

6. Send in the Pioneers

In front of you was once a farm field. Thomas and Ezekiel Jobe may have grown crops or pastured livestock here. Just as the Jobes were pioneers, old growth forest has its pioneers too. Look around the field and you will see them. Can you spot the papery bark of the White Birch and the corky bark of the Red Ash? These species are aggressive colonizers but cannot maintain their dominance over the landscape. As young pioneer trees grow, they make conditions unfavourable for their own kind, requiring full sun. Later arrivals fail to grow because of the shade produced by the original "pioneers." In time, new shade-tolerant species arrive. An open field is thus transformed into a "young" forest. If allowed to remain for several hundred years, a young forest such as you see now will transform itself into an old growth forest.



7. Plain Plantations



You are standing in an artificial forest called a plantation. The trees here were originally planted in neat rows. Plantations are common at Presqu'île. Originally they were established as windbreaks to keep Presqu'île Bay a calm haven for boat traffic. Now they've matured but their simple nature allows for little structural diversity. If the park were a giant plantation, this would present many problems for many creatures.

Consider the Pileated Woodpecker found at Presqu'île. Without large,

partly rotten trees to feed and nest in, the species would have to live elsewhere.

Consider, too, the Redback Salamanders we discussed earlier. These tiny, moisture-dependent creatures could not survive without dead logs lying

on the ground in which they hunt and feed. In time, nature has a way of putting things back in order. This is currently happening in the small plantation. The planted conifers are dying and the deciduous seedlings that are growing will eventually out-compete them. Just as the old farm fields seen earlier are being reclaimed, so too is this artificial forest.

8. There's More Than Meets the Eye

Now that we've learned how to spy out some of the visible features of an old growth forest, let's take a moment to consider that there are many more hidden but equally important aspects awaiting our discovery. Indeed there are many partnerships in old growth forests that are not immediately apparent. Take,



for example, the huge knobby maple tree in front of you. This massive tree has an invisible, underground partner, a fungus, whose strands of 'hairs' form a root-like mat that probes the soil, collecting nutrients and water. The fungus shares these resources with the tree, which in turn provides sugars to the fungus. Without this partnership, this magnificent tree would never have become the giant you see!

This relationship is just one of the mysteries of old growth awaiting discovery. We are fortunate to have such a fine example of old growth forest here at Presqu'île Provincial Park. As you walk the remainder of the trail, think of how uniquely special this forest is and imagine how many more discoveries there are to be made.

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Presqu'île



An Interpretive Guide to the Jobes' Woods Trail

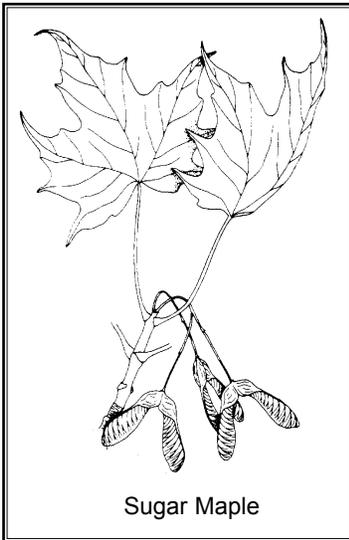
Jobs' Woods Trail

Soon you will be walking on land settled by Thomas and Ezekiel Jobe in 1835. The Jobe family cleared and farmed some of the land but also left portions largely untouched.

For the next kilometre, Jobs' Woods Trail passes through ancient upland forests, swamp forests and old farm fields in the process of converting themselves back into forests. Numbered posts along the way correspond with this guide. Each stop will help you understand some of the unique features of an old growth forest.

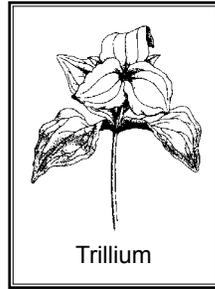
1. Mighty Monarch of the East

You are standing at the base of a Sugar Maple, a tree that dominates the eastern North American forest ecosystem. The canopy of Sugar Maple leaves above you produces very shady conditions on the forest floor. Most tree seedlings die quickly after only a short time in the shade. Sugar Maples, however, are amongst the most shade tolerant of trees, able



to persist for 150 years as seedlings. After a large tree falls, a young tree in the newly available patch of light will grow rapidly to take its place in the canopy. Once mature, a maple can produce thousands of seeds each year for 200 years or more! These seeds contain extra large amounts of stored energy, giving young maples a month or two of extra growing time over other tree seedlings competing for resources on the forest floor. These and other traits have helped the Sugar Maple assume the role of the "Monarch" of the eastern woodlands.

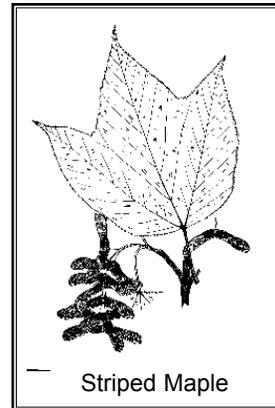
2. Big Trees = Old Growth?



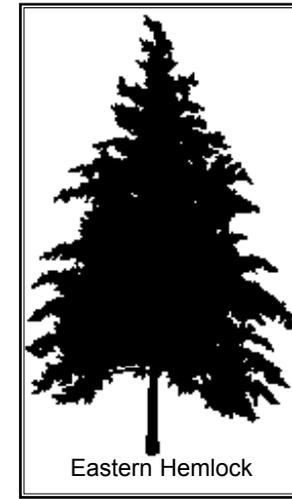
In some people's minds the equation "big trees = old growth" rings true. While there's no doubt that they are an essential component of an old growth forest, big trees are just part of the picture. A mature forest will also feature "stratification" or layering. At this location there are four distinct layers: a wildflower and fern layer at your feet; shrubs and young trees at eye-level; the "understorey" of immature trees and small tree species; and, far above your head, the canopy. Keep walking down the trail and look carefully because there are additional features of old growth forest besides big trees and stratification - try to discover what they are!

3. Something Lost, Something Gained

We humans often tend to associate beauty with youth and the loss of beauty with old age. Sometimes we apply this view to the natural world. From this location you can see trees that have died and left behind branch-less, rotting trunks called "snags." As well, you can see trees that have been blown over, leaving gaping holes in the forest floor. As the downed trees rot, they produce lumpy mounds of soil. This is known as "pit and mound" topography. Some people feel that cleaning this stuff up would produce a more aesthetically pleasing forest. Snags, rotting wood and pit and mound topography are essential aspects of old growth - but what are they good for? At the next several stops you'll see that there is a rich and interesting community of plants and animals that thrive best in a messy forest.



4. An Odd Couple



Just in front of you is an odd pair of trees. The one on the left, with its dark bark and fine needles, is the Eastern Hemlock. The one on the right, sporting flaky bark, is the Yellow Birch. If you look closely, you can see a small mound where these trees merge together at ground level. Mounds like this are vitally important for both species. Of the thousands of seeds produced by these trees, the few that actually survive are usually found growing on the remains of rotting logs. In such a "nursery", tiny seedlings find a secure place to start their growth. Years later, the nursery log may have rotted completely from beneath its tenants, making the mature trees appear to have legs!

5. Breathing Without Lungs

Slinking under logs and fallen leaves prowls a bizarre, worm-like animal. Close inspection of this bright red, 3-inch long creature reveals four tiny legs, smooth shiny skin and a beautiful rusty red streak down its back. This is the Eastern Redback Salamander, a creature extremely specialized in its habitat requirements. A constantly moist environment is needed to allow this tiny animal to "breathe" through its skin. It has no lungs! The old growth forest's abundance of fallen logs and leaf litter provides salamanders with excellent hunting grounds and a uniquely stable moisture regime. Without the old growth forest floor's special environment, the Redback Salamander would be just one of many unique things that would disappear.

