Woodland Owners Association, Inc. 11 University Way, Suite 4, Brattleboro, VT 05301
802-257-7967 ext. 302

WOODLOT TIPS

SUMMER 2011

Save the date!

Annual Meeting: **Saturday, September 24,** at the property of WOA trustee, Margaret MacDonald, in South Newfane. Once again Sam will be at the grill, and the "greening" of the event continues — plan to bring your own cups/mugs. The cost is $7 — up a bit to accommodate healthy meat and other improvements. Full details in an early September special mailing.

The MacDonald woodland consists of approximately 475 acres and has been actively managed for many years. We will observe and discuss white pine management, shelterwood harvesting, hardwood crop-tree management and invasive plant removal.

The Big Tree Tour Is Back!

Saturday, November 5: Bill Guenther, Windham County Forester, will lead a daylong tour to view some of the largest trees in Windham County. The tour will take place, rain or shine, from 8:30 a.m. to approximately 5 p.m. There will be a lunch break sometime between noon and 1 p.m.

The tour will kick off at the UVM Extension Service office located in the Vermont Agricultural Business Education Center complex at 11 University Way, Brattleboro. Please meet in the upper parking lot. **After a short introduction, the tour will depart at 8:45 SHARP, so don't be late!**

The tour involves driving from one site to the next, then hiking to the individual big trees. **Participants need to bring sturdy footgear, clothes to match the weather, water, and lunch** (or you can likely buy your lunch at our lunch break location). Carpooling is strongly encouraged, as there's a need to keep cars together en route.

The exact route is still not determined, but we always try to visit some new trees. We hope to have the route firmed up in the mailing about the Annual Meeting you'll receive in early September. Definitely on the list this year will be our new Black Birch Champ, located on George and Laura Heller's woodlot high up on Putney Mountain. Getting to this tree will involve about a mile-long hike on moderate terrain over woods roads.

A booklet that includes the day's schedule, types of trees, locations, and tree identification information will be provided. As in the past, you can come for the whole day, just the morning, or just the afternoon.

For more information: Please call Bill Guenther, Windham County Forester, or Carol Morrison: 802-257-7967.

President's Column

By George Weir

Travelling Away

Every year in the hottest, muggiest weeks of July, Joan and I and family travel to East Penobscot Bay for vacation. Anticipating that I might catch fish there and realizing I was short of necessary tackle, one Sunday afternoon I headed west to Manchester to get the necessaries. (I'm not sure necessary is the right adjective; like most of us who ply the waters for sport, I probably have more gear than I could ever use).

Turning onto Route 30 from Williamsville, I immediately found myself in a line of slow moving traffic with out-of-state plates. I had a destination; those ahead didn't seem to, given they were travelling at about 10 miles per hour less than the speed limit. They were on vacation, here to simply take in and enjoy the scenery, so different from that of their home states. Compounding my frustration, two of the vehicles in line were travel trailers, often negotiating winding sections of the road at less than 30 miles an hour. The one just ahead in line, the "Ramblin' Rose," had California plates, an American flag painted above the rear window, and a positive message about God and country in script above the flag. Fortunately the trailers turned north on Rte. 100 at Rawsonville, and things sped up a little.

My mother referred to drivers poking along on weekends as Sunday drivers, free of the responsibilities of work and destination with nothing more to do than experience the unspoiled beauty of the rural setting. And certainly the winding road through the verdant hills of West Townshend and the splendid view of Mount Equinox on the descent to Manchester invite one to travel slowly and take it all in. If I refrain from thought, like the visitors, I can simply appreciate the sublime beauty along the way.

At least for a few moments, but inevitably other dimensions enter, what I know about the places, the history of land use, the effects of harvesting, non-native vegetation, deer overabundance and the challenges we face to sustain what we have. For the visitor the view is entirely visual, simple and perfect; for those that work and live inside the view, it is often muddled with experience and may seem imperfect.

Time on the Maine coast allows me to experience a place as a visitor. We kayak among the near islands, admire the spruce and oak forests, and watch the seals, porpoises, eagles and ospreys. A land truly different than here. I don't have and don't seek an understanding of influences that have shaped the land, and I am free from a sense of responsibility for my surroundings. The world is just what the eye encounters.

I occasionally meet people who have lived in Southern Vermont for decades and still enjoy the visitors' view. They see older forests as wild, stable, natural

and perfect. Much the way I look at the island forests of Penobscot Bay. They view managing the forest as a disruptive intrusion and think of forests as having to "heal" from harvesting. That view requires believing forests have a natural balanced condition they will return to if left free from active management. It ignores the ecological upheaval of the last century, the elimination or displacement of natural species brought about by an onslaught of exotic pathogens, insects and plants, and the extirpation of native predators and consequent superabundance of white-tailed deer. Far from stable, our forests have undergone and will continue to undergo extreme, enduring change. If we think beyond the three dimensions our eyes encounter and add the fourth of time, we realize the last 100 years, a brief instant in geological time, has brought about greater change to the forest than took place for thousands of years previously.

The idea of expulsion from the garden into a terrifying wilderness goes back a very long way. Early 20th century thinking in forest ecology and management had us still in the garden, hadn't realized we were perhaps outside the gate. In ecology the idea was that forests progressed toward a natural self-perpetuating stable species composition. Forest management was viewed as augmentation or enhancement of natural processes. Thinning removed weaker trees destined to naturally lapse out of the forest; harvests mimicked natural disturbance and guided forest reproduction to the native species composition natural to the land. The last few decades have taught us it's not that simple. That sustaining what we have requires dealing with complex forces not anticipated a half century ago. That the simple, 3-dimensional view is perfect for visitors, but doesn't work for those who live here. In one respect, the views of visitor and those who reside here are not so different. What the visitor sees and what those managing forests want to see are the same. But while the visitor believes ideal nature is wild and untamed, I submit that the wild includes the host of exotic forces that disrupt the ideal. Ideal nature requires management.

I relish times I can get away from home and see the world around me as perfect, just what encounters the eye. The restorative powers of a good vacation allow me to return home with renewed optimism about the place I live and the efforts forest managers and landowners make. The list of challenges often seems to mount. The forest a century from now may differ from that of today, but with work, we may keep it from being too different.

Use Value Appraisal Program Legislative Changes

By Bill Guenther, County Forester

During this past session of the Legislature, there were many proposals concerning the UVA or Current Use Program. Most of them centered on raising the penalty tax (also called the Land Use Change Tax) up to the market value of the portion of a property being developed. A bill, H.237, passed the House after considerable debate, but no action was taken in the Senate. During the wee hours of the session, the conference committee met, and a senator inserted some Use Value language into the Miscellaneous Tax Bill. This bill is typically used as a "housecleaning bill" to fix, add or delete minor issues that come up in regard to Tax Dept. issues. This bill did pass and was signed into law by the governor.

The Department of Taxes issued the following press release on June 7, 2011:

Act 45 of 2011: Change In Land Use Change Tax Relative To Certain Permits

A recently enacted law changes when the land use change tax is due. Prior to this change, a land use change tax was levied upon the development of land enrolled in the Current Use program. Under the new law, land use change tax will be due on the development of the land or two years after the issuance of certain permits for the development of the land—whichever is earlier. Permits that trigger the tax are (1) all permits legally required by a municipality for any action constituting development, **or** (2) a State wastewater system and potable water supply permit under 10 V.S.A. § 1973.

For parcels enrolled already in the Current Use program with permits in place, the two-year clock started on May 24, 2011 — the date Act 45 became law. Property owners may choose to rescind those permits if they have no plans to actually develop the property. The land use change tax will not be levied if the permits are rescinded before the end of the two year period. For enrolled parcels for which the above-referenced permits are subsequently obtained, the two year clock begins running on the date the permits are issued.

Because this law creates implementation issues and possible unintended consequences, the Administration will work with the Legislature next year to make sure the law is clear and reflective of legislative intent".

This legislative change created a firestorm of concern. The intent was to try to minimize enrollment of land into the Current Use program by developers who "park" their land temporarily prior to developing their property. However, a farmer who installed toilet facilities in his barn for employees could also be affected.

At the end of the session, it was not clear when this provision would kick in, but as stated above, the Department of Taxes ruled that there would be a two-year period before any currently enrolled parcels are affected.

This two-year window will give legislators time to consider possible changes. I fully expect that we'll see some major changes to this part of Act 45 because of the ambiguity in the current language. Also, it could affect people currently enrolled in a way contrary to the Act's intent.

Back to H237

The Senate will pick up where it left off on H.237. This proposed bill would adopt a tiered approach to the Land Use Change Tax. It would be based on the market value of the tract developed, as opposed to the current method of taxing developed portions as a percentage of the overall grand list value. For example, with a 100-acre property valued at $200,000, or $2,000 per acre, the current penalty/acre would be either 10 or 20 percent of the value of the portion developed. A 2-acre lot split off would therefore carry a penalty of either $400 or $800. In my opinion, in most cases, this is a woefully inadequate penalty for a land conservation program, as that 2-acre lot in many parts of the state could be sold for $50,000 or more.

If the change occurs that would base the penalty on market value, the true value of that 2-acre lot would be taxed on a sliding scale based on the number of years it had been continuously enrolled in the program by the current landowner. The percentage would start at 10 percent for a tract continuously enrolled for less than 12 years and then drop to 8 percent for parcels continuously enrolled for 12 to 20 years. If continuously enrolled by the same landowner for more than 20 years, the tax would drop to a low of 5 percent. The penalty proceeds would be equally split between the municipality and the state.

There also is an "easy out "provision in the Act, whereby if an *entire* enrolled parcel is removed within a limited time frame, the parcel will be exempt, in most cases, from the Land Use Change Tax, and the lien would be removed. However, if this provision is chosen and a landowner decides to re-enroll during the next five years, the *entire* parcel would need to be re-enrolled. If a landowner with a 100-acre woodlot elected this option and subsequently split off and sold a 2-acre building lot, the remaining 98 acres would not be eligible for UVA program enrollment for a five-year period.

If *current* participants wanted to remove just a portion of their enrolled parcel, they would be assessed the current penalty. If just a small portion were developed, the penalty could be considerably less than with the Market Value approach, until the new system, as described above, became effective.

Lastly, H.237 calls for a study committee of nine members charged with doing a top-to-bottom analysis of the UVA program. The study would address many questions currently swirling around the program, such as adoption of a monitoring system for land enrolled in the active Agricultural category. Currently these lands are not required to have a management plan and are not inspected for eligibility and compliance with Acceptable Agricultural Practices (AAPs).

Stay tuned for next year's legislative session, when we are likely to see some changes to this very successful, 30-plus-year-old program.

Woodland Secret No. 3: A Tree's Age

By Arthur H. Westing, Former WOA Trustee

One of the most frequent questions I am asked when in the woods with others is the age of some large tree we happen to encounter. My answer is more often than not little more than an informed guess. Fortunately, this need not always be the case. Thus, the date of planting might be known, for example, as is the case for several huge oaks growing on Mount Desert Island in Maine that were planted at the time of Abraham Lincoln's death. Then again, the maximum age of virtually all of the trees in our own woodlot cannot be older than about 80 years inasmuch as old timers around here remember that our property was all cleared and in agricultural use into the 1930s. And, of course, once a tree is felled, the annual rings thus revealed on the surface of the stump can be counted to determine its age; or for a standing tree, tools are available that can extract a core out of the stem to permit counting of those rings.

In order to not make too wild a guess, it is also useful to know the generally maximum age our woodland trees can attain, assuming that fire, wind, lightning, or other calamity has not done them in earlier. Thus, our early successional hardwoods only rarely last more than a century, in fact, usually dying within 60 to 80 years, including trembling aspen (*Populus tremuloides*), big-toothed aspen (*Populus grandidentata*), grey birch (*Betula populifolia*), and white birch (*Betula papyrifera*).

Our mid- and late-successional hardwoods can hang in there considerably longer. To name a few, black (sweet) birch (*Betula lenta*) usually survives for about 130 years, yellow birch (*Betula alleganiensis*) for perhaps 200 years, and both red oak (*Quercus rubra*) and sugar maple (*Acer saccharum*) for a respectable 300 years or so. As to the maximum ages of our more common local conifers, white pine (*Pinus strobus*) and hemlock (*Tsuga canadensis*) can each make it through as many as 500 years.

Although the maximum height of trees is reached long before they finally die of old age, the stem continues to grow radially right to the end, albeit ever more slowly. Trees with twisted trunks (having spiral grain) tend to live to a riper age than straight-stemmed trees of the same species. Oddly enough, trees of any particular species growing under adverse conditions (for example, in poor soils, on exposed sites, in droughty regions, or at the limits of their normal range) will grow slowly and have poor form, but generally live longer than their larger and more merchantable brethren living under optimal conditions. And finally, to put all of our local trees to shame, the bristlecone pine (*Pinus aristata*) of the windswept mountains of southeastern California can attain mind-boggling ages in excess of 4,800 years.

At least two questions come to mind: (a) if a tree can last for several centuries, or even several millennia, what is it that finally does it in? And (b) how is it that the seeds of an old tree — or even its root suckers — can leave behind the problems of their age-debilitated parent to start a fully rejuvenated life anew?

Update on the "Big Three" Exotic Insects

By Bill Guenther, County Forester

The three exotic (non-native) insects of concern to us are the Hemlock Woolly Adelgid (HWA), Emerald Ash Borer (EAB), and Asian Longhorned Beetle (ALB). Here are updates on where things stand with each of these insects and tips on how you can help us in our battle against these invaders.

HWA

This insect was first found in Vermont back in 2007 in the town of Rockingham. After eradicating it on a single tree there, we then discovered it on numerous trees in Vernon, Brattleboro, and Guilford. Shortly thereafter it was found and eradicated in Dummerston. Next it was discovered in Jamaica and Townshend State Parks. It was assumed to be in Newfane

and Brookline, as they lie between the outbreak areas, but intensive sampling did not locate it in either town. Last year, I reported that we had found a new infestation on multiple trees in the Stickney Brook area of Dummerston as well as on the Kipling estate (Naulakha) property.

This year we have at least two new finds, but luckily none of them are outliers (i.e., outside the area that is already infested). The first was found by eagle-eyed Dummerston sugarmaker Don Hazelton on the north side of the East-West Road, just across from the town garage. Most of the trees along the roadway appeared to be infested, but as we went further into the woods the trees seemed to be free of insects. This again confirms the hypothesis that birds are the major cause of the spread of this insect. I made the second finding last month in Brattleboro: I looked at a homeowner's large stately hemlocks on Western Avenue and found that about half of 15 or so trees were infested.

We found in some of our sample plots that the very cool weather in January likely contributed to higher than average insect mortality counts. In January 2009 we had some very cold weather, which also led to high mortality, but in 2010 the temperatures were more moderate and mortality rates were low, so there seems to be a good correlation of mortality and very cold temperatures. We need: about 20˚ below zero or colder to have much impact.

A new control technique has been developed, where the trunk of a tree is sprayed with an insecticide that is absorbed into the tree, then acts systemically to kill the insects once they feed on the base of the hemlock needle. A researcher from UVM has also tried a fungal control: the tree is sprayed with a slurry of the fungus, which then consumes the insects. So far this technique looks promising, but you need to use a spray rig to drench the entire tree from the top down to ensure control.

HWA is likely here to stay, but so far, luckily, it is not causing any extensive mortality. We have a good reason to hope for very cold winters so that this doesn't change.

ALB

Last year I reported that several trees at Faulkner Hospital in Boston were found to be infested with ALB. This area was outside the 96-square-mile quarantine around the Worcester area. Luckily all subsequent surveys in the Boston area have been negative.

The really bad news regarding ALB came out of Ohio this June, when an alert vineyard owner discovered three infested maple trees on his property in Bethel, about 30 miles east of Cincinnati. APHIS (the USDA Animal and Plant Health Inspection Service) immediately instituted a quarantine and since then the number of trees identified as being infested seems to keep rising. On July 12, there were 128 confirmed infested trees, but as of today's writing (August 2) that number has risen to 618 infested trees with a quarantine area of 56 square miles. The only good news is that no outliers have been found, so the quarantine area has remained the same for a month. I now have mounts of an actual ALB male and female in my office, so if you want to see both the male and female up front and close, just stop in and take a look.

EAB

This insect causes us the greatest concern among the Big Three. This insect was initially introduced into Detroit and then rapidly spread throughout the Midwest. It is assumed that movement of firewood is one of the primary transport mechanisms. EAB then jumped from western Pennsylvania up to the southwest corner of New York, south of Buffalo. Then came last year's shocker: it jumped all the way across New York State to the Catskills. This infestation is about 70 miles from Vermont's southwest corner. Another infestation was discovered three years ago in Quebec, just 30 miles from Vermont's Northwest border, but luckily it has not spread.

This summer in Vermont we saw a big campaign ramped up to try to detect EAB. APHIS set up 2,200 purple traps throughout the state on a 2-mile by 2-mile grid. To keep costs within reason, most of these traps were put up along roadsides either in or near ash trees. There are two different lures in the traps, which resemble kites. The lures were changed when the traps were checked in mid-July and they will receive their final check in early September when the traps will be removed. All of the traps on the midsummer check were negative for EAB.

More work is being done to explore using the *Cerceris* wasp as a detector. This native wasp feeds on borers in the EAB family, so if we can locate *Cercer-is* nests, we can likely perform our surveys with a

higher probability of detecting EAB. This is a great example of a native natural predator that can help us in our battle against the EAB.

I have a number of different pamphlets and outreach materials available on the Big Three, including wal let cards. So should you have any questions about these insects, including what they look like and what you should be looking out for, just give us a call and we'll be happy to get them out to you.

Wet Spring Brings Not Only Spring Flowers, but Also Lots of Leaf Diseases

By Bill Guenther, County Forester

(Adapted from an article written by the Forest Protection Section Staff, Department of Forest, Parks & Recreation)

This Spring's persistent and high rainfall brought us a plethora of fungal-type diseases that attack foliage (leaves or needles). The most prevalent diseases have been a group of fungal pathogens called anthracnose. We've received reports and samples of anthracnose on maple, ash, sycamore, and oak, with each of them having its own species-specific fungus. The typical symptoms are the appearance and irregular spread of brown/dead areas on leaves, lesions that follow the leaf veins, and shriveling of young leaves. This disease can complete several life cycles in a single year; however, young, newly emerged leaves are most susceptible.

Diseased trees can look pretty bad, but anthracnose is not usually a serious concern. Some of the trees affected early in the season have refoliated. This fungus rarely kills trees, but it can weaken them so they become predisposed to other types of damage. The leaves may also fall prematurely, giving some crowns a very thin appearance. If you have prized shade and/or ornamental trees, we recommend raking and destroying leaves in the fall, as that may afford some protection by reducing the potential infection the following spring.

Our white and blue spruce have once again been afflicted with Rhizophaera needlecast disease. The usual pattern of conifer needle fungus diseases is that the bottom of the tree looks the worst and the appearance improves as you go higher up the tree. This is because there is more available moisture and less air flow near the base of trees. I have observed this on blue and white spruce. After several years in a row of infection, branch mortality becomes more prevalent. In extreme cases Rhizophaera needlecast can kill a tree.

Once again we saw the two needle blights at work on our native white pine. Both White Pine Needle Blight and Brown Spot Needle Blight were the culprits that caused significant mortality of last year's needles. The pattern was like that described for spruce: the tree's appearance improved as you went from the bottom of the tree toward the top. While these diseases rarely kill trees, we have seen them several years in a row now, and I would imagine that this has weakened the white pines.

There is not really much you can do against either the spruce or pine needle diseases, except perhaps try to rake up and burn the needles, which is not an easy task. For prized ornamental trees, make sure that you follow other good cultural practices, such as preventing lawnmower wounds, watering during excessively dry spells, and minimizing any disturbance in the trees' root zone.

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CHANGE SERVICE REQUESTED

Upcoming Programs — Save these dates!

(See inside for details.)

Saturday, September 24	**SAVE THE DATE! — WOA Annual Meeting**
Saturday, November 5	**Big Tree Tour**

Mission of Woodland Owners Association

WOA is a non-profit association of woodland owners and managers, members of the wood products industry, and other interested parties in the Windham County Region who advocate both sustainable management practices and the enjoyment of forests and their ecosystems. In support of these ends, WOA offers educational opportunities for all age groups. Areas of interest include: biodiversity; clean air and water; cultural and historic resources; fair and equitable taxation of woodland; forest products; recreation; scenic beauty; and wildlife habitat. We recognize that these concepts are continually evolving and therefore will strive to consider the most current thinking and values regarding them.