The New York Forest Owner

A Publication of The New York Forest Owners Association

For people caring about New York's trees and forests

September/October 2013

Member Profile: Bruce and Charlene Revette

Volume 51 Number 5

NEW YORK FOREST OWNERS ASSOCIATION
People Caring About NY's Trees and Forests
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In This Issue . . .

The New York
Forest Owner

A Publication of The New York Forest Owners Association

Volume 51, Number 5

The New York Forest Owner is a bi-monthly publication of The New York Forest Owners Association, PO Box 541, Lima, NY 14485. Materials submitted for publication should be sent to: ***Mary Beth Malmsheimer****, Editor, The New York Forest Owner, 134 Lincklaen Street, Cazenovia, New York 13035. Materials may also be e-mailed to mmalmshe@syr.edu. Articles, artwork and photos are invited and if requested, are returned after use.* ***The deadline for submission for the November/December issue is October 1, 2013.***

Please address all membership fees and change of address requests to PO Box 541, Lima, NY 14485. 1-800-836-3566. Cost of family membership/subscription is $35.

This publication is printed on Finch Opaque, Smooth, 70 lb. text paper. Located in the beautiful Adirondacks, Finch has long understood that the viability of our business relies on the wise use—and reuse—of resources. Finch papers are made with renewable energy, post-consumer recycled fiber and elemental chlorine-free pulps. In addition, Finch Paper was the first integrated paper mill in the US to received both the Forest Management and Chain of Custody certifications from the Forest Stewardship Council and the Sustainable Forestry Initiative.

www.nyfoa.org

Cover: L-R Charlene and Bruce and #4 grandchild, Oliver, at the entrance to their tree farm. For member profile see page 21. Photo courtesy of Bruce and Charlene Revette.

From The President

Most of you received my July e-mail encouraging members to become involved in the August meetings set up by Soil & Water Conservation Districts which were hosting local Environmental Quality Incentives Program (EQIP) working groups to establish eligible practices and priorities for cost-share funding. As of this writing those meetings are still underway. I'd like to repeat a second

aspect of that message which is we're looking to develop a grass-roots base of members with contacts with local, state, and federal legislators and decision makers. Doing so will provide better representation for woodland landowners and a clearer voice for issues that affect us. Work is being done by our Policy and Legislative Affairs group under **Frank Winkler** but so much more can be done. Our primary limitation is "boots on the ground."

At this point we don't have all the answers on how this will play out or what is the best way to organize. Much of this will depend on those of you who do step forward and are willing to work to develop this capability. Please contact Frank at *winkler@catskill.net* to start a dialog and develop a NYFOA strategy. Other interest groups are approaching these same legislators with their agendas, if we don't step forward and express our needs and concerns, who will?

On a related note, if you're not on our e-mailing list and wish to be added, please let **Liana Gooding** at info@nyfoa.org know, giving your e-mail address and the name by which you've registered as a NYFOA member. You may opt out of this at anytime.

Please share this magazine with a neighbor and urge them to join NYFOA. By gaining more members, NYFOA's voice will become stronger!

About a year ago your board of directors felt that it would be useful to develop a set of NYFOA Core Values. Our Mission Statement, "To promote sustainable forestry practices and improved stewardship on privately owned woodlands in New York State," tells what we will focus on doing but the Core Values describe the nature of our organization, giving underlying principles of operation. Time was spent at our board meeting in June developing a rough first-cut at what these Core Values might be. Leaders in this effort have been board members **Marilyn Wyman** and **Peter Smallidge**. More recently Marilyn has refined the June set into a set of 7 preliminary values. These values are being distributed to board members, chapter chairs and others who have worked with the board

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The mission of the New York Forest Owners Association (NYFOA) is to promote sustainable forestry practices and improved stewardship on privately owned woodlands in New York State. NYFOA is a not-for-profit group of people who care about NYS's trees and forests and are interested in the thoughtful management of private forests for the benefit of current and future generations.

Join!

NYFOA is a not-for-profit group promoting stewardship of private forests for the benefit of current and future generations. Through local chapters and statewide activities, NYFOA helps woodland owners to become responsible stewards and helps the interested public to appreciate the importance of New York's forests.

Join NYFOA today and begin to receive its many benefits including: six issues of ***The New York Forest Owner***, woodswalks, chapter meetings, and statewide meetings.

( ) I/We own _____acres of woodland.
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Helping Forest Stewardship with a charitable IRA gift

JIM MINOR, PRESIDENT, NYFOA

Did you know that Congress extended the charitable IRA transfers through December 31, 2013? This is how it works:

Unless an IRA is a Roth, the account owner is required to make yearly minimum distributions starting at age 70 1/2 and pay tax on the withdrawals. With the extended charitable IRA transfer, a donation sent directly to a non-profit like the New York Forest Owners Association from your IRA can count against the minimum required distribution you would otherwise be required to take.

The transfer allows you the freedom to give up to $100,000 from your account to NYFOA, which will reduce your adjusted gross income, satisfy your minimum distribution, and demonstrate your clear commitment to NYS forest stewardship. Note, donations made out of an IRA do not qualify for an itemized deduction.

It's important to also note that, to satisfy requirements of the new law, your IRA administrator - not you personally - must send the gift directly to the charity of your choice. Please consult your tax advisor to learn more about how both you and NYFOA can benefit from the charitable IRA roll-over this year.

From the President (continued)

to get their input. It is anticipated that this feedback will be used in formalizing a final set that will be presented to the full membership before the end of this year.

Finally, a reminder of a NYFOA benefit. If you wish to subscribe to the *Northern Woodlands* magazine, NYFOA members may do so at a reduced rate. To take advantage of this, contact our Office Administrator, Liana Gooding, via the contact information on the inside front cover and mail a $15 check or send/call in credit card information. Alternatively, you can include the subscription monies with your membership renewal payment,

Here's hoping you had a great summer on your land and are looking forward to a rewarding fall.

–Jim Minor
NYFOA President

Would you like to receive an electronic version of future editions of *The New York Forest Owner*? If so, please send Liana an email (lgooding@nyfoa.org).

You will receive an email every two months that includes a PDF file of the publication. While being convenient for you – read *The Forest Owner* anytime, any place; this will also help to save the Association money as the cost of printing and postage continues to rise with each edition.

Restore New York WOODLANDS

For information related to the Restore New York Woodlands Initiative, visit the NYFOA webpage at www.nyfoa.org Also, visit and 'like' RNYW on Facebook

NYFOA STORE

Show your support for the Association! All items display the NYFOA logo.

1. Sweatshirt.....$20.00
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Grey M, L, XL

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Green M, L, XL
Grey M, L, XL

3. Short Sleeve T-Shirt.....$10.00
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All shirts are heavy weight cotton with white lettering on the green and green lettering on the grey.

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Make check payable to NYFOA. Send the completed form to: NYFOA, P.O. Box 541, Lima, New York 14485. Questions? Call 800-836-3566

Ask A Professional

PETER SMALLIDGE

Peter Smallidge

Landowner questions are addressed by foresters and other natural resources professionals. Landowners should be careful when interpreting answers and applying this general advice to their property because landowner objectives and property conditions will affect specific management options. When in doubt, check with your regional DEC office or other service providers. Landowners are also encouraged to be active participants in Cornell Cooperative Extension and NYFOA programs to gain additional, often site-specific, answers to questions. To submit a question, email to Peter Smallidge at pjs23@cornell.edu with an explicit mention of "Ask a Professional." Additional reading on various topics is available at www.forestconnect.info

Question:
What tree species should I plant? (From Joseph V., Western Finger Lakes)

Answer:

Summer and early fall is the correct time to think about planting the following spring. The next few months can be used to control competing vegetation at the planting site, select a planting design, research sources for seedlings, and borrow or buy the necessary planting equipment. A bulletin addressing all aspects of tree planting is available through the publications link and then within the woodlot management section of *www.ForestConnect.info* A network of woodland owners with a wealth of experience in tree planting (and other topics) can be accessed via *http://CornellForestConnect.ning.com*

The appropriate tree species to plant will be influenced by three factors. These factors include soil properties, deer and rodent pressure, and owner objectives. Owner objectives and deer and rodent pressure are fully addressed in the tree planting bulletin mentioned above and in previous articles. This article will focus on educational tools and resources that owners can use to help select trees to ensure they match soil properties at the site.

Most people are familiar with common patterns of trees and soils. For example, willow on wet soils, black oak on dry soils, or jack pine on sandy soils. These patterns illustrate the importance of planting tree species on soils that are capable of supporting them. Matching a tree species to the characteristics of a site is an essential, perhaps the most essential, consideration when initiating a tree planting project. A species planted into a soil that won't support it will almost certainly result in frustration for the owner or even failure of the planting.

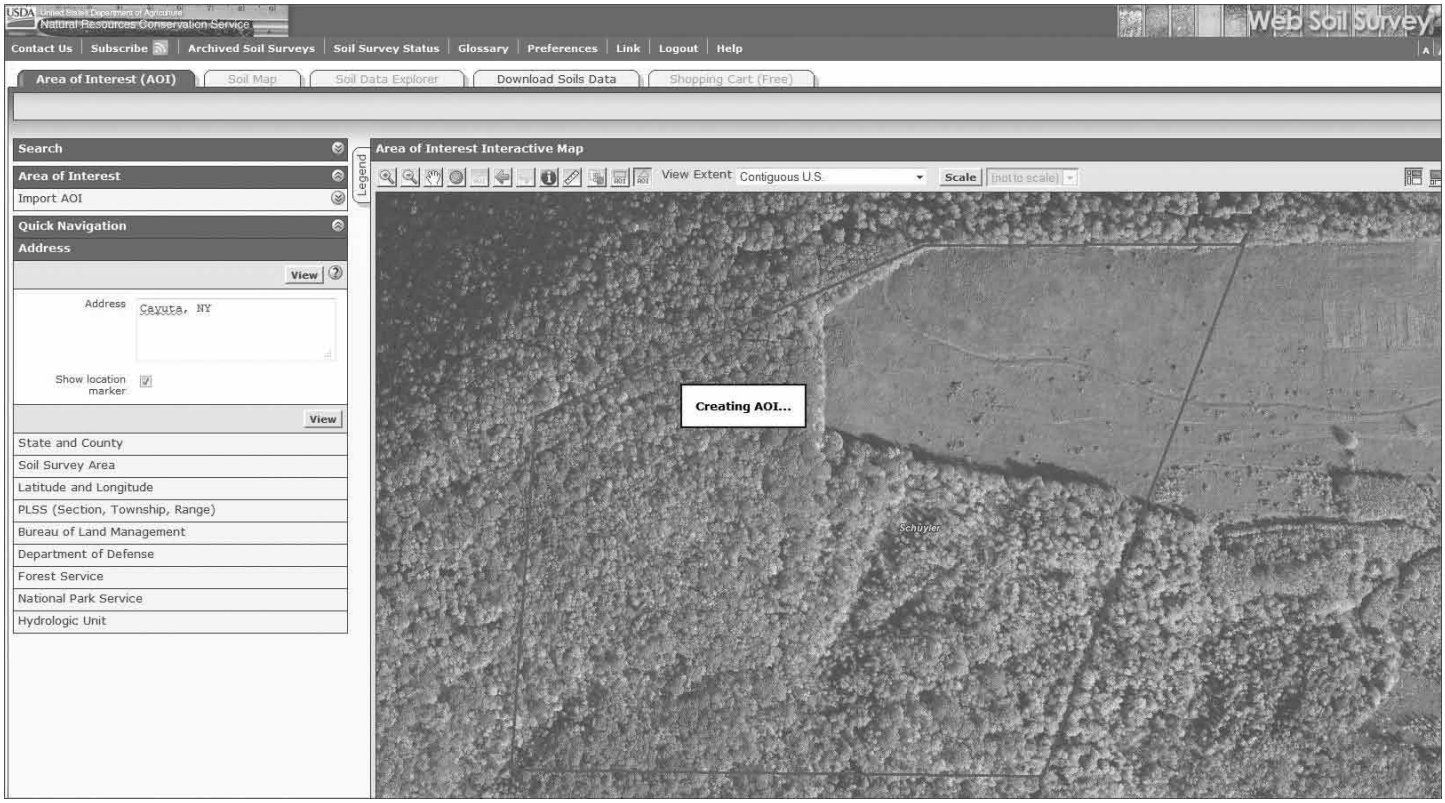

Figure 1. The Web Soil Survey starts by allowing the owner to define their Area of Interest (AOI). The AOI focuses the output to those soil series included within the AOI.

Tree species that are off-site are more likely to have health problems, respond more dramatically to stress, and recover more slowly from problems. Trees have a long-term relationship with the soil, a relationship that provides moisture, minerals, and stability. The correct match of tree species and soils helps ensure success.

A slight caveat to this encouragement to match species to soil is that good soils will support almost any species. A good soil has adequate moisture, but good drainage. Good soils are nearly neutral in pH and thus allow the trees to uptake the necessary nutrients. However, while these soils would likely support the species of the owner's interest, they also support most other species and thus competition with other plants can be significant.

Learning About Your Soils

This article provides a starting point for owners to begin to learn more about their soils and soil science. For the tree's perspective, the owner needs to learn about at least the soil texture, soil drainage, and rooting depth. These characteristics of a soil profile, the change in soil properties from the soil surface down, influence the ability of a tree to establish, grow, and thrive. Soil texture is the relative proportion of sand, silt, and clay. Soil drainage describes the availability of water, and importantly if there is poor or excessive drainage. Rooting depth indicates the ability of a tree to establish a well-formed root system, or if root systems will be shallow. Beyond these physical properties, soils also have chemical properties that influence tree growth.

A tried and true resource for woodland owners to learn about their soils is to visit their county office of the Soil and Water Conservation District (SWCD). The SWCD is a local partner to the Natural Resources Conservation Service (NRCS), a federal agency of the US Department of Agriculture. In each county the SWCD has staff who can help owners learn about their soils, and connect owners to resources of the NRCS. Historically, SWCD staff have used printed copies of the soil survey to guide landowners in planting decisions.

Map Unit Legend

Schuyler County, New York (NY097)

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
ArB	Arnot channery silt loam, 3 to 8 percent slopes	4.8	6.4%
BaD	Bath channery silt loam, 15 to 25 percent slopes	0.2	0.2%
LoB	Lordstown channery silt loam, 3 to 8 percent slopes	7.4	10.0%
LoC	Lordstown channery silt loam, 8 to 15 percent slopes	40.5	54.6%
LoD	Lordstown channery silt loam, 15 to 25 percent slopes	0.0	0.1%
LTF	Lordstown-Arnot complex, very steep	0.5	0.7%
MrC	Mardin channery silt loam, 8 to 15 percent slopes	0.1	0.2%
MrD	Mardin channery silt loam, 15 to 25 percent slopes	1.7	2.2%
VoB	Volusia channery silt loam, 3 to 8 percent slopes	8.6	11.5%
VoC	Volusia channery silt loam, 8 to 15 percent slopes	10.3	13.9%
Totals for Area of Interest		**74.1**	**100.0%**

Figure 2. The map legend lists the soil series present in the Area of Interest, including the acres for each series and its contribution to the total area. The map legend allows access to details about the physical properties of each soil series.

For some owners, an online resource will be helpful. The "Web Soil Survey" (WSS) will be fully sufficient for the needs of some owners, and for other owners the WSS will help them develop informed questions to ask of their local SWCD specialist. The Web

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New York State Tree Farm News

Erin O'Neill

I can't believe another fall is upon us. Once again the leaves will be changing; the hunters will be donning their blaze orange and tracking their favorite wily forest creatures and we'll be stacking firewood for another long New York winter! As the leaves turn colors, it's a great time to use a tree ID book out on your property, call your local master forest owner, or your own forester to take a look at what kind of trees you have on your property. Red maples turn that vibrant red and oaks have a golden hue.

As those leaves start to fall, you know what I always tell you, get out there and maintain your posted signs! Place the sign at eye level and at intervals of not more than 660 feet apart or at any change in boundary line direction. You can place them closer if experience with trespassers suggests you should. Make sure you post along road frontage, water frontage and on fence posts along open areas. If you allow hunting on your property, it's good for your hunters to know where your property ends and another begins.

If you don't allow hunting, and you own enough land around your house for someone to hunt safely, consult with a local professional about what wild animals are found on your property and if your forest management is being affected by an overabundance of deer or turkey. You may consider a hunting lease with a local club or letting a few neighbors cross those boundary lines once in a while.

Before you begin the firewood process, think about the goals for your woods. Although firewood cutting is compatible with many landowner's interests, some trees might be good choices to leave for use by wildlife, or to grow for quality timber. When you inspect your woodlot for firewood trees, you may look for trees with evidence of disease, like cankers, bleeding lesions, and die-back in the crown. If you have trouble with this, call in a forestry professional for help.

Crooked or densely arranged hardwoods often make for good firewood, allowing you to also create space in the stand. Remember indoor wood stoves should be operated only with hardwoods like sugar and red maples, hickory, oak, ash and beech. Softwoods like pine containing too much pitch should be avoided for safety reasons. For more information Cornell Cooperative Extension has a Firewood Fact Sheet you should refer to.

If you're looking for a forester, a great place to start is always contacting a Tree Farm inspector. Just remember, a Tree Farm representative is only a phone call (1-800-836-3566) or e-mail (nytreefarm@hotmail.com) away.

Erin O'Neill is the Chair of the NYS Tree Farm Committee.

Kid's Corner

Derek J. Conant

NYFOA Board member Dave Williams (left) is enjoying help from his son Todd Williams and grandchildren Oscar, Finn, and Sophie Williams, while operating his Woodmizer sawmill. "Making memories and turning our timber into lumber, pure joy!" Dave's property is located in Bainbridge, NY.

Do you have a photo of you and your kids or grandkids in your forest? If so, *The New York Forest Owner* would like to see it! Send an electronic or hard copy to *Forest Owner* editor, MaryBeth Malmsheimer, and it may end up on this page!

Fall Foraging For Nuts

It's autumn and trees have spent the warm days of spring and summer putting energy into fruit and nut production. The fruits and nuts that trees produce play a very important role in nature. They can become a new generation of trees or serve as food for humans and animals. In autumn, most fruits and nuts have ripened and fall to the ground where they then can be eaten by animals for food or germinate in the ground. In forestry, the term we use for nuts and fruit is mast. A few common trees that contribute to forest mast and that are a favorite among wildlife are oak, hickory, and beech trees.

Nuts from an oak tree are called acorns. Acorns are one of the most valuable nut food sources for wildlife. Typically acorns begin to drop from trees in the middle of September and are resistant to decay for several months. For some animals like deer and squirrels, acorns can make up to 25% of their diet in the fall. Nutritional values in acorns depend on which species of oak tree they come from, but all acorns contain large amounts of protein, carbohydrates and fats. They also provide much needed minerals such as calcium, phosphorus and potassium. Please see the photo below to help you identify an acorn.

Acorn Nut. Milan Zubrik, Forest Research Institute - Slovakia, Bugwood.org - See more at: http://www.forestryimages.org/browse/detail.cfm?imgnum=5378525#sthash.bD5WV0CA.dpuf

Similar in nutritional value to acorns, hickory nuts provide a much needed food source to forest animals. But unlike acorns, hickory nuts grow within a husk. A husk is a protective covering that develops around the nut in four sections. Depending on the species of hickory tree, the husk around the nut can be thin or thick. Hickory nuts are generally preferred by animals and humans over acorns because they are less bitter. The bitterness in nuts is from the naturally occurring tannic acid. The more bitter the nut the more tannic acid it has. In United States, indigenous people and settlers have been eating hickory nuts for centuries.

Hickory Nut Photo: Paul Wray, Iowa State University, Bugwood.org

Beechnut photo: Rob Routledge, Sault College, Bugwood.org

If you have ever eaten a pecan you have eaten a type of hickory nut! Please see the photo to the left to help you identify a hickory nut.

As wildlife forage in autumn to prepare for winter, another important nut they consume readily is the beechnut. Beechnuts are similar to hickory nuts in that they also have a husk and are rich in nutrients but are different in shape. The husk of a beechnut isn't smooth like a hickory nut. Instead the husk of a beechnut has spines looking similar to a burr. Please see the photo above to help you identify a beechnut.

As you walk through the forest this autumn see if you can find these nuts on the ground. And if you stay still long enough you may have the opportunity to see wildlife eating them in preparation for winter.

Derek Conant is a Natural Resources Educator at Cornell Cooperative Extension of Onondaga County

Wild Things in Your Woodlands

Kristi Sullivan

Black Bear *(Ursus americanus)*

Almost all New York black bears are black, although on rare occasion bears may be cinnamon or blonde in color. The muzzle is tinged with tan, and often bears will have a white blaze on their chest, sometimes in a prominent "V." The fur is thick, long, and fairly soft, and males and females are colored alike. The largest bear reported from New York weighed about 750 pounds. Males, called boars, are larger and heavier than females (sows). An average adult male weighs about 300 pounds and an average adult female weighs about 170 pounds. When standing on all four feet, black bears are less than 39 inches (1 meter) in height at the shoulder, and are seldom more than 78 inches (2 meters) long from tip of nose to the tip of the tail. Black bears are surprisingly agile; they can run up to 35 mph, climb trees and swim well. In the wild, black bears may live for 21-33 years, though the average age of bears harvested in New York is 5 years.

Black bears occur throughout New York State, though they are most abundant in the Adirondacks, the Catskills, and the southern tier along the border with Pennsylvania. Though they commonly inhabit large, extensive areas of forests, they are adaptable and use open and developed areas where shelter or thick cover, and abundant food, can be found nearby. New York State has a relatively high percent of forest cover, diverse food sources and an abundance of water. As agricultural lands have been abandoned and reforestation has occurred, New York's bear habitat has improved and significantly increased in area during the last 100 years.

As fall borders on winter, New York's 8,000 black bears are finishing their fall feast, after eating heartily for months in preparation for dormancy. Though typically most active at dusk and dawn, during the fall they may feed for up to 20 hours a day, ingesting up to 20,000 calories! Bears are omnivorous, eating almost anything, from berries, corn, acorns, beechnuts and even grass, to table scraps, dead animals, honey and insects. In a recent study of fawn survival in Pennsylvania, bears surprisingly were a major predator of fawns, second only to coyotes.

As cold weather arrives, black bears end the feast and seek out den sites. Though black bears are not true hibernators, they usually undergo a dormant period during the winter. Typically, female bears enter a den during October or November, and males enter their dens in November or December. The winter den may be a hollow tree or log, a crevice in a rock ledge, a cavity under a large rock or beneath the roots of a tree, or a "nest" on top of the ground or under fallen trees or brush. Bears will also den in drainage culverts or a depression dug in the ground. Some bears line their dens with bark, grasses or leaves. Females often select more sheltered sites than males. Males den alone, as do pregnant females (they give birth in the den), and females with cubs born the previous winter den with their young. A dormant bear's heart rate and breathing slow, and its body temperature drops slightly. During this time they do not eat, drink, or pass body wastes, and may lose a quarter of their body weight. Though a dormant bear relies on stored fat to make it through the winter, they may emerge if disturbed. Males leave their dens in March or April. Females and their cubs leave their dens later, sometimes as late as May.

In New York State, female black bears generally become sexually mature between two and five years of age, and males become sexually mature at four to six years of age. Bears are polygamous

and breeding occurs from late May until perhaps as late as September. Cubs are born at the end of January or early February. Litter size varies from one to five, but two or three are most common in New York. Cubs den with their mothers during their second winter and disperse as yearlings during the second spring or summer. In New York, adult female bears regularly breed every other year.

The black bear is a wide-ranging animal (adult females have a home range of 1 -15 square miles and adult males have a home range of 8-60 square miles), and few properties are large enough alone to provide all the black bears needs. However, private landowners can take steps to manage their woodlands to provide food and cover for this magnificent animal. Encouraging a diversity of mast-producing trees like oaks and beech, and berry-producing shrubs, like blueberries and blackberries, can provide food for bears living in the area or just passing through. In addition to natural foods, a planted white and red clover food plot mixture has attracted bears during the cooler seasons. Providing cover in addition to food can also benefit bears. Retaining trees with large cavities, specifically those at the base of trees, can provide good denning habitat. Leaving tree tops following a timber harvest, or fallen trees in unharvested forests, can also supply denning cover.

Besides enhancing habitat in areas that bears might use, the best way to provide a safe environment for these animals is to avoid purposely feeding bears and remove access to garbage, bird feeders, pet food, livestock feed, and other attractants. Once bears find an easy meal they will return as long as food is available. The best way to stop a bear from coming into inhabited areas is to remove the food source for a month or more, but even then, there are no guarantees. A persistent bear may damage property, increase the risk of human injury, or become an unwanted visitor in other parts of the neighborhood. Bears who associate people with food are more likely to be killed by vehicles, and may be killed to alleviate safety or nuisance concerns. Unfortunately, the old saying does have much truth to it – a fed bear is a dead bear. By not feeding bears artificially, landowners can do a lot to guarantee their survival.

Additional information on about the black bear and wildlife damage issues can be found at http://wildlifecontrol.info/newdmc/pdfs/blackbear.pdf

Kristi Sullivan is Co-Director of the Conservation Education and Research Program, and Director of the New York Master Naturalist Program at Cornell University's Department of Natural Resources. More information on managing habitat for wildlife, as well as upcoming educational programs, can be found by visiting the Conservation Education and Research Program web site at ArnotConservation.info

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For more information
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* Minimum order is 50 signs with additional signs in increments of 25.

Native Vines

Valuable wildlife plant or forest villain?

Jim Engel

Take a walk in any natural area throughout our region of New York State and you are almost certain to find at least one of three common vines growing. Virginia creeper (*Parthenocissus quinquefolia*), Poison ivy (*Toxicodendron radicans*) and Wild grape (*Vitis spp*) are ubiquitous in the landscape. They are so common and relatively easy to identify that even when people learn to recognize them by leaf, fruit or vine they don't give them a second glance. All three native plants provide important benefits for native wildlife, but at the same time they may have undesirable impacts for people and on the ecosystem they inhabit. For good or bad they are here to stay; they are widespread and if you spend any time in the outdoors you will certainly encounter them.

From our human perspective each of these vines has a good side and a dark side that invites a little more exploration of the role they play in our surroundings and how these plants impact us both positively and negatively. If a plant bestows positive benefits to humans we bless it and say that it is good, if it has some traits that impact us negatively we say that it is bad. A plant we consider good, we will try to conserve or even encourage on our land, while one we define as bad will be condemned and banished from our property. For each of these vines, whether you classify it as good or bad will depend on how you view the world, your personal interests in nature and what your management objectives are for your property. How do you reconcile a plant that has both good and bad qualities? That is the dilemma!

For all three of these species their benefits and their detractions are somewhat similar and for convenience can be lumped together. All three plants produce prodigious quantities of nutritious, high quality, bird sized fruits that many songbirds favor. The abundance of ripe fruit timed to coincide during peak bird migration makes these species invaluable to birds

Virginia Creeper. James H. Miller & Ted Bodner, Southern Weed Science Society, Bugwood.org

Poison Ivy. Paul Wray, Iowa State University, Bugwood.org

especially where most other native shrubs and trees are absent. Fruit that is not consumed during fall will remain and provide food during winter. All three plants provide important bird cover that makes for choice foraging, resting and nesting cover. Most birds that prefer thick cover, such as gray catbirds, northern cardinals and common yellowthroats will be found in dense tangles created by these vines. All three species grow, reproduce and spread very easily and are found growing in a range of habitats from the interior of forests to hedgerows, forest margins and old fields. For all of these reasons these three vine species are considered important wildlife plants and should be conserved if your objective is to promote birds and other wildlife.

The rapid growth habit and prolific fruit production that makes them such good wildlife plants also bestows upon them the characteristics of serious nuisance plants. On the forest edge, in young woodlands, hedgerows and shrubby fields where these vines can take full advantage of the available sunlight they will dominate and climb over all other plants, often to the detriment of those other equally valuable native species. The nature of vines is that they climb, use other plants for support and can climb faster than other plants can grow. That rapid growth enables the vines to reach the outer most canopy of foliage using the host plant for support. Once the vines have reached the outer canopy they will effectively cover the outer surface and out-compete the host plants for sunlight. As the vines intercept more and more of the sunlight and keep it from reaching the other plants underneath, those plants will decline in vigor, produce fewer seeds, struggle to stay alive and some will eventually die from being out-competed. The intense competition for resources can over time and in some circumstances create a monoculture of vines which

Wild Grape. James H. Miller & Ted Bodner, Southern Weed Science Society, Bugwood.org

when taken to extremes reduces plant diversity and therefore reduces the over-all biological diversity of the area.

If forest stewardship and wood resources are your goal, the impact on forest health and timber production can be just as severe. In a mature forest with a closed canopy and dense shade these three vines have a low capacity to cause serious harm, but these conditions are seldom the norm in most forests. In dense shade the vines may be present but they will struggle to grow in the shade and their route to reach the forest canopy is slow and uncertain. In a young stand of trees, or a forest that has been recently cut or suffered a natural disaster such as wind throw or insect mortality the situation can be quite different. The difference between the two depends on the amount of available sunlight and the age of the vines in relation to the age of the trees. Large vines that are suddenly exposed to extra sunlight from an opening up of the canopy can

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Woodland Health

A column focusing on topics that might limit the health, vigor and productivity of our private or public woodlands

Coordinated by Mark Whitmore

Return of the Gypsies

By Dylan Parry

With apologies to Mark Twain, 2013 showed that rumors of their demise have been greatly exaggerated. For those who lived through the 'big bug' era of the 70's and early 80's, the gypsy moth was public enemy number one for forest managers and entomologists alike. Many of us who have entered the field more recently, however, have viewed gypsy moth more as an interesting historical anecdote, as we battle against contemporary foes like emerald ash borer, Asian long-horned beetle, and hemlock wooly adelgid. After languishing in obscurity for the better part of two decades in much of our region, the reappearance of gypsy moth outbreaks underscore why this insect was considered such a scourge and why we should not be so quick to dismiss its importance.

Since its introduction and accidental release in the late 1860's, the spread of gypsy moth has continued unabated. What has changed however is the nature of its outbreaks. Up until the mid-80's, gypsy moth outbreaks were becoming larger and larger – nearly 14 million acres were defoliated in 1981. In 1989, another regional outbreak was well underway when an event occurred that likely fundamentally changed the population dynamics of this insect in North America. While that outbreak peaked at nearly 8 million acres, annual defoliation since then has never exceeded 2 million acres nationally despite large increases in the geographic range gypsy moth occupies.

What changed? In the spring of 1989, foresters woke up to millions

Figure 1. Dead and dying gypsy moth infected with the fungal pathogen Entomophaga maimaiga. Characteristically, infected larvae congregate on the trunk of trees with their heads pointing toward the ground. As they die they release spores into the soil which can remain active for years, infecting future generations of gypsy moth which contact them. Photo: D. Parry 2013

Fig. 2. Extensive ridgetop defoliation in Allegany State Park in 2013. A wide swath of defoliation extended from western New York down through the Allegheny National Forest in neighboring Pennsylvania. Photo: D. Parry 2013.

and millions of dying gypsy moth across New England. They were dying from a fungal pathogen never seen previously in North America. While the arrival of this fungus, *Entomophaga maimaiga* (Figure 1), native to Japan, is mysterious (it was deliberately introduced in 1920 but never detected again, suggesting an accidental more recent reintroduction), it has profoundly affected gypsy moth populations ever since. While outbreaks still occur, the large regional population increases characteristic of gypsy moth prior to 1989 are much reduced and in many areas of the Northeast, gypsy moth has been relegated to a minor pest.

The change in the pest status of this insect has unfortunately bred a bit of complacency in forest managers. While *Entomophaga* remains a devastatingly effective killer of gypsy moth larvae, the efficacy of the fungus is environmentally sensitive and it doesn't take much abatement before gypsy moth populations explode, to the surprise of many in the forestry community. Generally, we haven't had enough consecutive years favorable for gypsy moth (or unfavorable for the fungus) to return to the vast outbreaks of the past, but a large outbreak in NJ and eastern PA in 2007-2009 and this years extensive defoliation (Figure 2) across western PA and 160,000 acres of southwestern NY serves to remind us that gypsy moth should not be dismissed as a concern.

Although the transformation of June forest canopy into a December landscape seemingly overnight certainly looks dramatic and the pitter patter of millions of caterpillars eating, pooping, and crawling can be disconcerting to recreational forest users, should we fear for the long term health of our forests from a wood products standpoint? That is actually a pretty tough question and depends on many different factors. The first thing to consider is that healthy hardwood trees are remarkably resilient to even severe defoliation episodes. Hardwood trees refoliate by breaking dormant buds and producing a second set of leaves to replace those lost to the caterpillars. This is physiologically expensive and diameter and height growth will certainly be reduced as the tree allocates resources to refoliation. Most trees will have some minor branch dieback following defoliation and many suppressed or already unhealthy trees may die. On a good site though, most healthy stands can withstand a single year of complete defoliation with relatively modest long-term effect.

On the other hand, additional stress factors such as drought or poor site conditions can greatly exacerbate the effects of defoliation and stand health can deteriorate rapidly following even a single defoliation event. The legacy of the recent gypsy moth outbreak in the Poconos and central PA is still visible today, with extensive mortality of co-dominant oaks and other hardwoods especially prevalent on ridgetops and steep slopes. Regardless of pre-defoliation stand health, forest owners need to avoid adding any additional stressors such as thinning or selective harvest until after the outbreak subsides, as trees are physiologically weakened and vulnerable to opportunistic pathogens and wood-boring insects.

As with other defoliators such as for-

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est tent caterpillar, management options for gypsy moth are limited because the scale of outbreaks is so large. Once an outbreak starts, there are only two approaches, each with pros and cons and each contingent on short and long-term management objectives. One strategy is simply to allow nature to run its course. For some forests, this is probably the best approach. With this approach there almost certainly will be some mortality of oaks and other valuable hardwoods, although the extent is highly dependent on stand conditions and environmental factors such as precipitation during and after defoliation. For high value stands or forests with significant recreational value, there are a several products available that are environmentally benign. *Bacillus thuringiensis* (*Bt*) formulations for forestry application are available for gypsy moth and for environmentally sensitive areas, the more expensive but highly selective viral pathogen GypChek can be used. This product was used to protect foliage in several recreational areas of Allegany State Park in 2013.

The real key to minimizing damage to gypsy moth is effective stand management prior to an outbreak beginning. If you are in an area where gypsy moth outbreaks have occurred historically (i.e. Catskills, Allegany) and have stands with a high proportion of favored trees like oaks, there are many state and federal publications that provide guidelines for reducing the susceptibility and sensitivity of trees to defoliation from gypsy moth. Best management practices for forests in areas where gypsy moth is a concern involve selective harvest to change species proportions (reducing the likelihood of defoliation) and thinning (reducing stress on trees should they be defoliated). Being proactive prior to an outbreak may pay dividends down the road. Studies have shown that vigorous canopy co-dominant oaks suffer significantly lower mortality after defoliation than co-dominants with lesser crown condition or trees that are partially suppressed.

The absence of significant gypsy moth defoliation from some areas of the state for the better part of 20 years may have allowed our guard to drop. This is a remarkably resilient and adaptable insect and even though *Entomophaga* has given us a reprieve, it only takes a few favorable years for gypsy moth populations to reach levels that can defoliate. For those who experienced defoliation this year, be heartened, preliminary observations in the Allegany suggest that the rainy June and early July provided perfect conditions for *Entomophaga* to decimate the high gypsy moth populations and it is unlikely that we will see anywhere near the level of defoliation in 2014 that we saw this year.

Dylan Parry is an Associate Professor of Forest Entomology at the State University of New York College of Environmental Science and Forestry, Syracuse, NY.

Mark Whitmore is a forest entomologist in the Cornell University Department of Natural Resources and the chair of the NY Forest Health Advisory Council.

Report — Forestland Productivity

Schuyler County, New York

Map unit symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site Index	Volume of wood fiber	
			Cu ft/ac	
ArB—Arnot channery silt loam, 3 to 8 percent slopes				
Arnot	Eastern white pine	55	86.00	Eastern white pine, European larch, Red pine
	Northern red oak	55	43.00	
	Sugar maple	50	29.00	
	White ash	55	29.00	
BaD—Bath channery silt loam, 15 to 25 percent slopes				
Bath	Black cherry	75	43.00	Eastern white pine, European larch, Norway spruce, Red pine
	Northern red oak	70	57.00	
	Sugar maple	65	43.00	
LoB—Lordstown channery silt loam, 3 to 8 percent slopes				
Lordstown	Northern red oak	70	57.00	Eastern white pine, European larch, Norway spruce, Red pine
	Sugar maple	73	43.00	
	White ash	75	43.00	

Figure 3. The Soil Data Explorer describes specific soil characteristics of the soil series within the area of interest. These characteristics, some shown in this figure, are useful in helping to decide how to manage for certain types of forest vegetation.

Soil Survey can be found through your browser search engine (or see links at the end of the article). The WSS is a great resource, but presumably because of the large amount of information the processing speed is slow for some computers and internet connections.

The WSS starts by allowing the owner to identify their location, known as their "area of interest." The area of interest (AOI) might be the specific location to be planted, or the entire property to compare options among potential planting sites (Figure 1). There are different ways to identify location, but often a street address or the name of the nearby village will suffice. A map is displayed, and the owner can reposition and zoom to find their property. Once the property is located, the online tool allows the owner to draw boundaries of the property to focus the remainder of their inquiry into soils. Owners will benefit from being able to visualize their property, some landscape features, and how their property connects with their neighbor's property.

After defining the area of interest, the owner selects the "soil map" tab. Selecting the soil map tab will display the soil series (the soil equivalent to species) that occur within the AOI. Soil series are named, and have specific and predictable properties. The soil mapping feature will provide access to detailed descriptions of the properties of the soils on your property (Figure 2). Owners can use the soil series map to help them visualize and perhaps explain differences in forest vegetation. Forest vegetation reflects soil properties and previous management. A case in point, stand boundaries often follow soil boundaries when they are associated with prominent changes in texture or drainage.

Once the WSS maps your soils, use the "Soil Data Explorer" to learn uses and limitations for the different soil series. The soil data explorer will help owners understand what species of trees would be successful on a given soil. The WSS site provides considerable access to information about soils including definitions for numerous technical terms on the site. The WSS site provides definitions of features, and the details of those features for the AOI selected. The owner will need to spend some time exploring the features of the WSS to gain an understanding of the types of information available.

Back to the question of what tree to plant, the figures provide an example. The soils information, and table of prop-

continued on next page

erties of soils, gives useful suggestions. The WSS table of forest productivity (Figure 3) illustrates a list of the common species, the site index value for each species (a measure of how well a tree will grow on a given site), and species recommended for planting and management. In this example, notice that northern red oak and sugar maple have a higher site index on the Lordstown soil series than on the Arnot soil series. These species are common to both soil series, but will perform better on the Lordstown soil which has slightly better access to water. Although conifers are the most commonly recommended trees for planting, owners can use other features of the WSS and conversations with SWCD staff and foresters to select hardwoods species likely to succeed on a given soil series.

In some cases, the owner might be interested in a particular species and therefore want to know if the soil will be conducive to the growth of that species. A species might be compatible, but not listed on the soil series database. In this case, the owner can discuss the specifics with a forester. In addition, the owner can review the soil needs of a particular species in the *Silvics of North America* and see if the soil series in question matches the needs of the species. Also, the tree planting bulletin includes a table of tree species that match a variety of soil properties. Finally, remember that unless the landowner protects the newly planted trees from deer browsing, all the planting efforts will be in vain.

Online Resources

Web Soil Survey
http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm

Tree Planting Bulletin
http://www2.dnr.cornell.edu/ext/info/pubs/management/TreePlantingBulletin12-09.pdf

Silvics of North America
http://www.na.fs.fed.us/spfo/pubs/silvics_manual/table_of_contents.htm

Peter J. Smallidge is the NYS Extension Forester and Director Cornell University Arnot Teaching and Research Forest. He can be reached at email:pjs23@cornell.edu or visit his website at www.ForestConnect.info

Native Vines (continued)

quickly take advantage of this opening and fill the gap, effectively eliminating forest regeneration and potentially damaging the adjacent trees. Vines often take advantage of logging roads, trails, power lines or any opening that is created in a closed canopy forest, which allows the vines to capture more of the sunlight and compete for resources with the established trees.

Where I see the greatest damage to forest trees from vines is in forests where both the trees and vines became established when the forest was young. This commonly occurs after an agricultural field was abandoned and has undergone plant succession. If you went back in time to the early days of this young forest you would see an early successional forest with sapling to pole size trees. There is plenty of available sunlight for both the trees and vines to grow fast and tall. As the trees grow taller the vines are able to keep pace. Not all of the trees will have an accompanying vine but many will. The number of vines will determine to a great extent the health and vigor of the future forest. The race for the sky is on. If the vine is able to win the race there may be a hole in the forest canopy where the vine outcompeted the young tree for sunlight, the tree subsequently died, the trunk decayed and eventually both fell to the ground. If the tree won, the battle for light would continue for many decades. An uneasy truce may have been struck with neither the trees nor vines having the upper hand. In these forests the vines can reach a massive size and considerable age. Occasionally the vine will die from some unknown cause leaving the tree to reach old age intact, but more likely the vine will outlive the tree. The added weight from a heavy snow, an ice storm, or high winds on the added mass of the vine will throw a tree or snap the trunk or large branch. The vine suffers damage along with the tree but the vine can more easily recover and survive such a disaster.

There are a few differences between the species, in growth habit and their affects on other plants, that bear mentioning. Each vine is unique in how it climbs and attaches itself to a tree. Wild grape climbs using slender tendrils that grow from young canes and twine around anything they touch. Grape vines require small branches that the tendrils can wrap around for support to enable the vine to climb. Poison ivy has numerous hair-like roots along the length of the vine that attach to any hard surface, and Virginia creeper uses suction cups on the end of branched tendrils that adhere to the bark. Both Virginia creeper and poison ivy are able to grow straight up a tree trunk while wild grape tends to wrap around the trunk or drape over branches as it grows in its quest for the canopy.

Poison ivy and Virginia creeper often carpet large areas of the ground and function like a ground cover as they spread horizontally from underground roots and from canes growing over the soil surface. Whenever a vine encounters a sold object such as a stem or trunk it can then use that object to grow vertically towards sunlight. All three species will grow just as readily in full sunlight in old fields as in the forest. The vines creep through the grasses and forbs until reaching a solid object like a shrub to climb on. This gives the vines a distinct head start as the old field moves through the stages of succession towards shrubland or woodland. The head start the vines have may even prevent the shrubs and trees from getting established, creating a permanent jungle of vines.

After weighing all of the benefits and negatives of these vines, my personal recommendation for managing all three species is to cut and treat all of the vines I encounter. I recommend this strategy because I know there will always be plenty of vines around to provide for wildlife. Their rapid growth, explosive reproductive

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potential and available habitat ensures their future abundance. I cut the vines with the primary objective of encouraging other native plants like shrubs and trees that will be negatively impacted if the vines are left to grow unchecked.

I cut every vine that is climbing up a tree and those that have reached the upper canopy, especially large ones. I may leave a few vines that are on the ground or in the shade as they pose little threat. I try to eliminate poison ivy wherever and whenever I can. My added incentive is that the dermal reaction that poison ivy causes in people will restrict human use and enjoyment of the outdoors.

In open fields, I try to eliminate all three species as they will impede the future succession of the old field and make walking through the field all but impossible.

Simply cutting the vines will not kill the plant. Treating the cut with a systemic herbicide, typically glyphosate, is necessary to kill the root system and prevent new shoots from growing. Cut surface treatments usually use 25% to 50% glyphosate as active ingredient, or as directed by the pesticide label for the target species. When cutting the vine, cut as close to the root collar as is reasonable. Everything above the cut will die naturally; treating the cut surface with herbicide will prevent sprouting below the cut and hopefully kill the entire root system below the cut.

The negative affect of all three vines on the natural world is really an indirect result of human activity. Humans have created an overabundance of edge and old-field habitat where these plants are able to proliferate. This wasn't the case prior to widespread clearing of the forests for agriculture. Through our land use practices we have tipped the balance in favor of these native vines. On a property-by-property basis you have to decide how to reconcile both the positives and the negatives of each. That is the challenge!

Jim Engel is owner of White Oak Nursery and a member of NYFOA

Welcome New Members

We welcome the following new members (who joined since the publishing of the last issue) to NYFOA and thank them for their interest in, and support of, the organization:

Name	Chapter
Erika Barthelmess	NAC
W. Averell H. Bauder	WFL
Joan Bobbette	SAC
Al Bottino	LHC
Dan Carlson	WFL
Vince DiCarlo	WFL
Thor Eriksen	CDC
Jan Fals	SFL
Hans J. Farnung	WFL
Cindy Gersterzubrick	CDC
Jay Hennessey	SOT
Jon Hurlbut	SOT
Robert W. Irwin	AFC
Ken Klump	WFL
Chris Leonard	WFL
Carvel B. Martin	WFL
Martin Navojosky	CDC
Chris & Steve Reiser	SOT
Darrel Rippeteau	NAC
Rebecca Russell	SAC
James Sauer	NFC
Mark Eliot Schwabe	CDC
Jerry Schwartz	SOT
Paul Strombeck	LHC
Inger & David Williams	WFL

Member Profile:
Bruce and Charlene Revette

Maureen Mullen

Bruce Revette is an assistant professor at Morrisville State College and teaches Wood Products Technology and Construction. Bruce's wife Charlene works from home where she raised their five children and is now helping to raise their grandchildren

The Revettes were married in 1973. They knew that they wanted to own woodlands, so shortly after tying the knot, they began their search for a property they could call their own. It wasn't until 1979 that they found and bought a 65-acre parcel in DeRuyter, a small town in southwestern Madison County. The property was used as farmland in the early- to mid-1900s and the forested areas were logged in the late 1950s or early 1960s. The forest consists mainly of hardwoods: hard and soft maples, cherry, ash, and beech.

When the Revettes bought their woodland parcel, they began making small management decisions, such as improving the roads, marking their property boundaries, and becoming a Certified Tree Farm under the American Tree Farm System. In the mid-1980s, they worked with Richard Pancoe, a local DEC forester, to develop a management plan for their parcel. Then in 1986, the Revettes bought an adjacent 40-acre parcel of farmland and woods to expand their property (a small sliver of state land runs between the parcels). Since that time, the properties have been recertified as Tree Farms and they have developed and implemented management plans with Jeff Denkenberger at FORECON, Inc. in Cortland. The Revettes have completed

Charlene and Oliver admire her re-creation of the "Restore N.Y. Woodlands" logo on their machinery shed.

"Atticus" is never too far away when someone is heading for the wood lot.

five timber stand improvements, typically in 5- to 10-acre sections, with support from a Farm Bill program.

The majority of their land is wooded, except for a 2-acre section where the Revettes' home is located and 15 acres of farmland that they lease. Bruce says, "I just really enjoy cutting [firewood] with a tractor and a wagon. It's just one of those goofy things that I like to do." But they not only use the woods for income — through larger timber sales and smaller roadside stand sales — they've also established about three miles of tractor and hiking trails on their land. They say that their woods are great a place to enjoy nature: the parcels are surrounded by state land, so there is no noise from neighbors; Charlene enjoys searching for interesting bits of wood to make sculptures from; there are opportunities for hunting; and the creek that runs through the property has exposed some shale that provided hours of fossil hunting for their kids and now the grandkids.

The Revettes take pride in the successes they have achieved on their land, each with distinct perspectives. Charlene said, "I know when we go walking, Bruce is always looking up

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at the value of every tree in terms of timber, but I look at the beautiful blooms that are coming up in the floor and the violets and we have two different perspectives… and my joy of the forest is more from an artistic point of view." Bruce is most proud of the timber stand improvements they have done on the land and how healthy the forest has become: "Improvements in the size of the trees and how they take off after you eliminate the cull and you get firewood as a result, so it makes a big difference in the overall health of the forest." In 2005, they commercially logged 25 acres and removed a lot of beech. Bruce has spent the last several years trying to eliminate as much beech as possible; "I've become a beech terrorist!" Because he's able to spend so much time on the land, Bruce has managed to keep most of the invasive species — such as wild rose and honeysuckles — under control.

CNY chapter president Ralph Meyer (foreground) pointing out issues on the "Restore N.Y. Woodlands" woods walk we hosted on our farm in May of this year.

2012 deer harvest from our farm. Oliver wanted it as a pet.

Charlene is most proud of the time they've spent on the land. "We're like a king and queen in the middle of this forest and it's really been wonderful to have it for so many years." Charlene talked of the time when they had just bought the property, they were building their home, she was pregnant with their first child, and she planted a row of pines,"they're now 40 feet tall! So that's really quite the scene to look out the window and see how long we've had them." She also lists the "value of feeling independent" as a success. She says Bruce loves cutting firewood for heating and hot water and being able to use their lumber for walls and furniture.

The Revettes credit their forest management achievements to support from NYFOA members and NYFOA resources, such as Ralph Meyer, the current director of the Central New York chapter, and the magazine's informative articles. Bruce and Charlene do their best to attend the NYFOA meetings and join the woods walks. "It's a great organization; easy to join and the people are great to talk with!" said Bruce. They also get their information from the professionals at FORECON and also from NYS DEC foresters. Bruce says, "They're always willing to share their knowledge and anytime they come to do their inspections or timber stand improvements, I like to quiz them and they're always very helpful."

Bruce and Charlene recommend that other forest owners join NYFOA, do their best to control invasive species, and build tree forts! Charlene says, "As a child, I loved building tree forts and I've built one with each of my five children, and look forward to building one with all the grandchildren. Bruce also loves building tree forts, which he uses for deer hunting; another part of his forest management planning."

Maureen Mullen is an Extension Aide at Cornell Cooperative Extension, Human Dimensions Research Unit, Cornell University. Dr. Shorna Allred is the faculty advisor for the NYFOA Member Profile Series.

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MAGAZINE DEADLINE

Materials submitted for the November/December Issue issue should be sent to Mary Beth Malmsheimer, Editor, *The New York Forest Owner*, 134 Lincklaen Street, Cazenovia, NY 13035, (315) 655-4110 or via e-mail at mmalmshe @syr.edu Articles, artwork and photos are invited and if requested, are returned after use.

Deadline for material is October 1, 2013

Are you interested in a particular topic and would like to see an article about it.

Please send your suggestions to:
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Please share this magazine with a neighbor and urge them to join NYFOA. By gaining more members, NYFOA's voice will become stronger!

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