

METCALFE: Solitude speaks volumes in rare forests of Nova Scotia

ZACK METCALFE

Published September 17, 2017 - 12:00pm

Last Updated September 17, 2017 - 12:00pm

Taking stock of old growth in hidden areas of the province

(1 of 5)



Colin Gray is seen taking stock of our provincial old growth in an old and overgrown forest. ZACK METCALFE

It's easy to lose yourself in old growth in the forest, your neck craned back to admire the towering canopy and your voice kept low as to not disturb the silence. Stepping into one is like entering a cathedral, and having its defining features pointed out is like an initiation into some exclusive club. And the more you see, the more lofty your membership.

Old growth isn't just about the age of the trees, but the age of the forest as a whole. Among its mighty foliage is an entirely different suite of living things which you're hard-pressed to find in younger growth, from mosses to mammals and everything in between. If you have a keen eye you'll notice features wholly absent from most of our fine province, such as standing or snagged deadwood, deeply furrowed barks, a landscape of pits and mounds left behind by toppled roots, and an army of young seedlings awaiting their shot at the sunlight.

My first taste of such forest was Hemlock Hill along the St. Mary's River, a congregation of outstanding red spruce and eastern hemlock protected by the Nova Scotia Nature Trust. I was astounded by the quiet that this cathedral offered, the roar of the St. Mary's entirely blunted even while still in view. Several months later I visited Lo Shieling in the Cape Breton Highlands, a hardwood forest claiming never to have known the axe.

Its canopy contained so much moisture you could slurp it from any passing leaf and when I knelt alongside its small creek, I was certain I'd never see water so clear again.

Most recently I visited Kentville Ravine and the absolute giants stemming from its rich soils. There were sugar maples of sizes I never knew possible, as well as yellow birch, white pine and the ever present eastern hemlock, spaced apart to offer effortless hiking and bedding the ground with a thick fluff of needles.

Taking steps to appreciate the uniqueness of such forests is the only requirement to join this exclusive club of old growth admirers. I quite accurately consider it a membership because, once you've seen and understood the real thing, no other forest will do. I'm sorry to say old growth accounts for an estimated 0.01 per cent of our provincial forests, a disheartening statistic shared with me while I stood in its very midst on Friday, July 28.

The Man Who Truths

Since fall of 2015 the Mersey Tobeatic Research Institute (MTRI) has been on a mission, tracking down and identifying what remains of old growth forest in each of the Maritime provinces, all with funding from Environment Canada's Atlantic Ecosystems Initiative.

This aptly named Old Forest Project has been led by Colin Gray for the last year, a police officer turned tree hunter by his own induction into the old growth admirers club.

As of our meeting in the forests of Coolen Lake, Lunenburg County, he'd visited 35 sites across the Maritimes, using an assortment of tools and a provincially-approved score sheet to separate the old growth from impostors. A process called "truthing." Of those 35 sites, he's proved 19 to be genuine old growth and from now until March of 2018, he has plenty more to visit.

"We're trying to make the public aware we still have some old growth left," Gray explained as we drove through the Crown land clearcuts between us and one of his 19 sites. "I think it's important we preserve what we have left."

The data Colin collects serves to expand the MTRI old growth database which, in time, will add to that of our provincial government.

A full 12 of his 19 old growth sites occur on unprotected Crown land and it's Gray's hope his work will make such protections possible.

“This project gives our province the opportunity to have a second look at some of these areas,” he said. “Some a close to existing protected areas, so with any luck the province may expand those boundaries to include these sites.”

These surviving lumps of old growth are important not just for their rarity, but for their role in the recovery of our region’s forests. Within each are all the ingredients, more or less, for the establishment of “new” old growth. Each site can be considered a seed, whose very presence will help revitalize lands surrounding it. Everything from the bacteria in their soils to the birds in their canopies to the seeds of the trees themselves have the potential, indeed the biological need, to spread. From this perspective our lingering old growth is indispensable to the future of our forests, but in order to expand they must first be protected, and in order to be protected they must first be identified. And so we return to Gray and his truthing.

Something Old and Something New

On that day in late July, Gray led me through a forest of young growth obviously cut sometime in the last century.

He’s the first researcher I’ve ever met who wears safety goggles in the field, given the unpleasant thickness of regenerating forests. The low branches of those fledgling trees dragged across our skin with each step and muffled Gray’s words as we soldiered through.

Before forestry and the fires of swidden agriculture, our oldest forests were a rich blend of eastern hemlock, white pine, red spruce, sugar maple, yellow birch and American beech among others, together spanning much of the province. But even our surviving old growth doesn’t possess this sort of healthy diversity.

As Gray explained it, the arrival of Europeans led eventually to the mass harvesting of white pine for ship masts and when that became scarce, efforts turned necessarily to red spruce, an excellent lumber.

It was a long time before eastern hemlock saw the harvest, when its bark was discovered to performed well in the tanning process.

For a short time its fibres were even used for pulp and paper, but eventually preference was given to younger fir



Very few of the forests in Nova Scotia contain authentic old growth, according to experts. (ZACK METCALFE)

and spruce trees for their relative abundance.

For these reasons and others, a great many of the old growth forests identified by Gray possess neither red spruce nor white pine in any true abundance. The keepers of our oldest forests, almost without fail, are the rejected hemlocks of the last several centuries, saved by their lack of economic value.

The old growth we visited was exactly this sort of monoculture, the aged stumps of red spruce and white pine obvious under glorious beds of lichen and moss. Stepping among its hemlocks wasn’t just breathtaking, but a relief. Finally we could stand straight and were granted the open spaces of mature forest. As in all such places my head tipped back to admire the branches above set ablaze by the noon light. Besides the lively chirping of birds, there was hardly a sound. It goes without saying we removed our safety goggles.

“When you walk into these old growth forests you really need to sit and reflect on where you are, and how old these trees are,” said Gray. “It’s remarkable that we can do that.”

The Science

It’s difficult to believe a forest’s old growth status could depend on something so simple as a score sheet. On it Gray reduced the natural features surrounding us to cold hard arithmetic — the number of each tree species, their width and age, the quantity of standing or snagged deadwood, the abundance of woody debris and of course signs of human disturbance.

A forest must score 80 or above to be considered old growth, said Gray, and the one in which we stood managed an 85 during his previous visit. Together we worked through a fresh score sheet and I saw Gray’s work first hand. Afterwards I wished fervently he had an army at his back to speed things up. The more of these old growth seeds we preserve, the better off our forests will be.

Without doubt the most important category on Gray’s list was the average age of surrounding trees, worth a hefty 40 points all its own. I’ve never seen a core sample before — taken by way of a small rod cranked into the trunk — and in short order I was allowed to do my very own.

Of course I gravitated to the largest of these trees, hoping to discover the oldest in provincial history, but Gray quickly dispelled that misconception. A tree’s size is not always a reliable indicator of age, he said; it might only indicate rich soils or a lack of childhood competition for sunlight. The oldest one he’s ever come across was four in that very stretch of wood, he said, cored at 422 years of age. This makes it ten years older than European settlement in 1605, and yet it was only 48 centimetres in diameter. The one I cored came in at 334 years old, taking root in 1683.

Simply remarkable.

A Novice’s Note

“I don’t think it’s up to an organization like MTRI, or up to me as an individual, to say what we should do with our old growth. Let’s present the evidence and let the people make the decisions, and I think they will, if the information is presented properly.”

Here I think Gray was very well spoken. Much of what’s in this article will come as news to most Nova Scotians, as will MTRI’s final list of enduring old growth sites when it takes final form. As we broach the management of our provincial forests and the protected lands therein, it seems to me these surviving scraps should feature prominently in those discussions. Maybe, with some forward thinking on our part, these ancient forests need not be rare forever.

Zack Metcalfe is a freelance environmental journalist, author, and writer of the Endangered Perspective. He operates out of Halifax, Nova Scotia.

Report a Typo or Error

Follow us on

