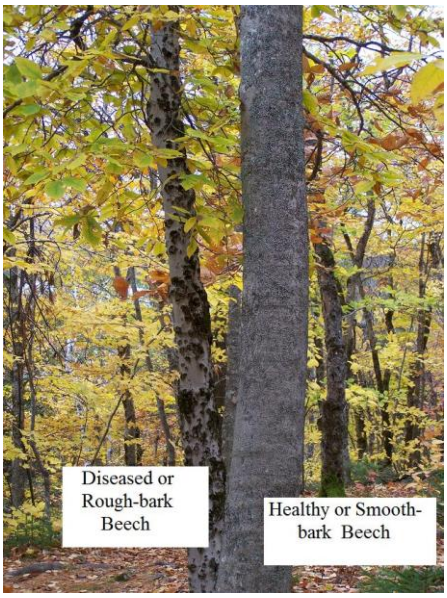
Beech Forest at the French Fort Cove, Jim Saunders, Miramichi Naturalists' Club

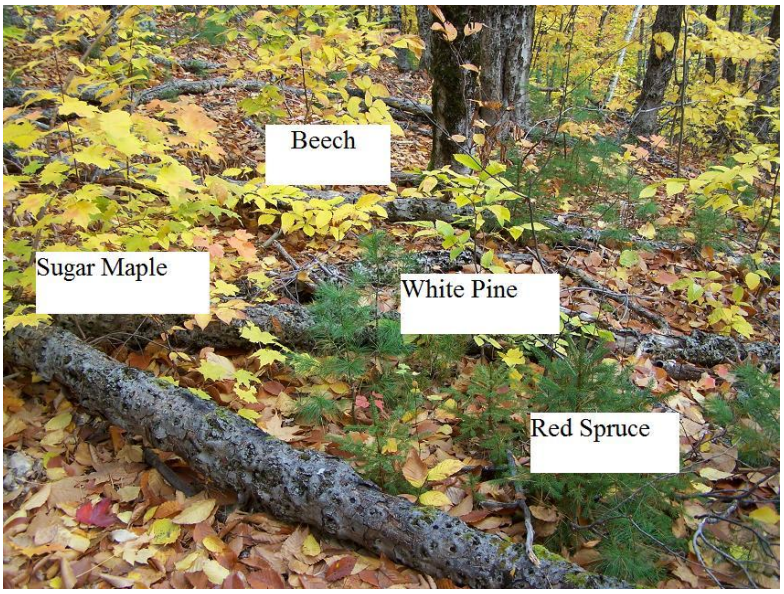
The French Fort Cove Nature Park has many interesting areas of which the "Beech Forest" is one. It is designated as Eco-zone "18W" in the "*Flora and Fauna of the French Fort Cove Nature Park*" (Clay Merrithew and Dave McLeod, 2005). Vascular plants, mosses and liverworts, and lichens that were found in the Beech Forest can be found in Appendices A, D and E.

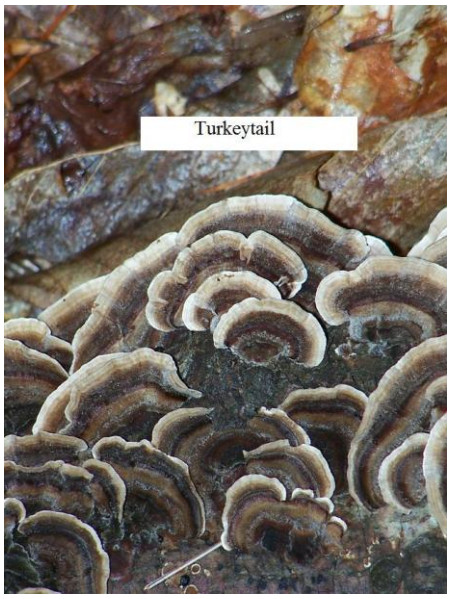
Your first impression might be or might have been that it is an unhealthy, dying forest and you would be right. Evidence of Beech mortality, past and impending is not hard to see - tree stems on the ground and dying and dead Rough-bark Beech trees standing. What, you may ask, is so interesting about a dying forest?



The Rough-bark Beech here are dying due to a series of events that is initiated by a scale insect that pierces the bark. This is followed by a fungus that enters the bark through the opening made by the scale insect. The bark is killed and other insects and wood rotting fungi take advantage of the situation to attack the wood. The trees become disfigured and unattractive and eventually die. However, a few Beech (Smooth-bark Beech) seem to have developed a resistance to this deadly duo. If you look around you will see them. The bark is unblemished and it is evident that they are much healthier and larger than the Rough-bark beech. Also if you look up, you will see that the crowns are larger and healthier than those of the Rough-bark Beech. The terms Rough-bark and Smooth-bark are used because I feel they describe what you see. They may or may not be accepted botanical terms.

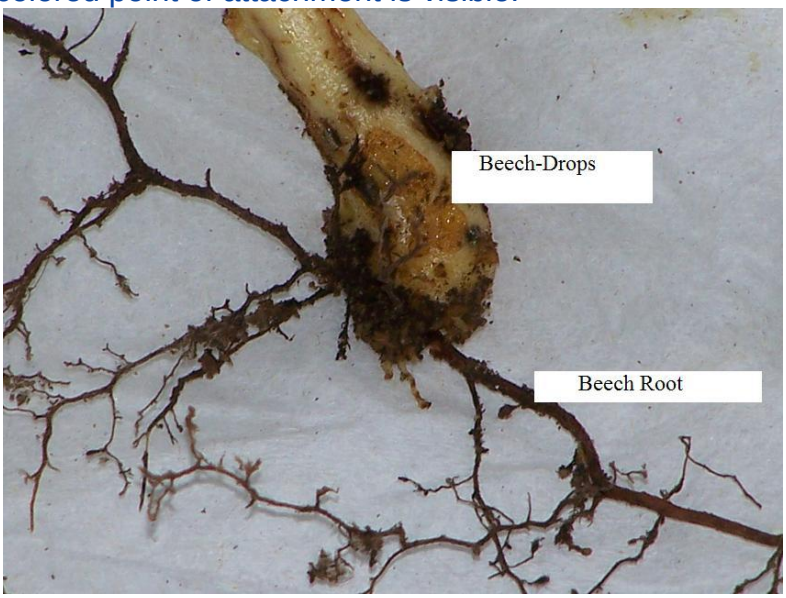
As more sunlight reaches the forest floor, the forest is being replaced with seedlings of Beech, White Pine, Sugar Maple, Red and White Spruce, Hemlock and Red Pine. Over time, the descendents of the mature Smooth-bark Beeches will increase in numbers.





Some of the material in a dying forest can be broken down physically by agents such as wind, ice, gravity, man, woodpeckers, ants and insects but the fungi have the ability to break it down chemically. There are many species busy at work here. We know that some of them are present such as the Turkeytail fungi but we only become aware of some others when the mushrooms appear. Fungal threads (mycelium) can be seen by turning over one of the fallen Beech stems that has good contact with the ground. The dark, moist condition is a good habitat for Red-backed Salamanders, Beetles, Millipedes, Sow Bugs and Centipedes. After turning over a decaying log, it should be returned to its original position.

Another interesting feature of the Beech Forest is Beech-drops. A photo of the flower appeared in a previous column. Since it it lacks chlorophyll and can't make its own food, it gets it from a Beech root. If the rootlet is pulled from the Beech-drops, a light colored point of attachment is visible.



We will revisit the Beech Forest and explore it some more next summer.