



Forest Pest Update September 2014

www.maineforestservice.gov • forestinfo@maine.gov • (207) 287-2431 • 1-800-367-0223 (in Maine)

Forest pest conditions and our understanding of them can change rapidly. To help keep you and other clients abreast of current situations the Maine Forest Service (MFS) Insect and Disease Lab publishes **Conditions Reports** during the growing season and an **Annual Summary Report**. (http://maine.gov/dacf/mfs/publications/condition_reports.html). Please report significant forest defoliation or damage to our office. You are important partners in monitoring forest pest activity.

Invasive Insects: Invasive species are species not naturally found in an area that cause harm to the environment, the economy, human health or a combination of the three. On-line: www.maine.gov/forestpests.

Asian Longhorned Beetle (*Anoplophora glabripennis*): Asian longhorned beetle has not been found in Maine. Keep an eye out for the adult insect from July through a hard frost. This insect will feed on a broad range of hardwoods, but prefers maples. Damage may be subtle at first, but look for frass (pencil-shaving-like); perfectly round exit holes (~diameter of a pencil); bark problems (cracks, missing bark), and tunneling. Pay particular attention to storm-broken trees, especially maples. Photos of the damage can be found at www.albmaine.org.

Brown Spruce Longhorned Beetle (*Tetropium fuscum*): Brown spruce longhorned beetle (BSLB) has not been found in Maine. It is established in Nova Scotia and was found this year in New Brunswick, south of Moncton. The MFS and USDA APHIS, PPQ have traps for this insect at a number of high risk sites across the state. BSLB is a threat to healthy and weakened spruce.

Elongate Hemlock Scale (*Fiorinia externa*): Elongate hemlock scale (EHS) has been detected in forests in Kittery and on planted trees from York to Mount Desert. When infestation by EHS follows hemlock woolly adelgid, hemlock health appears to decline precipitously even on good sites. If you suspect you have found EHS, please note and mark the location, collect a sample, and send it in a sealed plastic bag to the Insect and Disease Lab. Photos can be e-mailed to allison.m.kanoti@maine.gov.

Emerald Ash Borer (*Agrilus planipennis*): Emerald ash borer (EAB) has not been found in Maine, but has been found as close as New Hampshire. Woodpecker activity on the bole and branches is often the first recognized symptom of EAB infestation. Approximately 600 purple traps targeting EAB were set in Maine in 2014; these will be removed for final inspections in the fall. EAB will kill ash rapidly after infestation; however infestations will likely be patchy. Forest landowners with ash are well equipped to do their own detection survey for this insect—they can establish trap trees in the spring. Contact colleen.teerling@maine.gov for more information.

Gypsy Moth (*Lymantria dispar*): Gypsy moth is notable this year because it has been confirmed to be established in several new townships, meaning northward expansion of the quarantine is guaranteed. A map of new detections is in the 2014 Annual Summary Report, along with a list of townships proposed for inclusion. Up to date information will be provided on our website at: http://maine.gov/dacf/mfs/forest_health/quarantine_information.html. Approximately 500 traps were set for this pest in Maine in 2014. This year they will be removed later than usual—beginning around the first of October. Egg mass scouting will be conducted in areas with high trap catches.

Hemlock Woolly Adelgid (*Adelges tsugae*): Hemlock woolly adelgid (HWA) is known to be established in the forest from York County to Knox County. Detected infestations tend to be confined to the coast in the eastern portion of this distribution. Significant hemlock decline is evident in many coastal peninsulas on sites with other adverse conditions (for example, shallow soil, western exposure, hemlock tip blight, elongate hemlock scale). To reduce the risk of spreading HWA to new stands conduct harvests in hemlock from August to February. If this is not possible, power wash equipment between sites in infested towns and stands and those in towns and stands not known to be infested. Review the known distribution of HWA and keep in mind that you can carry this pest with you from March to July when the eggs and crawlers are abundant.

Winter Moth (*Operophtera brumata*): Defoliation by winter moth was first detected in Maine in May 2012 and significant defoliation has occurred in several coastal communities in the ensuing years. Managers should keep an eye out for winter moth particularly in coastal areas and other locations where significant amounts of landscape plantings may have been moved from infested areas (primarily eastern portion of southern New England). A proven biological control, the parasitic fly *Cyzenis albicans*, has been released the last two years, future releases are planned.

Native Insects: http://maine.gov/dacf/mfs/forest_health/forest_pest_index.html

Spruce Budworm (*Choristoneura fumiferana*): Damage from spruce budworm was NOT seen in Maine this year. Quebec's infestation continues to expand southward toward Maine. Trap catches continue to increase, and the number of traps set was increased as well. Damage from this native insect is expected in the not too distant future.

Other Defoliators: Some defoliator activity was notable this year. For example, elevated populations of saddled prominent complex have been noted in southern and western Maine. We appreciate reports of significant numbers of caterpillars, defoliation, and heavy moth flights. Samples and photos are also very helpful.

Woodborers: We have noticed (and appreciate) an increase in reports of woodborer activity, particularly in oak and ash, to the Lab. If you encounter an unusual amount of woodborer damage during harvests or other activities, please report it to our office. Although we have a strong outreach focus on a couple of invasive woodborers, we are interested in the activity of other species as well.

Diseases: http://maine.gov/dacf/mfs/forest_health/forest_pest_index.html

Hemlock Tip Blight (*Sirococcus tsugae*): Survey information is now available from the hemlock tip blight project being conducted by the USDA Forest Service in association with other cooperating New England states and New York. Thirty-nine of forty-one FIA plots sampled across the seven states had hemlock regeneration with shoot blight symptoms. Seventy-one percent of the 820 trees sampled displayed symptoms of infection. The pathogen has been confirmed using PCR techniques from nine of the 22 sites sampled in Maine. Blight severity is correlated with density of hemlock regeneration and BA/A of overstory density, with higher hemlock regeneration and higher overstory density related to higher disease levels.

http://na.fs.fed.us/pubs/palerts/tip_blight/tip_blight_lo_res.pdf

Sirococcus Shoot Blight (*Sirococcus conigenus*): New significant mortality to red pine was found in 2014 in Chase Stream Township. This disease has continued to cause considerable damage to native red pines, and to other, exotic hard pines in Maine. Some red pine stands have been heavily damaged by the disease, with mortality approaching 25% in some sapling and young pole-sized plantations. The disease has also been noted as causing significant mortality to mature, native red pines in southern coastal areas, and on Mount Desert Island. We have documented an increase in the distribution and severity of *Sirococcus* shoot blight in recent years, and we attribute this to the wetter-than-normal spring and early summer seasons, starting in about 2006 and continuing until the present. Additional information can be found at: <http://www.maine.gov/doc/mfs/documents/SirococcusShootBlightPine.pdf>

White Pine Blister Rust (*Cronartium ribicola*): A new strain of white pine blister rust is now known to occur in the United States and eastern Canada. This new strain has developed the ability to infect numerous *Ribes* spp. cultivars that had been specifically bred to be immune or disease resistant to white pine blister rust. An intensive research effort has been conducted by the USDA Forest Service, Durham, N.H and N.H. DRED, to document effects this new strain has on disease development, and to determine the implications for white pine management. The quarantine regulations that Maine has regarding the prohibition of growing any European black currant (*Ribes nigrum*) or its cultivars anywhere in the state, regardless of any claim of immunity to blister rust, always has been and remains now in effect. For more information, see: <http://www.maine.gov/doc/mfs/idmquar.htm#wpbr.htm> and <http://www.agrireseau.qc.ca/Agroforesterie/documents/34564anglais.pdf>.

White Pine Needle Diseases (*Lecanosticta acicola*, *Lophophacidium dooksii*, *Bifusella linearis*): White pine needle loss due to this needle disease complex was again heavy this year, especially in the western and southwestern regions of the state. The current white pine needle disease outbreak has now been documented in many Maine stands for at least eight consecutive years. Some stands have been severely affected, and are apparently subject to additional secondary stress agents, including insects such as the red turpentine beetle (*Dendroctonus valens*) and pathogens (see the discussion of *Caliciopsis* canker, below). Northern regions had a considerably drier summer than other regions of the state. However, higher-than-average monthly moisture conditions occurred throughout the season in most regions of the state, particularly throughout the range of white pine. Therefore, we expect again to see another year of heavy needle loss of white pines in 2015. See: http://na.fs.fed.us/pubs/palerts/white_pine/eastern_white_pine.pdf.

Caliciopsis Canker of White Pine (*Caliciopsis pinea*): While the disease has been known to occasionally occur in Maine stands, *Caliciopsis* canker has been recognized as causing some significant stand damage in New Hampshire over the past several years. A survey for the occurrence and level of damage resulting from *Caliciopsis* canker in regional white pine stands was initiated this summer, and will continue for the next two years. To date in Maine, twenty randomly selected stands have been surveyed, with *Caliciopsis pinea* identified on white pine regeneration from 16 stands surveyed. *Caliciopsis* symptoms in overstory trees were also identified in 16 stands, but not always from those with infected white pine regeneration. Relationships between tree stress resulting from the white pine needle disease complex, and the incidence and severity of *Caliciopsis* canker have not been established, but may become apparent as studies continue. See: http://extension.unh.edu/resources/files/Resource000999_Rep1148.pdf

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