey species, especially for younger cougars, include raccoons, coyotes, rabbits, hares, small rodents, and occasionally pets and livestock.
- A large male cougar living in the Cascade Mountains kills a deer or elk every 9 to 12 days, eating up to 20 pounds at a time and burying the rest for later.
- Except for females with young, cougars are lone hunters that wander between places frequented by their prey, covering as much as 15 miles in a single night.
- Cougars rely on short bursts of speed to ambush their prey. A cougar may stalk an animal for an hour or more (Fig. 3).

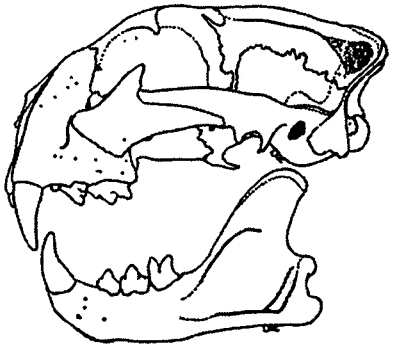

Figure 2. *A cougar's strength and powerful jaws allow it to take down and drag prey larger than itself.*
(From Verts and Carraway, Land Mammals of Oregon.)

Daybed Sites

- Cougars don't use dens like bears. They may settle down for up to six weeks while the kittens are immobile, but afterward are almost always on the move, making daybeds as they go.
- A cougar's daybed is used for rest, protection from the weather, and to raise young.
- In rough terrain, daybeds are usually in a cave or a shallow nook on a cliff face or rock outcrop (Fig. 1). In less mountainous areas, day beds are located in forested areas, thickets, or under large roots or fallen trees.
- Daybeds are frequently near kill sites. No day beds preparation takes place.

Reproduction and Family Structure

- Cougars can breed year-round, but breeding is more common in winter and early spring. Several females may breed with a resident male whose home range overlaps theirs.
- After 91 to 97 days of pregnancy, one to four (but usually two) kittens are born.
- The bond between male and female is short-lived (about ten days), and the male cougar plays no role in raising the kittens.
- Kittens stay with their mothers for 12 to 19 months following their birth.
- Female cougars usually breed every other year.

Figure 3. *Cougars are a stalk and wait predators and the majority of prey is killed by a sudden explosive burst of speed with the attack focused from the front shoulder forward, where the cougar can grasp the neck to break the neck or suffocate and kill.*
(Washington Department of Fish and Wildlife.)

Mortality and Longevity

- The two most common natural causes of death among cougars are being killed by other cougars, or by the prey during an attack.
- Humans, through hunting, depredation, and vehicle collisions, are probably the main source of mortality among cougars.
- Male cougars can live 10 to 12 years in the wild; females normally live longer.

Viewing Cougars

Cougars make their living by not being seen. In areas disturbed by humans, these cats are most active during twilight and early morning hours. (In dim light, cougars see up to six times better than humans.) However, cougars can be active at dawn or dusk if prey is active at that time.

Tracks

Cougar tend to leave "soft" tracks, meaning the animals make very little impact on the ground, and their tracks may be virtually invisible on packed earth or crusted snow (Fig. 4). In addition, to preserve their sharpness for gripping prey, these animals keep their claws retracted most of the time, and so claw marks are rarely visible in their tracks.

Because cougars carry their heavy tail in a wide U shape at a normal walk, in snow, the lowermost portion may leave drag marks between each print.

Figure 4. *Cougar tracks are about the size of a baseball, 3 to 3½ inches in diameter. Note the lack of claw marks, which are visible in tracks left by members of the dog family.*

(From Pandell, Animal Tracks of the Pacific Northwest.)

Droppings

Cougars generally cover their droppings with loose soil. When visible, their droppings typically resemble those of most species in the dog and cat families. However, cougars have well developed premolars that can slice through bone and hide. Therefore, their droppings often show chunks and fragments of chewed bone and considerable hair from the hide. Members of the dog family gnaw on bones but usually don't chew them up into cut fragments.

Cougar droppings are generally cylindrical in shape, segmented, and blunt at one or both ends. An average dropping measures 4 to 6 inches long by 1 to 1½ inches in diameter. The size of the dropping is a good indication of the size of the cougar.

Feeding Areas (caches)

Cougars usually carry or drag their kills to a secluded area under cover to feed, and drag marks are frequently found at fresh kill sites. After killing a large animal and having eaten its fill, a cougar often will cover the remains with debris such as snow, grass, leaves, sticks, or soil. Even where little debris is available, bits of soil, rock, grass or sticks may be used to cover the carcass. The cougar may remain in the immediate vicinity of its kill, guarding it against scavengers and eating it over a period of six to eight days. (Meat becomes rotten quickly in the summer and male cougars have to patrol their territory. Often these males will make a kill, feed until full, leave to patrol the area, and return to feed on the carcass days later.)

Do not approach or linger around a recently killed or partially covered deer or elk.

Scratching Posts

Like house cats scratching furniture, cougars mark their territory boundaries by leaving claw marks on trees, stumps, and occasionally fence posts. Claw marks left by an adult cougar will be 4 to 8 feet above the ground and consist of long, deep, parallel scratches running almost vertically down the trunk. These gashes rarely take off much bark; tree-clawing that removes much bark is probably the work of a bear. (Bobcat claw marks are normally 2 to 3 feet above the ground; domestic cat scratching occurs at a height of about 1½ to 2 feet).

Calls

Cougars hiss, purr, mew, growl, yowl, chirp, and cry. The most sensational sounds they make are the eerie wailings and moans heard at night during mating season, especially when competing males have intentions toward the same receptive female. Such wails have been likened to a child crying, a woman's scream, and the screeching of someone in terrible pain.

Preventing Conflicts

The cougar's ability to travel long distances occasionally brings these cats into seemingly inappropriate areas, even places densely settled by humans. Such appearances are almost always brief, with the animal moving along quickly in its search of a suitable permanent home. However, where humans are encroaching on wildlife habitat, the number of cougar sightings and attacks on livestock and pets is on the rise.

Cougar attacks on humans are extremely rare. In North America, roughly 25 fatalities and 95 nonfatal attacks have been reported during the past 100 years. However, more cougar attacks have been reported in the western United States and Canada over the past 20 years than in the previous 80. In Washington, of the one fatal and fifteen nonfatal attacks reported here in the past 100 years, seven attacks occurred during the 1990s.

A high percentage of cougars attacking domestic animals or people are one- to two-year-old cougars that have become independent of their mothers. When these young animals, particularly males, leave home to search for territory of their own, and encounter territory already occupied by an older male cougar, the older one will drive off the younger one, killing it if it resists. Some young cougars are driven across miles of countryside in search of an unoccupied territory.

If you are living in cougar country, prevent a conflict with them by using the following management strategies around your property, and, if possible, encourage your neighbors to do the same.

Don't leave small children unattended. When children are playing outdoors, closely supervise them and be sure they are indoors by dusk. (See "Cougars and Kids.")

Modify the habitat around your home. Light all walkways after dark and avoid landscaping with plants that deer prefer to eat. Where a deer goes, a cougar may follow. Shrubs and trees around kids' play areas should be pruned up several feet to prevent cougars from hiding behind them.

Although costly and not 100 percent effective, a chain-link or heavy woven wire fence that is 10 feet high with 3-foot extensions installed at a 65-degree angle on each post may keep cougars out of an enclosed area. To increase effectiveness, string barbed wire or four electric wires between the extensions, alternating positive and negative wires.

Don't feed wildlife and feral cats (domestic cats gone wild). This includes deer, raccoons, and other small mammals. Remember predators follow prey.

Close off open spaces under structures. Areas beneath porches and decks can provide shelter for prey animals.

Feed dogs and cats indoors. If you must feed outside, do so in the morning or midday, and pick up food and water bowls, as well as leftovers and spilled food, well before dark. Pet food and water attract small mammals that, in turn, attract cougars.

Keep dogs and cats indoors, especially from dusk to dawn. Left outside at night, small dogs and cats may become prey for cougars.

Use garbage cans with tight-fitting lids. Garbage attracts small mammals that, in turn, attract cougars. See the handout on Raccoons for information on garbage management.

Keep outdoor livestock and small animals confined in secure pens. For a large property with livestock, consider using a guard animal. There are specialty breeds of dogs that can defend livestock. Donkeys and llamas have also successfully been used as guard animals. As with any guard animal, pros and cons exist. Purchase a guard animal from a reputable breeder who knows the animal he or she sells. Some breeders offer various guarantees on their guard animals, including a replacement if an animal fails to perform as expected.

See the handout on Coyotes for additional information on livestock management.

Encountering a Cougar

Relatively few people will ever catch a glimpse of a cougar much less confront one. If you come face to face with a cougar, your actions can either help or hinder a quick retreat by the animal.

Here are some things to remember:

- Stop, pick up small children immediately, and don't run. Running and rapid movements may trigger an attack. Remember, at close range, a cougar's instinct is to chase.
- Face the cougar. Talk to it firmly while slowly backing away. Always leave the animal an escape route.
- Try to appear larger than the cougar. Get above it (e.g., step up onto a rock or stump). If wearing a jacket, hold it open to further increase your apparent size. If you are in a group, stand shoulder-to-shoulder to appear intimidating.
- Do not take your eyes off the cougar or turn your back. Do not crouch down or try to hide.
- Never approach the cougar, especially if it is near a kill or with kittens, and never offer it food.
- If the cougar does not flee, be more assertive. If it shows signs of aggression (crouches with ears back, teeth bared, hissing, tail twitching, and hind feet pumping in preparation to jump), shout, wave your arms and throw anything you have available (water bottle, book, backpack). The idea is to convince the cougar that you are not prey, but a potential danger.
- If the cougar attacks, fight back. Be aggressive and try to stay on your feet. Cougars have been driven away by people who have fought back using anything within reach, including sticks, rocks, shovels, backpacks, and clothing—even bare hands. If you are aggressive enough, a cougar will flee, realizing it has made a mistake. Pepper spray in the cougar's face is also effective in the extreme unlikelihood of a close encounter with a cougar.

Cougars and Kids

Children seem to be more at risk than adults to cougar attacks, possibly because their high-pitched voices, small size, and erratic movements make it difficult for cougars to identify them as human and not prey. To prevent a problem from occurring:

- **Talk to children and teach them what to do if they encounter a cougar.**
- **Encourage children to play outdoors in groups, and supervise children playing outdoors.**
- **Consider getting a dog for your children as an early-warning system. A dog can see, smell, and hear a cougar sooner than we can. Although dogs offer little value as a deterrent to cougars, they may distract a cougar from attacking a human.**
- **Consider erecting a fence around play areas. (See "Modify the habitat around your home."**
- **Keep a radio playing when children are outside, as noise usually deters cougars.**
- **Make sure children are home before dusk and stay inside until after dawn.**
- **If there have been cougar sightings, escort children to the bus stop in the early morning. Clear shrubs away around the bus stop, making an area with a 30-foot radius. Have a light installed as a general safety precaution.**

Professional Assistance

Wildlife offices throughout Washington respond to cougar sightings when there is a threat to public safety or property. Problem cougars may be live-trapped by trained fish and wildlife personnel and moved to more remote areas; however, such removals are expensive, time consuming, and seldom effective. Using tranquilizing drugs on cougars to facilitate removal is difficult and dangerous for cougars and humans. When other methods have failed, lethal removal of problem animals may be the only alternative.

Contact your local wildlife office for additional information, and in the case of an immediate emergency, call 911 or any local law enforcement office, such as the state patrol.

Precautions for Hikers and Campers

While recreating in a cougar's territory, you can avoid close encounters by taking the following precautions:

- **Hike in groups and make enough noise to prevent surprising a cougar.**
- **Avoid hiking after dark.**
- **Keep small children close to the group, preferably in plain sight ahead of you.**
- **Do not approach dead animals, especially recently killed or partially covered deer and elk.**
- **Be aware of your surroundings, particularly when hiking in dense cover or when sitting, crouching, or lying down. Look for tracks, scratch posts, and partially covered droppings.**
- **Keep a clean camp. Reduce odors that might attract mammals such as raccoons, which in turn could attract cougars. Store meat, other foods, pet food, and garbage in double plastic bags.**

Figure 5. *To avoid a close and unpleasant encounter with a cougar, do not hike alone in cougar country. (Washington Department of Fish and Wildlife.)*

Public Health Concerns

Cougars rarely carry any communicable diseases that are regarded as threats to humans in Washington.

Feline distemper (*Feline panleukopenia*) antibodies have been documented in Washington cougar populations, but the degree that the *Feline panleukopenia* virus causes cougar mortality, or is transferred to domestic cats, is unknown.

Legal Status

Because the legal status, hunting restrictions, and other information relating to cougars change, contact your local wildlife office for updates.

Cougars are classified as game animals and an open season and a hunting license are required to hunt them (WAC 232-12-007). A property owner or the owner's immediate family, employee, or tenant may kill a cougar on that property if it is damaging domestic animals (RCW 77.36.030). No permit is required.

The killing of a cougar in self-defense, or defense of another, should be reasonable and justified. A person taking such action must have reasonable belief that the cougar poses a threat of serious physical harm, that this harm is imminent, and the action is the only reasonable available means to prevent that harm.

The body of any cougar, whether taken under the direct authority of RCW 77.36.030, or for the protection of a person, remains the property of the state and must be turned over to the Department of Fish and Wildlife immediately.

Additional Information

Books

Maser, Chris. *Mammals of the Pacific Northwest: From the Coast to the High Cascades.* Corvalis: Oregon State University Press, 1998.

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

Adapted from "Living with Wildlife in the Pacific Northwest" (see http://wdfw.wa.gov/wlm/living.htm)

Written by: Russell Link, WDFW Urban Wildlife Biologist, Linkrel@dfw.wa.gov, WDFW Biologists Rich Beausoleil and Rocky Spencer.

Design and layout: Peggy Ushakoff, ITT2

Illustrations: As credited

Washington Department of FISH and WILDLIFE

Living with Wildlife

Raccoons

The raccoon *(Procyon lotor)* is a native mammal, measuring about 3 feet long, including its 12-inch, bushy, ringed tail. Because their hind legs are longer than the front legs, raccoons have a hunched appearance when they walk or run. Each of their front feet has five dexterous toes, allowing raccoons to grasp and manipulate food and other items (Fig. 1).

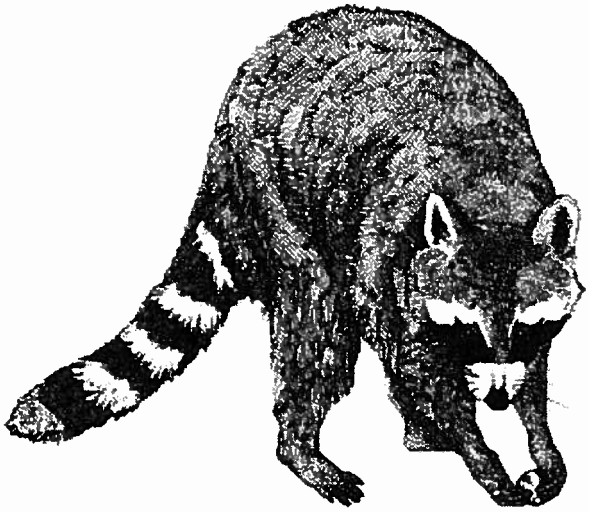

Figure 1. *Because raccoons manipulate and moisten food items in water, there is a misconception that raccoons "wash" their food before eating it. However, when water is not available, raccoons use many of the same motions in handling food.*

Raccoons prefer forest areas near a stream or water source, but have adapted to various environments throughout Washington. Raccoon populations can get quite large in urban areas, owing to hunting and trapping restrictions, few predators, and human-supplied food.

Adult raccoons weigh 15 to 40 pounds, their weight being a result of genetics, age, available food, and habitat location. Males have weighed in at over 60 pounds. A raccoon in the wild will probably weigh less than the urbanized raccoon that has learned to live on handouts, pet food, and garbage-can leftovers.

As long as raccoons are kept out of human homes, not cornered, and not treated as pets, they are not dangerous.

Facts about Raccoons

Food and Feeding Habitats

- Raccoons will eat almost anything, but are particularly fond of creatures found in water—clams, crayfish, frogs, fish, and snails.
- Raccoons also eat insects, slugs, dead animals, birds and bird eggs, as well as fruits, vegetables, nuts, and seeds. Around humans, raccoons often eat garbage and pet food.
- Although not great hunters, raccoons can catch young gophers, squirrels, mice, and rats.
- Except during the breeding season and for females with young, raccoons are solitary. Individuals will eat together if a large amount of food is available in an area.

Den Sites and Resting Sites

- Dens are used for shelter and raising young. They include abandoned burrows dug by other mammals, areas in or under large rock piles and brush piles, hollow logs, and holes in trees.
- Den sites also include wood duck nest-boxes, attics, crawl spaces, chimneys, and abandoned vehicles.
- In urban areas, raccoons normally use den sites as daytime rest sites. In wooded areas, they often rest in trees.
- Raccoons generally move to different den or daytime rest site every few days and do not follow a predictable pattern. Only a female with young or an animal "holed up" during a cold spell will use the same den for any length of time. Several raccoons may den together during winter storms.

Reproduction and Home Range

- Raccoons pair up only during the breeding season, and mating occurs as early as January to as late as June. The peak mating period is March to April.
- After a 65-day gestation period, two to three kits are born.
- The kits remain in the den until they are about seven weeks old, at which time they can walk, run, climb, and begin to occupy alternate dens.
- At eight to ten weeks of age, the young regularly accompany their mother outside the den and forage for themselves. By 12 weeks, the kits roam on their own for several nights before returning to their mother.
- The kits remain with their mother in her home range through winter, and in early spring seek out their own territories.
- The size of a raccoon's home range as well as its nightly hunting area varies greatly depending on the habitat and food supply. Home range diameters of 1 mile are known to occur in urban areas.

Mortality and Longevity

- Raccoons die from encounters with vehicles, hunters, and trappers, and from disease, starvation, and predation.
- Young raccoons are the main victims of starvation, since they have very little fat reserves to draw from during food shortages in late winter and early spring.
- Raccoon predators include cougars, bobcats, coyotes, and domestic dogs. Large owls and eagles will prey on young raccoons.
- The average life span of a raccoon in the wild is 2 to 3 years; captive raccoons have lived 13.

Viewing Raccoons

Raccoons can be seen throughout the year, except during extremely cold periods. Usually observed at night, they are occasionally seen during the day eating or napping in a tree or searching elsewhere for food. Coastal raccoons take advantage of low tides and are seen foraging on shellfish and other food by day.

Trails

Raccoons use trails made by other wildlife or humans next to creeks, ravines, ponds, and other water sources. Raccoons often use culverts as a safe way to cross under roads. With a marsh on one side of the road and woods on the other, a culvert becomes their chief route back and forth. Look for raccoon tracks in sand, mud, or soft soil at either end of the culvert.

In developed areas, raccoon travel along fences, next to buildings, and near food sources.

Tracks, Scratch Marks, and Similar Signs

Look for tracks in sand, mud, or soft soil, also on deck railings, fire escapes, and other surfaces that raccoons use to gain access to structures (Fig. 2). Tracks may appear as smudge marks on the side of a house where a raccoon shimmies up and down a downspout or utility pipe.

Sharp, nonretractable claws and long digits make raccoons good climbers. Like squirrels, raccoons can rotate their hind feet 180 degrees and descend trees headfirst. (Cats' claws don't rotate and they have to back down trees.) Look for scratch marks on trees and other structures that raccoons climb.

Look for wear marks, body oil, and hairs on wood and other rough surfaces, particularly around the edges of den entrances. The den's entrance hole is usually at least 4 inches high and 6 inches wide.

Droppings

Raccoon droppings are crumbly, flat-ended, and can contain a variety of food items. The length is 3 to 5 inches, but this is usually broken into segments. The diameter is about the size of the end of your little finger.

Raccoons leave droppings on logs, at the base of trees, and on roofs (raccoons defecate before climbing trees and entering structures). Raccoons create toilet areas—inside and outside structures—away from the nesting area. House cats have similar habits.

Note: Raccoon droppings may carry a parasite that can be fatal to humans. Do not handle or smell raccoon droppings and wash your hands if you touch any. (See "Public Health Concerns".)

Calls

Raccoons make several types of noises, including a purr, a chittering sound, and various growls, snarls, and snorts.

Figure 2. *The rear foot of a raccoon shows the "heel" and looks like a small human footprint. Both front and back feet have five toes. The front prints have shorter heel marks and are 2 to 3 inches long; the hind tracks are 3 to 4 inches long.*

(From Pandell and Stall, *Animal Tracks of the Pacific Northwest.*)

Preventing Conflicts

A raccoon's search for food may lead it to a vegetable garden, fish pond, 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 raccoons. Recommendations on how to do this are given below:

Don't feed raccoons. Feeding raccoons may create undesirable situations for you, your children, neighbors, pets, and the raccoons themselves. Raccoons 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 raccoons in a small area; overcrowding can spread diseases and parasites. Finally, these hungry visitors might approach a neighbor who

Raccoons Too Close for Comfort

If a raccoon ever approaches too closely, make yourself appear larger: stand up if sitting, shout, and wave your arms. If necessary, throw stones or send the raccoon off with a dousing of water from a hose or bucket.

If a raccoon continues to act aggressively or strangely (circling, staggering as if drunk or disoriented, or shows unnatural tameness) it may be sick or injured. In such a case, call a wildlife rehabilitator or your local wildlife office.

If aggressive raccoons are routinely seen in your area, prepare your children for a possible encounter. Explain the reasons why raccoons live there (habitat, food sources, species adaptability) and what they should do if one approaches them. By shouting a set phrase such as "Go away raccoon!" when they encounter one, instead of a general scream, children will inform nearby adults of the raccoon's presence. Demonstrate and rehearse encounter behavior with the children.

If a raccoon finds its way into your house, stay calm, close surrounding interior doors, leave the room, and let the animal find its way back out through the open door, window, or pet door. If necessary, gently use a broom to corral the raccoon outside. (Do not corner a raccoon, thereby forcing it to defend itself.)

doesn't share your appreciation of the animals. The neighbor might choose to remove these raccoons, or have them removed.

Don't give raccoons 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 raccoons 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, raccoons may attack dogs and cats. Bite wounds from raccoons can result in fractures and disease transmission.

Prevent raccoons 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 raccoons 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 raccoon-proof composter to prevent attracting raccoons 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.

Clean barbecue grills and grease traps thoroughly following each use.

Eliminate access to denning sites. Raccoons commonly use chimneys, attics, and spaces under houses, porches, and sheds as den sites. Close any potential entries with ¼-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 information on securing chimneys, see "Raccoons in Dumpsters and Down Chimneys."

Prevent raccoons from accessing rooftops by trimming tree limbs away from structures and by attaching sheets of metal flashing around corners of buildings (Fig. 3). Commercial products that prevent climbing are available from farm supply centers and bird-control supply companies on the Internet (Fig. 4). Remove vegetation on buildings, such as English ivy, which provide raccoons a way to climb structures and hide their access point inside.

Enclose poultry (chickens, ducks, and turkeys) in a secure outdoor pen and house. Raccoons will eat poultry and their eggs if they can get to them. Signs of raccoon predation include the

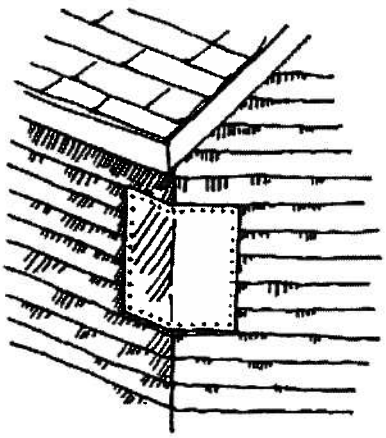

Figure 3. *Raccoon access to rooftops can be eliminated by installing sheets of aluminum flashing, at least 3 feet square, around the corners of buildings.*

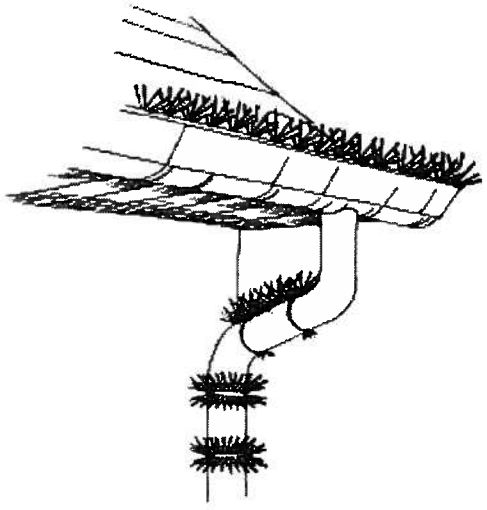

Figure 4. *Commercially available metal or plastic spikes can help keep raccoons off of buildings.*

(Drawings by Jenifer Rees.)

birds' heads bitten off and left some distance away, only the bird's crop being eaten, stuck birds pulled half-way through a fence, and nests in severe disarray. *Note:* Other killers of poultry include coyotes, foxes, skunks, feral cats, dogs, bobcats, opossums, weasels, eagles, hawks, owls, other poultry, and disease.

If a dead bird is found with no apparent injuries, skinning it may determine what killed it. If the carcass is patterned by red spots where pointed teeth have bruised the flesh but not broken the skin, the bird was probably "played with" by one or more dogs until it died.

Raccoons in Dumpsters and Down Chimneys

Raccoons are enticed by the food smells in dumpsters. When the lids are open they climb in and can't climb the slippery sides to get out. To help them escape, put a strong branch or board in the dumpster for the raccoons to climb out on.

If your disposal company leaves dumpster lids open, install a sign telling employees that it's vital to keep the lid closed so animals don't get trapped inside. Consider installing a totally enclosed trash-compacting dumpster. The trash is deposited in the front and regularly compacted.

In spring and summer, a female raccoon may be enticed into the dark, quiet, and secure environment of your chimney for a nesting place.

If you hear a large animal on the roof, or growls and whines coming from the chimney at night, there is probably a raccoon family inside. Using a powerful flashlight during the day, look for a raccoon down the chimney. (If spider webs are strung across the inside, you can be reasonably sure that no animal is using the chimney.)

The easiest solution to removing raccoons from a chimney is to wait for them to move on their own. After eight to ten weeks the female and young will leave and not return.

If raccoons need to be evicted, do not smoke them out and do not pour anything, including naphtha flakes or mothballs, down the chimney. Adult raccoons can easily climb out of a chimney, but the babies can't. The concentrated vapors can also damage the infant raccoons' mucous membranes and make an adult raccoon extremely agitated while attempting to flee from the vapors.

Instead, harass the adult female using the following methods until being there is no longer worth her effort. She will move her young to an alternate den, one by one, holding them by the back of the neck in her mouth. ***Note:*** Any time you try to evict any mother animal, there is a chance that she may leave some or all of the babies behind.

To encourage the female raccoon to leave:

1. Keep the chimney damper closed and put a loud radio tuned to a talk station in the fireplace.

2. With a short broomstick, pole, or board, bang on the underside of the damper as frequently as possible.

3. Wearing gloves, sprinkle coyote urine, or raccoon eviction fluid (available from farm supply centers, hunting stores, and the Internet) on a rag and wedge it in above the damper. If none of these natural repellents are available, place a bowl containing a cup of ammonia on a footstool just under the damper. If needed, open the damper 1/8-inch. Most dampers are not airtight. Keep what deterrents you can in place 24

hours a day during a period of mild weather, and give the raccoons two to three nights to move out. On the night of departure there may be a lot of racket caused by the female raccoon's frequent climbing up and down the chimney as she retrieves her young.

In urban areas, harassment techniques may not work owing to raccoons' familiarity with humans. In such cases, call a wildlife damage control company and have them assess the situation (call your WDFW Regional Widllife Office for a list of Wildlife Damage Control Companies).

To make sure the eviction process was successful, shine a powerful flashlight down the chimney during the day and look for raccoons. Tap the chimney with a hard object and listen for any sounds of movement. If a young raccoon is left behind, it may be that the mother has abandoned it. In these rare cases it is best to hire a wildlife damage control company to remove the animal.

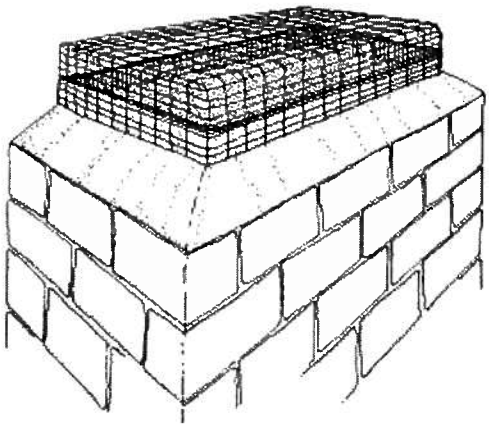

Figure 5. *A commercially available chimney cap will prevent raccoons and other small animals from entering the chimney.*
(Drawing by Jenifer Rees.)

Once the raccoons are gone, promptly call a professional chimney sweep to remove any debris and to 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 raccoons and other wildlife out (Fig. 5).

To prevent raccoons and other animals from accessing birds in their night roosts, equip poultry houses with well-fitted doors and secure locking mechanisms. A raccoon's dexterous paws make it possible for it to open various types of fasteners, latches, and containers.

To prevent raccoons and other animals 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 raccoons from forcing their way in by using their weight and claws. To prevent raccoons from reaching in at ground level, surround the bottom 18 inches of the pen with smaller-mesh wire.

See Figures 3, 4, 6 for examples of how to prevent raccoons from climbing enclosures.

Fence orchards and vegetable gardens. Raccoons can easily climb wood or wire fences, or bypass them by using overhanging limbs of trees or shrubs. See Figures 6 and 8 for examples of ways to prevent raccoons 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 raccoons out.

Protect fruit trees, bird feeders, and nest boxes. To prevent raccoons 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. *Note:* Raccoons will attempt to use surrounding trees or structures as an avenue to access the area above the barrier.

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 raccoons.

Discourage raccoons from disturbing pond plants and other aquatic life. Raccoons are attracted to ponds

because they associate them with a food source. While a motion-activated light or sprinkler, or your shouting may scare off a raccoon, this is usually temporary. A raccoon, especially an urban raccoon, may run away the first night, walk away the second night, but, if there's no additional deterrent, by the third or fourth night the animal will be back with the light shining brightly or the sprinkler sprinkling strongly.

Always give fish a safe place to hide by constructing hiding places on the bottom of the pond. Use cinder blocks, ceramic drain tile, wire baskets, or upside-down plastic crates held in place with heavy rocks.

To prevent raccoons from disturbing aquatic plants in containers, use containers that are too heavy or wide for raccoons to overturn. Securing chicken wire over the top of the containers will prevent raccoons from disturbing the soil inside.

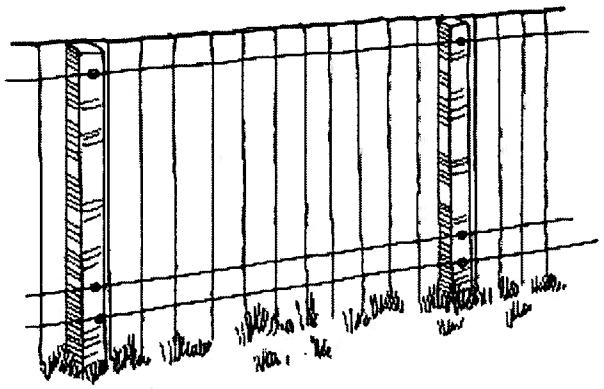

Figure 6. *Install two electrified wires, 12 and 18 inches above ground and onto existing fence posts, poultry pen supports, and other structures, using the proper insulators. A single strand of wire may be sufficient, but two wires will provide added insurance against the animal making the climb. Run 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.)

Although it's awkward looking, small ponds can be completely covered with a barrier that can be left on permanently or removed daily. Since raccoons are most active after dark, be sure the pond is covered at night. Examples of barriers include one-inch mesh chicken wire laid over the surface and held in place with stakes—raccoons will walk on the barrier and try and go under it. (While black bird-netting is less conspicuous, raccoons and other animals can easily get entangled in it.) A wooden or PVC pipe frame covered with wire mesh can also be built to cover the pond. Maneuvering over pond plants with any of the above can be difficult.

An alternative frame can be constructed from heavy plastic lattice available from home improvement centers. Carefully cut the lattice so it fits in the pond; cut out pieces to accommodate any pond plants. Cover the lattice with bird netting (with the solid backing, animals are less likely to become entangled in the netting). The netting can be glued to the lattice using Shoe Goo®or other waterproof glue.

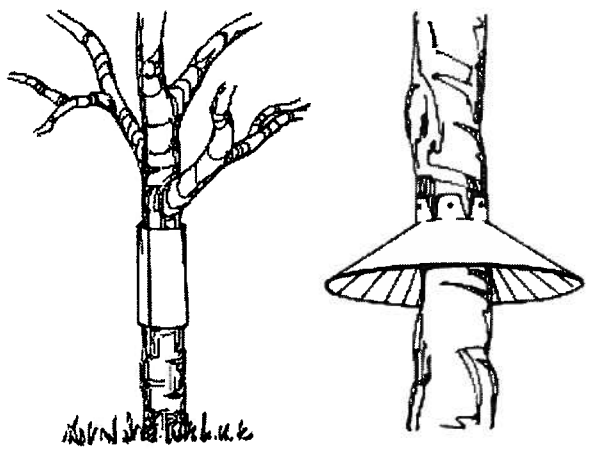

Figure 7. *A raccoon guard can be secured around trees, pipes, posts, and other structures to keep raccoons from climbing. It can be made from a piece of aluminum flashing or sheet metal, held together with wire, nails, or screws, and painted to blend in.*
(Drawing by Jenifer Rees.)

For larger ponds, stake 2-foot wide strips of chicken wire flat around the inside of the pond edge where raccoons are entering. (Cut the wire as needed to match the curvature of the pond.) Raccoons will have difficulty reaching over the wire, and will tend to not stand on it because of its instability. To camouflage and extend the life of the wire, spray it with dark-colored automobile undercoat paint or other rustproof paint.

Ponds with steep, 2-foot high side walls discourage raccoons from entering the water, but may be a safety hazard for small children and the elderly. These hazardous areas can be located away from paths and/or be heavily buffered with dense growths of tall marginal plants and shrubs.

Two electrified wires, 6 and 12 inches above ground and just back from the water's edge will deter raccoons

(see "Preventing Conflicts" in the handout on Great Blue Herons for examples). A single strand of wire may be sufficient, but two wires will provide added insurance against the animal making the climb. The wires can be hooked up to a switch for discretionary use; when you want to work near the wire, turn the system off. Where the barrier presents a safety problem, attach signs, short pieces of white cloth, or other material on the wire for visibility.

Prevent damage to lawns. Because worms and grubs inhabit areas just under well-watered sod, raccoons (and skunks) are attracted to these food sources. See "Prevent Damage to Lawns" in the handout on Skunks for ways to prevent conflicts.

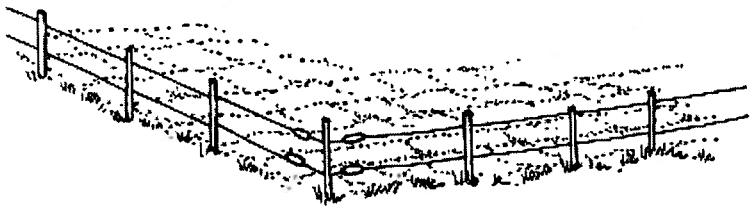

Figure 8. *Install two electrified wires, 6 and 12 inches above ground around field crops and other areas needing protection. The fence can be hooked up to a switch for discretionary use; when you want to work near it, turn the system off. Where the fence presents a safety problem, install signs, short pieces of white cloth, or other material on the wire for visibility.*
(Drawing by Jenifer Rees.)

Trapping Raccoons

Trapping and relocating a raccoon several miles away seems an appealing method of resolving a conflict because it is perceived as giving the "problem animal" a second chance in a new home. Unfortunately, the reality of the situation is quite different. Raccoons typically try to return to their original territories, often getting hit by a car or killed by a predator in the process. If they remain in the new area, they may get into fights (oftentimes to the death) with resident raccoons for limited food, shelter, or nesting sites. Raccoons may also transmit diseases to rural populations that they have picked up from urban pets. Finally, if a place "in the wild" or an urban green space is perfect for raccoons, raccoons are probably already there. It isn't fair to the animals already living there to release another competitor into their home range.

Raccoons used to a particular food source, type of shelter, or human activity will seek out familiar situations and surroundings. People, organizations, or agencies that illegally move raccoons should be willing to assume liability for any damages or injuries caused by these animals. Precisely for these reasons, raccoons posing a threat to human and pet safety should not be relocated.

In many cases, moving raccoons will not solve the original problem because other raccoons will replace them and cause similar conflicts. Hence, it is more effective to make the site less attractive to raccoons than it is to routinely trap them.

Trapping also may not be legal in some urban areas; check with local authorities. Transporting animals without the proper permit is also unlawful in most cases (see "Legal Status"). See the handout on "Trapping Wildlife" for information on trapping raccoons.

Lethal Control

Lethal control is a last resort and can never be justified without first applying the above-described nonlethal control techniques. Lethal control is rarely a long-term solution since other raccoons are likely to move in if food, water, or shelter remains available.

If all efforts to dissuade a problem raccoon fail, the animal may have to be trapped.

While shooting can be effective in eliminating a single raccoon, it is generally limited to rural situations. Shooting is considered too hazardous in more populated areas, even if legal.

Public Health Concerns

A disease that contributes significantly to raccoon mortality is **canine distemper.** Canine distemper is also a common disease fatal to domestic dogs, foxes, coyotes, mink, otters, weasels, and skunks. It is caused by a virus and is spread most often when animals come in contact with the bodily secretions of animals infected with the disease. Gloves, cages, and other objects that have come in contact with infected animals can also contain the virus. The best prevention against canine distemper is to have your dogs vaccinated and kept away from raccoons.

Raccoons in Washington often have **roundworms** (like domestic dogs and cats do, but from a different worm). Raccoon roundworm does not usually cause a serious problem for raccoons. However, roundworm eggs shed in raccoon droppings can cause mild to serious illness in other animals and humans. Although rarely documented anywhere in the United States, raccoon roundworm can infect a person who accidentally ingests or inhales the parasite's eggs.

Prevention consists of never touching or inhaling raccoon droppings, using rubber gloves and a mask when cleaning areas (including traps) that have been occupied by raccoons, and keeping young children and pets away from areas where raccoons concentrate. (If washing raccoon droppings from a roof, watch where the liquid matter is going.) Routinely encourage or assist your children to wash their hands after playing outdoors. Unfortunately, raccoon roundworm eggs can remain alive in soil and other places for several months.

If a person is bitten or scratched by a raccoon, immediately scrub the wound with soap and water. Flush the wound liberally with tap water. In other parts of the United States raccoons can carry **rabies.** Contact your physician and the local health department immediately. If your pet is bitten, follow the same cleansing procedure and contact your veterinarian.

Legal Status

Because legal status, trapping restrictions, and other information about raccoons change, contact your local wildlife office for updates.

The raccoon is classified as both a furbearer and a game animal (WAC 232-12-007). A hunting or trapping license is required to hunt or trap raccoons during an open season. A property owner or the owner's immediate family, employee, or tenant may kill or trap a raccoon on that property if it is damaging crops or domestic animals (RCW 77.36.030). In such cases, 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 wildlife 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 raccoons into Washington State without a permit to do so (WAC 246-100-191).

Additional Information

Books

Conover, Michael. *Resolving Human[-]Wildlife Conflicts: The Science of Wildlife Damage Management.* Boca Raton, FL: Lewis Publishers, 2002.

Hygnstrom, 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.)

Link, Russell. *Landscaping for Wildlife in the Pacific Northwest*. Seattle: University of Washington Press and the Washington Department of Fish and Wildlife, 1999.

Maser, Chris. *Mammals of the Pacific Northwest: From the Coast to the High Cascades*. Corvalis: Oregon State University Press, 1998.

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/

Internet IPM Resources on Vertebrate Pests (Oregon State University):
http://www.ippc.orst.edu/cicp/Pests/vertebrate.htm

Prevention and Control of Wildlife Damage:
http://wildlifedamage.unl.edu/

The Internet Center for Wildlife Damage Management:
http://wildlifedamage.unl.edu/

Tomahawk Live Traps:
http://www.livetrap.com/

U.S. Forest Service Wildlife Species Life Form Information:
http://www.fs.fed.us/database/feis/wildlife/

Wildlife Control Supplies:
http://www.wildlifecontrolsupplies.com/Merchant2/merchant.mvc?Screen=SFNT&Store_Code=NWS001

Adapted from "Living with Wildlife in the Pacific Northwest" (see http://wdfw.wa.gov/wlm/living.htm)

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Design and layout: Peggy Ushakoff, ITT2

Illustrations: As credited

Washington Department of FISH and WILDLIFE

Living with Wildlife

Black Bears

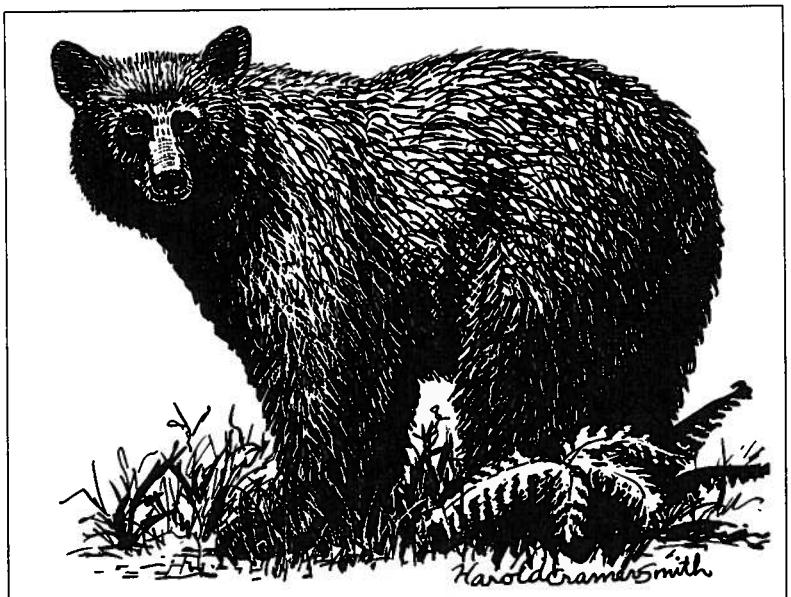

Figure 1. *The American black bear is the most common and widely distributed bear in North America.*

(Washington Department of Fish and Wildlife.)

American black bears (*Ursus americanus,* Fig. 1) are the most common and widely distributed bears in North America. In Washington, black bears live in a diverse array of forested habitats, from coastal rainforests to the dry woodlands of the Cascades' eastern slopes. In general, black bears are strongly associated with forest cover, but they do occasionally use relatively open country, such as clearcuts and the fringes of other open habitat.

The statewide black bear population in Washington likely ranges between 25,000 and 30,000 animals. As human populations encroach on bear habitat, people and bears have greater chances of encountering each other. Bears usually avoid people, but when they do come into close proximity of each other, the bear's strength and surprising speed make it potentially dangerous. Most confrontations with bears are the result of a surprise encounter at close range. All bears should be given plenty of respect and room to retreat without feeling threatened.

Facts about Washington's Black Bears

Food and Feeding Behavior

- Black bears are omnivores. They eat both plants and animals; however, their diet consists mostly of vegetation (Fig. 2).
- In the spring, black bear diets consist mostly of herbaceous plants, from emerging grasses and sedges to horsetail and various flowering plants.
- In summer, bears typically add ants, bees, grubs, and a host of later emerging plants to their diets.
- During late summer and fall, bears typically shift their diets toward tree fruits, berries, and nuts, but they still may consume a variety of plants.
- Fall is a critical season for black bears and they commonly acquire most of their annual fat accumulation at this time. Bears may forage up to 20 hours a day during fall, increasing their body weight by 35 percent in preparation for winter.
- Typically, a small proportion of the black bear's annual diet is made up of animal matter, including insects, mice, voles, ground squirrels, fawns and elk calves, eggs, carrion (animal carcasses), and fish, but their availability varies and is often unpredictable. An occasional bear may take livestock.
- Black bears have adequate senses of sight and hearing, but their keen sense of smell and innate curiosity make them skilled scavengers. They consume carrion when they can find it, and are notorious for taking advantage of human irresponsibility with food, garbage, and bird-feeder management. Bears will eat anything that smells appealing and will help them prepare for their long winter sleep.
- Black bears move in response to the seasonal availability of food, roaming constantly throughout their home range.

Den Sites and Resting Sites

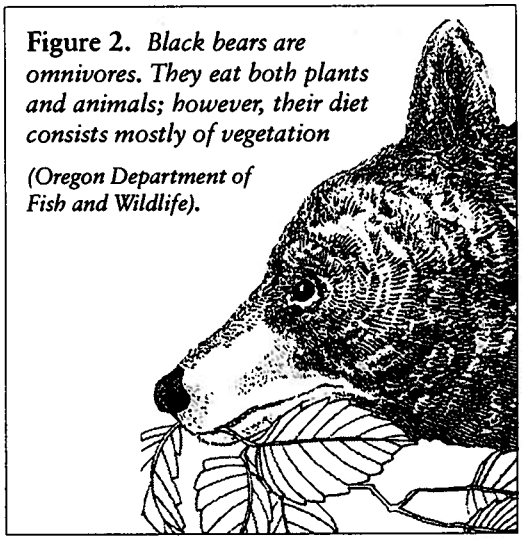

Figure 2. *Black bears are omnivores. They eat both plants and animals; however, their diet consists mostly of vegetation*

(Oregon Department of Fish and Wildlife).

- Black bears den during the winter months (typically from mid October into April) when food is scarce and the weather turns harsh.
- Denning black bears enter a state of torpor, a modified form of hibernation. This drowsy condition allows bears to defend themselves (and their cubs) more effectively should a predator visit the den.
- Bears do not urinate or defecate during denning—they recycle their waste into proteins and other nutrients. By not defecating, bears keep their dens essentially scent-free, protecting them from potential predators like cougars.
- Black bears in coastal areas may remain active throughout the winter, except for pregnant females, which den to give birth to cubs.
- Black bears can take up residence in small dens, some scarcely bigger than a garbage can. Den sites include tree cavities, hollow logs, small caves, and areas beneath large roots, stumps, logs, and rural buildings. They'll occasionally excavate a den in the side of a hill near shrubs or other cover.
- Summer beds are merely concealed places scratched in the ground among dense vegetation, by a rock, or under the branches of a fallen tree. Young bears rest in trees for safety (Fig. 3).

Reproduction and Family Structure

- Female black bears breed for the first time at 3½ to 5½ years of age. Mating takes place in June and July.
- Males compete for the right to breed, and breeding fights between males may be intense. Older males frequently have extensive scars on their heads and necks from fights in previous breeding seasons.
- Following a gestation period of about seven months, females normally give birth to one or two cubs in the winter den during January or February. Females have one litter every other year.
- Bears have a reproductive pattern known as delayed implantation. Following fertilization in early summer, a bear's embryo goes dormant, free-floating in the uterus. After the female dens in late fall, the embryo implants in the uterine wall and development of the fetus proceeds rapidly. Although the total gestation time is approximately seven months, the actual developmental period for the bear fetus is less than three months.
- At six months, cubs are able to locate food, but generally remain with their mother for over a year—usually denning with her during their second winter.
- Parental care is solely the responsibility of females; males sometimes kill and eat cubs.

Figure 3. *Young bears rest in trees for safety*

(Oregon Department of Fish and Wildlife).

Mortality and Longevity

- Other than humans, black bears have few predators—cougars, bobcats, and coyotes attack cubs if given the opportunity. Male bears may eat cubs.
- In the year 2005 hunters harvested 1,333 black bear in Washington.
- Female black bears have the potential to live into their mid 20s. Male black bears do not typically live as long, rarely attaining 20 years of age.

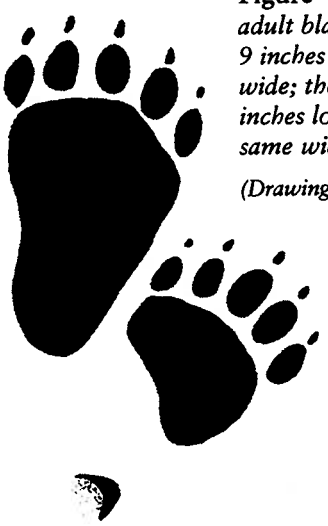

Figure 4. *The hind feet of an adult black bear average 7 to 9 inches long by 3 to 5 inches wide; the front feet are 4 to 5 inches long by nearly the same width.*

(Drawing by Kim A. Cabrera.)

Viewing Black Bears

Except for females with cubs, black bears are usually solitary animals. Depending on their food supply, they move about during the day or night. In late summer and fall, feeding keeps them active throughout the day so they can gain the weight needed for winter. When bears find a human food source, their schedule may change. If they are receiving handouts they can be most active at midday; if they are feeding at dumps or trashcans, they become active at night.

Black bears should be treated with respect and safely observed from a distance of at least 100 yards. This is especially important with females accompanied by offspring, as mother bears are very protective of their young.

Tracks

All black bear prints usually show five digits (Fig. 4). The toes form a rough semicircle in front of each foot, with the middle toe being the longest. Front foot tracks have small footpads, whereas hind foot tracks characteristically show an extended footpad, resembling a human foot. The claw marks are about ½ inch in front of the toe pads, but often the claw marks do not show in a track.

Droppings

When plants, insects, and animal carcasses make up most of a bear's diet, its droppings are cylindrical and typically deposited in a coiled form, sometimes in individual segments. Segments are 2 to 3 inches long and 1¼ to 1½ inches in diameter. Bits of hair, fur, bone, insect parts, and plant fibers distinguish these droppings from human feces, as does the large size of the deposit. Color ranges from dark brown to black, and when grasses are being heavily eaten droppings are often green. When fruits and berries are in season, droppings assume a moist, "cowpie" form and seeds are visible.

Bear Trees

Black bears commonly leave a variety of marks on trees. Because young bears often climb trees, trees in high bear density habitats will show the telltale claw marks and hairs indicating that a bear has previously climbed the tree.

On young conifers, particularly Douglas-fir trees, bears will rip strips of bark off with their teeth to reach insects or the sweet-tasting sap found inside (Fig. 5). The bear's teeth leave long vertical grooves in the sapwood and large strips of bark are found around the bases of trees they peel. These marks are typically made from April to July, but the results may be seen all year. This foraging activity is common in tree plantations where large stands of trees are similarly aged and of a single species.

A bear may also rub its back against a tree or other object. Rubbing is a favorite summer pastime among black bears, relieving the torment of parasites and loosening their thick, matted winter coat. Good scratching trees may be used repeatedly for several years, and are easily identified by the large amounts of long black or brown fur caught in the bark and sap. Rough-barked trees often serve as rubbing posts.

It has been debated whether bears mark trees to convey social information akin to territorial marking in other carnivores. Such marks are most easily seen on smooth-barked species of trees—alder, aspen, birch, and white pine—on which tooth and claw marks will contrast most visibly, but any live or dead standing trees may be heavily chewed. Human structures such as utility poles, footbridges, and even outbuildings may also be chewed.

Feeding Areas

Rotting logs and stumps are commonly turned over and torn apart to get at fat-rich grubs, ants, termites, worms, and spiders. A bear will also knock the top of an anthill or beehive off to get to the insects.

Black bears may break off entire limbs of fruiting trees, such as apple and chokecherry, to reach the fruit. Huckleberries and other fruiting shrubs may show signs of being crushed under a bear's feet. Bears may also dig for the starchy roots of some plants, to excavate seed caches of squirrels and mice, and to capture mice, voles, and ground squirrels. Evidence of digging ranges from well-defined holes to large areas that appear to have been rototilled.

Figure 5. *Marks on trees made by black bears vary from claw marks left by climbing to peeling and biting left when larger bears (generally females) feed on insects and sap found under the bark.*

(Oregon Department of Fish and Wildlife.)

Bear Encounters

Bears tend to avoid humans. However, ***human-habituated bears*** are bears that, because of prolonged exposure to people, have lost their natural fear or wariness around people. ***Human-food-conditioned bears*** are those that associate people with food. Such bears can become aggressive in their pursuit of a meal.

Do everything you can to avoid an encounter with any bear. Prevention is the best advice.

If you are recreating in bear country, always remember: Never travel alone, keep small children near you at all times, and always make your presence known—simply talking will do the trick. Most experts recommend carrying pepper spray when recreating in areas of high bear density. A pepper spray that has a pepper content between 1.3 and 2 percent can be an effective deterrent to an aggressive bear if it is sprayed directly into the bear's face within 6 to 10 feet.

Here are tips should you come in close contact with a bear:

- Stop, remain calm, and assess the situation. If the bear seems unaware of you, move away quietly when it's not looking in your direction. Continue to observe the animal as you retreat, watching for changes in its behavior.
- If a bear walks toward you, identify yourself as a human by standing up, waving your hands above your head, and talking to the bear in a low voice. (Don't use the word bear because a human-food-conditioned bear might associate "bear" with food . . . people feeding bears often say "here bear."
- Don't throw anything at the bear and avoid direct eye contact, which the bear could interpret as a threat or a challenge.

- If you cannot safely move away from the bear or the bear continues toward you, scare it away by clapping your hands, stomping your feet, yelling, and staring the animal in the eyes. If you are in a group, stand shoulder-to shoulder and raise and wave your arms to appear intimidating. The more it persists the more aggressive your response should be. If you have pepper spray, use it.
- **Don't run from the bear** unless safety is very near and you are absolutely certain you can reach it (knowing that bears can run 35 mph). Climbing a tree is generally not recommended as an escape from an aggressive black bear, as black bears are adept climbers and may follow you up a tree (Fig. 6).

Figure 6. *Climbing a tree is generally not recommended as an escape from an aggressive black bear, as black bears are adept climbers and may follow you up a tree.*

Bear Attacks

In the unlikely event a black bear attacks you (where actual contact is made), **fight back** aggressively using your hands, feet, legs, and any object you can reach. Aim for the eyes or spray pepper spray into the bear's face.

Preventing Conflicts

State wildlife offices receive hundreds of black bear complaints each year regarding urban sightings, property damage, attacks on livestock, and bear/human confrontations.

The number one reason for conflict, (95% of the calls to offices) are the result of irresponsibility on the part of people: Access to trash, pet food, bird feeders, and improper storage of food while camping make up the majority of the calls.

Secondarily, young bears (especially young males) are not tolerated by adult bears and they wander into areas occupied by humans. Food may also be scarce in some years—a late spring and poor forage conditions may be followed by a poor berry crop, causing bears to seek food where they ordinarily would not.

If you live in areas where black bears are seen, use the following management strategies around your property to prevent conflicts:

Don't feed bears. Often people leave food out for bears so they can take pictures of them or show them to visiting friends. Over 90 percent of bear/human conflicts result from bears being conditioned to associate food with humans. A wild bear can become permanently food-conditioned after only one handout experience. The sad reality is that these bears will likely die, being killed by someone protecting their property, or by a wildlife manager having to remove a potentially dangerous bear.

Manage your garbage. Bears will expend a great amount of time and energy digging under, breaking down, or crawling over barriers to get food, including garbage. If you have a pickup service, put garbage out shortly before the truck arrives—not the night before. If you're leaving several days before pickup, haul your garbage to a dump. If necessary, frequently haul your garbage to a dumpsite to avoid odors.

Keep garbage cans with tight-fitting lids in a shed, garage, or fenced area. Spray garbage cans and dumpsters regularly with disinfectants to reduce odors. Keep fish parts and meat waste in your freezer until they can be disposed of properly.

If bears are common in your area, consider investing in a commercially available bear-proof garbage container. Ask a local public park about availability or search the Internet for vendors.

Only plant material should be placed in compost bins.

Remove other attractants. Remove bird feeders (suet and seed feeders), which allow residue to build up on the ground below them, from early March through November. Bring in hummingbird feeders at night. (Better yet: plant and bird-friendly landscape and don't use feeders.) Harvest orchard fruit from trees regularly (rotting fruit left on the ground is a powerful bear attractant). If you have bear problems and do not use your fruit trees, consider removing them. Do not feed pets outside. Clean barbecue grills after each use. Wash the grill or burn off smells, food residue, and grease; store the equipment in a shed or garage and keep the door closed. If you can smell your barbecue then it is not clean enough. Avoid the use of outdoor refrigerators—they will attract bears.

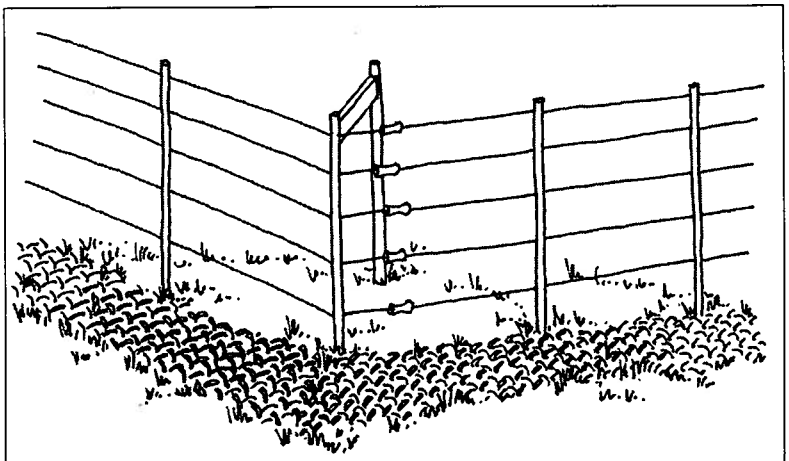

Figure 7. *An electric fence designed to keep bears out of an area. A five-wire electric fence has been effective at keeping adult bears and their cubs out. If necessary, a 2-foot wide underground apron of chain-link fencing or steel mesh can be staked down and attached to the fence to keep bears from digging under the fence. If wood or other heavy-duty corner stakes are not used, the corner posts will need to be carefully braced.*

(Drawing by Jenifer Rees.)

Protect livestock and bees. Place livestock pens and beehives at least 150 feet away from wooded areas and protective cover. Confine livestock in buildings and pens, especially during lambing or calving seasons. Livestock food also attracts bears and must be kept in a secure barn or shed behind closed doors. If bears are allowed access to livestock food, they may learn to feed on livestock. Immediately bury any carcasses or remove them from the site.

Install fences and other barriers. Electric fencing can be used where raids on orchards, livestock, beehives, and other areas are frequent (Fig. 7). Electric fencing only works, however, if it is operating before conflicts occur. Bears will go right through electric fencing once they are food-conditioned and know that food is available.

Bears can be lured into licking or sniffing the electrified wire by rubbing molasses, bacon grease, or peanut butter on the fence. (See "Deer" in this series for additional information on electric fences.)

Traditional wire fencing can also be used as a barrier. Use heavy chain-link or woven-wire fencing at least 6 feet high. Install 24-inch long wood or metal bar extensions at an outward angle to the top of the fence with two strands of barbed wire running on top. If necessary, a 2-foot wide underground apron of chain-link fencing or steel mesh can be staked down and attached to the fence to keep bears from digging under the fence.

Bears can be dissuaded from climbing a tree by attaching 4-foot long, 1 x 4 inch boards with 2-inch long wood screws screwed all the way through them every 6 inches. (To prevent the board from splitting, drill pilot holes.) Attach at least four boards around the trunk of the tree using strong wire.

Use temporary scare tactics. Bears can be temporarily frightened from a building, livestock corral, orchard, and similar places by the use of a night light or strobe light hooked up to a motion detector on a tripod, loud music, or exploder cannons. The location of frightening devices should be changed every other day. Even so, over a period of time, bears will become accustomed to them. At this point, scare devices are ineffective and human safety can become a concern.

Professional Assistance

Wildlife offices throughout Washington respond to bear sightings when there is a threat to public safety or property. A sighting or the presence of a bear does not constitute a threat to property or public safety. Typically, no attempt will be made by a wildlife agency staff to remove, relocate, or destroy the animal.

Problem bears can be live trapped by specially trained wildlife professionals and moved to more remote areas; however, such removals are expensive, time consuming, and seldom effective. (Once a bear has tasted human food

or garbage, it will remember the source and return again and again—bears have been known to return over 100 miles to a human food source after having been relocated.) Using tranquilizing drugs on bears to facilitate removal is not without risks to bears and humans.

When other methods have failed, lethal removal of problem animals may be the only alternative.

Contact your local wildlife office for additional information and, in the case of an immediate emergency, call 911 or any local law enforcement office, such as the state patrol.

Public Health Concerns

Bears are not considered a significant source of infectious diseases that can be transmitted to humans or domestic animals. However, humans can become infected with trichinosis by eating undercooked bear meat.

Legal Status

The black bear is classified as a game animal (WAC 232-12-007). A hunting license and open season are required to hunt black bears. A property owner or the owner's immediate family, employee, or tenant may kill a bear on that property if it is damaging crops or domestic animals. You must notify your local Department of Fish and Wildlife (WDFW) office immediately after taking a black bear in these situations (RCW 77.36.030).

The killing of a black bear in self-defense, or defense of another, should be reasonable and justified. A person taking such action must have reasonable belief that the bear poses a threat of serious physical harm, that this harm is imminent, and the action is the only reasonable available means to prevent that harm.

Any bear that is killed, whether under the direct authority of RCW 77.36.030, or for the protection of a person, remains the property of the state and must be turned over to WDFW.

Because bears' legal status, hunting restrictions, and other information change, contact your local wildlife office for updates.

Adapted from "Living with Wildlife in the Pacific Northwest" (see http://wdfw.wa.gov/wlm/living.htm)

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