Forest & Shade Tree – Insect & Disease Conditions for Maine
September 25, 2012

A Denouement

As we enter the fall season, Maine’s forests are in generally very good health. Fortunately, the Northeast has been spared the severe drought conditions experienced by much of the country this summer, and even though we face some significant pest threats, no severe weather or widespread epidemics have affected our forest or shade tree resources.

This is the final issue of the Conditions Report for this year. We heartily thank all who have shared with us the varied insect and disease problems encountered during the growing season, and for all the assistance provided by staying vigilant for both the new and exotic pests as well as our own native “cadre of regulars.” We wish all a safe and comfortable winter and look forward to renewing this communication next spring.

Insects

Asian Longhorned Beetle (Anoplophora glabripennis) – A recent expansion of the Asian longhorned beetle (ALB) quarantine in Ohio was linked to the movement of firewood from the area around the original infestation point. The firewood movement happened prior to the detection of ALB in Ohio.

This infestation illustrates the importance of limiting movement of firewood even from areas thought to be free from invasive species and of monitoring places with historic “risky” activities for the introduction of invasive species. Asian longhorned beetle still has not been found in Maine, but people are looking for it! Models predict that peak emergence of adult ALB in Maine would be in late August or early September. Adults are active in the fall until at least the first hard frost.

For more information on ALB in Ohio, see: http://www.agri.ohio.gov/topnews/asianbeetle/.

Elongate Hemlock Scale (Fiorinia externa) – A follow-up survey of hemlock woolly adelgid infested trees in Northeast Harbor revealed a co-infestation of elongate hemlock scale (Mount Desert, Hancock County). The scale was found on both planted fir and hemlock. The trees originated from a nursery in Connecticut and have been in the ground for more than a decade. There is quite a bit of native host (balsam fir) in the area that is at risk from the EHS.

Back down the coast in Yarmouth (Cumberland County), an arborist (and subscriber to this publication) reported elongate hemlock scale on planted hemlocks; samples from the site were submitted.

Under most conditions, close examination of the host is required to detect this pest. Heavy populations in planted trees can sometimes be recognized from a distance. Photos and more information can be found at: www.maine.gov/doc/mfs/EH_Scale.htm.
**Emerald Ash Borer** (*Agrilus planipennis*) – Emerald ash borer (EAB) was detected in a second New England state. On August 31, this serious pest of ash was found in Dalton (Berkshire County), Massachusetts. The infestation was found as part of the nationwide purple trap survey and highlights the value of both the survey and the ban on out-of-state firewood. Mainers should be concerned about the nearness of this most recent find and continue to look for signs of ash attacked by woodborers. In Maine, formal monitoring for EAB is wrapping up for the season. Purple trap removal is over 60 percent completed, and no EAB has been found (see enclosed map).

**Hickory Tussock Moth** (*Lophocampa caryae*) – Bug Maine-ia attendees offered a glimpse into the knowledge of Maine residents about this pest. Bug Maine-ia is an annual event at the Maine State Museum that provides hands-on activities related to insects (and relatives) for school children and their adult chaperones. This year more than 2,300 people attended the event. Most visitors to the MFS table recognized the hickory tussock moth caterpillars we had in captivity and commented on their ability to cause rashes. This may help explain why calls about this caterpillar were down, even though caterpillar populations were still high this year. Despite the higher then normal numbers the hardwood defoliation has been minimal.

**Pine Leaf Adelgid** (*Pineus pinifoliae*) – These adelgids have a complex life cycle that takes two years to complete with two hosts, white pine and spruce – both red and black. Shoot damage on pine is caused by heavy feeding by the nymphs. It is usually heavier every other year, due to the nature of the life cycle.

Damage was observed this summer along the Golden Road and in the Scientific Forest Management Area of Baxter State Park. Generally damage from this pest is not considered severe, but occasionally significant damage to established trees occurs. It is a pest worth watching if you manage for pine in areas with a heavy spruce component.

**Saddled prominent/green striped mapleworm/variable oakleaf caterpillar complex** (*Heterocampa guttivitta, Dryocampa rubicunda, Lochmaeus manteo* and others) – Like the hickory tussock, many other hardwood defoliator populations were up this year. A wide range of species was observed but defoliation was insignificant in all areas of the state.

**Winter Moth** (*Operophtera brumata*) – If you live in areas most at risk for winter moth invasion, make a note to monitor for the adult male moths in late fall and early winter. Areas most at risk for winter moth are communities with a large second-home component with owners from Massachusetts. This is because eastern MA is heavily infested with winter moth, and the cocoons can be transported in the soil of landscape plants brought to Maine. Winter moths tend to fly later than the native Maine fall moths; generally occurring from late November to early January.

The adult males will be attracted to outdoor lights and even to light from your windows. If you see the moths flitting around hardwood trees, take a closer look for the tiny (~1/4-inch) wingless females on the trunk. In any case, try to collect a sample if you see moths after Thanksgiving that match the description of winter moth.
We are putting in place plans to monitor the current known winter moth populations in Maine and are looking for native control options. We are also working with MA and the USDA to begin steps to reduce the population using the biocontrol agent, *Cyzenis albicans*. This is a small, parasitic fly specific to winter moth that has proved successful in managing winter moth in Nova Scotia for decades.

**Diseases and Injuries**

**Arborvitae Leaf Blight** (*Pestalotiopsis funerea*) – Arborvitae has several needle diseases which often become particular problems on trees in ornamental settings. This past month, a relatively uncommon disease was found on an Arborvitae sample from Yarmouth. The leaf blight was caused by one of about fifty fungi in the two closely related genera of *Pestalotia* and *Pestalotiopsis*. One characteristic of *Pestalotiopsis funerea* is the production of “spore horns,” or masses of spores that ribbon out of the spore-producing structures formed under the needle surface. The spore horns appear as tiny, black tongues on the needle surface (see Figures below).

The fungus is considered to be a weak pathogen, occurring on trees stressed by other environmental factors that favor moisture retention. Wet locations, such as near basement foundation walls, and over-watering of dense, tightly packed plants in hedge formations should be avoided. Management can be achieved with copper fungicides applied early in the growing season. Pruning to avoid dense, compact form and planting some distance away from buildings to allow for air flow will also help to avoid the problem.

**Birch Anthracnoses** (*Discula betulina, Septoria betulae, Marssonina betulae*, and others) – Several different fungi can cause anthracnose and leaf-spotting symptoms on birches. The diseases appear every year in Maine to a greater or lesser degree, depending on rainfall frequency and duration through the growing season. Recent aerial surveys and ground observations have reported some yellow birches, but especially paper birches throughout the state exhibiting moderate to higher levels of these leaf diseases this fall. Crowns of affected trees appear yellowed, browned, or russet-colored after mid-August. Many trees have shed leaves prematurely. The diseases will be of little consequence to long-term tree health, but the foliage will appear dulled, and the crowns will appear thin or bare for the foliage viewing. Other New England states have also reported similar conditions for birch, noting that heaviest damage usually occurs at the higher elevations.
**Hemlock Tip Blight** (*Sirococcus tsugae*) – A total of twenty-two locations (plots) were surveyed in Maine for hemlock tip blight this summer. The survey is part of a cooperative regionwide study which includes the New England states and New York being conducted by the USDA Forest Service. Plot distribution in Maine extends from Castle Hill (Aroostook County) to York (York County) and from Great Pond (Hancock County) to Batchelders Grant Twp. (Oxford County). To date, the disease has been confirmed in Maine from eight locations using the molecular technique of polymerase chain reaction (PCR) methods by project cooperators at the University of Wisconsin-Madison. Typical symptoms of *Sirococcus* tip blight have been found in all but one (Benton, Kennebec County) of the locations examined. Survey and identification work will continue through next year.

**Tar Leaf Spot** (*Rhytisma acerinum*) Tar leaf spot of Norway maples is again prevalent wherever the host occurs, although the disease was not as spectacular or damaging as it was in the summer and fall of 2009. Some locally heavy infections were reported from southern Maine, with the browning of leaves and the associated early leaf-fall becoming noticeable about a month ago. As with most of the common leaf diseases of deciduous trees, tar leaf spot of Norway maples is of little consequence to long-term tree health.

**White Pine Cone Damage by Red Squirrels** (*Tamiasciurus hudsonicus*) – A report of extensive dropping of green cones from white pine was reported from Farmington (Franklin County). The damage to the cones was most likely from red squirrels “harvesting” the cones for winter food. The diet of red squirrels is largely from seeds of conifer cones. The peduncle, or “stem” of the cones will often bear evidence of chewing or clipping by the squirrels.

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Conditions Report No. 6, 2012
On-line [www.maineforestservice.gov/ConditionsReportsIndex.htm](http://www.maineforestservice.gov/ConditionsReportsIndex.htm)
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