

BIOLOGY, LEGAL STATUS, CONTROL MATERIALS, AND DIRECTIONS FOR USE

Porcupine

Erethizon dorsatum

Family: Erethizontidae



Introduction: The porcupine is found in coastal western areas of California, north of San Bernardino, north of the San Francisco, and inland mountain regions. It is found in a wide range of habitats, including coniferous forests, cottonwood stand alone prairie river bottoms, deserts, and alpine tundra. The name “porcupine” comes from the Latin porcus, meaning swine, and the French epine, derived from the Latin spina, meaning thorn. Translated this literally means the “irritable back.”

The porcupine is a beautiful creature of nature. It is an interesting animal with an important place in the environment. It is edible and has been used as an emergency food by humans. The quills are used for decoration (esp. Native American) and their hair for fly fishing lures. Porcupines are not wary creatures.



Identification: Porcupines are large bodied, short legged, slow and awkward rodents. They walk with a clumsy waddle. Adults are usually 25 – 30 inches long and weigh 10 to 30 pounds. They use the sharp, barbed quills which cover their body for defense.



Legal Status: Porcupines are classified as nongame mammals by the California Fish and Game Code. Nongame mammals which are found to be injuring growing crops or other property may be taken at any time or in any manner by the owner or tenant of the premises. They may also be taken by officers or employees of the Department of Food and Agriculture or by federal or county officers or employees when acting in their official capacities pursuant to the provisions of the Food and Agricultural Code pertaining to pests.

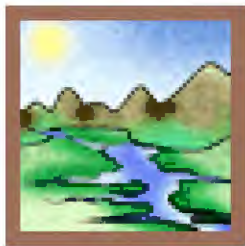


Damage: Porcupines partially or completely girdle large pine and juniper trees, often near the top of the tree, resulting in a weakened, dead, or spike-top tree that is useless for commercial purposes. The inner bark and needles of mature trees are eaten, and small seedlings may be completely consumed. Porcupines often make nuisances of themselves around camps by gnawing leather boots, saddles, and ax handles, presumably because of the salty perspiration residue. They can destroy siding on cabins when seeking plywood resins. They are fond of apples and other fruits and they occasionally damage young fruit trees, alfalfa, sweet corn, and truck crops. Porcupines can pose a threat to dogs and similar pets from their quills. Domestic stock may occasionally nuzzle a porcupine and be injured by the quills. This can be serious if not removed promptly.



Range: Porcupines are common in coniferous forests in western and northern North America. They wander widely from cottonwood, prairie, and river bottoms to alpine tundra. In California they are found chiefly in areas of coniferous trees, north from Marin County in the coast range, and north from the San Bernardino and Tehachapi Mountains inland.

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Habitat: Usually forested areas, but occasionally away from trees if brush is available. Porcupines eat herbaceous plants, inner tree bark, twigs, and leaves. Trees with thin smooth bark are preferred with a preference for ponderosa pine, aspen, willow, and cottonwood.



Biology: The barbed quills are their main means of defense. They are constantly replenished, and although the violent tail-switching during an attack may throw quills several feet, the quills are too light to penetrate skin. Generally one slap with the spiny tail is sufficient to discourage further aggression. An adult porcupine may weigh 13 to 30 pounds or more; the female being considerably smaller.

Porcupines are slow-moving and clumsy, but they are excellent if somewhat awkward climbers. Porcupines are most active at night but they may be seen during the day, especially in the top of a tree. They have been known to swim to get food. Porcupines eat many succulent plants and

the buds, leaves, inner bark, and cambium of numerous kinds of trees. During spring and summer they usually feed on herbs and shrubs. In fall and winter and in periods of drought, their diet consists largely of bark and leaves of conifers, especially ponderosa pine and several species of juniper. Mistletoe is a favorite food during the colder months.

Porcupines rest in the dense foliage of a particular tree or in a cave near the feeding grounds. Often, you can find hundreds of their oval-shaped brownish pellets, about 5/8 inches wide at these sites. Porcupines do not hibernate in winter, but they may migrate in fall from higher elevations to sheltered areas of the forest, or to dens which serve as a refuge in harsh weather. Dens may be in rock crevices or in hollow trees or logs; sometimes in winter they will stay in a large pine tree for weeks at a time rather than trudge through snow. As weather warms in the spring, porcupines resume ground feeding and move toward areas offering greener food during summer.



Mating takes place sometime between September and December. After a gestation period of about seven months, the young are born in April, May, or June. Only one young is born, rarely two, and their quills become hard and sharp as soon as the baby is dry. Within two days, it can climb and soon follows its mother on feeding trips. It is able to eat solid food a few hours after birth and is completely weaned after ten days. The baby stays with its mother for five or six months and then takes off on its own to live a rather solitary existence. Except during the mating season and when denning in winter, porcupines are seldom seen together. Porcupines reach sexual maturity at three years and may live for many more years. Bobcats, mountain lions, fishers, and wolverines seem to be successful predators of porcupines; the coyote and domestic dog corner and kill numerous porcupines, but they often sustain serious quill injury in return.



Damage Prevention and Control Methods

Exclusion: Fencing small tree plantings, orchards and gardens is effective in reducing porcupine damage. Electric fences are effective when the smooth electric wire is placed 1-1/2 inches above 18 inch high poultry wire. Porcupines will climb fences, but an overhanging wire strip around the top of the fence at a 65° angle to the upright wire will discourage climbing.

A wire basket completely enclosing small trees may be very effective. A band of aluminum flashing at least 30 inches wide, placed so as to encircle the trunk will protect fruit and ornamental trees.

Habitat Modification/Cultural Methods: Thinned forest stands are vulnerable to porcupine damage because more forest floor vegetation can thrive. Porcupine populations are usually reduced in numbers in closed canopy stands where understory vegetation is scant.

Frightening: Not recommended

Fumigants: Not recommended



Repellents:

Not recommended

Toxic Bait: No toxicants are registered to control porcupines.

Trapping: Steel leg hold traps are illegal in California for trapping porcupines. Trapping porcupines requires a trapping license issued by the Department of Fish and Game. Porcupines are rather easy to live-trap with large commercial cage traps (32 x 10 x 12) inches or homemade box traps. Place the live trap in the vicinity of damage and bait with a salt-soaked cloth, sponge or piece of wood. Live traps also can be set at den entrances. Remember that relocation and release of mammals is illegal in California. Live trapping will either involve contacting your local wildlife control center or conducting appropriate euthanasia which is not recommended without experience.

Other Considerations: Porcupines are mobile and will continually reinvade control areas. Complete control is not desirable as it would require eradication of porcupine. However, economic losses can be considerable from porcupines feeding on forest plantings, ornamentals and orchards. Try to limit lethal control to the few animals causing damage. In areas of high porcupine populations, plant alternative ornamentals that are not preferred food.

Shooting: Persistent hunting and shooting of porcupines in areas which require protection can be effective in reducing the population. Night hunting, where legal, is effective. During winter months porcupines are active and can be tracked in the snow and shot with a .22 caliber gun. Porcupines often will congregate around good denning sites and extensive girdling of trees may occur in the area. In such places large numbers may be taken by shooting.

Always check with your local Fish and Game warden for compliance with local gun control regulations.

REFERENCES AND ADDITIONAL READING

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