

What is the fencing for along Highway 60?



Anyone driving Highway 60 in the Park will notice the black drift-fencing that has been installed in various places. This fencing is an attempt to keep Snapping Turtles and Painted Turtles off of the roadway and to try to reduce the mortality of these turtles. These turtles are attracted to the soft ditches and banks of roads for nesting but road mortality can seriously harm the population.

If you see a turtle on the road, slow down. If possible, you may want to try to assist the turtle by moving it in the direction it was heading. Be careful with Snapping Turtles – you should not try to pick one up! *And, always remember, watch out for other traffic!*



Painted Turtle – note the brilliant colours when viewed from both the top and underside.



Snapping Turtle – be careful to avoid its jaws as it will feel threatened and may snap!

Tips When Viewing Wildlife

Highway 60 can be an excellent place to view wildlife, especially Moose.

- Early morning or late evening can be the best time.
- Keep well off the travelled portion of the highway if you pull over to view wildlife; watch out for other traffic!
- Keep a safe and respectful distance from wildlife.
- NEVER feed or attract wildlife.

Going for a hike?

When you are going on a day-hike, know the length and difficulty of the trail and give yourself enough time to be back to your vehicle before dark.



Algonquin Park is Black Bear country!

Bears are a natural part of the Algonquin landscape and, as a visitor camping in bear country, you have a responsibility to follow the bear rules and know what to do if you encounter a bear.



If you leave your campsite during the day, ensure that all food, coolers and garbage are stored properly. (Campers can be charged for failing to keep a clean campsite and unlawfully storing wildlife attractants.)



For more information on Black Bears and camping in bear country, see page 20 of the *Algonquin Information Guide*, check out the Black Bear exhibit at the Visitor Centre, or attend an interpretive program on bears (see *This Week in Algonquin Park* for dates and times).

Looking for Internet access?



The Visitor Centre now offers free WiFi internet access... and while there, don't forget to check out The Friends of Algonquin Park bookstore, or enjoy a light snack or meal at the Sunday Creek Café.

1 Never feed or approach a bear

Bears can quickly become accustomed to human sources of food and people who feed bears create problems for both other campers and the bear.

2 Store your food properly

In picnic areas and campgrounds, store all food inside the closed trunk of your vehicle.

In the backcountry, put all food in a pack and hang it well off the ground and away from your tent.

3 Keep your campsite clean

Clean your dishes and cooking equipment immediately after each meal. Deposit your garbage, compost and recycling **daily** in the bear-proof containers within your campground.

Help us keep our wild animals wild.... observe the bear rules!

A Natural and Cultural History Digest
Algonquin Provincial Park



The Raven



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Why the new look?

You have probably noticed that *The Raven*, the official newsletter for Algonquin Provincial Park, looks different this year. Why the new look?

2010 represents a new era for *The Raven*. For the first 50 years, *The Raven* had only two authors...Russ Rutter from 1960 to 1973 and Dan Strickland from 1974 to 2009. When Dan announced recently that he was going to end his run as the author, the Park thought that we should also retire *The Raven*...but we heard from you and you wanted us to keep the newsletter.

After much deliberation, we decided *The Raven* would continue, but with some changes. The new principal author will be Michael Runtz, a well-known Ontario naturalist, photographer and writer – with a strong connection

The Park thanks The Friends of Algonquin Park for its generous contribution to the production, printing and distribution of *The Raven* for the past 12 years. **THANKS!** Friends, for your support.



Michael Runtz

How can this be the most powerful animal in Algonquin?

Learn more... see page 2.

to Algonquin Park. But we will also introduce guest writers and continue to reprint some of the old *Raven* articles.

The Raven will now have six issues a year (two in the spring, two in the summer, one in the fall, and one in the winter). *The Raven* was weekly in the summer but that format goes back 50 years when the newsletter was the only Park publication and represented the Park Information Guide, *This Week in Algonquin*, as well as the natural history essay. This new schedule will allow us to update our visitors with timely seasonal information and safety messages.

We hope you enjoy the new version of *The Raven* and welcome your comments. We know it is not the same but we hope that, after 50 years, you will allow us some flexibility to change!

And the Most Powerful Animal in Algonquin is...

by Michael Runtz

If you were asked to name the most powerful animal in Algonquin, what would your answer be? Perhaps you would say it was the moose, for weighing in at 500 kilograms and standing two metres tall at the shoulder, an adult bull is the largest animal in the Park. And moose are powerful. During the rut, bulls smash small trees into oblivion and push around rivals weighing half a ton. But then you remember that with a lightning-fast swipe of its paw a Black Bear can snap the neck of a moose calf. And bears break beech branches as thick as your wrist and roll over boulders that weigh more than you can lift. So after careful consideration you make that species your final choice.

While either animal might seem a good candidate for the *Most Powerful* title, I am inclined to nominate another. My choice might surprise you, for it does not roll over huge rocks or shove hefty rivals around. And in comparison to those other creatures, it really is rather small. My nomination for the *Most Powerful* title — the beaver!

So how could a rodent possibly be the most powerful animal in Algonquin? Is it because beavers cut down towering trees? Perhaps. That impressive feat, shared only by our species, is made even more remarkable when you consider that beavers do not use chainsaws. The only tools they employ are their teeth, which are powered by massive jaw muscles. The oversized incisors that slice through wood with ease are impressive structures not only in size. They are colourful, their outer surface orange and the inner white. This dual colouration reflects a dual

composition. The orange is extremely tough enamel that wears much more slowly than the white dentine. The uneven wear results in a perpetually sharp edge that enables a beaver to gnaw through the toughest of wood material. Of course, worn out tools would rob a beaver of its amazing ability to cut through wood. As replacement is not possible (a beaver would starve while its new teeth were growing back), another solution has been employed. A beaver's incisors never stop growing.

While the ability to fell large trees is certainly impressive, beavers demonstrate power in another way. Beavers have the ability to transform entire landscapes, creating habitats that provide not only for their needs but also for those of a rich array of plants and other animals. Beavers build dams and by doing so change flowing streams into tranquil ponds.

Ponds are created because beavers need water deep enough to not freeze to the bottom in winter. Unlike groundhogs and jumping mice, their terrestrial cousins, beavers do not hibernate and thus need to eat food all through the winter. In that season their diet consists largely of branches stashed in a large central pile the previous fall. This cache, called a food pile, is located near the lodge, the beaver's house that is constructed largely of sticks and mud. Beavers access the food pile by leaving the lodge through one of its underwater entrances and swimming beneath the ice. Branches are cut from the pile and brought back to the lodge where their bark and twigs are enjoyed in relative comfort. While Speckled Alder branches adorn the top of many Algonquin food

piles, they offer relatively little nutrition and are often placed there to act as ballast to weigh down the far more nutritious branches of poplar, willow, and Red Maple.

A pond benefits beavers in other ways. Beavers face little danger in the water but on land they regularly fall prey to Eastern Wolves and even Black Bears. Thus, when they are felling trees on land, the nearer to the water they are, the safer they are. Hence, the larger the pond, the larger the zone of safety in which a beaver can forage.

A pond also provides beavers with sources of food. Although beavers eat the twigs and bark of certain trees, they also consume a lot of water plants. They are particularly fond of the leaves, flowers, and roots of Bullhead-lilies, which grow in most ponds. In Algonquin, it is a common sight in late evening to see beavers floating on a pond's surface, munching contentedly on floating leaves. Chunks of Water-lily root, which to me look like elongated pineapples, atop logs or the edges of bog mats — typical beaver feeding platforms — are testament to the beavers' penchant for this food.

Beaver ponds provide plants with a relatively rich environment in which to grow. This might seem a bit puzzling for Algonquin lies atop the Canadian Shield whose hard acidic rocks do little to enrich soil or water lying atop it. The richness of the pond water once again reflects the power of beavers. By building dams, beavers place controls on the water that once flowed unimpeded as a stream. The water entering a pond carries organic material. When the moving water reaches the pond and its dam, it speed slows and the organic cargo is dropped. The pond also receives nutrients from the drowned land. Even the beavers contribute



Michael Runtz

Great Blue Herons often hunt frogs and fish in Algonquin beaver ponds.

nutrients when they drag plant material into the pond and defecate in the water. The organic material lying at the bottom of a beaver pond contains phosphorus, an especially important nutrient needed by plants. However, bacteria must transform this precious commodity locked in the debris before it becomes available to the pond plants. The decomposers work their magic but the phosphorus remains inaccessible, stuck in the bottom until melting ice and rains swell the ponds and wind sends currents swirling to the bottom. Under those conditions the phosphorus is liberated from the muck and made available not only to plants living in the pond but also to those living downstream when it is carried by the water flowing over the dam.

A new beaver pond seems to harbour little except its makers. But as time passes, the nutrient supply builds up. As the ponds tend to be shallow, often only a couple of metres deep at best, the water becomes fairly warm in summer. Warm water and an ample supply of nutrients provide aquatic plants with ideal conditions for growth. After a few

years, the pond supports a wealth of Bullhead-lilies, white Water-lilies, and Water-shield. These plants are food not only for beavers. Water-lily leaf beetles chew distinctive patterns in the floating leaves while mighty moose devour both leaves and stems, occasionally disappearing beneath the surface when pulling up a bottom-rooted meal. Incidentally, Algonquin would likely have fewer moose if there were no beaver ponds; aquatic plants provide these animals with their primary source of sodium.

Beaver ponds also become home to a rich diversity of insects and other small animals. Midge larvae wriggle in the rich bottom muck while tiny Daphnia pulse their way through the water above them. From the surface to the bottom, fierce predators abound. Whirligigs skate dizzying patterns on top of the pond while Backswimmers and Waterboatmen row their way through the water column. Skimmer dragonfly nymphs cling to underwater stems, patiently waiting for small prey to wander within reach of their labrum, their lower lip that shoots out with lethal accuracy.

Aquatic insects fuel the appetites of small fish such as Northern Red-belly Dace and Brown Bullheads. The wealth of life attracts larger predators such as Snapping Turtles, Mink, River Otters, Belted Kingfishers, Great Blue Herons, and Broad-winged Hawks. Many of the aquatic insects transform into aerial adults that catch the attention of Mink Frogs, Bullfrogs, Eastern Kingbirds and Tree Swallows.

Every component of a beaver pond benefits some living thing. Drowned trees provide food for wood-eating beetles that in turn are devoured by Black-backed Woodpeckers and Northern Flickers. These woodpeckers

excavate nest cavities, which later get usurped by Tree Swallows, Northern Saw-whet Owls, and Northern Flying Squirrels. Larger cavities in the trees house Common Grackles, Hooded Mergansers, and Wood Ducks. When the dead trees finally succumb to gravity, their floating carcasses become nursery beds for sundew and leatherleaf, and serve as basking sites for Painted Turtles. On the nutrient-poor Canadian Shield, beaver ponds are nothing less than oases of life.

When the beavers are killed or vacate a pond for whatever reason, the unmaintained dam eventually breaks, liberating the water formerly held prisoner by that structure. The exposed muck, the former bottom of the pond, is rich in nutrients and in only a couple of years supports a lush carpet of sedge and grass. This new habitat, appropriately called a "beaver meadow," is soon alive in late summer with the stirring howls of wolves, and in autumn with the lustful moans of courting moose.

Just think. Without beavers in Algonquin, there could well be fewer Public Wolf Howls and moose might have fewer romantic interludes.

Now that is one powerful animal!

Want to learn more about beavers and their habitat here in Algonquin?

- stop by the Visitor Centre and check out the Beaver Pond Diorama;
- pick up a copy of the Beaver Pond Trail guide (\$0.48) and take a walk around the Beaver Pond Trail (at Km 45.2 along Highway 60; 2 kilometres in length, rated Moderate); and
- during the summer, join a Park naturalist at the Outdoor Theatre for an Evening Program on beavers (see *This Week in Algonquin Park* for dates and times).