From the Editor

The leaves are falling, the nights are cooler, and insects are preparing to overwinter, which means that Forest Health is gearing up to start our series of fall surveys. During the next few months (weather dependent), we will be looking for overwintering populations of whitemarked tussock moth, spruce budworm, jack pine budworm, balsam fir sawfly, blackheaded budworm, and hemlock looper.

In this issue, check out the update on the National Forest Pest Strategy and the notes from the ID desk. Also, the Insect Focus provides a bit more information on the web-making larvae that have been very easy to notice this summer.

’Til next time,

Jacqui

Editing . . . a Rewording Activity

Say What and Quotes

All right everyone, line up alphabetically according to your height. -C. Stengel

Always remember to put brain in gear before engaging mouth. -Unknown

Home computers are being called upon to perform many new functions, including the consumption of homework formerly eaten by the dog. -D. Larson

A young man fills out an application for a job and does well until he gets to the last question, “Who should we notify in case of an accident?” He mulls it over and then writes, “Anybody in sight!” -M. Berle

A TV can insult your intelligence, but nothing rubs it in like a computer. -Unknown

Autumn is a season followed immediately by looking forward to Spring. -D. Larson

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Fall Webworm - *Hyphantria cunea* (Drury)
Jacqui Gordon

Lately, anyone who has had the pleasure of taking in the countryside of Digby or Queens Counties will have noticed the extensive populations of fall webworm. This is the third species of tentmaker that shows up in the hardwoods of Nova Scotia. The first two occur earlier in the year: the ugllynest caterpillar and the eastern tent caterpillar.

**What it eats:**

The fall webworm feeds on the foliage of many species of hardwood trees and shrubs, including, but in no way limited to, apple, balsam poplar, choke cherry, pin cherry, speckled alder, trembling aspen, white ash, white birch, white elm, and willow. In fact, the fall webworm gets the award for the most polyphagous insect (Warren and Tadic, 1970). They have been collected from more than 200 host species in the United States and feed on an estimated 636 host species worldwide.

**Life Cycle**

What we are seeing now are the remnants of the feeding tents. The larvae left the tent and pupated in the leaf litter at the base of the tree.

Next spring (in the later part of May), the adult moths emerge from the pupae, mate and lay eggs. The eggs are laid in clusters on the undersides of leaves and hatch in about a week. The newly hatched larvae feed on the upper sides of the leaves. The larvae secrete silk which they spin into small webs. As the larvae grow they enlarge the webs and consume entire leaves. They feed for about four to six weeks. Because the eggs are laid and hatch over a four-week period, the larvae are actively feeding from June to September.

**Damage**

Since the feeding damage occurs late in the growing season, the fall webworm usually does not cause mortality. But the defoliation from feeding can weaken the trees and cause them to be more susceptible to attack from other insects and diseases.

**Control**

To reduce populations on ornamental trees, cut out the nests as soon as they start to form. If you are not able to remove the nest, rip it open to expose the larvae to predators and parasites.

**References**


Staff from the Department of Natural Resources’ (DNR) Forest Protection branch attended a National Forest Pest Strategy (NFPS) technology transfer workshop in the spring. The workshop introduced a risk analysis framework to address forest pest management needs across Canada.

To date, there have been three case studies to help better understand and implement the risk analysis framework: the mountain pine beetle in Alberta; sudden oak death in Ontario; and the spruce budworm in Quebec.

DNR is taking the lead to apply this risk analysis framework to the brown spruce longhorn beetle (BSLB); an invasive insect that was found in Point Pleasant Park in 1999. The analysis, an initiative under the NFPS, is expected to enhance our understanding of the risk associated with BSLB, and will be completed by March 2013. Throughout this process we will identify the critical factors that determine risk related to BSLB, characterize risk utilizing evidence, and address any knowledge gaps and uncertainties there may be. Conducting a risk analysis is very beneficial because it will quantify the risk related to BSLB as well as promote collaboration and transparency which is in alignment with the key values embraced in the Department’s Natural Resources Strategy. Keep an eye out for the Insectary Notes in March/April 2013 to see the results of our risk analysis.

![Fig. 1 The National Forest Pest Strategy Risk Analysis Framework showing the 3 pillars to a risk analysis.](image-url)
**Bits and Pieces**

**Fall Clean Up**

Jacqui Gordon

We can add another leaf disease to the list of reasons to clean up your leaves in the fall. Ash rust joins leaf blotch of horse chestnut and tar spot of maple as diseases that can be lessened in the coming year by raking and destroying the fallen leaves.

Two species of *Rhytisma* fungi cause tar spot. These fungi infect the upper surface of leaves, each producing different symptoms. The first species, *Rhytisma acerinum*, causes shiny, raised black spots, approximately 0.5 - 2 cm in diameter, and surrounded by a yellow halo. *R. punctatum* produces smaller spots, about 1 mm in diameter, sometimes referred to as speckled tar spots. The leaf tissue beneath a large tar spot turns brown while the tissue below speckled tar spots remains yellow. (Fig. 2)

Leaf blotch is caused by the fungus *Guignardia aesculi*. It causes reddish-brown blotches on the leaves, usually with a yellow border. The blotches appear on the leaflets and leaf stalks by mid summer. Infected leaves turn brown and may fall early. (Fig. 3)

Ash rust is caused by the fungus *Puccinia sparganioides*. It causes light discoloration and distortion of the leaves and leaf petioles. Swelling on leaves and petioles are bright orange to yellow by early summer. The alternate host is cord grass. (Fig. 4)
Welcome to Staff

Steven Delorey
I’d like to take this opportunity to welcome some returning and new staff to the Forest Health group.

Matthew Campbell is returning for his sixth season as Forest Health Officer. Matthew has worked mainly on the overwintering surveys and the spruce beetle project, and the Pest Detection Officer annual meeting and yearly survey preparations. His experience will be a great asset to our team as we begin a busy fall survey season. Matthew can be reached at (902) 758-7089, email: campbemv@gov.ns.ca

Justin Smith joins us as the new Forest Health Specialist. He brings a wealth of experience from previous work with DNR, most recently at the Stillwater office, as well as industry experience in Nova Scotia, Alberta, and British Columbia. His broad array of work experience will make him a valuable addition to our team. Justin is currently working on the balsam fir sawfly and whitemarked tussock moth project and can be reached at (902) 758-7214, email: smithjb@gov.ns.ca

And finally, Brandon Oikle joins Forest Health as a Forest Health Officer. Brandon brings with him over two years' experience working with DNR fire crew, as well as experience working in Alberta as a wildfire crew member. He also gained forest health experience while working in Alberta. Brandon will be a valued member of our team. You can reach Brandon at (902) 758-7089, email: oiklebc@gov.ns.ca

Welcome to the group Matthew, Justin, and Brandon!

Project Update

From the Identification Desk

Jeff Ogden

With regards to identification inquiries, 2012 was not my best work so far. Between complications in startup of our new Forest Health Information System (now working fine incidently) and staffing changes (also improving), my “timely” identification services have fallen off pace. I apologize for any delays that have resulted but should be back up to speed by the first week of October.

It has been a very interesting year with numerous “non-typical” pests occurring simultaneously and in some cases causing significant damage. The first noticeable spring pest was the larch case bearer, completely defoliating large areas of roadside larch and actually resulting in some mortality in parts of Lunenburg and Shelburne Counties. Next was the beech flea weevil, initially found in a large areas of HRM with additional finds in Lunenburg and Cape Breton Counties. Another species impacted by pest in 2012 was ash; although not by an insect pest but rather a pathogen in the form of ash rust. Ash rust affects not just urban trees but large stands in various spots of the province.

This fall brought numerous calls of large areas being affected by the webbing caused by fall webworm and an interesting sighting of beech woolly aphid, neither known to cause widespread damage or mortality but certainly warrants some concern.

My plans for the next few weeks are to attempt mapping the areas affected by these various pests and I will be requesting input from our district Pest Detection Officers for details pertaining to their particular area . . . stay tuned.
I was visiting my son and daughter-in-law last night when I asked if I could borrow a newspaper.
“This is the 21st century, old man,” he said. “We don't waste money on newspapers. Here, you can borrow my new tablet computer.”
I can tell you, that fly never knew what hit it.

PUPIL – “Would you punish me for something I didn't do?”
TEACHER – “Of course not.”
PUPIL – “Good, because I haven't done my homework.”

It was during a heat wave in August one summer when I saw this sign on a telephone pole. “Garage sale this Sunday 7AM until 100 degrees.”

The Professor poses the following problem to one of his classes: “A wealthy man dies and leaves ten million dollars. One-fifth is to go to his daughter, one-fifth is to go to his son, one-sixth to his brother, and the rest to his wife. Now, what does each get?”
After a very long silence in the classroom, Little Pauly raises his hand and says, “A lawyer?”

Found It!
The teenager lost a contact lens while playing basketball in his driveway. After a fruitless search, he told his mother the lens was no where to be found. Undaunted, she went outside and in a few minutes returned with the lens in her hand.
“How did you manage to find it, Mom?” the teenager asked.
“We weren’t looking for the same thing,” she replied. “You were looking for a small piece of plastic. I was looking for $150.”