



MATHIEU LÉGER.

The mighty twig eater

A non-profit agency seeks to help the beleaguered moose in mainland Nova Scotia

by Janet Wallace

A CALL IN the middle of the night was the first clue. In October, I awoke to loud bellowing, like the sound of a forlorn and frustrated cow. It was a cow all right, but not a domestic one—a cow moose.

Next morning, I went into the woods and found cloven-hoofed tracks the size of my hand. I was enthralled by the idea of a moose living nearby.

I wanted to see a moose. I walked in the woods around dawn and dusk, when they're most active. I often found droppings, like piles of chocolate Easter eggs. As fall turned into winter, I followed tracks on my snowshoes. I kept hoping to find antlers—bull moose lose their antlers after the rut (mating season) every fall.

One afternoon, I was thrilled to find very fresh tracks. I spotted signs of browsing where moose had bitten maple

and birch twigs. Some were at eye level, and I was standing on three feet of snow.

Suddenly I heard a thunderous, crashing noise ahead. As the sound of breaking branches reverberated in the woods, all that was left was a clump of long brown hair and downy fleece caught on a branch.

This happened during my first winter in New Brunswick after moving here from Nova Scotia.

Two provinces, a world apart

To get to my new home, I had driven across the Chignecto Isthmus, the flat, narrow strip of land linking New Brunswick and Nova Scotia, skirting the Tantramar Marsh. My journey was easy; people travel safely across the narrow isthmus every day.

For a moose, however, crossing that

little strip of land rife with human habitation just about everywhere that's not marshland is more like an illegal immigrant slipping across the Mexico-US border. It's an intimidating and potentially hazardous journey. More than half the 25 kilometre strip is bog/wetland, including the Tantramar Marsh. The remainder contains highways, forests and farmland.

Like the US border, the Chignecto Isthmus separates populations facing different challenges. In New Brunswick, moose are healthy and abundant (estimated to be about 29,000). In mainland Nova Scotia, the moose population is endangered (estimated to be as low as 500 adults). Those two populations are of the Americana or Eastern Moose subspecies, while the moose in the Cape Breton Highlands—



imported from Alberta in the 1940s—are from the more massive Andersoni subspecies.

As part of what has been called the “Moose Sex Project,” the Nature Conservancy of Canada (NCC) is creating a wildlife corridor, a band of properties protected from forestry and development, across the Chignecto Isthmus to enable moose to travel securely between Nova Scotia and New Brunswick.

In fact, the corridor can help many types of wildlife on both sides of the isthmus. Lynx, flying squirrels and migratory birds, among other animals, can’t thrive in isolated pockets of wilderness; wildlife flourishes in expansive protected areas with a diversity of habitats—and this especially applies to moose.

Imagine eating 10,000 calories a day (a human adult requires 2,000-

2,500 calories). Now picture doing this without eating any sugar, meat, dairy—only raw plants. Welcome to the life of a moose, a ruminant with a stomach that can hold more than 110 pounds of food.

An animal that digests such large volumes—often 45 pounds daily—needs a large area to roam, and a mosaic of habitats.

Seasonal meal plan

In winter, moose eat the tips of branches. (The word moose comes from the Algonquin word that means “twig-eater.”) Moose prefer twigs of deciduous trees, such as maples and birches, but will also browse conifers, such as balsam fir. The food is most abundant in areas with young trees.

When the snow gets deep, however, hoofed animals have trouble travelling. They often stay in forests with mature

The Chignecto Isthmus

The Chignecto Isthmus is the stretch of land that connects Nova Scotia and New Brunswick, and separates the Northumberland Strait from Chignecto Bay. (An isthmus is a narrow strip of land connecting land masses.)

More than half of the 25 kilometre strip is bog/wetland, including the Tantramar Marsh. The remainder contains forests and farmland.

conifers that trap much of the snow. Even though moose are generally solitary, if the snow is deep, small groups of two to six animals might share a winter “yard”—an area in the woods where groups of deer or moose co-operate to keep the snow packed down in order to ease travel between food and shelter.

From spring to fall, moose eat the new twigs and leaves of shrubs and trees. In summer they also eat pondweed, pond lilies and reeds growing in lakes and ponds. Ponds are more than just a place to eat—they also offer a cooling environment. Moose can’t sweat and can suffer from heat stress even at temperatures as low as 14°C.

Moose real estate ad

“Wanted: 28 square kilometre range with mature coniferous or mixed wood forest, young deciduous trees and a pond or shallow lake in a quiet neighbourhood.”

It can be challenging to find all these habitats in one area, which is why moose sometimes have different summer and winter ranges—they might even spend summers in one province and winters in the other. But, they need to be able to travel safely. Roads that cut across home ranges make travel dangerous. Urban sprawl and forestry, particularly clear-cutting, can utterly deprive them of a place to live.

Besides loss of habitat, moose are threatened by climate change. When temperatures rise above 20°C, they cut



The moose is our largest herbivore, preferring woody plants in winter and aquatic plants in summer.

back on eating. This helps to prevent overheating given the process of digesting their fibre-rich diet generates heat. Moose that don’t eat well in summer, however, risk starvation in winter, and underfed cows are less likely to have healthy calves.

Weighing in anywhere from 600 to more than 1,200 pounds, adult moose are safe from predators. Moose calves, however, are extremely vulnerable to black bear attack; add harsh winter conditions, poaching and highway collisions, and moose calf survival tends to be low.

A more significant threat is tiny—the so-called “brainworm,” or *Parelaphostrongylus tenuis*. The parasite is found where moose and white-tailed deer share habitat. It has little effect on deer but has proved devastating to the Nova Scotia mainland moose. In the Cape Breton Highlands and much of New Brunswick, the ground is often covered with deep snow in winter, which makes it difficult for deer to survive. There are no white-tailed deer

in Newfoundland and Labrador and therefore no parasite threat.

A wildlife corridor can’t address climate change—but it does give the animals a chance to travel to more suitable environments.

Mating across the Marsh?

The Nature Conservancy is working to create the corridor; 2,060 acres of land are now protected from forestry and development. As the forests on the protected land mature, the corridor will become more attractive to the animals. Will the New Brunswick moose join and mate with the Nova Scotian population? The answer is unknown, but the animals will have more opportunity to cross the isthmus and fingers are crossed.

We can’t protect the whole Atlantic region from development, but we can strive for larger blocks of protected land connected by wildlife corridors.

As for the moose I wanted to see...One morning, I simply looked out the kitchen window and there she was, standing beneath an old apple tree. 🍏

Moose in the Atlantic Provinces

It’s a complicated story. Newfoundland and Cape Breton have healthy populations, so does New Brunswick. But there are very few (maybe 500) remaining in mainland Nova Scotia, and no moose in PEI.

Moose are not native to Newfoundland, but there are more than 110,000 moose on the island (deliberately reduced from a high of about 150,000 by increasing the number of hunting licences, due in part to worrisome levels of highway accidents). They are all descendants of a mere six adult moose taken to the island from Nova Scotia and New Brunswick in 1878 and 1904 (respectively). In

Labrador, moose are native but not plentiful.

In Cape Breton and mainland Nova Scotia, moose were plentiful in the 1800s. Habitat destruction, overhunting and poaching (and possibly disease) put severe pressure on the population, which was almost completely wiped out. The mainland moose remain endangered. In Cape Breton, there are now an estimated 5,000 moose, a western subspecies from Alberta introduced in the 1940s.

Ultimately, moose populations are greatly influenced by humans—the future of this magnificent animal depends, to a troubling extent, on us.

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