Pennsylvania Forest Stewards News

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Chairman's Column

By Bob Slagter, PA Forest Stewards Steering Committee Chair, '08

Hey, How Are We Doing?

At the start of a fresh calendar, I refuse look back on our losses...that does no good for the future. I instead prefer to face squarely straight ahead and, pandemic be damned, carry on setting a direction for the Pennsylvania Forest Stewards (PAFS) for 2022 and 2023. There is a lot to do and we are so lucky we have you to accomplish our tasks.

The 2021 PAFS Survey results are trickling in and with just over half the active Stewards responding to date, the impact of you volunteers is significant. So, I'll summarize the surveys we've received from you so far with a look at the data as a means of showing the amazing work you accomplished over 12 months.

By your estimation, PAFS volunteers spent over 15,000 hours in outreach promoting good, sustainable forest stewardship to other landowners, youth, and the public in general—that's the equivalent of about eight full-time employees' time spent. In other words, that's a value of nearly $435,000 in volunteer hours using the national volunteer average of $28.54/hour. And, by any conservative estimation, this time spent in outreach touched approximately 480,000 people.

I love you people. In a world of negative news about the climate and deforestation and glacier recession and all that we hear daily, you folks kept your faces in the wind and charged forward to the tune of nearly half a million dollars and the same in numbers of people you reached! If that's not enough (and what is enough, really, when you're talking about saving the planet?), we also asked about how much time PAFS spent on practicing good forest management on their properties. Respondents spent just over 30,000 hours working on their own forests. This equates to about 15 full-time employees working on their lands across the state.

Bravo my fellow PAFS! Everyone who sent in the survey did a real number on the numbers for the last year. As for the other half of active PAFS who haven't yet responded, we know that you can only add to these totals, so please, PLEASE send in the survey. It is so important to the future of the PAFS program, and every hour, every action, around volunteering helps the college, environmental agencies, heck the world, to know how vibrant and vital we are.

As for 2022, we have big plans that we'll be sharing with you in the next newsletter, but as a preview...we're going to benchmark Pennsylvania against other states' volunteers, we're going to work on a "Forest Scorecard" you can use to develop plans with fellow landowners, we're going to review and benchmark the Pennsylvania Forest Stewards volunteer organization to increase effectiveness, we're going to have a summer meeting/party, we're going to look at reorganizing the steering committee, and much more.

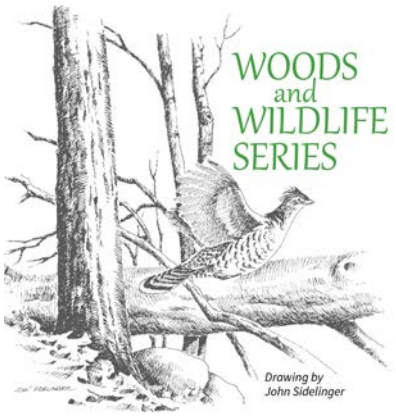
So stay tuned to this channel for updates, actions, and needs. You achieved record amounts of volunteering these past 12 months and we know you are just itching to do more. Thank you for your efforts; stay safe and keep well.

In past years, Pennsylvania Forest Steward volunteers poured thousands of hours into activities promoting good forest stewardship across the state, including leading workshops, hosting Walk in Penn's Woods events, working with high school students to plant a riparian buffer, and holding key roles on the Center for Private Forests Working Groups.

See 2021 preliminary survey results on page 5.

Three Cheers for Cardinals

By Mike and Laura Jackson, PA Forest Stewards, Class of '00



This article is part of a series exploring animals and their dependence on forests. Each article blends personal experiences with factual information and will challenge you to look closely in your woodlot for evidence that you are a habitat provider for the species.

One of our most beloved backyard birds, Northern Cardinals (*Cardinalis cardinalis*) brighten a snowy winter day. Although the male's brilliant red plumage is much bolder than the conservatively colored female, a close look reveals striking accents of red on the female's crest, wings, and tail feathers. The female's beak color is almost identical to the male's but seems more vibrant since it contrasts with the female's softer shades.

Laura photographed the two cardinals below on February 1, 2019, during the Polar Express, when temperatures dipped to -4°F and barely reached a high of 17°F. Thanks to increased amounts of body fat in winter, insulating feathers, and rapid metabolism, cardinals can survive harsh winter conditions if they have enough cover and food. Researchers found that a cardinal's internal winter temperature averages around 107°F, which is just a bit lower than their summer temperature.[1] It's remarkable that cardinals and other small birds can survive such stressful situations.

That same winter we counted a high of 25 cardinals in our backyard, no doubt attracted to our many bird feeders. That number has been exceeded several times, though, when we've had cold snowy winters. On February 13, 2014, we counted 19 female and 19 male cardinals during a heavy snowstorm. Most of them were resting in the red twig dogwood shrubs behind our house.

Just last year we counted 39 cardinals the morning of February 18, 2021. The six inches of snow and cold weather (a high of 22°F) meant food was limited. Each year, as winter progresses and natural food becomes scarcer, we see an increase in cardinals in our backyard. The all-time high was 41 cardinals on February 20, 2008, during the late afternoon snowstorm. We were surprised to see 38 cardinals in our yard early afternoon on Easter Sunday, March 31, 2013. It was a rainy, cool day, so those flashy red birds really brightened our drab yard. These totals are based on counting all the Northern Cardinals we can see at one time.

This winter (2021-22) has been mild with little snow, but there's a lot of natural food in the woods around our house, so we didn't see a lot of cardinals in December or January. Hopefully, we'll see higher numbers in February.

Cardinals aren't specialists when it comes to diet preference. They eat a wide variety of seeds, fruits, and grains, but also take advantage of tasty leaf buds, insects, spiders, and snails. Like many other songbirds, they require soft, juicy, nutritious caterpillars to feed their young. Of course, they love sunflower seeds, and that's what brings them to our backyard. Black oil sunflower seeds (whole or hearts) are high in fat, which is especially important in the winter. Cardinals use their powerful beak to easily crush seeds and they use their tongue to separate meat from the seed hulls.

Cardinals also love No Melt Miracle Mix—a homemade tasty treat made from high-caloric ingredients. Many songbirds are attracted to this high-energy food. Mike's in charge of making Miracle Mix (the only time he's allowed in the kitchen on his own) and has perfected the recipe over the years. He makes enough to fill a 5-gallon bucket, about a two-month supply in the winter. See recipe on page 3.

We've replaced Japanese barberry, multiflora rose, and other invasive shrubs with native trees and shrubs on our property, to provide better nest sites and cover, as well as more insect food. Last summer we found a cardinal nest in the ninebark shrub we planted in the front yard, and we often find nests in shrubby areas around our house or near forest edges. In the fall of 2014, we had a 30-acre timber harvest to create young forest habitat, and now we find cardinals nesting in the thick regeneration that is

Cardinals, *continued on page 3*

Article photos by Mike and Laura Jackson

Northern Cardinals are one of our most common birds and are easily identified. Even though the female (right) is distinctively different from the male, they both have a prominent crest and a powerful, thick bill.

Cardinals, *continued from page 2*

Cold snowy winter days bring a lot of cardinals to our backyard, creating a mosaic of color. Did you know that a flock of cardinals is called a college?

mostly sapling-size yellow poplar, oak, birch, and black cherry. Since cardinals nest relatively low to the ground (3 feet to 10 feet) in dense cover, it's relatively easy to find cardinal nests when birds are feeding their young, even if we don't get close enough to see the nest.

Northern Cardinals are closely related to the more southern Pyrrhuloxia and the Vermilion Cardinal, hence the descriptor "Northern." True to their name, they are still expanding their range northward. Thanks to a warming climate, the proliferation of bird feeders, and an increase in shrubby edge habitats, the Northern Cardinal is one of the most common birds in our state. It has expanded into southern Canada, as well.

This adaptable bird does well in suburban communities and parks that include native trees and shrubs.

Other endearing qualities of cardinals that make them so popular are their loud whistles, "cheer, cheer, cheer," or "party, party, party." Even the female gets into the swing of things in the spring by singing duets with her mate. According to the American Bird Conservancy, she also sings while on the nest, which tells her mate when to bring her food—or when to stay away.[2] Most cardinals pair for life (although some males do fool around with other females)[3], they don't migrate long distances, and they often feed each other during courtship. No wonder seven states have chosen the Northern Cardinal as their state bird.

If you want to attract more cardinals to your property, keep the forest edges in native shrubs such as spicebush, sumac, ninebark, shrub dogwoods, and winterberry holly, as well as plant trees like white-flowering dogwood, serviceberry, American sweet crabapple, and red mulberry. Encourage wild grape arbors in these areas to provide more food and cover.

The good news is that cardinals are increasing in numbers and distribution. Now that's something to cheer, cheer, cheer about!

References:

[1] Schaeffer et al. *Animal Biotelemetry*, 2015. 3:34. doi 10.1186/s40317-015-0078-Z.

[2] **abcbirds.org/bird/northern-cardinal/?gclid=Cj0KCQiAieWOBhCYARIsANcOw0wYhjUQisIWhlbw5iI74qRUmd6bIsN-HB2WZG5L_53pxDaGPA1o50aAue3EALw_wcB**

[3] **birdsoftheworld.org/bow/species/norcar/cur/introduction**

No Melt Miracle Mix Recipe

Ingredients: This makes a double batch.

- 2 cups crunchy or creamy peanut butter
- 2 cups lard (no substitutes)
- 4 cups oatmeal
- 4 cups cornmeal
- 2 cups unmedicated Chick Starter Mash (available at a feed store)
- 1 cup flour (any type)
- 2/3 cup sugar

Note: the chick starter adds fat, minerals, and protein which helps prevent some eye diseases. It's optional, but try to get it.

Directions:

1. Put the peanut butter and lard into a large glass bowl and microwave for 3 minutes. Stir.
2. Add remaining ingredients and mix thoroughly with a wooden spoon.
3. Pour into a plastic container or shallow pan and allow to cool.
4. Store in the refrigerator, freezer, or cool place.
5. Can be cut into squares to fit into suet cages or use an ice cream scoop.

2022 PA Forest Stewards Basic Training: Time to Nominate!

It is time again to plan for an amazing weekend of learning among landowners and friends! We are looking ahead to September 29 through October 2, 2022 for our next Pennsylvania Forest Stewards Basic Training at Krislund Camp in Madisonburg, Centre County and we need your help to find those landowners and friends. We're looking for outstanding landowners and others who have a strong stewardship ethic, would benefit from and enjoy the material, and, importantly, would help get the word out about the importance of good forest care. These folks will join us for a long weekend—participants will arrive Thursday afternoon and will learn and enjoy time together through Sunday afternoon. Prior to the weekend training, the class will review the online course *Woodland Stewardship: Management Practices for Landowners* that will introduce them to the various topics covered in the weekend together. During the weekend, the class will spend time in and out of the classroom diving deeper into forest management and stewardship. Enclosed with this newsletter is a nomination form. Seek out and nominate those folks who will both use and share what they learn*. **Nominations are due by March 15.**

***Special note regarding nominations:** *Starting in early March, the Penn State Forestry and Wildlife Extension team is launching a new program to guide a cohort of landowners through the* Woodland Stewardship: Management Practices for Landowners *course using a virtual webinar format. This new program is designed for landowners interested in learning about stewardship practices on the land, but who are less interested or have less capacity to commit to the volunteer role of a Pennsylvania Forest Steward. Please consider and talk with your potential nominee about what programmatic style/expectation is best suited for their interests and situation. Contact us for more information about this Extension program.*

The PA Forest Stewards Class of 2022 Basic Training is scheduled September 29-October 2 at Krislund Camp in Madisonburg.

Ageism or Legacy Planning?

By Clark Beebe, PA Forest Steward, Class of '07

My wife and I don't have the same problems concerning what to do with our woodlands when passing them on as many other landowners do. We have only one child so she gets the land and everything else; we have no worries about dividing it fairly, who will be the better steward once we are gone, etc. But the question about what she will do with the land once she inherits it is a different problem.

She does not live on or near the land (and won't move there in the future). And she has not had a lot of interaction with it in the past. So, we put in our original will that she could not sell it until she was at least 35 years old—but now that date is fast approaching. We are now considering even skipping her generation altogether and leaving it in trust for our two grandchildren—with a similar age 35 sale restriction.

But in the meantime, we have made one decision: We set an age limit on candidates when we were looking for a new forester. (Our previous forester gave up private clients and went to work full time for the natural gas drilling companies.) I limited my search to foresters 30 years of age or younger. I am 73. My wife is 66. I wanted to ensure that the forester would be in position to mentor my daughter and provide a bridge of knowledge, intent, and history to smooth the transition. I did not want her to start her stewardship of the land by relatively immediately having to decide on a new forester.

I actually discussed my age-restricted criteria with several older foresters before making my selection. None thought that I was guilty of ageism. All found it to be a reasonable intergenerational legacy planning strategy. As many forest landowners are older and at least starting to think about legacy planning, perhaps a similar strategy should be part of their thinking.

Hiring a younger forester as part of your legacy plan can provide an important bridge as the next generation takes over stewardship of the land.

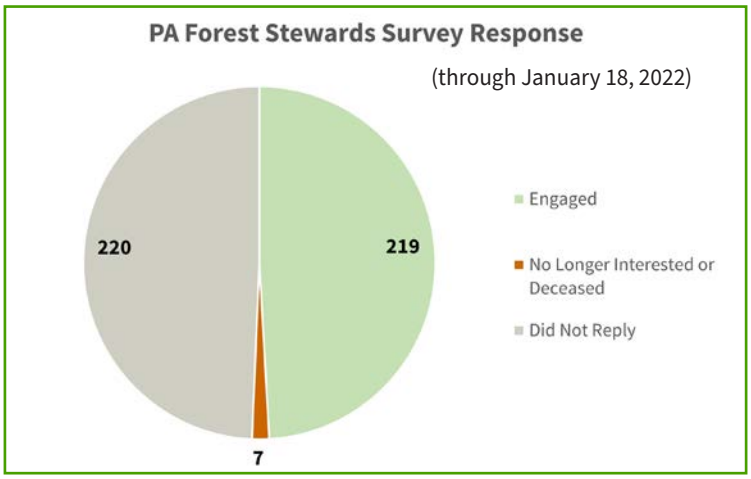
2021 Survey Preliminary Results: PA Forest Stewards Make a Big Impact

The 2021 Pennsylvania Forest Stewards biennial survey shows that the PA Forest Steward volunteers continue to actively promote forest stewardship in their communities and on their land—and that their impact is growing (compared to the 2019 results). As of January 18, 226 of the 446 surveyed Stewards have responded (51%). About 97% of those respondents indicated that they are engaged in our community and program.

An integral role of a PA Forest Steward volunteer is to share the value of caring for forests via volunteer outreach. So far, respondents have reported a total of 15,240 hours spent on outreach activities, equivalent to almost eight full-time employees at 40 hours per week for 50 weeks. Using the national average of $28.54 per hour, this outreach totals $434,935. The average number of hours spent on outreach per volunteer was 67.4 hours in a 12-month time period. The total people reached within this year totaled 479,223—almost 150,000 more than in 2019. To ease reporting, we broke outreach activities into nine categories, through which volunteers could report time and people reached. The most time (almost 4,000 hours) was spent conducting outreach through media, which resulted in the most people reached (nearly 400,000).

We also wanted to know about the management activities and time spent implementing them on properties, as well as if professionals were hired to help. So far, respondents spent 30,238 hours implementing practices on their properties, as well as some public land—a little over 5,532 more hours than reported in 2019. This time equates to 15 full-time employees working on the land 40 hours per week for 50 weeks. Respondents spent the most time conducting invasive plant control (almost 6,000 hours), for which the most professionals were hired (about 30). Activities that impacted the most acreage included the creation or maintenance of trails and roads (over 16,500 acres) and the creation of new management plans (nearly 14,000 acres). The funding that supports this volunteer program requires a 1:1 match of time to supplement the grant monies received. The volunteer time given in outreach almost triples the total grant monies received to support all aspects of the Pennsylvania Forest Stewardship program, of which the PA Forest Steward volunteers are only one part.

Remember that these results are preliminary—we are hoping to hear from the remaining 220 PA Forest Stewards so we can see the full picture of this important program and the really impactful people who make it happen (you!). There are also other metrics included in this survey that are valuable for informing the work that we do to support our PA Forest Stewards and we hope to reach a 100% response rate before sharing a full summary of survey results. As iterated in Chairman Bob Slagter's column on page 1, please do send in your survey if you haven't yet. Or, go online and share your response with us right away at: **https://pennstate.qualtrics.com/jfe/form/SV_d9Zpqr7Srem2hXU**.



Fact Sheets Help Landowners Identify and Control Invasive Plants

With so many PA Forest Stewards spending large amounts of time conducting invasive plant control and with spring just around the corner, we're reminding you of Penn State Extension's invasive plant fact sheets that can help you identify and control plant pests on your property.

These 14 fact sheets cover these Pennsylvania invasives: tree-of-heaven, Callery pear, buckthorn, Japanese barberry, multiflora rose, shrub honeysuckles, autumn olive, privet, burning bush, Oriental bittersweet, Japanese knotweed, mile-a-minute, Japanese stiltgrass, and garlic mustard.

The fact sheets provide in-depth information to help identify and treat invasive plants commonly found in fields, forests, and other natural areas and feature full-color images and descriptions, as well as information on native look-alikes, dispersal, site, and control, including a management calendar and a treatment and timing table.

You can download the PDF files online; for printed copies please call 814-863-0401 or email PrivateForests@psu.edu (let us know which invasive plant fact sheets you want and your mailing address). Find a list of the invasive plants and links to their fact sheets at **https://extension.psu.edu/announcing-new-invasive-plant-fact-sheets-series**, or email or call us at the Center for more information.

Penn State Extension's invasive plant fact sheets will help you identify and control common invasives found in Pennsylvania such as mutiflora rose.

The Future of Hemlocks: A Sportsmen's Club's Proactive Approach to Hemlock Conservation, Part 2

By Adam Katrancha, PA Forest Steward, Class of '09

Part 2: Mitigation

This is the second of two articles about the Beaverdale Sportsmen's Association's (BSA) work to save hemlock trees infested with hemlock woolly adelgid (HWA). The first article appeared in the last issue.

With the hemlock inventory nearing completion and numerous infested trees identified, the need for mitigation was apparent. Following several days of field work and with a week-long hiatus anticipated, the notes to date were collected and scanned for convenient sharing and long-term electronic storage. Adam Katrancha (PAFS '09) also uploaded each subject's coordinates to GIS software for an aerial overview of their progress and to get a preview of the upcoming treatment needs. As the last of the data was being collected and compiled, the logistics of treatment were now being considered.

As work progressed across the 325-acre property, the sportsmen were finding an infestation rate of slightly over 20%, making mitigation with insecticide difficult, but possible. With increasing insecticide needs, the general club membership, still supportive of the initiative to save their valued trees, did not find the anticipated expenditures cost prohibitive. Had there been a higher density of hemlocks or greater infestation rate, mitigation may have included thinning with limited insecticide application to a few specimen trees. But, with the moderate rate encountered, all of the infested trees were able to be treated with an imidacloprid insecticide application through either soil tablets or basal spray. However, the members recognized that without a self-sustaining predator or climatic assistance, the indefinite treatment of all these treasured trees will most likely be unsustainable.

Chad Eppley (PAFS '17), a relatively new member with the commitment to help preserve the forest for his children, and his fuzzy-faced companion Ace, a ruddy brown Pudlepointer, eager to explore new reaches of the property, rendezvoused with Adam Katrancha on a foggy morning to begin application of the imidacloprid soil tablets. With the aerial photographs in hand showing the target trees in yellow, the crew set out with both hand trowels and hand cultivators, as the optimum tool for placement of the tablets had yet to be determined. Following the numbered tags attached to each hemlock, they worked their way through the woodlot until they located their objective, where they dropped to the ground near the trunk and methodically measured the correct number of tablets from the plastic jug, two tablets per inch DBH. Mother Nature's gift of recent rains had softened the ground as hand trowels, found to be the most efficient tool, were inserted a few inches, lifted, then followed by tablet placement and a firm pat to ensure soil coverage. The moist soil will also aid in the slow dissolution and uptake of the insecticide by the trees. After treating two trees in close proximity, they consulted the photo and set out in the general direction of their next infirmed evergreen, a task they would repeat six additional times, until their tablet supply was depleted.

Following their typical weekend routine of enjoying the woodland property, but now with a directed purpose, several members returned the following weekend intent on treating the infested hemlocks near the valued water resources with the imidacloprid basal spray. Following the application rate of 0.2 fl. oz. of insecticide per inch DBH, diluted in approximately 2.0 fl. oz. of water per inch DBH, solutions were mixed on a tree-by-tree basis. Using small hand-held sprayers, the laborers, adorned in long sleeves and protective gloves, orbited each tree numerous times, often pausing to allow absorption and prevent runoff, until the required insecticide dosage had been fully applied. After completing the first applications and observing the white-washed appearance of the painted trunk, the workers pondered the effects of their efforts. With no other treatment options readily apparent, the workers continued with the treatment of the infested trees near the springs and pond. Even though the inventory was not yet complete, the members now had experience with which they could relate and again consulted Dave Jackson regarding their methods and results. Fortunately for the club members, Dave confirmed a light

Hemlocks, *continued on page 7*

Article photos provided by Adam Katrancha

Chad Eppley (PAFS '17) places soil tablets around an infested tree on the Beaverdale Sportsmen's Association's 325-acre property.

white-washed appearance as being typical and they would not have to repeat their efforts.

With spirits rejuvenated by the rustling leaves of the September breeze, the expanding crew of volunteers returned to inventorying the remaining hemlocks on the property, with a final tally of 230 trees surveyed and 50 requiring insecticide treatment. After three additional days of treatment with insecticide tablets and basal spray, the inventory and subsequent HWA mitigation was complete.

Having stored all of the tree locations in GIS, the data points were easily exported to a spreadsheet that became the foundation for a database that will be used for years to come. In addition to the original assessment information, the date, dosage, and method of any treatments were added to aid in the long-term monitoring of the health or unfortunate decline of each tree. This individual tree information, when added to the overall GIS project map for the association's property, will also be an invaluable tool for planning future timber stand or habitat improvement projects. And, with a more optimistic view, some members hope to be able to point to the individual trees, whether in the field or on the maps, and proudly boast of their efforts in saving the magnificent individuals that provide irreplaceable character to this glorious woodlot.

While the success of the treatments will be slowly revealed over the upcoming seasons, those who participated in this exercise of conservation have again reaped harvests that cannot be quantified in dollars or board feet. The camaraderie shared by working toward a common goal will help write the history of the club and surrounding forest. The joy of an energetic dog bounding over fallen logs cannot be replaced with a leashed walk. The discovery of a winterberry (*Ilex verticillata*) grove intermixed with hemlock has already inspired return visits to a new "favorite place" on the landscape.

The success of past forest improvement initiatives, now clearly evident through the expanding species observed in the forest, continues to motivate the members. The burgeoning patches of Indian cucumber root (*Medeola virginiana*), oak seedlings protected by deer fence, and the sporadic cardinal flower (*Lobelias cardinalis*) provide the evidence validating their understanding and acceptance of the forest stewardship plan recommendations. The Beaverdale sportsmen and women, now with over a decade of proactive forest management under the tutelage of environmental professionals and their collaboration with forest and wildlife conservation agencies, continue to demonstrate that their trust in the professional recommendations will provide the best chance at saving their state tree, the Eastern hemlock, from the threat posed by the invasive hemlock woolly adelgid.

Greg Gdula (left) carefully applies imidacloprid basal spray near a pond on the property; members were relieved to learn the white-washed appearance on the trunks after treatment (right) is typical and no additional treatments would be needed as part of this effort.

As a final assignment, the responsibility for long-term observations and monitoring has been cast upon all the sportsmen. Whether it be a spring gobbler outing, a summer walk with a dog, fall mushroom foraging, or the winter deer hunt, all members traversing the property are asked to visit with the hemlocks they pass, checking the numbered tag and reporting the specimen's health and HWA findings. While the pragmatic role in saving the trees will be evident to all members, there is also the possibility of developing a deeper relationship with the forest through the long-term monitoring. Over time, and with persistent fellowship between person and tree, some may even gain insight into the existential pleasures found in befriending the woodland inhabitants, maybe finding a favorite or two, and sharing in their mutual support of the forest ecosystem. With the hard work and dedication of the sportsmen, some help from Mother Nature, and lots of luck, these trees will hopefully retain their stature in the forest, standing tall and inscribing history in their growth rings as memories of outdoor adventures are recorded by future generations of watchful naturalists.

As with all of their forestry projects and habitat initiatives, the impassioned BSA members will unreservedly share their experiences and lessons learned with anyone on their own path of forest restoration or sustainment. Even their less-than-successful activities have furthered their understanding of the forest as they recognize being a steward as an ongoing commitment to the land they cherish. While not every action has resulted in unquestionable success, the members, through their directed planning, expanding curricula, and personal engagement, can attest to the positive influence they have exacted on the property for which they care.

To learn more about controlling HWA, check out Penn State Extension's new publication, *Integrated Approach to Hemlock Woolly Adelgid Mitigation*, at **extension.psu.edu/integrated-approach-to-hemlock-woolly-adelgid-mitigation**.

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Remembering PA Forest Stewards We've Lost

We recently learned of the loss of these fellow Pennsylvania Forest Steward volunteers:

- Norm Montoy (Class unknown)
- Joe Hofler (Class unknown)
- Chandis Klinger (Class of '03)
- Ben Vaupel (Class of '06)

Our thoughts are with the families of these long-time Stewards. We especially remember the family of Chandis Klinger, whose wife Violet passed away within a few weeks of Chandis.

We are so grateful for each member of our PA Forest Stewards family and thewir service to the PA Forest Stewards volunteer program. If you hear of any of our volunteers who have passed away, please let us know.

Dates for Your Calendar

March 15 – PA Forest Stewards Class of 2022 Nominations Due. Send in your nomination forms by the due date.

Summer 2022 (date to be determined) – PA Forest Stewards Summer Meeting.

September 29-October 2 – PA Forest Stewards Class of 2022 Training. Kris-lund Camp, Madisonburg, PA.

Check the Center for Private Forests website for up-to-date listings of upcoming events: **ecosystems.psu.edu/private-forests**.

We also invite you to join in Penn State Forestry and Wildlife Extension's monthly webinar on the second Tuesday of each month, 12 noon and 7 p.m. For details, go to **ecosystems.psu.edu/research/centers/private-forests/outreach/pa-forests-web-seminar-center** and scroll down to Upcoming Webinars.

February 8: Tested Methods for Establishing Riparian Forested Buffers

March 8: How to Recognize and Manage Eroded Ecological Memories in Over-Browsed Landscapes

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