When you think about New Hampshire and the wonderful diversity of wildlife we get to see and enjoy throughout the state, one of the most peculiar animals that comes to mind is the porcupine.

A large rodent covered with about 30,000 sharp, hollow quills, the porcupine can be a delight to see yet put any predator at a sincere disadvantage, many a domestic dog included.

The North American porcupine (Erethizon dorsatum) exists throughout New Hampshire and much of North America and is one of 23 species of porcupines found around the world. These herbivores are active all year and feed on a variety of plants including grasses, fruits, and seeds during summer, and woody vegetation during winter, especially hemlock trees. They are mostly nocturnal and live in coniferous, deciduous, or mixed forests where they nimbly climb large mature trees to forage among the sprawling limbs and branches.

Quills and Other “Points” of Interest

Porcupines have short legs, small ears, and fur that can range in color from black to brown to yellowish. However, their most recognizable feature is of course their quills. Made of keratin, just like our hair and fingernails, quills are actually hardened hollow hairs with barbed tips that cover all parts of the body except for the stomach. The quills vary in length with the longest ones on the back and the shortest ones on the face. Because they are hollow, quills actually help porcupines float, making them unexpectedly good swimmers.

Typically, porcupines are docile animals, but when they feel threatened they will raise their quills in self-defense. Contrary to popular belief, they cannot actually “shoot” or “throw” their quills, but if attacked by a predator, the barbed quills will hook into the predator’s skin (similar to a fish hook) and thus are a persuasive deterrent and a challenge to remove.

Dr. James Paine, a veterinarian at Russell Animal Hospital in Concord, NH, recommends that if your pet encounters a porcupine, have the quills removed sooner rather than later. If your pet will cooperate, Dr. Paine recommends using your fingers or a pair of pliers. “Get a good grasp and pull straight out – don’t twist or bend,” he said. “Of course it’s never worth the risk of being bitten,” he commented. So if you have a dog that has a lot of quills that need to be removed it is best to bring them to your veterinarian.

“One common myth is that if you cut the quills and let the air out of them they are easier to remove,” explained Dr. Paine. “That is a falsehood and just leaves you with less of the quill to grab,” he said. “Quill fragments that are not removed can migrate through the body where
they can remain for months or even years. The longer the quills stay in, the more likely they are to cause internal damage, or the animal can develop an infection.”

Not surprisingly, most cases of porcupine encounters are with dogs, but during his years of practice Dr. Paine has also treated cats, horses, cows, and sheep for porcupine quills. Dr. Paine commented that, “the difference is that horses and cows may be curious about that creature waddling across their pasture, go over to sniff at it, and the porcupine swipes at them leaving a few quills in the nose, versus a dog’s reaction which is to bite at the porcupine leading to worse quill experiences. Some dogs can require hours and hours of anesthesia to pull all the quills out.”

Although many domestic dogs never learn their lesson when it comes to messing with prickly porcupines, some wild predators have learned special tactics for preying on them. “The fisher is also nocturnal and has sharp, semi-retractable claws that make it effective at climbing trees and maneuvering through the forest canopy where porcupines can be found,” said Patrick Tate, the Furbearer Biologist with New Hampshire Fish and Game. “Fishers are one of the few animals that can successfully prey upon porcupines; they attack the porcupine’s head, face, and neck, then flip it over to eat it from the underside, which does not have any quills,” he explained.

Bobcats, another predator that is mostly nocturnal and good at climbing trees, also prey on porcupines. Out of the hundreds of roadkill bobcats Tate has collected and necropsied, several have had porcupine quills in their stomach contents. “This indicates that they are successfully preying on porcupines as a food source,” said Tate.
Porcupettes and Prickles

A creature that could be described as a walking pin cushion, and whose nickname is “the quill pig,” porcupines are slow-moving animals designed for self protection and deterrence. Which makes one wonder, how do they, well, ... reproduce? It turns out that these peculiar animals have just as peculiar mating rituals!

Porcupines mate during late summer and early fall, and during this time they become very vocal, with males performing noisy battles to win the attention of females. The dominant male stomps his tail to impress the female and sprays her with urine. If she is interested, the female then lowers her quills and moves her tail aside to allow mating to occur.

About 7 months after mating, females give birth typically to one offspring called a porcupette. The baby is born with soft, bendable quills that harden within a few hours of birth. After just a few days, young porcupettes begin to forage for their own food but remain with their mother for about six months.

While adult porcupines are usually solitary, foraging and living alone, they may den together in small groups called a prickle during the winter. They make their dens in rock walls, caves, hollow logs and trees, and under brush piles. Porcupines do not hibernate but may stay in their dens during bad weather.
Porcupine Population Projections

According to the International Union for Conservation of Nature (IUCN) red list, the North American porcupine is listed as a species of least concern in regards to its risk of becoming threatened or endangered. The population is considered stable and widespread throughout its range in North America.

Here in New Hampshire, the population is believed to be stable as well. According to New Hampshire Fish and Game’s Nongame and Endangered Species Program Coordinator Mike Marchand, although there are no formal studies or surveys currently underway to monitor the population, there also is currently no cause for alarm for the porcupine population in the state.

One of the greatest risks to porcupines here Marchand said is being hit by cars. “One thing the public can do to help is report sightings of roadkill porcupines via the Wildlife Sightings website,” he said.

The Wildlife Sightings website is a place where anyone can report wildlife observations. “The information collected helps biologists to determine the distribution and abundance of species as well as to identify needed conservation actions,” Marchand explained.

Pesky Porcupines and Property Damage

It’s hard to imagine that these relatively quiet, solitary animals can be a nuisance or cause property damage. Rob Calvert, a New Hampshire Fish and Game Department Wildlife Biologist who specializes in nuisance wildlife, said he receives on average about 60 calls per year concerning nuisance porcupines. “The calls range from homeowners who have a porcupine chewing on their front porch to owners of large orchards who have porcupines climbing fences and chewing on their fruit trees,” Calvert said.

There are many ways to prevent damage by porcupines, ranging from using electric fencing that deters them from certain areas, to wrapping individual trees with mesh hardware cloth or sheet metal flashing that...
Porcupines are rodents and use their large front teeth to help satisfy their appetite for wood. Like beavers, their front teeth continue to grow throughout their life so porcupines must chew to keep them short.

Prevents them from chewing the bark and climbing the trunks.

Because porcupines like to den in rock walls and under brush piles, Calvert recommends that landowners not leave any large piles of brush or debris on their property in order to avoid attracting porcupines. "They are also attracted to anything with salt," Calvert said. "They will chew on anything from outhouse seats to plywood." Calvert also commented that the reason people see so many porcupines dead on the side of the road is that they are attracted to the salt on the roads and are then inadvertently killed.

Glenn Normandeau, Director of New Hampshire Fish and Game, reiterated this fact. "I had a porcupine chew on the salt-covered tires and the rubber bumper of an old car I used to own," he said. "And canoe paddles—l love to chew on wooden canoe paddles after you’ve been out canoeing all day, and they are covered with salt from your hands." In fact, "porcupines used to be considered a varmint," Normandeau stated. "The State actually paid a bounty of 50 cents per porcupine back in the day," he recalled. This State Law (RSA 470:2) was repealed in 1979.

Fish and Game hosts a website together with other conservation organizations dedicated to helping people deal with nuisance wildlife such as porcupines. For tips and information on how to deter nuisance wildlife, and also how to reach a licensed nuisance Wildlife Control Operator if needed, visit wildlifehelp.org.

While things like paid bounties have changed over time, some things have not, including our beloved dogs’ apparent obsession with the peculiar porcupine. However, there is one thing we can be sure of, and it is that the porcupine is a notable part of the native wildlife that makes New Hampshire unique.

Wildlife Biologist Allison Keating serves as a Federal Aid Program Specialist at the New Hampshire Fish and Game Department.
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