Wild animals are only trying to survive and if new and tender plantings are even slightly palatable, they will be nibbled on and may be totally demolished! This reference material is a guide on how to deter some of the wildlife common to our region on southern Vancouver Island, including <u>deer</u>, <u>rabbits</u>, <u>raccoons</u>, <u>squirrels</u>, <u>bears</u>, <u>birds</u>, <u>and geese</u>. There are four main approaches to wildlife deterrence: <u>barriers</u>, <u>scare tactics</u>, <u>repellents and use of resistant plants</u>.

First identify the culprit(s). Since many animals are nocturnal and/or difficult to observe, you may have to examine scat and tracks and locate nesting areas in order to determine your foe. Most animals are not solitary, so you are likely up against more than one creature.

Next assess how much damage might occur without intervention, weigh the cost of deterrence versus the cost of damage, and consider what effect deterrence will have on non-target animals, your neighbours, and the environment¹. Many scare tactics, such as noise makers, lights, and water cannons, will work on a variety of wildlife, but be aware that these methods may negatively impact your neighbours. A family dog that patrols the yard can be a significant deterrent to some but not all wildlife. Some repellents are not safe to eat and should not be applied to edible portions of plants unless approved on the label. In many cases the best form of deterrence is to avoid growing plants that attract wildlife; see the list of suggested deer resistant plants created by the Master Gardener Association of BC².

<u>DEER</u>

Description:

"There is no such thing as a deer-proof plant. If deer are hungry, they will eat anything they can reach. The best you can hope for is planting deer-resistant plants your particular herd doesn't like."³.



Deer enjoy some variety in their menu, so that a plant they avoid one year may become a delicacy the next! They also change their eating habits when other food sources are scarce. In the greater Victoria area deer population can be high, causing them to browse on plants they might normally avoid⁵. Deer on Vancouver Island are the black-tailed deer. The introduced European fallow deer, abundant on some of the smaller gulf islands, is also found locally.

Identification:

Damage to plants by deer include: browsing plant parts, rubbing antlers on bark, and trampling plants. The appearance of <u>ragged or torn edges on a plant is a sign of deer</u> damage as deer lack top front teeth so when they are eating seedlings and other foliage they tear it away leaving ragged edges^{3,4}. The presence of scat composed of dark pellets and hoof marks in soil are other signs that deer have been around.

Deterrence:

- 1. The best deer protection for your plants is a combination of barriers, such as field wire or polypropylene <u>fencing and planting deer resistant plants</u>^{4,5,6}. Fencing should be 2-2.5 metres tall and anchored to ground to prevent deer from crawling under.
- 2. Deer that frequently are around people become accustomed to our smells and actions. They will also grow accustomed to motion activated sprinklers, lights and radios and eventually ignore them. Liquid Fence® and BobbexTM are products that reportedly work by using a bad smell to deter deer and rabbits. Do not spray directly on edibles, instead spray a perimeter around the plants.
- 3. Deer do not like strong odors, prickly plants or rustling sounds.

RACCOONS

Identification:

Raccoons are opportunistic omnivores that are largely nocturnal. They are good climbers and their five-toed paws make them extremely dexterous. Raccoon scat is similar to a dog's but usually full of berries and seeds. Raccoons that are staying in the area will often defecate in one selected location.



Deterrence:^{7,8,9}

- 1. Manage your fruit trees and berry bushes responsibly and pick all fruit as it ripens. Ensure windfalls do not accumulate below the trees or shrubs.
- 2. Take birdfeeders down until winter. Birdfeeders can attract raccoons which can in turn attract larger predators. When birdfeeders are up, ensure fallen seed does not accumulate below the feeders.
- 3. Maintain your home, sheds, garages and access to crawl spaces and attics to prevent raccoons from moving in.
- 4. Do not put food out for raccoons or other wildlife; never leave pet food where wildlife can get it.
- 5. Dogs are not an effective method of keeping raccoons away.
- 6. Protect poultry, keep garbage in a secure area and keep bins clean.
- 7. Use an electric fence composed of two strands; the first placed 6 inches above ground and second 6 inches above that; chain-link and chicken wire fences should have a single electrified strand along the top.
- 8. Raccoons often dig or roll up new garden sod and even mulch piles while looking for chafer beetle grubs⁹. One reference¹⁰ recommends the use of non-toxic diatomaceous earth on your lawn to prevent bugs and raccoons, but a preferred method⁹ is to maintain your lawn to avoid pest infestation, apply nematodes, let the racoons do their job of eating the grubs and repair the lawn.

RABBITS

Identification:

To determine that it is rabbits that are eating your garden, look for scat in the form of round pellets and tender shoots and plants that are cleanly chomped off (at 45° angle) and smooth bark that is gnawed leaving parallel grooves from their teeth¹. Squirrel and rabbit tracks are similar but squirrels keep their feet next to each other as they hop and rabbits stagger their feet producing a "Y" shaped track.



Deterrence:^{1,11}

- 1. The use of fencing is effective. Fencing should be at least 0.5 to 1.0 metres high to prevent jumping over and buried 15 to 30 centimetres below the ground surface to discourage digging under fences. Bend the bottom wiring outward 15 centimetres and bury.
- Individual plants can be protected by making cylinders out of 6 to 12 millimeter (¼ to ½ inch) mesh poultry netting and placing around the plants; the cylinder should be 5 to 10 centimeters wider than the plant to prevent the rabbits from pushing the netting inwards to nibble.
- 3. Other methods include: 1) remove rabbit hiding and nesting places, 2) use repellents such as BobbexTM, but read labels and do not use on edibles, and 3) domestic predators, such as dogs and cats, are effective.

Strategies that reportedly do not work include noise makers, lights, and scare crows.

SQUIRRELS

Description:

There are two types of tree squirrels found on southern Vancouver Island^{1,12,13}; <u>the native</u> red and the introduced Eastern grey. There is some concern regarding the negative impact of the grey squirrel on Garry oak and associated ecosystems¹³. Marmots, a type of ground squirrel, populate more northern parts of the island.

Identification:

Signs that squirrels are in your yard include; small holes dug in bedding plants and pots and your lawn; half eaten or missing fruit or flowers, missing plants and chewed-on seed heads. Squirrel scat is tapered and cylindrical and can readily be confused with rat droppings. Squirrel tracks are similar to rabbit, see above text on rabbits.

Deterrence:^{1,14}

1. Take away easy food sources, pick up fallen nuts, fruits, and seeds, secure trash can lids, relocate bird feeders far away from jump-off points (like trees), get a bird feeder with a weight-sensitive bar that lets birds (not squirrels) get to the food,

- 2. Make feeders and fruit and nut trees hard to climb (place hardware cloth, aluminum ducting, plastic pipe, netting, wire screening, chicken wire, or plastic bottles around the base of your feeder).
- 3. Protect plants with wire cages or use safe repellents such as BobbexTM or Tomcat® (the later available online), remembering not to use repellents on edibles and follow all label directions. Chili peppers and mint are common home remedies for keeping squirrels at bay. To protect bulbs lay chicken wire over the bulbs, stake securely and cover it lightly with mulch.
- 4. Good scare tactics include; rodent-chasing dogs and motion-activated noisemakers, such as garden spinners, pinwheels, and aluminum pie tins and sprinklers.

BEARS

Description:

Most of the bears on Vancouver Island are the American black bear^{15,16}. Occasional grizzly bear sightings are reported but it is uncertain whether there is a permanent population.

Identification:

Bears will be attracted to compost, ripe fruit, bird feeders, garbage and other food-related items including pet food.

Bear scat resembles a cross between human and dog scat and can be voluminous. It will often be riddled with seeds or berries from its last feeding.

Deterrence: 15

- 1. Keep garbage and pet food secured, clean your barbecue grill, place electric fencing around fruit trees, berry bushes and vegetable gardens; harvest fruit trees, berry patches and vegetable gardens regularly/daily, and clean fallen fruit off the ground.
- 2. If you do not want the fruit from your trees, prune the tree vigorously to prevent blossoms or spray spring blossoms with a garden hose to knock them off, or consider replacing with a native non-fruit bearing variety.
- 3. Use bird feeders only in the winter when bears are hibernating and natural bird food is limited.

BIRDS AND CHICKENS

Description:

Birds are daytime feeders so they should be readily identified if they are raiding your garden. The most common culprits are crows, starlings, woodpeckers, pigeons, house sparrows and robins (geese are treated separately below). They can cause problems by their roosting, nesting, and feeding habits and can swoop into a garden in large numbers. Birds are attracted to almost all types of berries (e.g. strawberries, grapes, cherries, blueberries), fruits, and nuts.

Deterrence.¹

- 1. Make potential roosting and nesting areas uncomfortable for the birds by using barriers. Woodpeckers can use structures as drumming stations during courtship. Wood infested with carpenter ants or solitary bees can attract woodpeckers.
- 2. Bird netting should cover the fruit or nuts and reach the ground and/or wrap around the tree trunks.
- 3. Scare devices such as scarecrows, bird of prey figurines (owls), hanging flashers, flags, shiny metal stringers (tinsel) are useful but should be moved about so the birds don't become accustomed to their location.
- 4. Sonic devices that broadcast bird calls are also useful, but don't annoy your neighbours!
- 5. If chickens are damaging your plants try planting flowers, fruits, and vegetables that they usually avoid or use fencing or hanging baskets¹⁷. Edibles that hens love include sweetcorn, sunflower seeds, spinach, chard, kale, broccoli, cabbage, mild lettuce, and all berries (except blackcurrants). They apparently do not like carrots, parsnips, leeks, onions, potatoes, squash or pumpkins a. Climbing beans should be out of their reach.

GEESE

Description:

Geese are daytime feeders so you should be able to make a visual determination if they are the culprits. Also, they leave behind voluminous amounts of scat that is tubular in shape and may be a range of colors, including green, white, or dark brown.



Deterrence. 18

- 1. A trained dog will go far to deter geese.
- 2. Geese should be scared off immediately using propane cannons, air horns or sirens, strobe lights/lasers, distress tapes, shiny flagging tape and streamers, balloons (with graphics of large eyes) and kites in the shape of predatory birds, flags, scarecrows/decoys (human, eagle, alligator, swan or coyote effigies), or motion activated sprinklers.
- 3. Barriers such as plants or fences can be constructed across flight paths and to obstruct passage from water to lawn.
- Modify the lawn grass by mowing less frequently (they don't like long grass), or change the grass type, or apply goose repellent. Bobbex-G[™] is a product recommended for discouraging geese and waterfowl from grazing and defecating on lawns.

SOURCES OF INFORMATION

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Additional Source

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