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# THE The Colebrook Land Conservancy NEWSLETTER

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“In Land We Trust”

Fall 2018



Porcupines use long claws and muscular tails to climb.

## The Prickly Lives of Porcupines

**N**orth American porcupines (*Erethizon dorsatum* Linnaeus) are often seen in this area, lumbering along through the forest and fields. But if you approach too closely, their lumbering turns to an ungainly gallop, and their quills rise to create nearly impregnable armor along their sides, back and tail; if any predator tries to bite or claw one, the porcupine can lash out with its tail, and all of its barbed quills will detach and work their way deep into the attacker's soft tissue. Many a dog has had to be taken to the vet to carefully dislodge these painful and sometimes

even deadly quills. In our part of the world, natural predators, including fisher, coyotes and bobcats, have learned the dangers of tangling with a porcupine.

Though classified as a rodent, the porcupine derives its name from the ancient Latin for “thorn”, or “quill”, and “pig”. But these creatures have been around for far longer than the Roman times. Though porcupines originated in Africa and Eurasia, they now populate every continent except Antarctica. At some point, porcupines were able to cross from Africa to South America and from there, some migrated up the land mass to North

America about three million years ago. Clearly, porcupines in North America are survivors: even today, most of their species are still classified as animals of least concern on the International Union for Conservation of Nature's list of endangered mammals.

Yet despite their seeming adaptability, tree-climbing North American porcupines remain dependent on having enough uninterrupted forest and shrubland in which to roam and breed. This is why there are still so many of them in parts of Colebrook and Norfolk—the perfect habitat ***Continued on next page***



On his way up a tree, a porcupine stops to rest.

for these mammals.

Recently, local resident and porcupine enthusiast Wiley Wood shared some of his extensive knowledge about porcupines. During an early autumn walk up Tower Hill in the Doolittle Woods, he pointed out where porcupines have established dens for winter, located in crevices along rocky escarpments. Beyond these ready-made shelters, they also use holes inside trees, or burrow under the roots of large trees in the colder months of the year. They keep their dens clean by pushing all their waste outside the shelter entrance, causing it eventually to accumulate in big mounds, which makes a den easy to spot. Wood also noted another telltale indication of the porcupines' presence: evergreen trees which are defoliated almost to the ends of their branches.

Porcupines give new meaning to the phrase "Going out on a limb", as they eat their way towards the ends of branches, and frequently fall out of trees. I once witnessed one fall from a tree from more than 30 feet up, land with a very loud thump, and, albeit a little unsteadily, proceed imperturbably on its way.

Unlike bears and other animals, porcupines do not hibernate, emerging when hungry from their winter shelters to feed on the leaves, bark, cambium and evergreen needles of particular trees. In

our area, they are particularly fond of the Eastern hemlock. Even so, their winter diets are hard on porcupines: often they lose more than 17% of their weight, and if the winter lasts too long, some even die of malnutrition.

During the summer months, porcupines head out on their own from their dens in search of more nutritious meals of buds, twigs, tubers, berries, grasses, nuts, fruits and berries. This change of

## Some Online Resources

The College of Environmental Science and Forestry at SUNY Syracuse: [www.esf.edu/aec/adks/mammals/porcupine.htm](http://www.esf.edu/aec/adks/mammals/porcupine.htm)

Maryland Department of Natural Resources: Rare, Threatened and Endangered Animal Fact Sheet: [www.dnr.maryland.gov/wildlife/Pages/plants\\_wildlife/rte/rteanimalfacts.aspx?AID=North%20American%20Porcupine](http://www.dnr.maryland.gov/wildlife/Pages/plants_wildlife/rte/rteanimalfacts.aspx?AID=North%20American%20Porcupine)

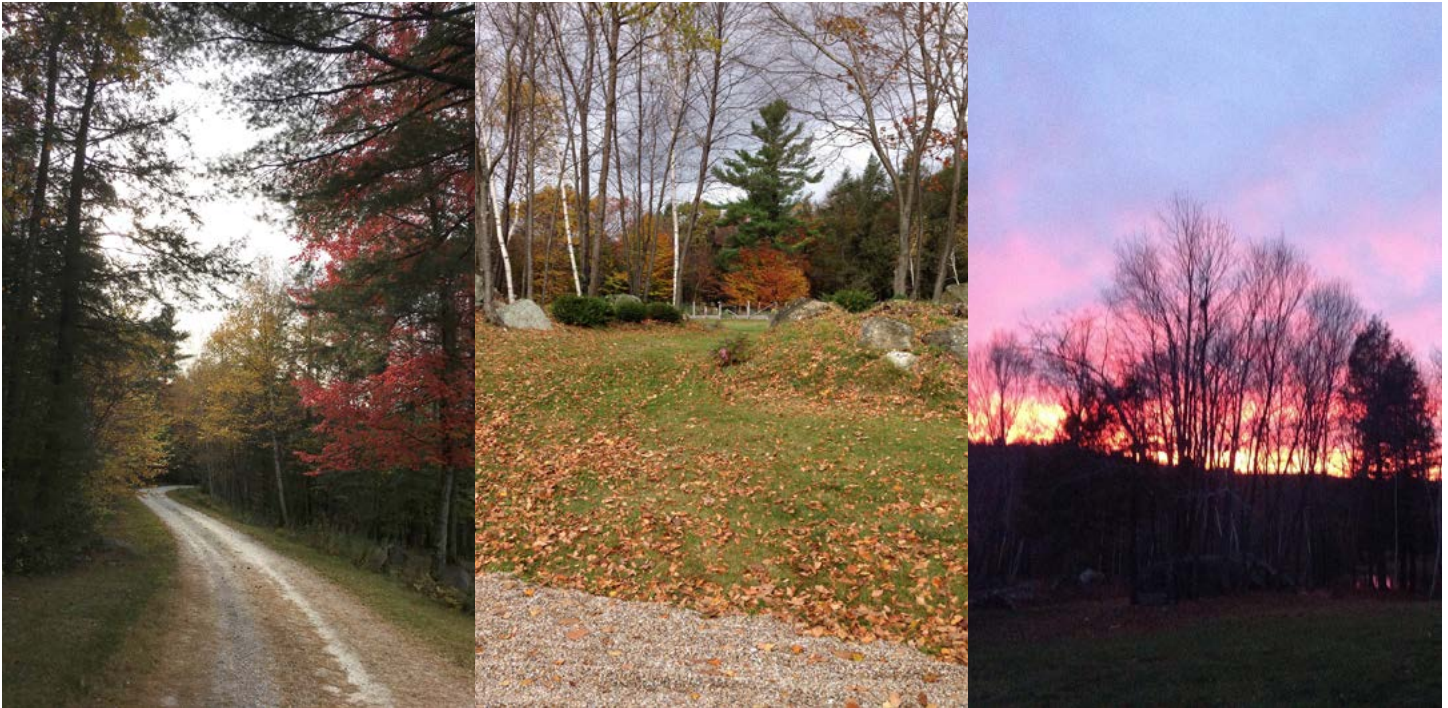
Smithsonian's National Zoo & Conservation Biology Institute: [www.nationalzoo.si.edu/animals/north-american-porcupine](http://www.nationalzoo.si.edu/animals/north-american-porcupine)

diet unleashes a need for salt, which they look for in the strangest places: they have been known to gnaw at the tires of cars, plywood structures and ax handles, and to lick at the residue from the road salt used to melt winter snow. You can often see them along roadsides.

During most of the year, North American adult porcupines spend little time together except when they mate. This occurs during an astoundingly short but intense period lasting only 8-12 hours during any given year. When the moment comes for mating, in fall or early winter, a female signals her location by secreting a highly scented mucus and releasing urine with a provocative odor that instantly alerts male porcupines that she is ready. Usually her scent attracts a number of males, who fight viciously, until the strongest male prevails. But even then, the victor still has to convince the female to mate, spraying a stream of urine in her direction to see if she responds. If she is amenable, she will turn her back, pull up her tail and flatten her quills to avoid harming her suitor. From the time of fertilization, gestation lasts about 210 days, and most often, females produce one offspring, known as a porcupette, per year. The newborn considerably emerges from its mother with soft quills, but soon after birth, the quills begin to harden. Born with its eyes open, this newborn begins to see and to eat vegetation soon after birth, though its mother continues to nurse it for about four months. After teaching her baby to forage and to climb trees, she gradually begins to spend less time with it until she separates altogether from it at around 5 or 6 months of age.

Although the North American porcupine is not a federally listed species, in certain parts of some states, like Maryland, it is disappearing from areas where forestland is fragmented or diminishing, or where porcupines are hunted or exterminated because of their sometimes destructive behaviors. In our area of northern Connecticut, however, these herbivores do relatively little damage to the forest, and do not pose a threat to other animals. These resourceful and peaceful creatures are a pleasure to observe, and should deserve our respect.

—Amy Bernstein



# Autumn in Colebrook

**P**erhaps the most beautiful time of the year is autumn in Colebrook, when the leaves turn, apples and pumpkins and vegetables are ready for harvest, and every living thing begins its preparations for winter. This change in season occurs as our earth's northern hemisphere gradually tilts away from the sun. The strength of the sun's rays lessens, the days grow chilly, and the hours of daylight diminish, setting off a transformation in the natural world.

Plant photosynthesis and chlorophyll production slows as the hours of sunlight and temperature levels diminish. The underlying yellow and orange colors in tree leaves, carotene and xanthophyll pigments, normally covered up by the green chlorophyll, become apparent as the green fades. At the same time, in a complex process, the leaves of some trees begin to produce anthocyanin pigments, which result in red and purple leaf colors. A riot of beautiful color ensues before the leaves fall from the trees.

Although many birds migrate south after summer breeding in Connecticut, a number of others, such as robins, north-

ern cardinals and black-capped chickadees, stay put as winter approaches, and find what berries and seeds they can to eat. They stay warm by puffing up their feathers, creating a pocket of air between each layer, like a duvet coat.

Meanwhile, some mammals such as bears prepare to hibernate by overeating and storing fat in their bodies so they can make it through to the next warm spell, or, in the case of squirrels, chipmunks, mice and foxes, they accumulate food stores in caches and identify shelter from the elements. The woods and fields are full of activity as animals make their individual plans for survival through the winter. Many grow winter coats to help keep them warm.

Amphibians such as aquatic frogs build up fat and glycogen, a form of energy storage, in their bodies so they can hibernate underwater, half-buried in the bottoms of ponds. Terrestrial frogs bury themselves in leaves or find crevices in rocks where they can burrow.

Reptiles build up fat and glycogen as well and lower their metabolism in order to achieve a dormant state known as

brumation, which allows them to tolerate low levels of oxygen. Unlike hibernation, which requires normal oxygen levels, brumation is not true sleep; it can be interrupted by short bursts of activity.

Insects survive the cold in various ways. Some die, but leave behind eggs or larvae or pupae to survive the winter in a dormant stage. Honeybees make a compact ball in the hive for warmth, and individual bees take turns being on the outside.

Colebrook resident Mike Sullivan, a champion lumberjack and outdoorsman and expert deer hunter, says that a male deer's velvet antlers start to harden in early September. This is the start of a strenuous period for male deer. After rubbing off all the velvet on their horns, male deer eat hard until late October. Then, the bucks will fight each other to establish dominance, and the biggest bucks, perhaps just 3 or 4, with the biggest antlers, will breed with all the females in their area. By the second week in December, or at the first cold spell, the deer's antlers will fall off, effectively ending the breeding season, and signaling the start of winter. —Amy Bernstein



# Feeding Birds in Winter

**M**ore than 40% of all Americans have winter feeders to help birds combat sustained cold and meager food sources. However, these food banks do pose some dangers to the very feathered friends they are supposed to help: there is a risk of infection from dirty bird feeders and of infectious disease across species.

For this reason, the National Audubon Society suggests researching the recommended foods and feeders for birds you want to attract—putting sunflowers in one and cracked corn or millet in another—and cleaning the feeders using a 10% non chlorinated bleach solution.

We lack email addresses for many of you, and if there is an alert we wish to send out, information about upcoming events or other announcements, we have no way of contacting you but snail mail. Please send us your email address:  
[info@colebrooklandconservancy.org](mailto:info@colebrooklandconservancy.org)

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