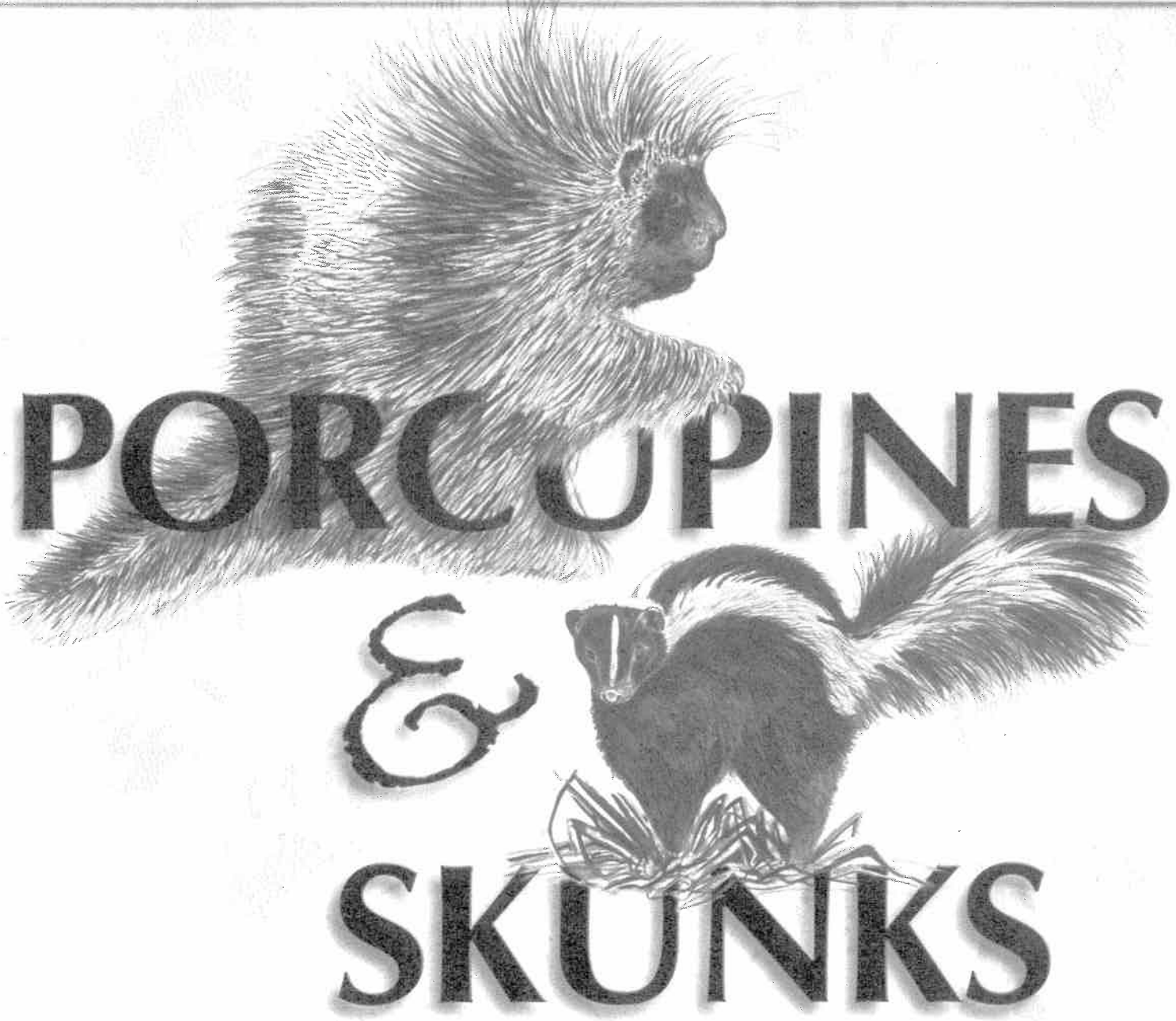


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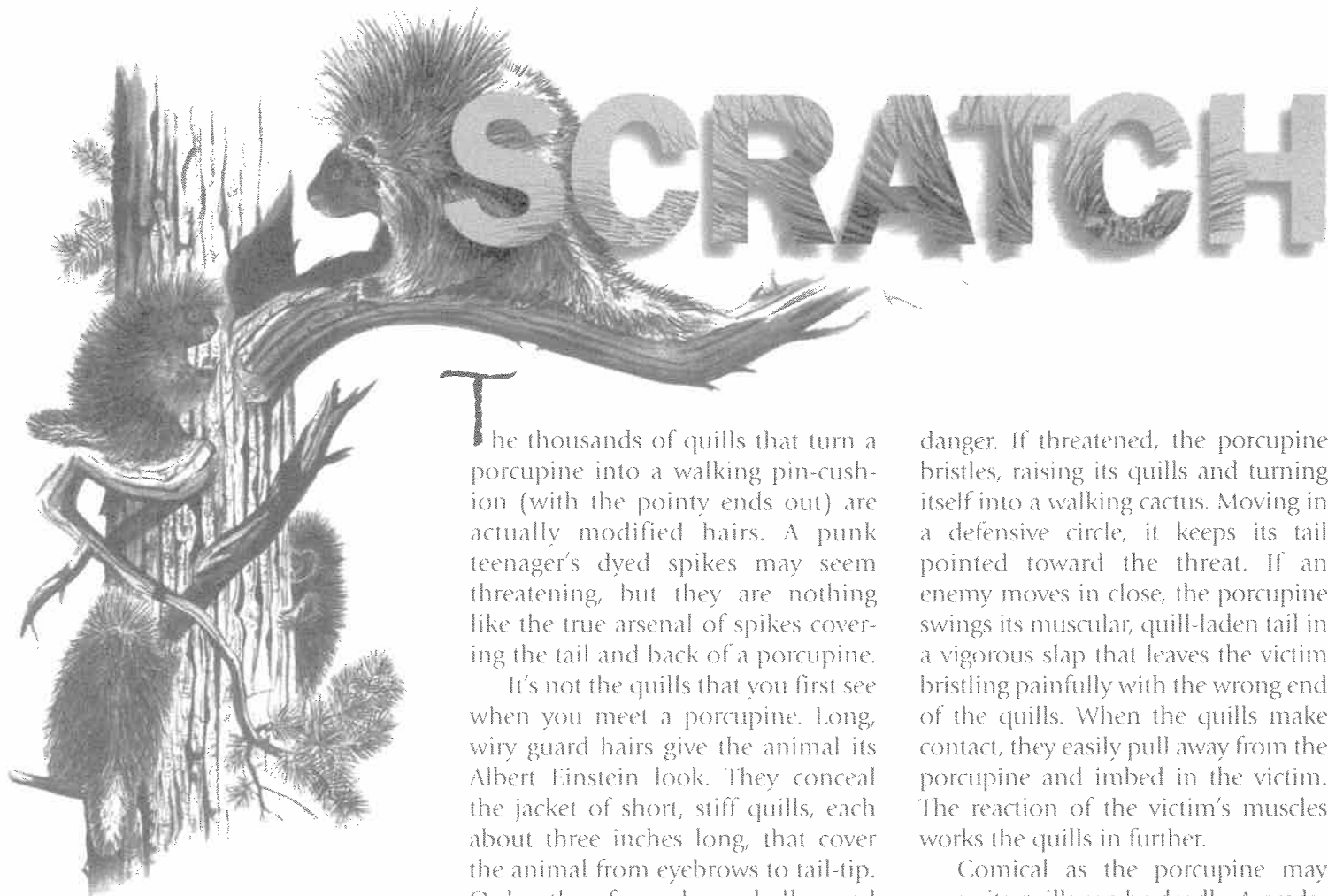
PORCUPINES & SKUNKS

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Masters of Defense



The thousands of quills that turn a porcupine into a walking pin-cushion (with the pointy ends out) are actually modified hairs. A punk teenager's dyed spikes may seem threatening, but they are nothing like the true arsenal of spikes covering the tail and back of a porcupine.

It's not the quills that you first see when you meet a porcupine. Long, wiry guard hairs give the animal its Albert Einstein look. They conceal the jacket of short, stiff quills, each about three inches long, that cover the animal from eyebrows to tail-tip. Only the face, legs, belly and underside of the tail are quill-free. One animal may wear as many as 30,000 quills.

Quills grow from a follicle, like all hair, but yank on the hair of a human and the scalp holds on tight. Not so with a porcupine. When the quills stop growing, they shrink at the base. Now loose in their sockets, they easily pull out of the animal. A needle-sharp point tips each quill, with tiny barbs that overlap like roof shingles and make it difficult and painful to pull out the imbedded quills. As with hairs, new quills will grow in place of the old.

Contrary to folklore, porcupines do not throw their quills. But they do have control of the muscles from which the hairs grow. When a porcupine is calm, the quills lie down close to the body. Despite their impressive armament, porcupines are not aggressive and prefer to waddle away from

danger. If threatened, the porcupine bristles, raising its quills and turning itself into a walking cactus. Moving in a defensive circle, it keeps its tail pointed toward the threat. If an enemy moves in close, the porcupine swings its muscular, quill-laden tail in a vigorous slap that leaves the victim bristling painfully with the wrong end of the quills. When the quills make contact, they easily pull away from the porcupine and imbed in the victim. The reaction of the victim's muscles works the quills in further.

Comical as the porcupine may seem, its quills can be deadly. A predator with a mouth, tongue, paw or muzzle full of quills may be unable to hunt or eat, and thus starve to death.

You might think giving birth is an ordeal for the mother porcupine (heaven forbid a breech birth!), but the quills of newborn porcupines are soft, quickly hardening after delivery. If stuck with someone else's quills—during mating or a conflict between males—porcupines are adept at removing them using teeth and paws.

Quills have other uses besides defense. Porcupines spend a lot of time in trees, and their quills help cushion their occasional falls. Unlike some rodents, porcupines don't hibernate and the air-filled quills insulate them from winter cold. They also act like a raft, making the animal buoyant when it swims to feed on aquatic plants or to escape an enemy.

When it comes to animal defenses, skunks think outside the box. No old-hat tooth-and-claw defense for these guys.

For protection, skunks use the nose . . . of their opponents, that is. Since many of the creatures that might threaten a skunk have strong senses of smell, the skunk turns its enemies' strengths against it. Very Zen.

Though recently re-classified into their own family—Mephitidae—skunks have long been grouped with the musky Mustelid family, which includes weasels, ferrets, martens, badgers, otters and mink. Skunks have a pair of musk glands located at the base of the tail on either side of the

sulphuric acid spray, and a dash of perfume." The oily musk has a smell so overpowering it can make enemies sneeze, cough, choke, gag and vomit. The caustic vapor burns eyes and nasal membranes and can temporarily blind the victim. Imagine the effect of this noxious blast on the sensitive nose of an animal like a coyote, whose sense of smell is a million times more acute than a human's.

weapon, skunks do not go looking for trouble. They use their scent for self defense. Even then, the skunk usually warns before it fires, sometimes stamping its feet, then pointing its tail skyward and erecting the fluffy tail hairs as a giant signal plume—*Warning! Weapon about to discharge!* While other animals try to camouflage themselves, the skunk advertises its identity with its bold coloration. Most predators need only one lesson to learn to avoid the skunk at first sight of black-and-white.

Skunk life, though, is not hazard-free. Great horned owls, which have little sense of smell, are unimpressed by the skunk's

stinky defenses. Owl nests sometimes exude a distinctive odor from the skunk meal brought to the owlets.

The skunk's nocturnal habits, and its behavior when threatened, make it a frequent victim of vehicles. If a skunk should perceive a car bearing down on it, it is more likely to turn and raise its tail than to run. Unfortunately, cars don't have a sense of smell.

and Sniff

by Mary Taylor Young



anus. In other animals, the musk is used for scent-marking and courtship. Only the skunks have turned musk into olfactory muscle.

Skunk musk, which chemists call butylmercaptan, is in the same family of sulphuric chemicals as the compound added to odorless natural gas to make it detectable. It has been described as "a mixture of strong ammonia, essence of garlic, burning sulphur, a volume of sewer gas, a

Eau de skunk is not a passive secretion. When a skunk feels threatened, it goes on alert. The openings of the musk glands pop out. Strong muscles constrict, squirting the oily, yellowish musk in either a thick stream or a fine spray. Like artillery gunners, skunks can fire their ammo at will, sending as many as eight bursts as far as 12 feet before the musk runs out.

Despite this creative and powerful

Skunks and porcupines are both short-legged, round-bodied trundlers, similar in size and body shape. Both have unusual defensive strategies, but neither is aggressive. Both use a defensive posture that aims the rear end at the threat. Speed is not in the arsenal of either animal. They are both slow-moving and deliberate. Their claws are used for climbing or digging, not prey-catching or defense. Though mainly nocturnal, both are frequently active during daylight.

Separated At Birth?

Skunks and porcupines are very different animals.

The first is a carnivore, the second a rodent. Despite this, they have a lot in common, both physically and philosophically.

Both subscribe to a policy of non-aggression, neither seeking trouble nor attacking first. Careful in the use of their formidable weapons, they give their attackers fair warning. Thus the victims of a skunk or porcupine bring retribution upon themselves. Even then, the damage is more unpleasant than crippling, and rarely life-threatening. Creatures that respect the warning of a skunk or porcupine usually escape harm.

Dreadlocks? Mohawks?

Spiked punk hair? Those trendy 'dos are strictly amateur compared to what porcupines have done with their hair.



WARNING!

These animals should be considered armed and dangerous!
If you encounter one, do not attempt to apprehend it.
Back off and give it room to escape.



STRIPED SKUNK

Mephitis mephitis,
which translates from Latin
as "a pestilential exhalation"

ALIASES:
civet cat, polecat

SIZE: 20 to 30 inches long (about 40% of that being tail);
weight 6 to 10 pounds; about the size of a house cat.

ID: Stocky body of glossy black fur with two white stripes down
the back that meet on the head and make a stripe down the nose.
Bushy tail, small head and pointed nose. Short legs make for a
waddling gait.

HIDEOUT: Most habitats throughout Colorado, up to 10,000
feet, but prefers open terrain, especially near fields and pastures,
usually within a mile or two of water.

KNOWN ASSOCIATES: The eastern and western spotted, and common hog-nosed,
skunks are sometimes found in Colorado.

LIFE HISTORY: Skunks have no claim to agility or hunting skill, but they are
consummate foragers, emerging at dusk to begin their night-long search for food. Trundling
along at a slow pace, nose to the ground, they crisscross open habitats, sniffing out
anything edible—acorns, insects, grubs, berries, small



PORCUPINE

Erethizon dorsatum,
meaning "to irritate with the back"

ALIASES:
quill pig, prickle pig, porky

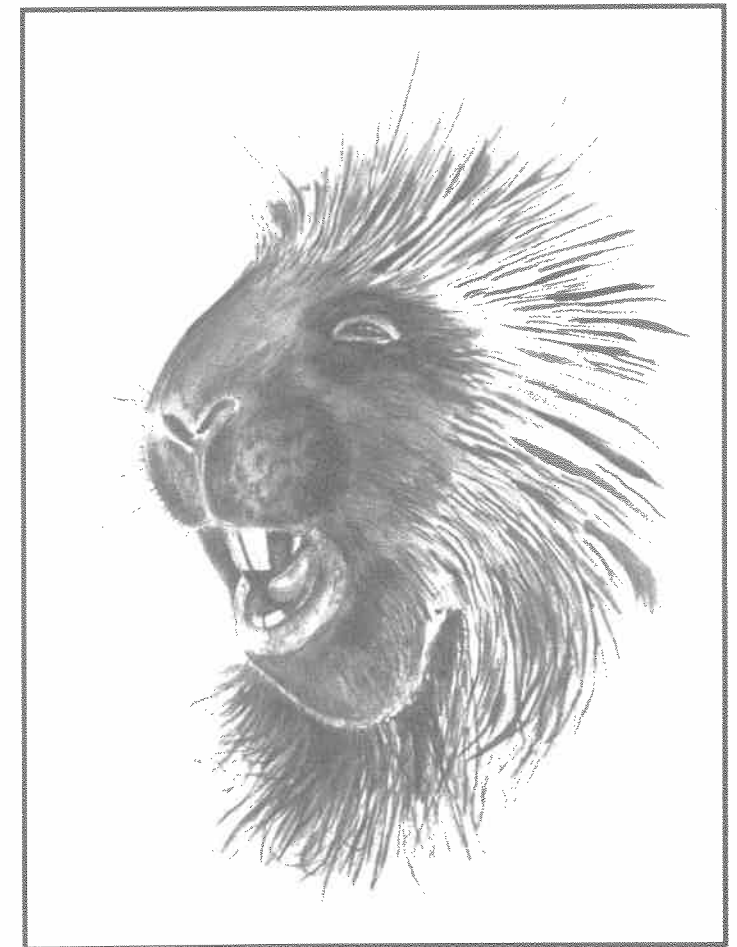
SIZE: 2 to 3 1/2 feet long, tail included;
weight 8 to 14 pounds, though some can reach
40 pounds; the second largest rodent in North
America, after the beaver.

ID: Brown overall color; quills yellowish-white
with brown or black tips. Look for a mounded
shape covered with bristling guard hairs, with
small head and trailing tail.

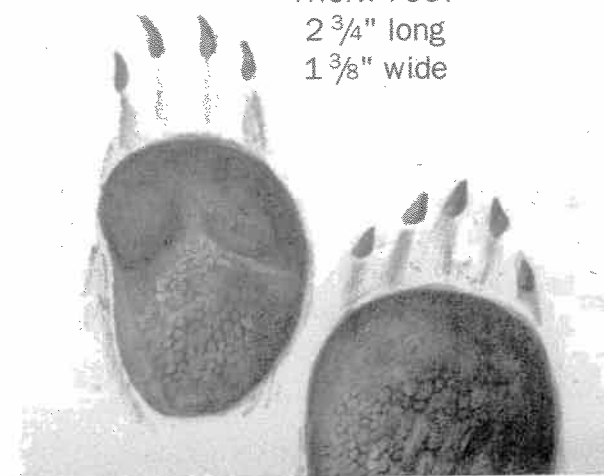
HIDEOUT: Prefers wooded habitats; in Colorado,
porcupines are most common in mountain coniferous
forests; also lower-elevation cottonwoodlands;
occasionally found in Western Slope shrublands and
Eastern Plains grasslands.

KNOWN ASSOCIATES: Porcupines are rodents,
belonging to the same order as mice, prairie dogs, squirrels and
beavers. Only one species of porcupine lives north of Mexico.

LIFE HISTORY: Slowly trundling across the forest



FRONT FOOT
2 3/4" long
1 3/8" wide



FRONT FOOT
1 1/2" long,
1 1/4" wide



HIND FOOT
1 7/8" long,
1 1/4" wide



mammals, ground-dwelling birds, even carrion. Skunks are known to break open eggs by pitching them backward between their legs. Shallow pits dug or rooted in the earth are evidence of their nightly hunts. One animal may travel five or more miles in a night.

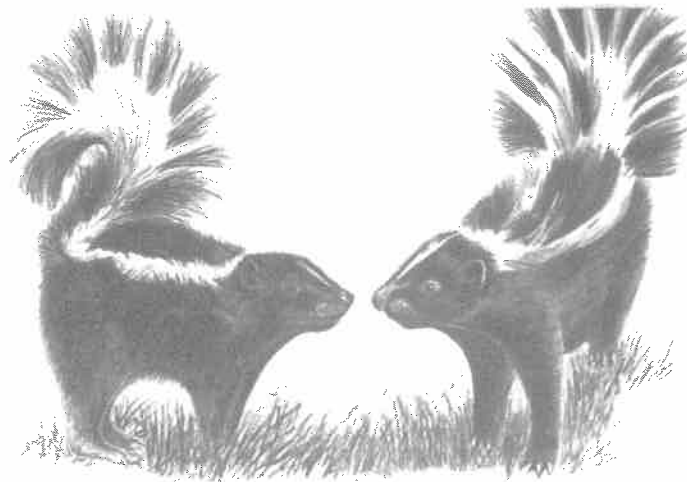
Skunks don't hibernate but hole up in their dens in the winter, sometimes not emerging for several months. Females sometimes share communal dens. Skunks mate in February or March and young are born in May and early June.

Skunks adapt well to life around people. In urban areas they may den beneath houses, buildings, decks and woodpiles. They like warm, dark, dry, defensible sites, which makes dens beneath porches and houses attractive. Some biologists estimate there are more skunks today than when the Pilgrims arrived in North America, due to de-forestation and an increase in open habitats.

KNOWN ENEMIES: Automobiles and great horned owls are the skunk's main enemies. Persecution by humans who consider them nuisances, trapping for fur, and predation by coyotes and other (probably desperate) predators also contribute to mortality, which is 50 to 70 percent among juveniles.

CRIMES: Fouling the family dog; entering homes through pet doors to feed on pet food; denning under porches and homes, with the risk of skunking the premises and leaving flea and pest infestations once they move on.

REDEEMING FACTORS: An estimated 70 percent of a skunk's diet consists of insects considered harmful to humans. Skunks help control rodent populations by feeding on mice. And their unique mode of defense inspires both amusement and respect.



floor or climbing the trunk of a tree, the near-sighted, docile porcupine spends its nights dining on the bark of trees. It prefers evergreens but will feed on most other trees, as well as berries, seeds, nuts, flowers and soft vegetation. An oval patch gnawed high up on the trunk of a tree, or a girdled swath, is a sure indication of a porcupine at work.

The animal eats the outer bark and inner cambium. In successive years, porcupines will feed above the old scar where sugar-rich sap collects, the scar getting larger and larger, sometimes killing the tree. Porcupines are greatly attracted to salt and can be seen along icy roads where salt has been spread. They spend most days curled into a large, dark ball high in the crook of a tree. Though mainly nocturnal, they are sometimes active during the day and can be spotted waddling across the forest floor or clinging to the side of a tree.



Porcupines are slow reproducers, breeding in fall or early winter and bearing one young in spring (occasionally twins).

Hikers in mountain forests are often surprised by the cacophony of grunts, whines and screeches this placid creature emits—usually males during breeding season and females with young—as well as the sound of their gnawing in a quiet forest. They are messy eaters and the forest floor below where one has fed is often littered with twigs, leaves and wood bits.

KNOWN ENEMIES: Humans are the main predator of porcupines, due to road kills and control of nuisance animals. Fishers, large weasels not found in Colorado, are proficient porcupine hunters. Some other predators learn to flip the slow-moving porcupine on its back and attack its unquilled belly.

CRIMES: Injuring pets and livestock with quills; destruction of timber by chewing bark and girdling trees; crop damage.

REDEEMING FACTORS: Quills are used in decorative artwork. Though short on direct economic value, porcupines are intriguing and charming native wildlife (at a distance) because of their creative approach to self-defense.

HIND FOOT
4 3/4" long
1 3/8" wide



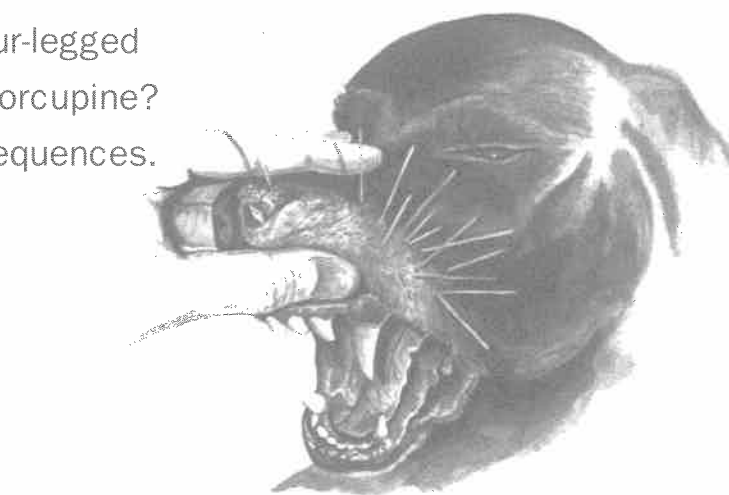
Too-Close Encounters

So you or your dog (or some other two or four-legged family member) has run afoul of a skunk or porcupine? Here are some tips for dealing with the consequences.

REMOVING PORCUPINE QUILLS

To soften quills and ease their removal, thoroughly wet them with a mix of 12 ounces of vinegar and two tbsp of baking soda. Cut off the ends to release pressure in the hollow quills. Restrain the pet, then, with pliers, grasp each quill as close to the skin as possible and work it out steadily but slowly. Because of the barbs, yanking a quill can cause further damage and pain.

Examine your pet's entire body for hidden quills so you get them all. Wash the wounds with warm,



soapy water, rinse with warm water and dab with antibiotic ointment. Watch the wounds for 3 or 4 days and take the pet to the vet if you see any sign of infection. If your pet has lots of quills,

quills inside the mouth or throat, or one that has broken off under the skin, take it to the veterinarian as soon as possible.

DE-SKUNKING

The old remedy of bathing in tomato juice is not very effective in combating skunk musk. Commercial products such as Skunk-Off or Odor-Mute are available at pet supply stores. Neutroleum Alpha is a very effective remedy

available from the U.S. Department of Agriculture Animal Damage Control, P.O. Box 81886, Lincoln, 68501; phone 402-434-2340.

OR TRY THIS HOMEMADE REMEDY:

In an open container, mix 1 quart peroxide, 1/4 c baking soda, 1-2 tbsp liquid soap. Shampoo the pet thoroughly with this concoction, let soak five minutes, then rinse well. Throw away any leftover mix and be sure not to get it in the eyes.

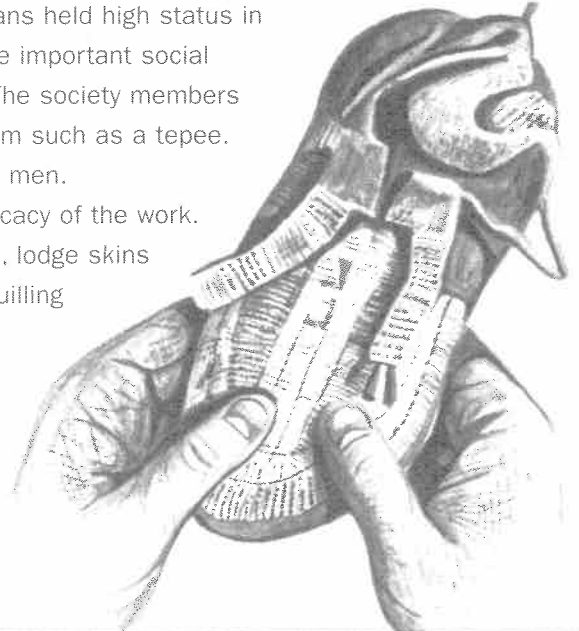
Quillwork

Before Native Americans acquired glass beads through trade with white men, they adorned their clothing, jewelry, household items and lodge skins with porcupine quills. The sharp tips and barbs were clipped off and the hollow quills then soaked, flattened and dyed with stains made from berries and roots. Wrapped or stitched onto leather in intricate designs, the flattened quills produced an effect similar to beading.

Quilling was a highly-skilled craft done by women. Accomplished artisans held high status in the community. Among some Plains tribes, women's quilling societies were important social groups that reinforced the importance of a woman's work to her culture. The society members met to pray, eat and perform sacred ceremonies before quilling a large item such as a tepee. Members were instructed never to reveal the details of the ceremonies to men.

The Cheyenne graded quilling society memberships based on the intricacy of the work. A girl advanced from quilling moccasins and baby cradles to buffalo robes, lodge skins and parfleches (leather containers). When a woman was initiated into a quilling society, she invited other members to a feast. Just as men in warrior societies recounted their brave deeds, each guest recounted the items she had quilled. Articles decorated with quillwork were highly prized not only for personal use but as valuable trade items. A quilled buffalo robe could be traded for a pony.

Artifacts decorated with quillwork are generally older than beaded items, dating from before trade beads were widely available.



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