As another camping- and up-to-camp-intensive holiday weekend approaches, we would like to take this time to remind people to be conservative in their movement of firewood. Several quarantines and a state law restrict movement of firewood in one way or another (see: www.maine.gov/firewood and www.maineforestservice.gov/idmquar.htm). Faced with the realities of insects such as emerald ash borer and brown spruce longhorned beetle and diseases such as oak wilt, prudence dictates that even if we are not subject to these regulations, we should strive to obtain our camp wood and other firewood locally. Please remind your friends, neighbors and family from out-of-state not to bring firewood across the Maine state line unless it is certified heat-treated to a core temperature of 160 degrees Fahrenheit for 75 minutes.

Insects

**Elongate hemlock scale** (*Fiorinia externa*) Elongate hemlock scale has been detected on planted hemlocks in Sedgewick (Hancock County). The specimens were found this week during a field visit to confirm the presence of hemlock woolly adelgid (photo right of light infestation of scale (arrows) and adelgid (circled). These two insects when found together appear to have contributed to rapid decline of hemlock in some areas of southern New England. Elongate hemlock scale is not as host specific as hemlock woolly adelgid; in addition to hemlock, it will build damaging populations on fir and possibly spruce and other conifers. If you suspect you have found elongate hemlock scale, please collect a sample, note the location (mark the limb if possible) and contact our office.

**Emerald Ash Borer** (*Agrilus planipennis*) – This insect has not been found in Maine yet. With mid-season trap maintenance done, it has not been detected in any additional New England locations (for details on emerald ash borer in Connecticut, see http://www.ct.gov/dep/cwp/view.asp?a=2697&q=464598&depNav_GID=1631). The 955 large, purple traps hanging in ash trees throughout the state have been examined mid-season for emerald ash borer (EAB). So far none have been found. During the month of September, the traps will be examined a second time and then removed. Biosurveillance also has been carried out throughout the state at colonies of the smoky-winged beetle bandit (*Cerceris fumipennis*). No EAB were found in this survey either.

**Fall Webworm** (*Hyphantria cunea*) – The webs made by fall webworm larvae are apparent now throughout Maine. Fall webworms are commonly found on ash, apple, cherry and birch, but you can find them on other hardwoods as well. Since the larvae feed so late in the season, they do little damage to the health of the tree and primarily are an aesthetic problem.
Hemlock Woolly Adelgid (*Adelges tsugae*) – Hemlock woolly adelgid (HWA) has been found in Sedgewick (Hancock County) and Scarborough (Cumberland County). The HWA in Sedgewick was detected on planted trees by the homeowner. It appears to be confined to planted trees. More survey will be necessary to determine whether HWA has become established in Hancock County. The infestation in Scarborough was detected by a veteran Take-A-Stand volunteer in the middle of a forested tract that has been surveyed for the last five years.

Hickory Tussock Moth (*Lophocampa caryae*) – The hickory tussock moth population is still high this year. The fuzzy white caterpillars with black tufts can be found wandering looking for a place to spend the winter. They feed on a number of hardwood trees; in Maine, it is most often birch, quaking aspen, basswood and black locust. The caterpillars do little damage to the trees, but both they and the cocoons can cause a rash in sensitive individuals. It may be a good idea to remind your kids not to play with and handle the cute, fuzzy caterpillars.

Saddled prominent/green striped mapleworm/variable oakleaf caterpillar complex (*Heterocampa guttivitta, Dryocampa rubicunda, Lochmaeus manteo* and others) – The saddled prominent complex of hardwood defoliators are native species of caterpillars that tend to occur together. This is a late-season defoliator, and caterpillars have been large and obvious over the past few weeks. Adding to their obviousness, many of the caterpillars turn a dramatic bright red before pupating. Readers and other clientele have noted noticeable but minor defoliation, caterpillars and frass (especially on decks!). The white-blotched heterocampa (*Heterocampa umbrata*) seems to be a common part of the mix this year (photo right). Most reports come from a wide band through central Maine. Although we had hoped to conduct an aerial survey to determine the extent of defoliation, aircraft issues have delayed the survey.

Willow flea weevil (*Isochnus sequensi*) – The willow flea weevil is a tiny, black beetle which contributes to browning of willow leaves this time of year. This is a European species introduced along the northeastern coast of the United States and Canada. Adults emerge at the beginning of May and feed on the upper surface of the leaves where they lay their eggs. The newly hatched larvae mine the leaves and then pupate. The new adults feed on the surface of the leaves, causing spotting and/or browning. In August, they migrate from the leaves to beneath the bark, the leaf litter, or the shallow roots for over-wintering. They have one generation per year. Specimens from Gardiner were identified this month. (Photo courtesy Tom Murray, as found on http://bugguide.net/node/view/305320).

**Diseases and Injuries**

Dutch Elm Disease (*Ophiostoma ulmi; O. novo-ulmi*) – Dutch elm disease has been known to occur in Maine now for more than 50 years, and every year we see evidence of the disease wherever elms occur throughout the state. This year, our observations have indicated a higher-than-normal level of infection. Many elms visible from roadside surveys have expressed disease symptoms and have died. Much of the mortality has often occurred on trees smaller than 12 inches in diameter (which now makes up a larger percentage of the total elm population), but some larger, old specimens also have succumbed.

Pitch Pine Shoot Tip Damage (*Diplodia pinea; Rhyacionia buoliana*) – Pitch pines in Phippsburg (Popham Beach and vicinity) continue to be heavily damaged by two primary pests; European pine tip moth (*Rhyacionia buoliana*) and *Diplodia* tip blight (*Diplodia pinea*). Both pests, along with other needle diseases, have been at high levels for several consecutive years now. The growth rate of affected trees
has more than likely been affected, along with substantial losses to aesthetic appearance. Some heavy
damage may be resulting in mortality, as bark beetles commonly attack severely weakened trees.

Pine tip moth larvae will mine new buds and shoots in spring and early summer, which results in stunted
branches and branch tips. Dead shoots with crumbly or hollow buds and tips indicate larval mining by tip
moth. The Diplodia tip blight pathogen infects needles early in the season, when buds break and the new
(current season) needles begin to emerge from the needle sheaths. From a distance, damage from both
pests may appear as similar. When buds and shoot tips are killed, the tree often responds with a cluster of
new buds. Eventually, the shoot tip is killed, no new bud formation occurs, and the branch dies. It is not
uncommon to find both tip blight and tip moth affecting the same buds and shoots.

Chemical control of either pest is difficult, due to tree sizes, cost of materials, and dependence of
application timing on specific developmental phenology of the trees. In addition, many heavily damaged
trees occur in shoreland zones and near coastal areas, making chemical applications difficult. Pruning
branches that are heavily affected by either tip moth, tip blight or both can help slow or mitigate the
damage. Smaller trees, or those of particular ornamental value in appropriate sites, may be treated
chemically when warranted.

White Pine Blister Rust (Cronartium ribicola) - Several requests have come in over the summer
regarding planting of Ribes (currants and gooseberries) in Maine. As a reminder, all cultivars, crosses
and clones derived from or of European black currant parentage are prohibited from cultivation in the
entire state of Maine; all species in the genus Ribes, including Worcesterberries, gooseberries, and
currants of any genetic origin are prohibited from importation to or cultivation in the White Pine Blister
Rust quarantine zone in Maine (www.maineforestservice.gov/idmquar.htm#wpbr).

If you plan on cultivating any Ribes material outside the quarantine area, be sure to hold a copy of the
information describing cultivar and origin of the plants should questions arise regarding legality. Again,
no cultivars of black currant parentage may be legally imported, planted, or cultivated anywhere in
Maine, including areas outside the formal quarantine boundaries.

White Pine Decline – White pine stand decline continues to trouble woodlot owners, especially
throughout western and southwestern Maine. Causes of the declines are not always the same from stand
to stand, but the recent epidemic of white pine needle diseases does appear to be involved in many areas.
Larger pines along shorelines and growing on other marginal sites seem to be most at risk. Rapid and
marked branch death, especially in the lower crowns, is an indication of trees under significant stress. As
reported in an earlier Conditions Report this year, the level of damage from needle diseases was lower this year in many areas, but full tree
recovery may take several more years of low infection levels.

Willow Tar Leaf Spot (Rhytisma salicinum) – This pathogen was
recently identified from Robbinston (Washington County). The
pathogen is closely related to the tar leaf spot fungus on maple
(Rhytisma acerinum) and develops in much the same way (see
http://www.maine.gov/doc/mfs/TarLeafSpotNorwayMaple_new.htm). The pathogen only affects the aesthetics of ornamental willows and
very rarely causes any significant long-term damage to the trees.