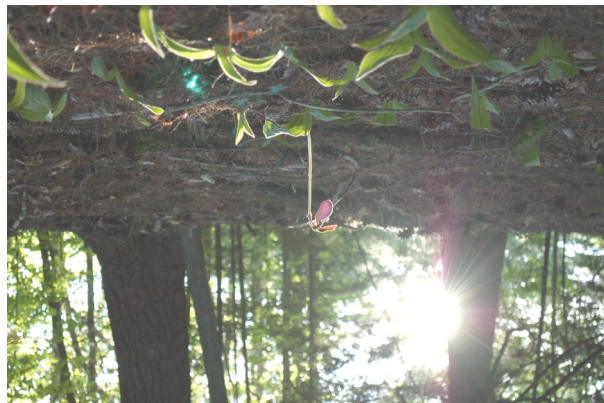


## UPCOMING EVENTS

- APR. 11 - Financial Benefits of Land Conservation**  
Liberty, NY, 6pm-8pm
- APR. 20 - Forestry Program at Milford Experimental Forest**  
Milford, PA, 9am-12pm (indoor) and 1pm-3pm (outdoor)
- APR. 27 - Foods of the Delaware Highlands Dinner**  
Hawley, PA, 5pm
- MAY 4 - Forest Stewardship and Financial Benefits Program**  
Bethel, NY, 9am-12pm
- MAY 9 - Women and Their Woods Spring Field Tour**  
Altoona, PA
- JUNE 8 - Native Plants Walk with Dr. Ann Rhoads**  
Beaver Run Property, 9am-12pm

Visit [www.DelawareHighlands.org](http://www.DelawareHighlands.org), or call 570-226-3164/845-583-1010 for more information on these events and others, and to register.

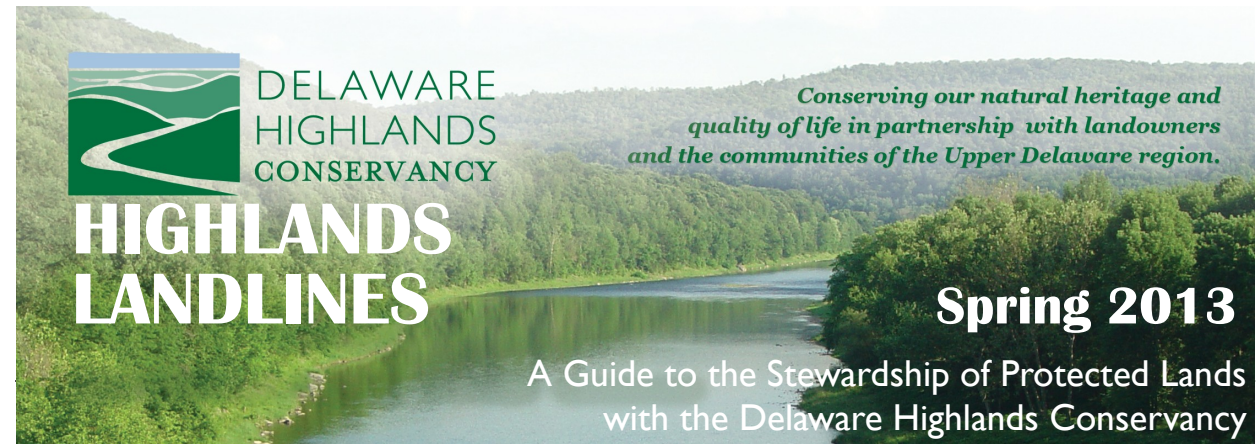
- **INSIDE**
- Reacting to Reality: Hemlock Woolly Adelgid
- Forces Forest Management Decisions
- Protect Your Forest from Invasive Insects
- Prepare for Annual Property Visits
- Spotlight on Native and Invasive Species



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## Reacting to Reality: Hemlock Woolly Adelgid Forces Forest Management Decisions

In an ideal world, timber harvests are premeditated activities, scheduled years in advance as part of a carefully considered forest management plan. Sometimes things outside our control happen. For some woodlot owners, that list includes hemlock woolly adelgid and emerald ash borer. These invasive insects can force decisions to harvest relatively quickly to salvage some value from trees that will soon be lost. While such events present difficult decisions, they provide an opportunity to make choices that will ultimately improve the health of the forest and help protect it against future pests and disease.



David Jackson, forest resources educator with Penn State Extension, recently saw firsthand what woodlot owners in many areas are experiencing when the hemlock woolly adelgid appeared in a 103-acre woodlot managed by Penn State Extension. “You really feel helpless. There are insecticide treatments you can do, but it’s really not practical in a woodlot setting when you’re looking at hundreds and hundreds and hundreds of trees,” says Jackson. (Researchers are working on some biological controls, notably small non-native beetles that eat the adelgid.)

Though no harvest had been planned in the woodlot, the decision was made to cut 15 acres of infested hemlock to salvage some value. “We were holding off and holding off and finally we decided that if we were going to get anything out of this area we were going to have to make a sale,” he explains. The decision to harvest hemlock, a softwood, must be made in relatively short order to preserve any timber value.

(Continued on page 6)

The Delaware Highlands Conservancy is a land trust dedicated to conserving our natural heritage and quality of life in partnership with landowners and the communities of the Upper Delaware River region.

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Highlands Landlines is a semi-annual newsletter created by the Conservancy for landowners who have a conservation easement with the Conservancy. This publication is also available electronically.



What is Highlands LandLines?

You probably already receive the Delaware Highlands Conservancy’s regular newsletter, *Highlands Journal*. Our newsletter is distributed to all of our landowners, members, and other like-minded folks who are interested in the Conservancy’s activities, accomplishments, and conservation goals.

This publication, *Highlands LandLines*, comes to you twice a year and is dedicated to landowners. *LandLines* provides you, the landowner, with useful information and tips for the stewardship of your land and conservation easement.

Participate in LandLines!

We are interested in your ideas for future articles and features, or your comments on the publication in general.

We’d love to know what you think!



Website for Women Forest Landowners

www.WomenOwningWoodlands.net

WomenOwningWoodlands.net strives to bring topical, accessible, and current forestry information to women woodland owners and forest practitioners through news articles, blogs, events, resources, and personal stories. We support women in forest leadership, women who manage their own woodlands, and all who facilitate the stewardship of forests.

Annual Property Visit Questionnaire

Please help the Conservancy prepare for our annual property visits by completing the below survey and mailing to:

Delaware Highlands Conservancy  
Attn: Stewardship Coordinator  
PO Box 218  
Hawley, PA 18428

Contact: \_\_\_\_\_ Email: \_\_\_\_\_

Would you like to attend the property visit? Yes No  
When is the best time to visit? \_\_\_\_\_

Annual property visits allow the Conservancy to uphold the terms of the conservation easement for each property. These visits allow the Conservancy to determine whether the conservation values outlined in the conservation easement are intact. In addition, the visit is a fundamental part of relationship building between the Delaware Highlands Conservancy, its members, and landowners.

Do you have plans to sell, subdivide or lease the property?..... Yes No

Have any structures (houses, sheds, barns, gazebos, garage, pole barn) been built or replaced within the boundaries of the conservation easement?..... Yes No

Has there been any land disturbance as a result of road/trail construction, digging/ filling, planting, fencing or other construction?..... Yes No

In the last year, has the protected property been affected by any of the following:  
Insect damage..... Yes No  
Storm damage..... Yes No  
Fire..... Yes No  
Vandalism; trespassing, dumping, operation of ATVs or other motorized vehicles.... Yes No  
Property line violations from neighboring parcels..... Yes No

Has there been any timbering on the property?..... Yes No  
If so, was the timbering a result of a recommendation by a current Forest Management Plan?..... Yes No

Have you noticed any of the following affecting wetlands or waterways on the property?  
Encroachment of invasive vegetation or animals..... Yes No  
Change in flow, quality or quantity of water ..... Yes No  
Livestock in or near waterways or wetlands..... Yes No  
Erosion along banks or channels..... Yes No

Have you signed a lease for use of the land? (ie. gas lease, agricultural)..... Yes No

Have you noticed new populations or an increase in existing populations of invasive vegetation?..... Yes No 7



(Continued from page 1)

While the decision to harvest was made relatively quickly, the harvest itself was thoroughly thought out. The main goal was to generate some revenue while still protecting wildlife habitat and water quality. “You’ll have an opportunity to leave dead standing trees, called snags, which provide song-birds with insect foraging sites. Over time these trees will develop cavities or holes in them which will provide nesting sites for a wide range of species,” Jackson emphasizes. Harvesting under any circumstance is also an opportunity to consider regeneration - which species will come in and replace the harvested trees and what species of trees are you leaving. Both will impact the makeup of the next forest.

Woodlot owners don’t necessarily have to wait until the hemlock woolly adelgid appears to act. It may make some sense to conduct a preemptory harvest. “There have been some studies suggesting that, if you can do it well in advance of the adelgid, thinning hemlock stands can help,” says Jackson. Hemlocks tend to grow in dense, dark groves, which make them perfect for shading and cooling streams. But the crowded growing conditions ultimately hamper tree health. Thinning hemlocks and freeing up the most vigorous individuals can help the remaining trees grow and expand their crowns, making them as healthy as possible to perhaps survive attacks from the adelgids.

The 103-acre Ag Progress Days Woodlot is located approximately 10 miles southwest of State College. It has been managed by Penn State Extension for nearly forty years under the direction of Dr. Jim Finley. Numerous educational tours and programs are hosted there each year. Dave Jackson can be contacted at 814-355-4897 or drj11@psu.edu.

Reprinted from *Forest Leaves*, Vol. 22, No. 3. Edited for length. Original printed in *Farming: The Journal of North-east Agriculture*, October 2012. Written by Patrick White.

## PLAN TO ATTEND

### THE 2013 PRIVATE FOREST LANDOWNERS’ CONFERENCE

May 10 & 11, 2013

Blair County Convention Center, Altoona, PA



Penn State’s Center for Private Forests and partners are hosting the first-ever comprehensive conference for private landowners in Pennsylvania, **whether you own, manage or plan to own 5 or 500 acres**. Explore topics on forest finance, woods wildlife, forest legacy, making your woods accessible, forest history, forest health, wood products, aesthetics and biodiversity, forest

policy and advocacy, and visit informational and resource displays and demonstrations. To learn more or to register for the event, visit:

<http://ecosystems.psu.edu/private-forest-conference>

**Women and Their Woods Field Day**  
May 9, 2013, Altoona, PA

## Native Species Spotlight

### Trailing-arbutus

*Epigaea repens*

Also called Mayflower, trailing-arbutus can be found in shaded woodlands of the eastern United States. In New York it is listed as “Exploitably Vulnerable.” It is a small, creeping shrub with oval, evergreen leaves and produces light pink to white flowers in April and May.



The stems and leaves of this plant are covered in bristles. It’s worth lying on the ground to smell their fragrant blossoms!

## Invasive Species Corner

### Hemlock Woolly Adelgid

*Adelges tsugae*

The adelgid is native to Asia and is easily distinguished by white, waxy wool sacs on Hemlock branches, especially late fall through early spring. Crawlers are most active in April, May, and July.

This aphid-like insect spreads easily and causes extensive damage including grayish foliage, premature needle drop, and dieback. Trees often die within about four years, though they may survive several more years in a weakened condition.

According to Cornell University, “Treatment of infected trees is recommended to help save the species until longer-term, biological solutions are developed. Infected Hemlocks respond very well to several insecticides and some treatment options are effective for several years. For large stands of Hemlocks, where treating all of the trees is too expensive, landowners are recommended to select particularly good Hemlocks for treatment to help preserve the species. These trees will provide the seed stock for future Hemlock forests. Without treatment, we risk losing this valuable species.”





## Protect Your Forests from Invasive Insects

An “invasive species” like the hemlock woolly adelgid (see page 3) or emerald ash borer is a species that does not naturally occur in a specific area and whose introduction does or is likely to cause economic or environmental harm or harm to human health. The environmental damage caused by these invaders has been estimated at \$138 billion dollars a year.

Free identification services for all potential invasive species are offered by Cornell Cooperative Extension (CCE) Sullivan County. CCE will be available to answer questions about invasive species including the importance of early detection and rapid response. For more information contact the office, located on 64 Ferndale-Loomis Road in Liberty, at 845-292-6180.



Photo via US Department of Agriculture. UGA1520081

Hemlock woolly adelgid.

### The Emerald Ash Borer

The emerald ash borer is an invasive, exotic insect that quickly kills all ash trees once it becomes established in an area or community. It was first discovered in the U.S. in 2002 in Detroit, Michigan, and has since been found in 18 states, including NY and PA.

All native ash trees are susceptible. Adult beetles leave distinctive D-shaped exit holes in the outer bark of the branches and the trunk. They may be present from late May through early September but are most common in June and July. Signs of infection include tree canopy dieback, yellowing, and browning of leaves.



Photo via NYS DEC.

Adult emerald ash borer.

**Most trees die within 2 to 4 years of becoming infested. The emerald ash borer is responsible for the destruction of over 50 million ash trees in the U.S. since its discovery.**

Especially hard hit have been communities which have lost thousands of mature street and park ash trees, often originally planted to replace stately elms killed 80 years ago by another invasive pest, Dutch elm disease. Costs to communities for removal and disposal of dead, dying and hazardous municipal trees, and their replacement is a challenge.

In 2008, New York adopted regulations that banned untreated firewood from entering the state and restricted intrastate movement of untreated firewood to no more than a 50-mile radius from its source (<http://www.dec.ny.gov/animals/28722.html>). This was done as a precaution against the introduction and spread of EAB and other invasive species.

DEC urges citizens to watch for signs of infestation in ash trees. If damage is consistent with the known symptoms of EAB infestation, report suspected damage by calling DEC's emerald ash borer hotline or by submitting an EAB Report at <http://www.dec.ny.gov/animals/72136.html>.

To learn more about emerald ash borer, the firewood regulation, or how you can help slow the spread, please call the DEC's toll-free EAB/Firewood hotline at 1-866-640-0652 or visit the DEC website at <http://www.dec.ny.gov/animals/7253.html>.



Photo by Bauermeister Tree Service.

Damage caused by the emerald ash borer.

This article excerpted from information provided by the Cornell Cooperative Extension (<http://cce.cornell.edu>) the New York Department of Environmental Conservation (<http://www.dec.ny.gov/animals/7253.html>), and the New York Department of Agriculture (<http://www.agriculture.ny.gov/PI/eab.html>).

### Help Monitor Other Protected Properties!

As you know, the Conservancy conducts annual visits to our protected properties throughout the summer. Our Monitoring Coordinator, Jamie Bartholomew, is always looking for volunteers to help out with monitoring visits. Meet other landowners, see some beautiful properties, and enjoy a nice day in the outdoors!

To volunteer, email [monitor@delawarehighlands.org](mailto:monitor@delawarehighlands.org) or call 570-226-3164, and Jamie will add you to her list. Help out as much or as little as you would like, in the morning or the afternoon.



### Other Volunteer Opportunities

The Conservancy welcomes volunteers throughout the year to help out with a wide range of tasks, from staffing a booth at an event, participating in Eagle Watch during the winter season, to helping with mailings or other office tasks, among others.

Send an email to Patricia at [volunteer@delawarehighlands.org](mailto:volunteer@delawarehighlands.org) to learn more about the different opportunities or to discuss your own skills and talents to contribute.



Photo by Stephen Davis.



Find us at <http://www.facebook.com/DelawareHighlandsConservancy> and [www.DelawareHighlands.org](http://www.DelawareHighlands.org).