The New York Forest Owner

A Publication of The New York Forest Owners Association

For people caring about New York's trees and forests

January/February 2024

The Benefits of Black Locust

Volume 62 Number 1

NYFOA
New York Forest Owners Association
www.nyfoa.org

In This Issue . . .

The New York
Forest Owner

A Publication of The New York Forest Owners Association
Volume 62, Number 1

Jeff Joseph, Managing Editor
Mary Beth Malmsheimer, Editor

The New York Forest Owner is a bi-monthly publication of The New York Forest Owners Association, PO Box 644, Naples, NY 14512. 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; direct all questions and/or comments to jefffjosephwoodworker@gmail.com. Articles, artwork and photos are invited and if requested, are returned after use.* ***The deadline for submission for the March/April issue is February 1, 2024.***

Please address all membership fees and change of address requests to PO Box 644, Naples, NY 14512 or ckenney@nyfoa.org. (607) 365-2214. Cost of family membership/subscription is $55.

NYFOA
New York Forest Owners Association

www.nyfoa.org

Cover: Black locust is the most durable of naturally occurring woods in New York, making it ideal for fence posts and exterior lumber applications. Locust also has no equal for its utility in agroforestry settings such as this silvopasture. Photo courtesy of Brett Chedzoy. See story on page 4.

From The President

Greetings and Happy Holidays. Our association had a great round of four regional members' meetings this fall. The lineup of topics and speakers was first rate, covering subjects such as legacy planning, carbon programs, trends in large mammal populations

in NYS, NY Department of Environmental Conservation (DEC) programs that offer financial benefits to the private woodlot owner for implementing best stewardship practices, planting for pollinators, and more. Those who participated in the regional programs provided very positive feedback and recommendations and we plan to use this input to run a similar program in 2024. A big thank you to NYFOA's Executive Director Craig Vollmer for serving as the overall manager of these educational meetings and to our chapter representatives in each region who provided an array of organizational and logistical support for the events. We always need and welcome member participation and encourage you to take an active role in NYFOA events — as an attendee and as a chapter volunteer to support and improve NYFOA's various activities.

NYFOA is looking into an interesting possibility which will provide a real service to the private woodlot owner and stands to strengthen our financial situation. The DEC expects to receive a significant budget increase for its Regenerate New York (RNY) cost share program as one of many environmental/ climate change mitigation initiatives. Looking at this major budgetary 'tsunami,' DEC leadership plans to increase its cadre of contractors to help its staff manage expanded program oversight responsibilities. The DEC is working on an agreement with the Cornell University College of Agriculture and Life Sciences (CALS) to support several environmental programs. Nothing is a 'done deal' at this point. If this comes to pass though, NYFOA would serve as a sub-contractor to CALS and play an important support role in the RNY initiative.

What would be NYFOA's role? NYFOA would serve as the focal point to assist NYS applicants for RNY funding using the NY Grants Gateway system. For the uninitiated, the Grants Gateway system is NYS's required application process for DEC grant funding. This system is complex and daunting to use, particularly for a one-time application. NYFOA's role would be to provide RNY guidance, help applicants complete the application, and offer educational information to any interested NYS citizens. A DEC team (not NYFOA reps) would rank and select the projects for RNY funding. Our proposal to CALS includes hiring a part-time contractor to handle the day-to-day tasks of the program along with funding for overhead and extra hours for the executive director to manage the contractor and interface with CALS and the DEC as necessary. Our budget proposal includes outreach and educational support — to include NYFOA members and non-members. I wish to stress that taking on this role is consistent with NYFOA's mission to serve as an educational resource to the woodlot owner in NYS. In fact, the

continued on page 7

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.
( ) I/We do not own woodland but support the Association's objectives.

Name: _____
Address: _____
City: _____
State/ Zip: _____
Telephone: _____
Email: _____
County of Residence: _____
County of Woodlot: _____
Referred by: _____

Regular Annual Dues:

( ) Student	$20
(Please provide copy of student ID)	
( ) Individual/Family	$55
( ) Life	$750

Multi-Year Dues:

( ) 2-yr	$100
( ) 3-yr	$150

Additional Contribution:

( ) Supporter	$1-$59
( ) Contributor	$60-$99
( ) Sponsor	$100-$249
( ) Benefactor	$250-$499
( ) Steward	$500 or more

( ) Subscription to Northern Woodlands $15 (4 issues)

NYFOA is recognized by the IRS as a 501(c)(3) tax-exempt organization and as such your contribution may be tax deductible to the extent allowed by law.

Form of Payment: ☐ Check ☐ Credit Card
Credit Card No. _____
Expiration Date _____ V-Code _____
Signature: _____

Make check payable to **NYFOA.** Send the completed form to:

NYFOA
PO Box 644, Naples, NY 14512
607-365-2214
www.nyfoa.org

The Benefits of Black Locust

By Brett Chedzoy

In the March/April edition of the *Forest Owner*, I ended my article on reforestation opportunities in New York by proclaiming black locust to be: "… one of the easiest and most economical trees for (reforestation), and one that has real cash crop potential." It's time for an explanation, starting with excerpts from an article that I wrote a few years ago for the Association for Temperate Agroforestry's (AFTA) *Temperate Agroforester* newsletter detailing how black locust came to be one of my most admired trees.

With a year of forestry school under my belt, in 1988 I set about my goal of turning the field portions of our old dairy farm into forests. To my farmer-DNA parents' relief, I ran out of time to fully carry out the threat before heading off into the woods in other corners of the world. However, several productive springs of tree planting during my college years left behind young plantations that would gradually grow into something of unforeseen value for today's farming endeavors.

On the better sites, we planted a mix of black locust and black walnut. My fledgling knowledge of forest economics showed walnut to be a great "get rich quick" scheme, which in forestry terms means in fifty years or so. In hindsight, the brilliant part of that plan was the locust. Sure, the walnuts are still there and someday we will reap what we have sown. But the locusts have been a blessing in multiple ways.

When establishing these plantations thirty-some years ago, the long-term vision was to become tree farmers. No more dairy, no more crops, no more livestock — just trees. I didn't know much about black locust back

Figure 1. This "pinnate" form of black locust exemplifies the potentially straight growth that will maximize future yields of sawlogs, posts, and poles from locust plantings.

Figure 2. The porous canopy and nitrogen fixing ability of black locust allow forages to thrive underneath.

then (even though I thought I knew everything at the time), but it seemed like a good companion tree for the walnuts. Plus, the seedlings were readily available and cheap.

Although the locusts were not the main focus, looking back now we couldn't have picked a better tree to complement our current 500-acre grazing farm. The locust plantations have become some of our best silvopasture areas, while also generating tens of thousands of dollars-worth of fence posts. Below are just a few of the qualities that I've come to appreciate about this remarkable tree:

- As a member of the legume family, locus fixes significant amounts of atmospheric nitrogen, creating "free fertilizer" to help restore old fields and encourage the growth of companion plants.
- The highly decay-resistant wood is the perfect home-grown source of durable fence posts, poles, and high-quality firewood.
- Due to a lack of shade tolerance, locust readily self-prunes in plantings. The porous canopy allows ample sunlight through, making locust an ideal species for naturalizing areas to other native species.
- The fast growth and thorny qualities of young locust may enable it to overcome deer browsing pressure in some situations with minimal protection.
- Locust flowers, which appear shortly after leaf-out in late-May, are quality bee fodder, and a tasty treat to eat fresh with a flavor like snap peas. And they're a personal favorite for their jasmine-like fragrance and beauty.

The biggest lessons that we've learned are to start with known and/or improved genetics, and to keep locust away from places where it is not welcome because it will gradually spread through root suckering into

continued on next page

sunny spaces. But we've also used this trait to our advantage by allowing locust to spread into adjacent pastures for the creation of cheap and easy new groves and more shade for the livestock.

If black locust has a weakness, it is the predominance of crooked trunks. There are three recognized growth forms for black locust: pinnate, palmate, and "spreading." The pinnate ("feather-like") form (Figures 1, 3) is characterized by a straight, single stem and would be the most desirable from a timber standpoint. Palmate-form locust can also be very straight, but the forked trunk is vulnerable to splitting, despite the exceptional strength of locust wood. A few breeding programs – mostly in Europe – have strived to further improve the species by selecting for increased resistance to common pests like the locust borer. Finding a source of improved black locust seedlings is still elusive, so grow-your-own efforts from local "superior" parent trees may be necessary for larger plantings. Recommendations for propagating locust from seed are posted on the www.cornellforestconnect.ning.com forum.

Another piece of the learning curve from the utilization side is to be more selective when cutting posts. Yes, locust posts are naturally very durable, but they can also be quite defective with borer damage and pockets of decay. Unless replacing failed fence posts seems like a fun pastime, the firewood pile should be larger than the post pile when thinning out the stand.

I would be hard-pressed today to come up with a tree that has greater potential as a timber cash crop and for creating profitable plantations from scratch than black locust. But work remains to continue developing quality sources of planting material. Other keys for growing locust successfully are to plant on relatively well-drained sites, and to manage competing vegetation until the trees are well-established, which is a crucial practice for establishing any hardwood seedlings. Locust will grow well on the typical heavy-to-clay upland soil as long as there is sufficient rooting depth and the soil is not seasonally water-logged. If planting larger acreages, I would also consider mixing with other compatible trees species for diversity and resilience to pests like the locust leaf miner.

It is also worth noting that since 2014, black locust has been listed as an "invasive regulated species" in New York. The simple explanation for the legal jargon is that locust shouldn't be planted in areas where it isn't already naturalized. That said, black locust has been widely naturalized across most of New York for more than a century. I'll repeat my caveat about taking care not to plant locust near areas where it could become a nuisance such as roadsides, right-of-ways, and sensitive ecosystems where it may outcompete other native trees.

Despite this minor malignment as an "invasive," black locust's widespread cultivation far beyond its native range in the Appalachians is a testament to the exceptional beauty, adaptability, and utility of this unique tree. In this forester's opinion, it is the most useful tree to consider for reforestation projects, whether the objectives are production or conservation oriented. An internet search will reveal local forestry consulting companies that are developing business models for cultivating black locust at a commercial scale, though any of us are capable of adding more of this special tree to our woods.

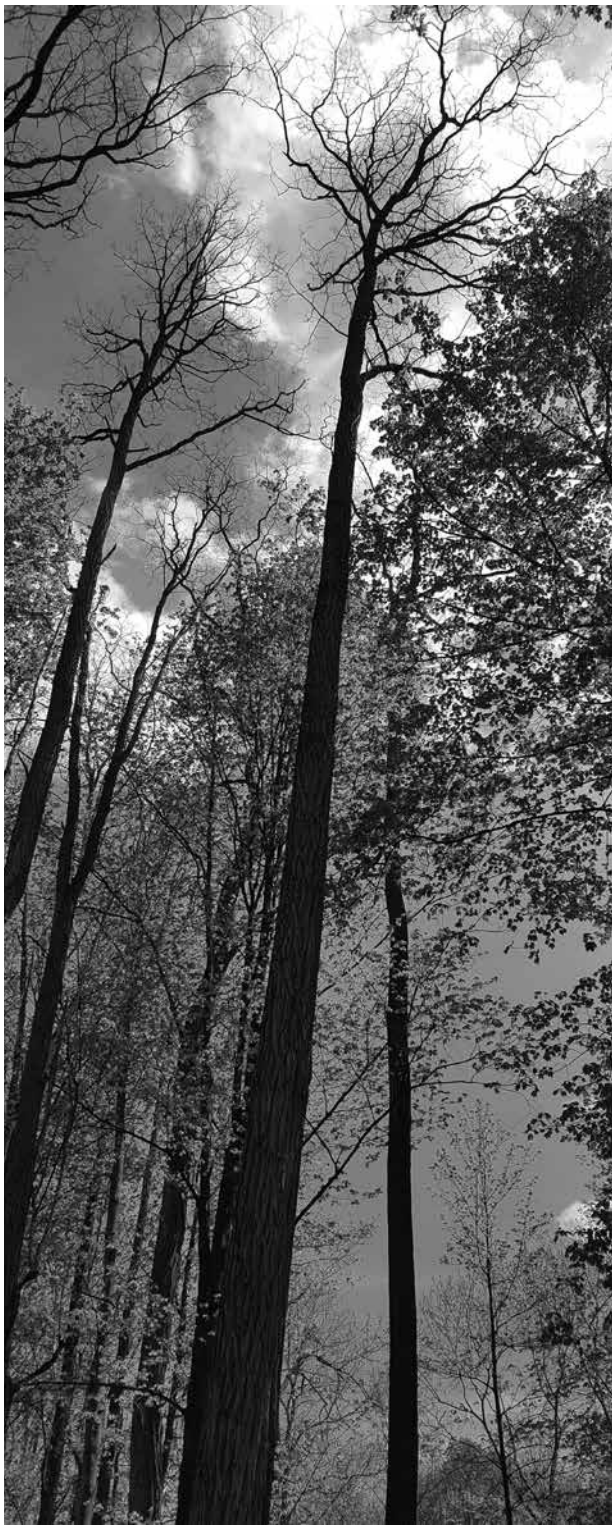

Figure 3. Another example of the straight, pinnate growth form of the black locust.

Brett Chedzoy is a forester with Cornell Cooperative Extension of Schuyler County, NY. He works regionally as a forestry and agroforestry educator. Brett and his family own and operate ranching operations in Watkins Glen, NY and Alpa Corral, Argentina that extensively utilize black locust as part of their silvopasture systems.

From the President (continued)

RNY cost share program builds on the same key goals of the NYFOA Restore NY Woodlands initiative which we started in 2014 and briefed to the DEC well before the launch of RNY. Again, nothing is finalized yet. Let's see where this goes.

What is coming up for NYFOA members in 2024 beyond the four regional members' meetings and chapter sponsored events? The NYS Farm Show will take place at the State Fairgrounds in Syracuse from February 22–24, 2024. NYFOA board member Hugh Canham is coordinating an excellent lineup of seminar speakers to complement NYFOA's booth presence (see page 14). We look forward to the Farm Show to serve our members through the seminars and as a venue to explain the value of NYFOA membership as part of the effort to recruit new folks.

Forestry Awareness Day (FAD) will take place on March 5, 2024 at the NY Legislative Office Building in Albany. The official host of FAD is the Empire State Forests Products Association (ESFPA). ESFPA has again generously offered NYFOA the opportunity to send representatives to this event. FAD is a singular opportunity for NYFOA members to meet NYS legislators and legislative staffers at the capital and present issues and legislative recommendations that pertain to the private woodlot owner. The timing of FAD occurs in advance of final NYS budget decisions. ESFPA and NYFOA will provide background information and position statements participants can use in meetings with our public servants. Participating in FAD is a great experience and can be very helpful to our members given the expanded funding possibilities of NYS programs to promote best practices in woodlot management. Please contact Hugh Canham or Craig Vollmer if you are interested in taking part in FAD.

NYFOA and Northern Woodlands Program: NYFOA members Ed Neuhauser, Brett Chedzoy, and Suzanne Treyger are working with Northern Woodlands, a regional non-profit based in New Hampshire, to host a series of events over three days, May 18—20, 2024 in the Watkins Glen, NY area. This program is designed to appeal to NYFOA members and non-members in NYS and the New England states. Among several topics, the program will include a tour of Cornell's slash wall/deer exclosure projects at the Arnot Research Forest, state of the art maple syrup production methods at the Arnot, virtual reality and forestry, a tour of a farm employing silvopasture techniques, a bird walk led by a senior Audubon officer, and much more. This is shaping up to be a very interesting program with opportunities to meet and share experiences with people who encounter many of the same challenges and interests as our fellow NYFOA members. I encourage you to save the dates. Details to follow.

How Jeannine and I ended up living in the woods in upstate NY: Late in our careers, my wife Jeannine and I had the opportunity to serve on a three-year rotational work tour with a unique federal government organization — in our case it was the FBI field office in Anchorage, Alaska. The State of Alaska has spectacular scenery and many 'rugged individualists' among its diverse population. We became friends with a fellow who loved the outdoors and took on some really challenging hobbies, including dogsled racing. Our friend lived in a rustic house in the middle of an old-growth woodlot in a beautiful area of central Alaska. He had 48 sled dogs, which he divided into six-dog sled teams. These dogs love to run, and a responsible owner, like our friend, will see to this every day. He and a committed neighbor would go on daily training runs with the dog teams, using dogsleds in the winter and ATVs with a special harness rig when there was no snow. He used to buy dog food by the dump truck load as the average dog needs 4,000 calories per day during the winter training season. It was quite a set up and our friend took us out on some training runs which proved to be a true Alaska experience. He and his dogs competed in the Iditarod, a well-known dogsled race which goes from Anchorage to Nome, a distance of about 1,000 miles through some tough winter terrain. Long story short: the lovely, wooded site of our friend's house and his direct connection to nature confirmed to Jeannine and me that we too should aim to retire in a wooded setting — just not with 48 dogs. We found our place in Otsego County and in short order had an MFO visit and became NYFOA members. This combination led us to what we consider to be a wonderful lifestyle and provided opportunities to meet some very interesting people throughout our state.

Viva NYFOA and have a wonderful holiday season.

–Stacey Kazacos
NYFOA President

Ask A Professional

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 influence 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

Restoration of a Wind Throw

Question: I went on a visit as a Master Forest Owner volunteer and the landowner had a section of woods with poorly drained soils that suffered considerable windthrow. Most of the ash fell, along with other trees, but there are several widow-makers. There is heavy deer pressure and abundant multiflora rose. What are the options for the owner to grow another forest? (M.T., WFL Chapter)

Answer: The unfortunate reality is that woodlands with abundant ash have recently and will continue to experience mortality that causes changes in the forest understory. Sometime the changes will be abrupt as with windthrow, and other times the ash will die in place. Restoring these areas to a new forest is complicated by the selective browsing of deer and the interfering vegetation that often dominates with deer pressure.

On poorly drained soils, trees struggle to develop deep, anchoring root systems (Figure 1). Shallow-rooted trees can be predisposed to being blown over, known as windthrow, especially if gaps develop in the canopy such as with ash mortality or partial cutting. The evidence for shallow roots, at least in the trees that blow over, are the thin root mats and shallow holes or root pits. In some cases, some change in hydrology may have occurred after the trees were established and the trees survived but perhaps didn't thrive. In other cases, the trees were a species able to establish and grow on poorly drained soils.

In areas subjected to windthrow, the first priority when developing a work plan is safety. Be especially alert for branches that are detached from the tree but suspended. Also trees with fractures in forks that could split away. Depending on the circumstances, it might be prudent to wait a year before accessing the site for replanting. While trees and branches may be more likely to dislodge on windy days, trees and branches also fall on calm days. Just as in areas recently harvested, it is good practice to wear a hardhat in recently windthrown areas. Let someone know where you will be working and when you plan to complete your tasks.

The process to restore or rehabilitate these types of woodlands has three requirements to include in your restoration work plan. These include: preventing future impacts by deer to desired seedlings, removing the shading and competitive effects of the interfering vegetation, and favoring tree or shrub species that are suitable for poorly drained soils and that also satisfy the owner's objectives. These factors should be written into the plan. There is no specific format for a planting plan, but include answers to the questions you will have. Consider sharing the plan with your local Soil and Water Conservation District (SWCD) or DEC forester for feedback.

Limiting Deer Impacts

The options to limit the impacts of deer are grouped as either lethal or non-lethal. The lethal option typically available to landowners is recreational hunting. Recreational hunting is rarely sufficient to prevent deer impacts. Recreational hunting can contribute to the solution, but is neither

Figure 1. This hemlock tree was growing in an area that was seasonally wet. After a harvest, the exposed crown was subjected to increased wind stress and its shallow root system was insufficient to anchor the tree.

Figure 2. Brush walls are an experimental, broadcast exclusion tactic developed at the Arnot Forest. This brush wall was made by scraping the interior scrub and small trees into a perimeter rim using a bulldozer. The test is whether the loose and relatively small barrier will last long enough for planted seedlings to gain height. Note these are well drained soils.

Figure 3. Cages have several advantages over tree tubes, but also some disadvantages. Cages are more easily reused, but don't protect the seedling from herbicide overspray. (Photo credit Scott Bonno, NAC)

necessary nor sufficient. Non-lethal tactics exclude deer from access to the seedlings. There are options that might be considered "broadcast" and are applied to the entire area such as slash walls or fences (Figure 2). Other options are considered localized or stem-specific and are intended to protect individual stems. Examples of localized protection include tree tubes or cages. In both cases there is effort required to install and also to maintain the protections.

Selecting a broadcast versus stem-specific exclusion tactic depends on the equipment available, the area being planted, and the number of seedlings within the area. For large areas of several acres and hundreds of seedlings a broadcast method might be most effective. For small areas with fewer stems, a stem-specific method might be more appropriate. Plan for the time needed to either walk the perimeter of fence or slash wall to monitor it, or to visit each tree tube or cage to ensure it is still functional. Tubes that are not in full contact with the soil can create a chimney effect on cold sunny days that may damage buds, or allow rodents to nest inside the protection of the tube. In this respect cages may have advantages over the tubes (Figure 3).

Efforts to pile brush onto individual seedlings may meet with mixed results (Figure 4). The concept is tempting, especially if there is considerable brush associated with the windthrow. The potential limitation is that deer are already known to be problematic, and except during the rut deer predominantly spend their waking hours looking for seedings to eat. Although deer can be lazy, they also may have incentive to work through a loose network of brush if there are few other seedlings to eat. Also, the brush will eventually decompose; consider if the poorly drained soils will slow the rate of seedling height growth relative to the slumping of the brush and ultimately expose the seedlings to deer browse.

Controlling Competing / Interfering Vegetation

Because deer preferentially browse some species and avoid other species, the avoided species can prosper and gain dominance. Even if deer are removed, the presence of the interfering vegetation can thwart efforts to successfully establish seedlings (Figure 5).

Just as with the methods to exclude deer, controlling competing vegetation can be applied as a broadcast or localized treatment. These treatments can be either mechanical or chemical, or a combination of mechanical followed by chemical. There are several webinars describing details of treatment options at *www.youtube.com/ForestConnect* and there is a matrix of treatment options to help inform the process by searching for "ForestConnect Matrix".

Broadcast treatments to control interfering vegetation require considerable investment in energy and equipment. They are best for large areas or if planting will involve many stems per acre. High density planting, perhaps greater than approximately 400 per acre allows for more efficient planting and subsequent inspections. Another advantage to broadcast treatments is if there are hazards and the equipment is protective of the operator. On wet or poorly drained sites, the equipment can be a liability due to rutting or getting the equipment stuck. Few woodland owners have immediate access to equipment suitable, safe, and appropriate for broadcast clearing of interfering vegetation on a poorly drained soil within a windthrow.

continued on next page

Figure 4. Brush will exclude deer, but the owner needs to find the balance of their effort, the amount and size of brush, and the loss of brush height to decomposition as the seedling grows. On wet soils, decomposition may be faster and seedling growth slower. In this picture, the brush was piled with logging equipment, not by hand.

Localized clearing for seedlings allows for a more nimble approach, and in a windthrown area might allow clearing and planting into locations that require less effort. Localized clearing can be completed with tools common to most woodland owners such as chainsaws (of course using all appropriate personal protective equipment), pruning saws, brushsaws, etc. (Figure 6). This type of clearing can be physically demanding so take appropriate precautions. Localized clearing will be less complicated by poorly drained soils than broadcast clearing.

Figure 5. Multiflora rose, pictured, is not typically browsed by deer and can form dense, physically impenetrable thickets. A variety of control methods exist for this and other species, and owners should assess all options before committing to a treatment method and mode.

Whether broadcast or localized clearing is used, most or all woody and herbaceous interfering vegetation will resprout. Expect this and plan for how subsequent treatments will be made. One option is to schedule time to revisit the site twice each season and recut the brush. An alternative is to use an herbicide such as glyphosate to treat the entire plant or the freshly cut surface prior to planting and again as needed.

The removal of interfering vegetation, at least the first clearing, needs to happen before the seedlings are planted. Ideally clearing happens in the late summer or fall before a spring planting. Maintain the clearing in the spring and likely again in mid-summer for 3 to 5 years, or until the planted seedlings gain dominance.

Selecting the Right Species for the Site

Every woodland owner has their suite of favorite tree species. When planting, the priority is not the owner's favorite species, but the species that will best tolerate, or better yet, thrive in the conditions. The conditions to match with a species are: soils (especially soil moisture), shade, and exposure to deer pressure. There are some species that thrive on poorly drained soils, thrive in shade and are resistant to deer browsing – those species are the invasive shrubs you just cleared. Other species that also satisfy owner objectives for wildlife value, perhaps a future crop, or aesthetics, will require deliberate action to meet their ecological needs.

One option is to identify and list the native tree species that exist in the area. Another option is to consult with your local SWCD, the NYSDEC service forester, or a chapter meeting of NYFOA to see what they suggest for your specific conditions.

The best source for planting stock is through a local nursery. The NYSDEC has a nursery with a variety of options for woody species you could plant, but there may also be regional commercial nurseries that specialize in local and native flora. One- and two-year old seedlings from a nursery can be fairly inexpensive, but are also small. Cull them aggressively and discard those with the smallest root collar diameter and fewest lateral roots.

Figure 6. Brushsaws are effective tools for localized clearing. A variety of brands are available, and several different saw head configurations can be selected to match the vegetation you're cutting. Note the use of personal protective equipment.

Figure 7. American sycamore (Platanus occidentalis) can thrive along some stream edges, and/or riparian zones, but may also tolerate poorly drained or otherwise anerobic soils. The mottled bark is aesthetically pleasing. Sycamore can suffer from anthracnose fungus in the spring, which has a visual more than physiological impact. Historically used to make butcher blocks.

Use appropriate planting techniques, such as pruning large root systems and keeping roots moist.

An alternative to nursery stock is "wildlings." Wildlings are seedlings you dig and transplant. Several woodland owners have tried this, but few describe repeated efforts with wildlings. Planting wildlings requires considerable investments of time to find the seedlings, care to extract them without damaging their root system, transporting them, and then either stabilizing them or promptly planting them at the planting site. Because wildlings are of various sizes, the logistics of handling them could be a challenge.

Several species merit consideration for planting into poorly drained soils. If possible, use a mixture of species because that diversity offers an inter-annual stability of outputs such as a year when one species and not another has an abundance of fruit for wildlife. The variety of species also provides a safeguard against impacts from some future pests.

Species commonly found or potentially successful in or near poorly drained or wet areas include, in no particular order: red maple, silver maple, black gum, sycamore (Figure 7), pin oak, swamp white oak, northern-white cedar, quaking aspen, river birch (more of a Midwest species), bitternut hickory, shellbark hickory, boxelder, willow, and yellow birch. Shrubs include: buttonbush, pawpaw, spicebush, winterberry, and several viburnums. Unfortunately, many of the viburnums are susceptible to the viburnum leaf beetle. There are other trees and shrubs that could be added to this list. Picking the best species for your circumstances will be a combination of what you can access and the specific soil conditions.

Peter Smallidge, NYS Extension Forester and Director, Arnot Teaching and Research Forest, Department of Natural Resources, Cornell University Cooperative Extension, Ithaca, NY 14853. Contact Peter at pjs23@cornell.edu, or (607) 592 – 3640. Visit his website www.ForestConnect.info, and webinar archives at www.youtube.com/ForestConnect. *Support for ForestConnect is provided by the Cornell University College of Agriculture and Life Sciences and USDA NIFA through McIntire-Stennis, Smith-Lever and the Renewable Resources Extension Act.*

Wild Things in Your Woodlands

By Kristi Sullivan

Barred Owl (*Strix varia*)

The barred owl is a large bird, up to 20 inches long, with a wingspan of 44 inches. It is gray-brown in color, with whitish streaks on the back and head, brown horizontal bars on its white chest, and vertical bars on its belly. This owl has a round face without ear tufts, and a whitish facial disk with dark concentric rings around brown eyes. Males and females look similar, but females can weigh about one third more than males.

"Who cooks for you, who cooks for you all?" This is the familiar call of the barred owl defending its territory or attracting a mate. If you live in or near a heavily wooded area with mature forest, particularly if there is also a stream or other body of water nearby, this sound is probably familiar. Barred owls are the most vocal of our owls, and often call early at night and at dawn. They call year-round, but courtship activities begin in February and breeding takes place primarily in March and April. Nesting in cavities or abandoned hawk, squirrel, or crow nests, the female sits on a nest of 1-5 eggs for 28 to 33 days. During this time, the male brings food to her. Once the eggs have hatched, both parents care for the fledglings for at least 4 months. Barred owls mate for life, reuse their nest site for many years, and maintain territories from 200 – 400 acres in size.

Barred owls are very territorial and remain in their territories for most, if not all, of the year. However, in times when food is scarce, these birds may wander in search of prey. Barred owls are opportunistic predators, eating small mammals and rabbits, birds up to the size of grouse, amphibians, reptiles, and invertebrates, including crayfish. They sit and wait on an elevated perch, scanning the area for prey, then swoop down silently and grasp their prey with their talons. An owl's stomach absorbs the nutritious parts of its prey and regurgitates the indigestible matter (hair, feathers, bones, claws, insect chitin) as round pellets about seven hours later. These owl "pellets" can be found on the ground under roosts, and dissecting these pellets is a fun way to learn about an owl's diet.

Barred owls prefer large, unfragmented blocks of forest. They are most often associated with mature and old-growth forests of mixed hardwoods and conifers due to a greater availability of potential nest sites. In addition, mature forests have a lower density of branches in the lower levels of the forest, which may make hunting easier. A closed canopy also provides protection from the elements and from mobbing by other birds.

If you are a landowner hoping to encourage or maintain barred owls on your property, characteristics to pay close attention to are the size (number of acres) of forest, the age or maturity of the forest, and the number of large diameter snags or cavity trees available for nesting. Barred owls are seldom present in areas with tens of acres of forest, but are common in forests that are hundreds or thousands of acres in size. Therefore, if you live in a region with small patches of forest, it is unlikely that you will be able to attract barred owls to your land. However, in heavily forested regions, you can encourage barred owls by maintaining mature forest stands with two or more

continued on next page

trees per acre that are 20 inches in diameter or larger, to allow for the development of cavity trees or snags (dead trees) suitable for nesting. You may also help create a snag or two by girdling a couple of large, live trees. Leaving dead wood on the ground can also enhance habitat by providing cover for amphibians, reptiles, and small mammals that in turn provide food for barred owls. By focusing on just a few habitat elements, you can continue to enjoy the characteristic sounds of the big woods. To hear the call of the barred owl, visit *http://www.birds.cornell.edu/AllAboutBirds/BirdGuide/Barred_Owl.html*

Kristi Sullivan directs the New York Master Naturalist Volunteer Program. More information on managing habitat for wildlife can be found at https://blogs.cornell.edu/nymasternaturalist/

Free programs at the NY FARM SHOW
February 23-24, 2024

Free programs to help landowners get more benefits from their woodlots will be presented Friday and Saturday during the 2024 Farm Show in Syracuse by the New York Forest Owners Association. The Seminars are held in the Martha Eddy Room in the center of the Art and Home Center building.

These programs are presented by the New York Forest Owners Association in cooperation with the NY Department of Environmental Conservation, Cornell Cooperative Extension, SUNY College of Environmental Science and Forestry, and with special thanks to each of our expert speakers.

Learn More, Earn More. Seminars are free and open to all. Topics include managing small woodlots, maple syrup making, deer management, supporting native plant pollinators and federal cost sharing for woodlot improvements, and legal aspects of property ownership, among others. Programs start on the hour and allow time for questions and discussion.

In addition to a display area there will be a NYFOA booth in one of the other large Show buildings.

Visitors are encouraged to bring their questions and pause at the booth area before or after attending a seminar program. Trained volunteers are there to help with resource materials, displays, and expert advice.

FRIDAY FEBRUARY 23

10:00 – 11:00 AM **Best Practices on a Small Woodlot** Peter Smallidge, *Extension Forester, Cornell Cooperative Extension*
Small woodland parcels are endearing to the owners and provide many opportunities for activities to ensure they remain healthy and support the owner's interests. There are several simple and basic actions that owners can take to be active in the small-acreage woods and enjoy the land to its fullest extent.

11:00 – Noon **Firewood from Private Woodlands; techniques, tactics, and production** Peter Smallidge, *Extension Forester, Cornell Cooperative Extension*
Woodlot owners should consider their scale of production, what equipment they have or can borrow, what trees to select, how to fell trees to optimize production and safety, logistics and options for bucking and moving, and how to handle and store the wood.

1:00 – 2:00 PM **Deer Management and Problems**, Brendon Quirion, *Big Game Biologist, NYS Department of Environmental Conservation*
Whitetail deer can have a significant impact on forest ecosystems, but steps can be taken to mitigate the damage. This presentation will focus on DEC's approach to managing deer populations and what deer management options are available to landowners who want to promote forest health.

2:00 – 3:00 PM **Insects and Diseases in Your Woods**, Kim Adams, *SUNY College of Environmental Science and Forestry*
There are many different insects and diseases that affect the growth and development of New York's woods and forests. Recognizing signs of infestations by some of the typical invaders is the first step to controlling them and will lead to better management of your land.

SATURDAY FEBRUARY 24

10:00 – 11:00 AM **Maple Syrup Making for the Small Producer**, Kristina Ferrare, *New York State Maple Producers Association*
Producing sweet maple syrup from your own sugar maple trees can be both fun and educational. Recent developments in equipment and techniques make it possible for landowners to make syrup from their own trees. From owning just a few acres to more extensive woodlands there are opportunities to make syrup for your own use or to sell.

11:00 – Noon **Supporting Pollinators in Woodlands**, Lacey Smith, *Biologist, Pollinator Partnership and USDA Natural Resources Conservation Service*
Native insects and birds (pollinators) provide vital ecosystem services and food security but are facing challenges from invasive species and habitat loss. This presentation will show how to support native pollinators with trees and shrubs and several cost-sharing programs through the Natural Resources Conservation Service (NRCS) that directly or indirectly support pollinators.

1:00 – 2:00 PM **Landowner Liability in Rural New York**, Brendan Conley, Esq. *Colligan Law Firm*
There are several New York State laws relating to recreational use of private, rural lands, as well as properly posting private land. This presentation could be useful for forest owners, given the complexities and concerns involved in ownership and management of rural, expansive, and/or densely wooded property.

2:00 – 3:00 PM **New Laws, Regulations, and Programs that Can Affect your Property,** John Bartow, *Executive Director, Empire State Forest Products Association*
The New York State legislature and agencies tackle a wide variety of bills, regulations, and programs each year. Many of these can have a great impact on what you might or might not be able to do in your own woodlot. An update of the current activity in Albany will help you understand the changing political scene relating to woodland ownership in NY.

3:00 – 4:00 PM **Communitree Steward Program**, Leanna Nugent, *Community Forestry Specialist, Onondaga Cooperative Extension*
The CommuniTree Steward program is a volunteer, service-based program with Cornell Cooperative Extension where volunteers learn the basics about trees including urban forestry and then assist in tree projects throughout the community.

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
Kurtis Albright	Richard McHale
Dara Albro	Stan Olshefski
Jeremy Bloom	Brayton Pendell
Olga Boudker	Robin Radcliffe
Laura Ferris	Corey Redditt
Bryan Gaines	Scott Riccio
Sierra Giraud	John and Dodie Seagle
David Griffiths	Mark Simon
John Hitchings	Lyle Stephen
Martin Jones	Elaine Thuener
Craig Knobel	Randolph Wagstaff
Denise Knoll	Trudy Wolff
Aaron Kobayashi	Joe Yokajty
Peter Komrowski	
Martin Krasnoff	
Stephen Lewis	
Garet Livermore	
Fred McCrumb	

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

Update on Significant Forest Pest Issues in New York

By Mark Whitmore

Apple production came to a grinding halt in my orchard early on the morning of May 18, 2023 when the temperature logged in at 23F. The trees were in full bloom at the time, and I got almost no apples this fall. It was an unmitigated disaster for apple producers in a few counties in the southern Finger Lakes area. That hard frost also led to widespread defoliation of oaks and beech across the state, west of the lower Hudson Valley. Damage appeared to be patchy in most areas, but particularly hard hit were the southern Catskills and across the Southern Tier.

I had never seen so much frost defoliation in forested areas as I did when driving from Ithaca to the Hudson Valley. I saw whole hillsides of oak along highway 17 defoliated, independent of elevation. Of course, the good news is that within a month or so the trees were able to put on a second flush of leaves and I could see no evidence that anything even happened with later trips. Non-issue, right? Wrong. As with insect defoliation, frost damage to the early leaves and subsequent refoliation saps the trees' reserves, leaving them susceptible to drought, root diseases, or perhaps defoliation by spongy moth (formerly gypsy moth) next spring.

This reminds me of a recent trip into the area around Lake George where I witnessed intense spongy moth defoliation in 2021 and 2022. This year I noticed way too many large dead red and white oaks. I found this puzzling because mature oaks usually survive a spongy moth outbreak of such short duration.

Figure 1. Spongy moth egg masses. Photo by L. J. Mehrhoff, Univ. of Connecticut, Bugwood.org

First, a recap. After 30 years of little to no defoliation in much of upstate New York, in 2020 spongy moth defoliated 45,000 acres in the Finger Lakes. In 2021 it was much more widespread across the upstate, with over 730,000 acres defoliated. Due to issues with the pandemic, in 2021 only the Adirondacks and Capitol region were surveyed, and 65,000 acres were found defoliated. This year, 2023, spongy moth was confined to the lower Hudson Valley (188,291 acres) where the young oak leaves were spared the frost. Usually, spongy moth outbreaks are effectively controlled by the buildup of fungal and viral pathogens. But now I'm beginning to wonder if outside of the lower Hudson, if the frost kill of the young oak leaves, which are the preferred food, may have impacted spongy moth populations. Perhaps there are some benefits of the wacky spin climate change is bringing to weather patterns.

Figure 2. Beech leaf disease symptoms. Photo by Mark Whitmore

Circling back to the dead oaks around Lake George I was reminded by a colleague that although 2022 was not particularly dry as a whole, there was indeed a drought over much of the state from May into July, the heart of the growing season. Those oaks would have been weakened by a year or two of defoliation and the drought may have made it difficult to releaf after an early spring defoliation. Then add the additional assault a year later of a late spring frost and no wonder they are having a hard time. Remember to look for egg masses if you are in the lower Hudson area so you can predict next year's defoliation severity.

Beech leaf disease (BLD) has been particularly bad across the whole northeast in 2023. I've many friends who are on the edge of their seats, happily anticipating the arrival of BLD, but I've also seen many animals who would be hurting with the loss of beech mast. BLD has rapidly spread in the past couple years in a patchy fashion across the state. Its impact appears to be greatest in the southern Hudson and on Long Island where some rare beech forest types are threatened. BLD has provided plenty of puzzles to the forest health community.

At first, we had no idea what was causing the foliar symptoms. After a couple of years of research, a non-native nematode was determined to be the culprit. This brings up even more questions. Personally, I have a good idea how bugs get around the landscape, but a tiny nematode has me stumped. Long-distance dispersal is especially hard for me to grasp considering how fast it has spread from first detections in Ohio in 2012.

Be that as it may, the nematodes have an interesting biology. After infesting leaves over the summer, they find their way into the leaf buds, thereby poised to infest the new leaves. Nematode eggs appear as the buds open and are dispersed by rain and wind. The characteristic dark striping between the leaf veins is visible as soon as the new leaves appear, getting darker and thickening through the season, perhaps the result of chemicals produced by the nematodes causing changes that protect them from UV light and to provide more food. Leaves drop prematurely, and buds will be killed. Impacts to mature trees in the

continued on next page

upstate areas appear to be gradual with the only appreciable mortality occurring in saplings. Elsewhere in New England the impacts seem to be more severe on mature trees, and time will tell about the impact in some of the important forests on Long Island. Work is continuing with BLD control strategies using phosphites and nematicides so control in priority trees seems possible.

Hemlock woolly adelgid (HWA) continues its spread in the state after a relatively mild winter. New detections have been found moving north along Lake George in the Adirondacks and more of the holes further south are getting filled in. State Parks and DEC continue to aggressively treat priority hemlock stands with insecticides. Treatment of choice has been a basal bark spray with a tank mix of imidacloprid and dinotefuran. Evaluation of past treatments demonstrates that trees with heavily impacted canopies can be saved, and treatment lasts at least 5 years. The long-term HWA solution is to implement biological control so we can get away from the need to treat with insecticides. Cornell's NYS Hemlock Initiative (NYSHI) has been collecting predators native to hemlock forests in the Pacific Northwest and releasing them in the east. Three predators have been released at numerous sites throughout the state, a tiny beetle and two flies. Populations of the beetle, which was the first predator released in 2009, have become established in at least 11 sites, and spread has been recorded over 15 miles. NYSHI has been working with the flies only since 2017 and establishment has been hard to determine simply because it's hard to find them when released into a forest full of prey. There are indications of establishment in the southern Hudson, and definite establishment in Virginia. Environmental DNA has become a new and valuable tool for early detection of HWA in the southern Adirondacks and is now being adapted to detect small numbers of released predators to track their establishment and spread.

The big gorilla in the room these days is the spotted lanternfly (SLF). First detected near Allentown, PA in 2014, it has now been found in 14 states. It is spreading rapidly across NY, with all sorts of scary photos from the beaches of Long Island and in Central Park, but not much from our forests. Researchers in PA are wondering if SLF will be just an edge pest, and not found in extensive areas of closed canopy. The greatest damage to date is in vineyards where SLF feeding diminishes starch reserves, degrading fruit and even killing vines. Research continues with the impact on forest trees, finding that they feed on silver and red maple, but do not prefer sugar maple. I'm concerned because any feeding on a sugar maple may impact sap production and the health of trees. This topic is at the front of my mind and worthy of more discussion, but we need more data.

There is just not enough space in this issue to mention other important forest health issues. I can't believe I wrote a review without mentioning emerald ash borer, Asian longhorned beetle, elm zig-zag sawfly, white pine needle disease, or southern pine beetle. Next time.

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

The Wood in Your Woods: American Beech

By Jeff Joseph

We all know beech trees. As one of the most prolific and widespread tree species in New York, present to varying degrees in close to 90% of the forested landscape statewide, they are exceedingly common, and with their unique bark, foliage, and buds, readily identifiable. But strange as it seems, I would venture to guess that only a very small percentage of New Yorkers, even those who own woodland themselves, have ever held, worked with, or even *seen* a single beech board, or own anything fabricated with beech lumber. This is unfortunate, as beech wood, while possessing certain shortcomings, and presenting certain challenges, has many virtues as well, which our more utilitarian ancestors took full advantage of. As the saying goes, when life gives you lemons, you may as well make lemonade, so the following will offer an unbiased view of the pros and cons of beech with the hope that at least some of us will reconsider it as a viable and useful sawtimber.

Figure 1. Healthy beech bark with a partially healed branch scar.

American beech (*Fagus grandifolia)* is a member of the Fagaceae or beech family, making it a distant relative of both oaks and chestnuts, and is the only American representative of its genus. There are about a dozen *Fagus* species worldwide. It can be identified by its smooth grey bark (Figure 1), its simple, alternate, oblong/ovate 3-6" long leaves with parallel veins, serrated margins, margins, and short petioles (Figure 2), its narrow, needle-pointed, bronze-colored buds (Figure 3), and its edible triangular nuts which are encased in spiny, velcro-like husks at the branch tips. It is monoecious, with both male and female flowers on each tree, and—as many of us know all too well—also reproduces very aggressively via stump sprouts and root suckers.

Beech tends to gravitate toward well-drained soils high in organic matter/humus, and so was used by early settlers as an indication of superior soil quality. While it can survive on lesser soils, it cannot handle either flooding or extremely dry soils, so is not commonly found either in swampy areas or on the driest ridgetops where oaks and hickories become predominant. It does not mind acid soils as low as 4.0 pH. Its primary associates in our region are sugar maple and yellow birch, and red spruce in the Adirondack region, though with its ubiquity it will readily intermingle with a variety of other species.

Ecologically speaking, the primary characteristic of beech that stands out is its extreme shade tolerance—along with eastern hemlock, red spruce, and sugar maple, it is one of our most tolerant native tree species. With its ability to photosynthesize in very low light conditions, it can bide its time in the understory until disturbance opens the canopy and allows it to gain a dominant position. Growing slowly in this way also contributes to its capacity to survive into old age, as trees surviving for over 350 years old have been found. It is thus a primary component of mature, 'climax'-type forest stands here and across much of the northeastern U.S., but has also become predominant in younger age classes after disturbances due to its vigorous vegetative reproduction, neglect in the marketplace (high-grading of higher value timber leaving beech behind), and unpalatability as deer browse. At maturity, on better soils, stems can reach about 80' in height, and up to 24-36" DBH.

If you counted the total number of stems of each tree species across the state, from tiny seedlings up to mature sawtimber, beech would end up as the #1 most common tree *by far* (with red maple a distant 2nd). But if you limited the count to trees above 5" DBH, it would drop to 3rd, behind both red and sugar maple. As stated earlier, beech is so prolific in the seedling and sapling classes due to its incredible capacity for vegetative reproduction, which is in large part a response to stress. Beyond the actual harvest of timber (which is about as stressful as it gets for a tree), a primary stressor of beech that encourages widespread sprouting is the presence of the scale-nectria complex. Also commonly known as beech bark disease, it occurs when the beech scale insect (*Cryptococcus fagi*) first bores through the thin beech bark leaving the stem vulnerable to subsequent infestation by the *Nectria coccinea* fungus. Infected trees suffer a pronounced disfigurement, which is readily seen on the bark of infested trees, and a greatly reduced

Figure 2. Beech leaf.

Figure 3. Distinctly shaped beech bud.

growth rate before they perish. Tree death stimulates vegetative sprouting, leading to the development of widespread and often impenetrable beech 'thickets' consisting of spindly, unhealthy growth that too will eventually fall prey to the disease. Beech bark disease was first discovered in North America in about 1920, and in the succeeding years managed to infest near all northeastern beech forestlands, including those in New York. While occasional resistance to the disease can be found in a small percentage of trees that remain unblemished (I have found 3 or 4 seemingly immune trees in my beech-heavy woodlot), I would guess that over 95% of beech trees are or will be infested at some point. To add insult to injury, more recently a new beech blight, known as beech leaf disease, has been discovered (see this issue's Woodland Health column); it remains to be seen how widespread and potentially lethal it will become.

Unfortunately, beech is currently under a lot of stress, and gets a bad rap due to its thicket-forming tendency. Much of the timber is stunted due to the bark disease, and much of the potential lumber is degraded due to the subsequent damage and decay. But there is still a LOT of beech timber out there with lumber potential, so what about the wood itself?

Beech wood is heavy and hard, weighing in at 44 lbs. per cubic foot, and with a Janka hardness rating of 1,450 lbs. of force (comparable to sugar maple in each category). Its modulus of elasticity (a measure of structural strength) is somewhat higher than sugar maple at 2,075,000 lbs./square inch. As firewood, it produces about 24 million BTUs per cord, which is comparable to red oak and sugar maple (each of which are better saved for sawtimber due to their far greater economic value). I've burned it for 20 years and find it to be a fantastic firewood that splits pretty readily and puts out a lot of slow-burning heat.

An Achilles' heel of beech is its instability, as its volumetric shrinkage in drying is very high at 17.3%, and the differential in its radial

Figure 4. Beech board with contrasting bands of light sapwood and darker heartwood; small diameter knots are a common defect.

continued on next page

versus tangential shrinkage rates are about 2:1, which is very high, and basically means that during drying the wood of beech will undergo substantial stress, leading to lots of warping/twisting/cupping as well as interior checking. This instability potential remains in the finished lumber, whether air- or kiln-dried, leading to the potential for significant wood movement in response to changes in ambient humidity and/or temperature. In my experience it also air dries very slowly compared to most other of our common hardwoods, so requires substantial curing time beyond what is 'normal' for other species, especially for material thicker than 1".

Another downside of beech is that it has basically zero rot resistance when exposed to the elements (rain, soil contact etc.), so it will decay rapidly unless fully protected during the drying process, and limited in its use to interior/protected purposes only thereafter. It also is prone to infestation by a variety of boring insects both during and after curing, especially when in the near-equilibrium phase of being air-dried outdoors (about 15-20% moisture content).

The wood itself can be described as either pretty or ugly, depending on the aesthetic sensibility of whom you ask. It is a diffuse-porous wood, with the pores seen in the endgrain all being tightly packed and approximately the same size throughout the growth rings. Colors range from a pale sugar maple tan to pinkish to light brown in the outer sapwood, with the variable-sized ring of heartwood being a significantly darker red-brown (Figure 4). It has much more character than a monotone wood like hard maple or birch, primarily due to the very prominent ray flecks on both the flatsawn and quartersawn faces (Figure 5), which make for easy visual identification of the wood of this species. Rays (also known as 'medullary' rays) are bands of tissue that run perpendicular to the long dimension of a hardwood stem that carry water, minerals, and other chemical substances from the center to the periphery of the tree. In lumber, they are seen in the endgrain as thin lines running perpendicular to the direction of the growth rings (Figure 6); on the quartersawn faces of boards they are seen as 'flecks' of a variety of shapes and sizes (Figure 7). In beech, they are also readily seen on the flatsawn face as an unbroken series of short, dark dashes (Figure 8), which is largely what gives beech lumber its distinct character.

Figure 5. Quartersawn face of beech with prominent ray fleck patterning.

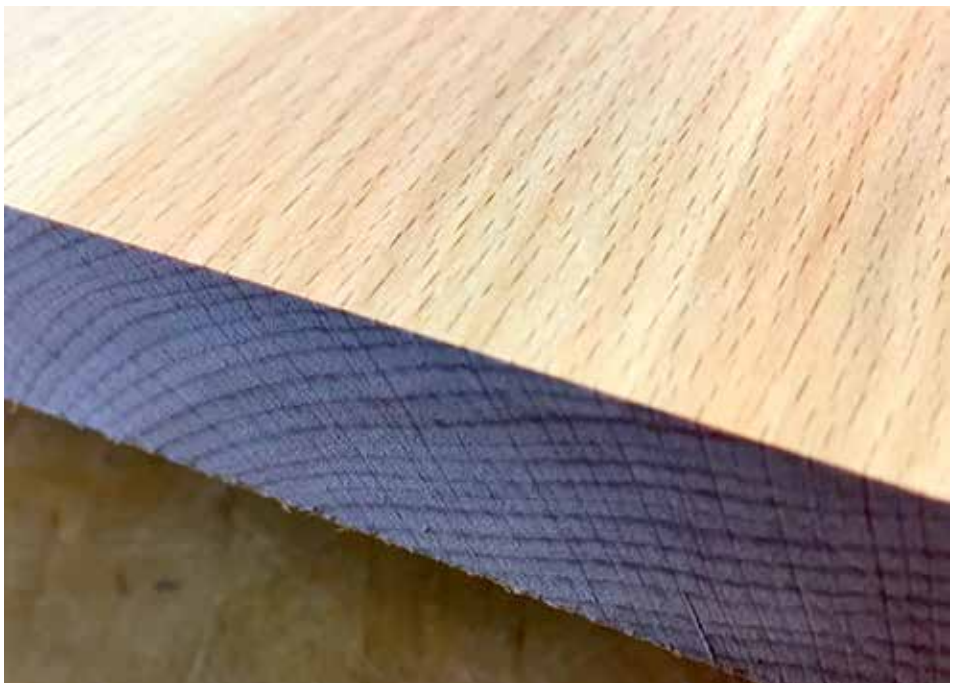

Figure 6. The endgrain of this rift-sawn beech board shows +/-45 degree growth rings, with the clearly visible rays running in a perpendicular direction to the annual rings.

The dried wood has no odor and imparts no flavor. While it is characteristic for sawtimber-sized beech stems in a competitive forest setting to shed all lower limbs leaving a long clear trunk, the extreme shade tolerance of younger stems leads them to branch prolifically when in the understory, leading to the development of many smallish knots that remain in the inner (heartwood) portion of the stem (Figure 4). Back in the days when mature beech were uniformly 24"+ in diameter, this was not of much consequence, but with smaller diameter trees being so prevalent today, finding 100% clear beech lumber can be a challenge.

As for the uses of beech lumber, other than for outdoor purposes, it can be very versatile in situations where a high degree of stability is not paramount. This is well demonstrated in the beech section of the 1914 publication *Lumber and Its Uses*, which lists no less than 85 distinct commercial uses of its wood,

2/3rds of which was designated for boxes and crates, miscellaneous millwork, and furniture, but which also ranged from automobile parts to wheelbarrows, barber chairs to washing machines, baseball bats and broom handles, to stepladders and washboards. You get the idea.

Part of the decline is surely due to the general decline of wood in U.S. manufacturing since WWII, and the rise of synthetic materials such as plastics and plywood/particleboard. These days you might occasionally see a wooden coat hanger or clothespin made of beech, or an antique piece of furniture, but not a whole lot else, other than shipping pallets and crates or creosote-infused railroad ties, which is a shame, as our history clearly shows that it has a high degree of well-tested use value. My primary lumber supplier carries about three dozen species of hardwoods, both domestic and imported, and beech is sadly not one of them. It's not the supply (of potential lumber) that is the issue, but the demand, or the lack thereof.

In economic terms, beech is really deep down at the bottom of the barrel. Checking the most recent stumpage price report from the DEC, I found the median price statewide to be about $70 per 1000 board feet, which sadly makes it the lowest value hardwood on the list, and 2nd lowest valued wood to make the list overall, as it just barely edges out eastern hemlock in its market value.

In sum, beech lumber is inexpensive, visually unique, and very versatile in its application. It is a weedy and ubiquitous species found across our state, growing nearly everywhere, excepting Long Island and much of the region directly adjacent to Lake Ontario. It is vastly undervalued by the marketplace so can be found for cheap—that is, presuming it can be found at all. If accepted on its own terms, and used appropriately, being mindful of its limitations, I think beech is, or at least could be, one of the best values we have available. If you have used beech lumber, I would be interested to hear about where you sourced it and what you've done with it.

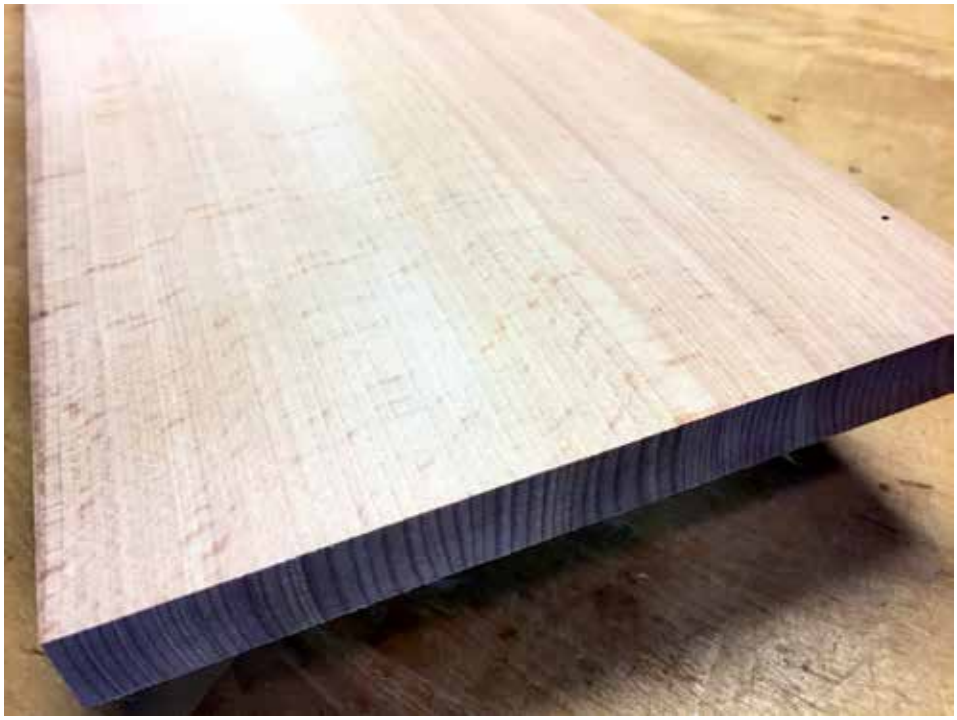

Figure 7. Fully quartersawn board. Note the ray flecks on the face and the vertical end grain.

Figure 8. Unlike most hardwoods, in beech the medullary rays are also highly visible on the flatsawn faces of boards, seen here as dark dashes against the contrasting wood grain.

Jeff Joseph is managing editor of this magazine.

Resources:

Albright, Thomas A., et al. 2020. **New York Forests 2017.** Resource Bulletin NRS-121. Madison, WI: USDA, Forest Service, Northern Research Station.

Lassoie, James P. et al. 1996. **Forest Trees of the Northeast.** Ithaca, NY: Cornell Cooperative Extension Bulletin 235.

Riemann, Rachel I. et al. 2014. **Modeled Distributions of 12 Tree Species in New York.** Research Map NRS-5. Newtown Square, PA: USDA, Forest Service, Northern Research Station.

R.S. Kellogg, 1914. **Lumber and its Uses.** Chicago, IL: The Radford Architectural Company.

Beech leaf disease: http://www.dec.ny.gov/nature/forests-trees/forest-health-beech-leaf-disease.

NYSDEC Stumpage Price Report: https://extapps.dec.ny.gov/docs/lands_forests_pdf/stumpagewinter23.pdf.

The Wood Database: www.wood-database.com

The New York
Forest Owner
A Publication of The New York Forest Owners Association

Non-Profit Org.
U.S. Postage
PAID
Syracuse, N.Y.
Permit No. 999

NYFOA
New York Forest Owners Association