The New York Forest Owner

A Publication of The New York Forest Owners Association

For people caring about New York's trees and forests

November/December 2021

A Return of Market Hunting as a Deer Management Strategy?

Volume 59 Number 6

NYFOA
New York Forest Owners Association
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In This Issue . . .

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Volume 59, Number 6

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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; 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 January/February issue is December 1, 2021.***

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Cover: Front cover: A buck deer in the Adirondacks near Old Forge, New York. See page 21 for full article. Photo courtesy of Paul Curtis.

From The Executive Director

Are you a gambler? Ever take a crack at the slots? Ever join a high-stakes poker game in a smoky back room of a bar? Do you hit the track to bet on the ponies? Super bowl pool? Lottery ticket? How about just going to the movies or out to dinner? That's gambling isn't it? — there's no guarantee the movie or your meal will be any good. Deep down, we're all gamblers in some way — we're risk takers. Especially when there's a potential payoff — one that is too tempting to pass up. But one should always try to weigh the risk against the reward, right? "Should" being the operative word. Have you ever gambled with your timber?

Before I bring this line of thinking to a point…full disclosure: Over thirty years of conducting private timber transactions, I can say that I have bought and sold timber just about every way there is — lump sum, open bidding, select bidding, direct negotiation, percentage shares, on scale, on trade, etc. As I dive deeper into this, I will make a disclaimer that I am not advocating here for any one particular method. I think all have merit under the right circumstances. You just have to know what you're getting into, make sure the transaction is done with integrity, choose what is the best for your circumstances, and have a good clear contract.

Way back, during my interview for a procurement forester position with Baillie Lumber, I was asked this question: "You've met with a landowner who might sell us his timber; he tells you that he needs to get $30,000 for it. You find he has $50,000. What would you offer?" Without hesitation I answered $50,000. Now in that moment, I didn't know if that was the answer they wanted or not; for all I knew they wanted me to buy it cheap so the company could have some extra profit. But in answering the question, I also went on to imply that I am in favor of a fair deal but would not be a party to knowingly "stealing" timber. Fortunately, $50,000 was the answer they wanted; I went on to be offered the job and got to work for a company that bought timber with integrity. Bear with me; this little side bar is context for what's next.

So…gambling with your timber. I'd like to share a story. When I was buying timber, a local landowner decided to sell his — mostly sugar maple. He hired a forester to mark and scale the timber, but the landowner conducted his own sale, which included a sale notice with a map, terms, and a bid date and time for sealed bids — just like most any consultant would do. Our bid of $27,000 was the high bid, but the owner declined it because he had been told it was worth $30,000. A factor in this was that it was springtime; and in those days, there were seasonal swings in the market for maple. Maple prices would typically drop in the spring because, as a white wood, it was more

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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.

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WOW: Women Owning Woodlands in the Catskills and Hudson Valley

By Tracey Testo

As an educator with Cornell Cooperative Extension, I have personally seen an increase in demand for women-centered education in typically male-dominated fields. In an effort to fulfill this need, our Columbia-Greene County association has been offering a women only chainsaw safety class, the Game of Logging, on an annual basis. These classes are met with high demand and always book up with little to no advertising. This was a start, but it was not enough.

Women are a large and growing part of the landowner population. The percent of family forest owners with women as the primary decision maker has doubled from 2006 to 2013. These women make decisions for 44 million acres of private forest land. Additionally, women generally represent one half of joint ownerships. Despite this, women are significantly less likely than men to participate in management activities. (Butler, et al., 2017).

In 2018, some partners reached out regarding this issue. Staff from the Watershed Agricultural Council and the Columbia Land Conservancy had attended a Women and Their Woods retreat hosted every other year by the Delaware Highlands Conservancy in Northern Pennsylvania. There they spent four days surrounded by women landowners, learning about ways to understand, care for, and enjoy their land. We put our heads together to brainstorm how we could embark on a new endeavor to form a Women Owning Woodlands group in the Catskills and Hudson Valley.

Six participants of the Women's only Game of Logging celebrate their accomplishments of the day along with instructor, Bill Lindloff.

"[Women woodland owner programs] remove the fear factor, reduce the feeling of being all alone—not knowing anything. They allow women to see that this can be fun and educational."

—Lyn Rajala, landowner and MN Women's Woodland Network member

Women Owning Woodlands (WOW) is a national network. Work to engage women in land management is sweeping the nation, with many similar networks popping up across the country. We followed the lead of efforts happening in other states and kicked off this work by surveying women landowners. We wanted to understand their needs and be guided by them, instead of leading by our own intuitions. We asked background questions to better understand who our audience is, to learn about objectives that women would like to meet through participation, and even included logistical preference of how and when folks would like to get together so the offerings would be as targeted and accessible as possible.

By the end of the survey, we had received 50 responses. Answers to the background questions aligned with the National Woodlands owner survey in terms of average age of the landowner, ownership structures, and acreage of woods owned. The objectives sections is where things got interesting. We wanted people to share experiences and needs with us so we asked questions like "Is there a project that you have done or are doing in your woods that you are proud of?", "Do you have any experiences or skills related to caring for your woods that you'd be comfortable sharing with others?", and "What would you like help with on your property?". We framed the questions this way to discover what our potential participants are really interested in, are already engaged with, as well as pulling out what they might need or want in terms of education.

In short, we found that this is a group of do-ers. They work hard in their woods but do not tend to view their efforts as skilled management.

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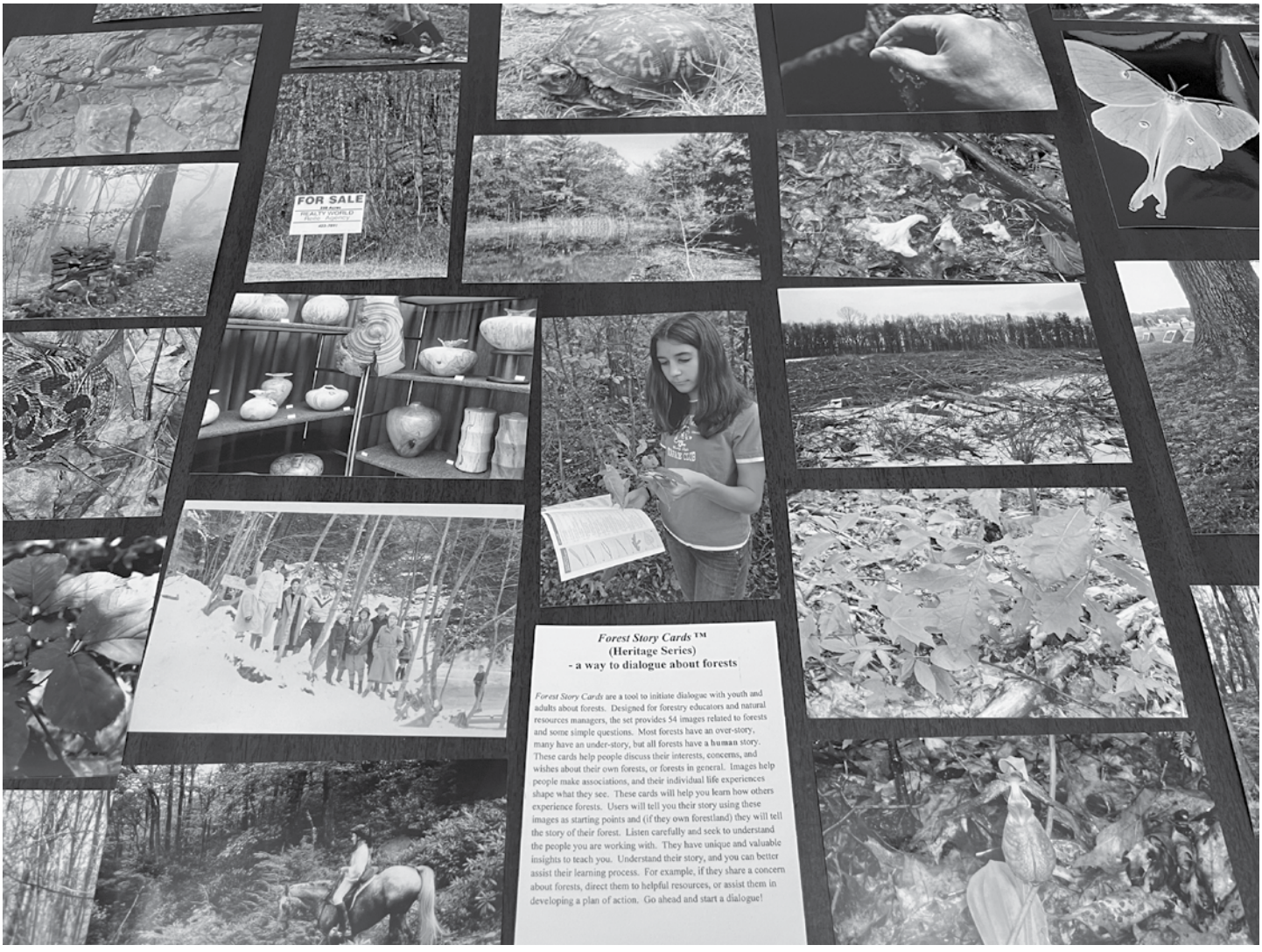

Forest Story card photos are used as an icebreaker activity at the start of some meetings to get conversations going.

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 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

Working in the woods and the virtue of coming home at night

Question: I'm recently retired and ready to "get after it" in my woodlot. I would like to cut some firewood and troublesome trees, but wonder what I should know about using a chainsaw? (G.D. Catskills/Capital District)

Answer: Woodland owners can use one or both of two strategies to work or steward their land. One strategy is to watch the woods and allow natural processes to control the outcome. The other is to change which plants dominate. Changing the dominant plants happens by planting seedlings or shrubs and ensuring their success, or by removing some plants to favor the remaining plants with sufficient sunlight to thrive. Chainsaws are often the tool of choice in the latter, and an output is firewood. Almost two-thirds of woodland owners cut firewood on their property (Figure 1).

Chainsaws are amazing tools. Chainsaws have a motor that drives a gear that pushes the chain around a bar at about 55 mph; over a bar that is 14 to 20 inches long, that chain is moving fast. A sharp chain can effortlessly cut through woods as hard as sugar maple or hophornbeam. Imagine the glee of someone who lived at the time of transition from bow saw to even the early chainsaws. That transition from human-speed to machine-speed creates new opportunities for production and new needs for safety.

Modern chainsaws, the only kind you should use, have features to help reduce the likelihood that the operator is cut or otherwise suffers injury directly from the chainsaw. These potential injuries are the result of the chain moving fast. It's worth noting that the safety features for chainsaws, and power tools in general, "reduce the likelihood" rather than "prevent" serious injury. Essential safety features on a chainsaw include: chain brake lever, broad base plate below the throttle, throttle lock, shock absorbing cushions, and a spark arrestor on the muffler (Figure 2). The latter is more important in areas prone to forest fire. The chainsaw you should be using is lightweight compared to early chainsaws, but still might weigh between 8 and 12 pounds, plus a fuel can and related equipment. An hour or two with this weight, sometimes held at arm's length, can be physically draining.

Knowing that chainsaw features reduce the likelihood of serious injury, the obvious questions are how to further reduce the likelihood of injury and whether there are other safety considerations. This emphasis on safety seems to focus on undesired outcomes, but knowledge and understanding of undesired outcomes helps us appreciate the consequences and to avoid those outcomes.

Related to the operation of the chainsaw and additional personal safety, there are products described as personal protective equipment (PPE) that amplify

Figure 1. Firewood is a common, popular, and enjoyable output from your woodlot. While it seems simple, cutting firewood with a chainsaw requires a minimum level of investment of training, tools, and equipment.

Figure 2. The brand of chainsaw is less important than the safety features present. The chainsaw that used to belong to your father or uncle likely lacks the necessary features. Visit a reputable shop that specializes in chainsaws (rather than a big box store) and learn about the important safety features.

the safety features of the chainsaw. PPE are used to protect important body parts and body parts that are commonly injured. Because PPE isn't foolproof, a list of personal protective behaviors (PPB) follows. PPE from the top down:

• ***Logger's helmet*** – the logger's helmet is an aggregate of protection from falling and flying objects for the skull and for the eyes; hearing is protected as well. The helmet is convenient to ensure all protections are together, but safety glasses, ear plugs and a hard hat would result in comparable protection (Figure 3). Cost is about $75- $90. There are no PPB that substitute for head protection.

Figure 3. Comfortable and functional logger helmets are unobtrusive to wear. The design of the helmet makes wearing it easy and efficient.

• ***Cut resistant chaps or pants*** – these are made from specialized fabric, distinct from heavy jeans or double-front work pants which are insufficient as protection. The cut-resistant fabric is often Kevlar and resists the cutting action of the saw, plus is woven such that when cut its fibers bind and prevent the movement of the chain. Chaps or pants should extend from waist to top of foot and wrap behind the calf. Chaps too big or too small are ineffective. Cost $100 - $150. There are no PPB that substitute for leg protection.

• ***Cut resistant gloves*** – Hands are a common location of injury, and gloves with protective fabric reduce that injury. Common work gloves reduce minor cuts and bruises, and keep your hands clean of pitch when cutting conifers. Many people prefer to use cut resistant gloves. The chance of cutting your hands with the chain is reduced by always holding the saw firmly with two hands. Cost of safety gloves about $40. There is no PPB that substitute for hand protection

• ***Steel-toed cut resistant boots*** – working in the woods involves variable terrain, obstacles, and weather. Boots designed for these conditions have materials embedded (now often plastics rather than actual steel) that protect the toes from crushing, the sole from puncture, and the shell from cut-through by the chain. Further, they are waterproof for added comfort that allows you to focus on cutting rather than on cold, wet feet. Boot styles include leather and rubberized material. Cost of boots $150 to $450. There are no PPB that substitute for foot protection.

Personal protective equipment is necessary but not sufficient to ensure you eat dinner at home each night. Personal protective behaviors add another layer of protection when using a chainsaw, but also improve your work efficiency and productivity.

• ***Be where you are.*** This single PPB, fully enacted, is I believe the most powerful advice (shared with me by Jim Signs, Owego, NY). Accidents with chainsaws happen in a split second, but those accidents often result from existing circumstances. Be alert to your existing circumstances of person, place, and equipment. Through complete attention to your priority activity, which should be the safe operation of the chainsaw, you can greatly reduce your potential for injury or death. Think only about what you are doing, how you are doing it, your personal ability, and the current conditions. If you mind starts to wander, stop running the saw.

• ***Participate in an approved safety and productivity course before using your saw.*** Good courses will last all day and allow you to participate. Some courses with advanced instruction will require several days, but are worth the investment. Some chainsaw dealers provide limited instruction. Nationally, a course known as "Game of Logging" provides comprehensive, hands-on, technical training for landowners on felling and saw maintenance (Figure 4). In NY, these courses are sponsored

continued on next page

Figure 4 Game of Logging training starts with Level 1. The training involves at most 10 students who each fell a tree (after being trained) and then collectively assess each tree. Pictured, the students are looking for hazards and determining the lean of the tree.

Figure 5. Large limbs can present a special safety concern. The weight of the limb or pressure on it may bind the saw. Also, when the limb is severed, the shifting weight might allow the tree to roll.

through various groups such as CCE, NYFOA, ESFPA, and NYCAMH.

• ***Where's your buddy?*** There are two schools of thought: one is to work alone and the other to have someone nearby. When working alone, there are no distractions of thought or seeing someone else. However, the sharing of time working in the woods builds bonds. A buddy might be able to help if you have a minor injury; however, not so much in other circumstances. Know if and where others are located, and that all moving parts (chains, trees, tractors, etc.) can injure others. If working with others, keep a safe distance of about a tree length or more. Ideally, not more than one person per acre working at one time.

• ***Know your physical limitations.*** The average woodland owner is 63 years old. Cognitive decline starts in your mid 20's. By this point in life you should be smart enough to know that your strength, endurance, reaction time, mental acuity, flexibility, and range of

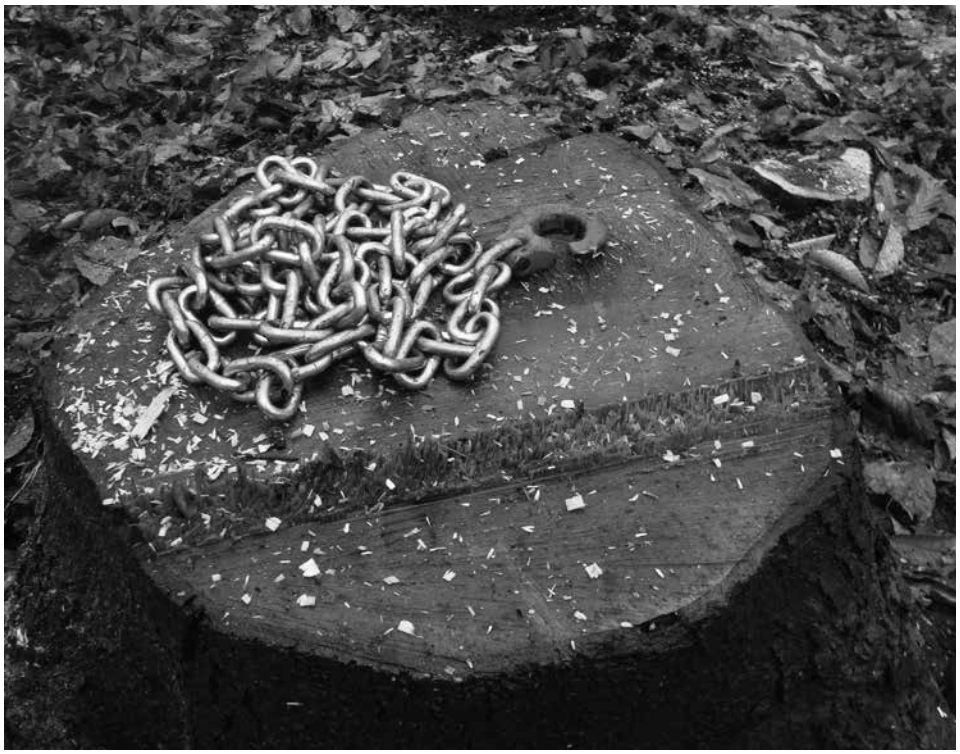

Figure 6. This hinge has the desired attributes of sufficient thickness (front to back) and width (side to side). The thickness and width are proportional to stem diameter, with adjustments possible for tree height and lean.

motion are diminished with each passing year. Regardless of your age, physical attributes vary among people – know your limits. Visit your cardiologist to ensure the physical demands of woods work won't unduly stress your cardiac capacity. Stretch before going into the woods. Be consistent with resistance weight training to ensure all muscle groups (yes, you use virtually all of them) are toned, or of known capacity.

• ***Identify hazards in and near the tree you plan to cut.*** Before felling any tree, and even if cutting downed logs, look for dead branches, hanging branches, standing snags, saplings in the path of the falling tree, and other potentially hazardous tree structures that might dislodge and strike you. Bent saplings, called spring poles, are under considerable pressure. Root balls of blow-downs can flip back. Remove hazards if possible (Figure 5). If hazards cannot be managed, there are plenty of other trees to cut. Evaluate hazards within one tree height of your location.

• ***Determine the back or side lean of the tree relative to the direction the tree will fall.*** Before felling any tree, look into the crown of the tree you will cut and determine where the majority of weight is located. Consider branches that extend to the side which add weight or which might bind with adjacent trees. Special techniques, available in training courses, are necessary to fell a tree against the natural lean. Avoid using ropes, chains and tractors to pull or push a tree against the lean.

• ***Identify and clear an unobstructed work area.*** When cutting downed logs, keep brush clear so you can see your feet and avoid hitting dirt or rocks with the chain. If felling a tree, when the tree starts to fall you need to be at least 15 feet away from the stump and at a 45 degree angle from the direction of the fall. Take time before felling to clear any obstacle that might block your path. Do not stand near the stump of a falling tree. After the tree falls, look for falling branches and trees before moving to the next tree.

• ***Determine the length and thickness of the hinge.*** Felling a tree is an exercise in applied physics. You have a heavy object that you want to pivot on a solid base it is connected to, traveling in an unobstructed arch to the ground. A correctly felled tree depends on the hinge wood to determine the direction of travel. Based on what you learned in an approved felling course, measure the tree to determine the length and thickness of the hinge. The location of the hinge on the stump is largely irrelevant, but the size and structure (Figure 6) of the hinge is pivotal (pun intended). Be careful not to cut your hinge.

• ***Determine the final cut.*** Know where you will stand and how you will execute your final cut to fell the tree. If using wedges, anticipate how many will you need and where will you place them. Make a final check on safety and others before releasing the tree to fall.

• ***Maintain your equipment.*** Assess the operability of your chainsaw and safety equipment at the beginning and end of each day. Keep the chain teeth sharp, the chain appropriately tight, and the engine running smoothly. Make adjustments to equipment as necessary during the day. Replace worn or broken safety equipment. Improperly functioning equipment can cause increased fatigue and greater chances for injury.

• ***Stop before you get tired.*** Know the limitations of your physical endurance. If you stop before you get tired, you can return tomorrow to cut the tree that will be where you left it.

For some, working in the woods felling and cutting trees is "stump therapy." For most of us, the output of wood on any given day doesn't really matter. We can walk away from the tree we suspect "might be a bit dangerous." What matters is the process, the recognition that we can shape the future of the woods, and most importantly that we walk out of the woods each day. Your family and friends will miss you if you don't.

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Wild Things in Your Woodlands

Kristi Sullivan

Mink (*Mustela vison*)

The mink is a semi-aquatic member of the Mustelidae family. Its relatives include badgers, fishers, martins, otters, and wolverines. The mink occurs throughout New York State in areas with suitable habitat. Adult male mink average two feet in length, including an 8-inch tail. They weigh 1.5 to 2 pounds. Female mink are slightly smaller than males and weigh up to half a pound less. Like weasels, the mink has short legs, a 6-8 inch bushy tail, a long neck and body, short head, and a pointed muzzle. A mink's coat is thick, full and soft. The fur is dark chocolate brown on the back, blending into a slightly lighter shade on the belly. A distinguishing characteristic of mink is a small, white patch of fur on the chin.

Mink are very active and inquisitive animals, with a keen sense of smell and sight. They are most active at night and in early morning. On land, they move with a quick, bounding lope, which they can continue for miles. This characteristic lope leaves paired tracks, which stand out in the winter snow along stream banks and beaver ponds. Mink are at home in the water as well, and they swim and dive with ease.

Mink occupy a wide variety of wetland habitats but most commonly are found along streams and beaver dams in undeveloped rural areas. They can be seen traveling from one stream bank to the other, investigating nearly every hole, crack, crevice, and overhang that may hide a potential meal. Mink are best suited for areas with very good water quality, because these waters will hold the greatest concentrations and varieties of prey. Like most mustelids, they are agile and fierce fighters, killing prey with a hard bite to the back of the skull. Prey includes muskrats, mice, rabbits, shrews, fish, frogs, crayfish, insects, snakes, waterfowl, and other land birds. Mink are opportunists, feeding on whatever is most abundant or most easily caught. They occasionally kill more than they can eat and will cache carcasses in the winter and revisit them to feed. In turn, mink are prey for foxes, bobcats, and great horned owls. In the wild, mink typically live to be two or three years old.

To find enough prey, males require a home range up to three square miles, while a females use a much smaller range. Individual territories overlap, and several animals in succession may use the same den. One mink will have several dens along its hunting route. They den in abandoned woodchuck tunnels, hollow logs, vacant muskrat lodges, holes in stone piles, and beneath large tree roots. Dens are usually near water and may have more than one entrance. Mink line their nests with dried grass, leaves, and feathers.

Overall habitat requirements for mink include an abundant food supply, permanent water, and undeveloped shores. Woodland owners who would like to enhance habitat for mink can focus on protecting water quality, and limiting the use of pesticides on lands adjacent to water. High quality, pesticide-free water improves insect populations, which in turn provide food for animals that mink prey upon, like frogs. Woodland owners can also create riparian and wetland buffers, and protect existing buffers from development. Brush piles can be created to serve as denning sites, if naturally occurring dens are not available. A few large trees felled and left on the ground can provide future logs for feeding and denning. Dead wood protruding into the water will provide cover for prey items as well.

Kristi Sullivan is Director of the New York Master Naturalist Program. More information on managing habitat for wildlife, as well as upcoming programs can be found at About Our Program – New York Master Naturalist Program (cornell.edu)

From the Executive Director (continued)

vulnerable to spoilage in the summer, and exports dropped off because logs would cook and spoil during transport; then prices would come back up in the fall. I explained this and asked if I could make another offer in the fall if prices rose; he was agreeable. As predicted, prices went up and I increased my offer to the $30,000 he was looking for. He seemed pleased but wanted to talk it over with his wife and asked me to come back in a couple of weeks. During that time prices rose further so when I returned, I increased my offer to $31,000. His reaction was the same. So away I went. Prices increased further and when I returned, I increased my offer to $32,500. Same response. He seemed like a sincere man, but at this point I could not tell if he was simply wishy-washy or if he was playing me. I came back one last time, when he finally admitted "I don't know what to do." Apparently, he invited two of the other bidders to make another offer. The problem with the process this time was that it had become more like an open auction, only without procedure. The others offered a percentage share this time instead of a lump sum — one offered him 50/50, the other 60/40. The one who offered him 60/40 told him that his 60% should amount to $38,000. No wonder he was confused — he had no apples-to-apples comparison like before. But he knew that $38,000 sounded a lot better than $32,500 and decided to take the 60/40 deal.

The timber was cut, the logs were sold, and each got their share. The final tally for the landowner was $24,000 — much less than the original high bid (and actually lower than the low bid too) and far less than the $38,000 estimate. Turns out that the timber quality (inside) was worse than what showed. The hearts of the maple were very big, and "spidery" (heart color/shape/size is a big factor in log grade and price), and there was also a lot of center rot. The owner was upset at this outcome and proceeded to bad mouth the "buyer" throughout the area.

The reality of a percentage deal is that you are not selling timber to a buyer, you are entering into a partnership together to sell logs — you supply the timber, they supply the manpower and market access. You share in the risk equivalent to your percentage share. The risks being timber quality, market value, market interest, trustworthiness, etc. In this story quality was the deciding risk factor on the reward, maybe trust too.

The landowner gambled with his timber and didn't hit the jackpot. He was tempted by the jackpot alone and did not consider the risks, or at least didn't ask enough questions to weigh the options. I'm not sure it was fair to bad mouth the "buyer." Perhaps he had falsely tempted him, or maybe he was incompetent, or maybe he just made a bad call. Regardless, the landowner made the choice and got what the logs were worth. When you buy timber lump sum, you know that there is some risk, and you accept it when it doesn't turn out; it comes with the business. When you sell timber lump sum, sure there is a chance it cuts out better for the buyer, but you ultimately pass most of the risk to the buyer; you've been paid, and the transaction is worry free going forward.

The moral of this story is: don't gamble with your timber. Don't choose the method of sale based on a tempting jackpot alone, unless that jackpot is promised contractually as a guaranteed minimum or you really know your timber and how it will cut out and how well it will grade out in the market. Choose the method that you sell timber wisely based on what is the best (or only?) option for your situation. Like I said, they all have merit, you just have to weigh the options, understand the risk, and accept the outcome.

Until next time…go to the woods — take it all in and love it until you can't.

–Craig Vollmer
NYFOA Executive Director

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Spotted Lanternfly

Information Provided by the NYS Department of Agriculture

By Eric Jenks

Spotted Lanternfly (SLF), is the latest in a long line of invasive species that have threatened the forests and agricultural lands of New York. According to the New York Department of Agriculture website, Pennsylvania was the first unfortunate host to SLF in 2014. Originally from Asia, SLF feed on more than 70 different plants, creating issues for a wide array of agribusinesses and forest management plans. Currently, SLF has only been found in NYS in Ithaca, Sloatsburg, Orangeburg, Port Jervis, and on Staten Island.

"There's been a lot of media activity in the last several weeks about SLF, and a lot of reporting of sightings from the general public," said Chris Logue, Director of the the Division of Plant Industry at the NYS Dept. of Agriculture. "We all benefit from integration and awareness from the public on our work with invasive species."

While all invasive pests are an issue that requires attention, SLF presents differences that can make it harder to pin down how it's being introduced to new areas. "It can move on many different conveyances and types of products," said Logue. "There are reports on SLF moving on things as diverse as nursery stock and plants, to pallets of paint that are shrink-wrapped. Compare this to something like the Asian longhorn beetle (ALB), that has been eradicated in NYC, but is still present on Long Island. The ALB moves on a limited number of plant species and in a much more limited group of conveyances and products.

SLF is a good hitchhiker. It can fly but does so poorly. It mainly moves through human-assisted means such as vehicles, stone, rusty metal, and potentially on firewood. In PA, it's believed they came in on stone slabs imported from another country. Since they sit on edge and is stacked tightly, it's a hard commodity to inspect for invasive species. The adult SLF is very effective at hitchhiking. It can be on clothing, vehicles, and then transported into and throughout NY. Human-assisted spread is a very important thing to be aware of.

Economically speaking, Logue says that SLF could have a 300 million dollar impact on agriculture in NY as

A ladybug among the spotted lanternflies. Richard Gardner, Bugwood.org

Adult spotted lanternfly. Pennsylvania Department of Agriculture , Bugwood.org

it continues its spread. Currently, the main agricultural concerns are with the grape, wine, and juice industries, as well as with apples, hops, and other types of fruit. "We do have some documentation of damage in vineyards, especially with young vineyards that are recently planted," said Logue. "Sooty mold is caused by a honeydew excretion from the SLF. In grapes, it can reduce sugar content, causing issues when fermenting. From an agri-tourism perspective or for a homeowner, this excretion can prevent people from enjoying their property or engaging in recreational activities until the areas have been washed down."

Logue stressed however that the true story of SLF is one of "cooperation and communication between states and federal agencies." That cooperation has slowed the spread of SLF outwards to other Northeastern states. "We always want to recognize the really incredible work that the PA Dept. of Agriculture has done, and the great work that the USDA plant protection and quarantine has done throughout Northeast," said Logue. "They have given NY time to plan, and those states have contained this longer than any of us anticipated that they could. Since 2017, we have been working with other states and federal agencies, and internally with invasive species council in NY. All 9 agencies have had involvement, along with NYS DEC, Office of Parks, Recreation, and Historic Preservation, DOT, and the Thruway Authority; they all have facilities in the state where they have put time and staff forward with trapping and monitoring, and we have appreciated all of that help. We worked closely with them until 2020 when Covid-19 hit, and that limited some of our roadside inspections with DOT and the State Police truck inspection unit. We work with their roadside inspections, check for permits on goods from quarantined areas, and are helping to raise awareness in the trucking agency in general. The Motor Truck Association has provided great cooperation."

One new area that the Department of Agriculture has focused on with SLF is railroads. "Railroad lines have not had all that much presence in the recent past," said Logue. "However we have found during a survey of SLF, that it is found in concentrations that follows major rail lines. We are currently working with railroad association in neighboring states to increase our survey along railroad rights of way."

According to Logue, the next steps are: increased education among the public, and establishing quarantine protocols within the state when SLF is detected in a new area. "Surveys for SLF continue until the first frost, which kills adult SLF," said Logue. "That varies greatly across the state, with upstate surveys tapering offer sooner than in southern areas. We've had our first reports of SLF egg laying, and while all the adults will die by the first frost, they will have mated and laid eggs before that frost. Citizens can safely scrape egg masses they can easily reach or have access to. While we do have some plans for treatment in the works, there are a lot of pieces that have to fall into place and permissions that need to be granted before taking those actions."

If you do find evidence of SLF, you can report it using a tool on the NY Department of Agriculture's website: *https://agriculture.ny.gov/spottedlanternfly*. "Take a photo and report it, that's helpful," said Logue. "If you can also safely collect a sample to send in, you can use hand sanitizer or put it in your freezer to kill it. We want to continue to be vigilant with the potential spread."

Eric Jenks is a freelance writer with Morning Ag Clips, LLC. Morning Ag Clips is now managing the Tree Farm column.

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

Wandering the Globe with a Zig Zagging Stride

By Mark Whitmore

There is now yet another new invasive forest pest at our doorstep, elm zig zag sawfly, *Aproceros leucopoda*, or EZZ for short. That is a nice acronym, but having yet another pest arriving in our forests is not. One good lesson to take away from this is that someone first reported it on the iNaturalist phone app in Canada. It was not an expert, but rather an amateur who was concerned about what they saw. This is similar to what happened with the first detection of hemlock woolly adelgid on Lake George, which has led to an effective response to slow the spread of this devastating insect. We need public involvement at this time with invasive pest detection and I hope those reading this article will take note and learn how to use the iMapInvasives app available here in NY.

The first report of EZZ in North America was made on July 30, 2020 in a rural area about 20 miles north of the US border near Montreal. Surveys conducted at the time indicated it was still within about 20 miles of Montreal with an outlier about 40 miles downstream (Martel et al. 2021). The conclusion was that it had been established in the area for a couple years, or more. This year additional survey painted a different story. Movement downstream of Montreal, or to the east, was static, but to the west, EZZ was found at many locations in eastern Ontario, about 125 miles upstream, including sites on the St. Lawrence River near the Thousand Islands, across from Massena and

Zig-zag pattern and a small EZZ larva. Veronique Martel, Natural Resources Canada.

Loose, net-like cocoon for EZZ pupation. Veronique Martel, Natural Resources Canada.

Ogdensburg, NY. We have yet to get the results of survey efforts conducted by NYSDEC this summer, but experience in Europe makes it highly likely it is in NY now, or will be here soon.

EZZ is an elm specialist and a native of eastern China, Japan, Korea, and eastern Russia. Its spread from eastern Asia was first reported in Poland and Hungary in 2003. EZZ was likely introduced years prior to detection and spread rapidly with severe elm defoliation now found from Ukraine to Belgium and the Netherlands. In Germany, Blank et al. (2014) estimated the rate of natural dispersal to be up to 90 km/yr (56 mi/yr). Genetic analysis of specimens from the area of initial detection in North America by Canadian scientists indicates it is most similar to populations found in Austria and Romania, not eastern Asia as my container-shipping habituated mind would have thought. However, I'm reminded that EZZ feeds on leaves and pupates in soil, not on bark or wood like Emerald ash borer or Asian Longhorned beetle, so a different avenue of importation is likely. It often seems a futile venture to figure out how an insect travels such long distances but it can help direct efforts to intercept potential invasives in the future.

EZZ is a sawfly, in a group of insects known as broad-waisted wasps. They are called sawflies because adults have specialized ovipositors that allow them to saw into leaves to deposit their eggs. EZZ deposit up to 49 eggs singly into the tips of the saw like teeth on the edge of elm leaves. They hatch after just a few days and feed on the leaf tissue between the leaf veins in a characteristic zig-zag fashion. This early instar feeding pattern is quite different from other elm defoliators and easily recognizable. The larvae have six instars and complete development in just over two weeks. As they get larger, larvae consume more of the leaf, obscuring the characteristic zig-zag feeding pattern. Large sawfly larvae look like small caterpillars but have many more prolegs, the tube-like legs on the rear, or posterior, part of the body.

After they finish feeding, larvae construct either a light colored, loosely woven net-like cocoon affixed to the leaf or a darker, more compact and densely woven cocoon. Both cocoon

continued on next page

types are produced with each generation. Pupation is completed and adults emerge after about a week in the light, net-like cocoon. The dark, tightly woven cocoons drop to the ground and are the overwintering stage. The fact that overwintering cocoons are produced with every generation during the summer allows this insect to take advantage of a potentially extra-long growing season, producing another generation, without taking a chance that they might not complete development and not produce overwintering pupae.

Two aspects of EZZ biology make it particularly damaging. First, reproduction is entirely asexual; and second, there are up to six generations a year. However, in northern Europe, there are usually only four generations and considering the similarity in climate, I would assume it would be the same in NY. These biological traits explain EZZ's capacity to spread rapidly and defoliate large areas of trees. This brings up one of the most concerning aspects of EZZ's introduction; it is within the area of Ontario and NY with the greatest concentration of elm in the lowlands surrounding the St. Lawrence River. It's not too great a stretch to think of it rapidly moving into the Ontario plain, across the Mohawk Valley, and into the Hudson Valley, areas where there are not only extensive native elm forests but also ornamental plantings of many elm species and cultivars.

EZZ's host range appears to be quite broad. Among eastern Asian elm species, defoliation of the widely planted Siberian elm should be of concern in North America. In Europe, native elms and many cultivars have experienced extensive defoliation, including cultivars resistant to Dutch elm disease. American, rock, and slippery elm, the most common species in NY, have all been found defoliated in both forested and urban settings in Canada. Based on European work and Canadian observations it appears that most, if not all, elm species will be impacted by EZZ.

Management of EZZ with insecticides has been researched in Europe but, as with any forest tree, can only reasonably be used in ornamental plantings or in small forest plots. Sawflies are definitely susceptible to natural enemies, but work in eastern Asia has found only one parasitoid, a Tachinid fly. Unfortunately, this fly turns out to be a generalist on a number of other moths and butterflies, which makes it unacceptable for biological control.

Elm just can't seem to catch a break! Dutch elm disease (DED) devastated populations of what was once one of our most common and majestic urban trees. A number of exotic species and now resistant varieties have been planted in urban settings and work from Europe indicates they will be susceptible to EZZ. Although Elm is not an important timber species, although I just learned that wheel wrights in the past valued elm for wheel spokes. Elm *is* an ecologically important species in wetland forests. Indeed, similar to hemlocks, it is considered a foundation species: species that dominate ecosystem structure and processes (Ellison et al. 2005). I had hope that American elm might be naturally developing resistance to DED in our extensive floodplain forests. Now, with EZZ, will this possibility be set back? With black ash being heavily impacted by emerald ash borer will our floodplain forest be left with only red maple?

There are so many reasons to be concerned about this newest invader. Please keep your eyes peeled for this insect next spring, and have your phone with the iMapInvasives app turned on!

Resources:

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

Would you like to see an article about a particular topic we haven't covered?

Please send your suggestions to: Mary Beth Malmsheimer, editor at mmalmshe@syr.edu or Jeff Joseph, managing editor at jeffjosephwoodworker@gmail.com

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	Name	Chapter
Alec Bien	SAC	Christina O'Malley	NFC
Pam Murray	CNY	Steve Schiano	WFL
Bruce Nelson	SOT	Ralph Vanner	NFC
Dale Newell	CNY	Anne Gaines Wines	SOT

Would you like to receive an electronic version of future editions of *The 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.

The New York Forest Owners Association believes in:

- Promoting science based resources to support woodland stewardship.
- Supporting woodland owners in the long term stewardship of their forest resources.
- Raising public awareness of the challenges to sustaining our forests.
- Seeking collaborations with other organizations having similar goals and objectives.
- Respecting private property rights as they relate to sustainable forest stewardship.

Need a Bridge Built?

As part of a spring semester class at SUNY ESF, the Construction Management students design, build, and load test timber bridges in Baker Lab. For the spring 2022 semester we are looking for three clients who would like to have the class build a bridge for them. The bridge would be built for the cost of the materials, paid for by the client.

Key specifications:

- Width: 3’ to 8’
- Length: 12’ to 20’
- Cost: $500-2000, depending on size
- Load test: ~4000 lbs.
- Material: Pressure treated wood
- Completion date: May 1, 2022

Transport from Baker Lab to final destination: Responsibility of client. If you are interested in having a bridge built, or would like more information, please contact Paul Crovella at plcrovella@esf.edu

Women Owning Woodlands (continued)

These answers were the foundation of this group. We saw them as woodland stewards in need of more resources, with an interest in making connections with other woodland owners engaged in their woods in a similar way. This group was kicked off in November of 2019 with an in-person, hands-on event. Based on the survey responses, it was clear that they weren't afraid to get their hands dirty, and in fact, wanted to do so.

The meeting began by trying to get folks talking with one another so we started with an exercise using forest story cards. If you aren't familiar with this ice-breaker activity, it is a set of forest related photographs that are all laid out on the table. Participants are asked to pick an image related to their woods that speaks to them, and then share out their choice as we went around the room with the group. Following these introductions, we shared a meal with a potluck. Everyone brought a dish, including things like homemade sourdough breads, salads made with wild ingredients, and soups filled with homegrown garden vegetables. Connecting these landowners and getting everyone sharing is one of the most important resources we can offer. The depths of knowledge as well as similar informational gaps became clear.

The last part of the meeting involved providing resources that met the needs identified by the group. Women tend to see their land for its holistic value in terms of benefits for the environment, community, and economy (Redmore, 2009), but many women are unsure of who to engage to help manage for these values. It is a common misperception that forests are just for timber harvesting so we peppered the crowd with women technical service providers, including foresters and natural resource educators, to share the wide variety of work they can offer.

The event was structured around hands-on stewardship activities that were identified as interests in the survey. Some topics that rose to the top included agroforestry, invasive species management, and plant identification. We led an activity on establishing test plots for simulated wild ginseng, did a honeysuckle pull, and taught plant identification in between.

With the onset of the pandemic, like nearly everything else, we had to pivot our work to a remote setting. Jess Alba, from the Watershed Agricultural Council, coordinates a WOW e-newsletter as well as virtual events. Heidi Bock from the Columbia Land Conservancy, along with my colleagues from Cornell Cooperative Extension of Columbia and Greene Counties, and I support with the facilitation of these offerings. Virtual events include a WOW happy hour that has allowed us to stay in touch and tuned into the work we are all doing on our properties. The happy hour generally starts with a spotlight or two to share information such as preferred tools for invasive species management. This is followed by a casual discussion.

After the group became established, it was evident that there was value in visiting participant's lands, similar to a NYFOA woods walk but functioning like a work force. We are happy to say that WOW will once again be getting together in person, engaging in more outdoor stewardship activities. We get together, include a bit of education, share a meal, and get some work done all while building relationships and learning from one another.

Are you interested in getting involved with WOW? If so, we would love to hear from you! Simply sign up to receive the e-newsletter to tune into opportunities by emailing *wow@nycwatershed.org* or check out the national Women Owning Woodlands network at *www.womenowningwoodlands.net* to learn more.

Tracey Testo is the Agroforestry and Natural Resource Educator at Cornell Cooperative Extension of Columbia and Greene Counties' Agroforestry Resource Center and Siuslaw Model Forest. Her work at CCE is multi-faceted, including her role as a coordinator of the NYC Watershed Trained Logger Certification Program, co-chair of the NYS Agroforestry Program Work Team, and educator of general forestry and agroforestry topics.

Save the Dates!

April 22-24, 2022

NYFOA Annual Meeting

We hope you can join us fo a statewide meeting next spring.

Friday April 22: **An Ice breaker will be held on the evening of for those traveling**

Saturday April 23: **Annual meeting will be held followed by field tours Saturday afternoon.**

Sunday April 24: **Field tours will be held in the morning.**

The meeting will be held by the Western Finger Lakes chapter. Venue location, agenda and registration information will be announced later.

NYFOA
New York Forest Owners Association

The Potential of Regulated Commercial Hunting as a Management Tool to help Regenerate New York Forests

By Paul D. Curtis

The white-tailed deer is an important part of North America's forested landscape. However, overabundant deer populations are causing wide-scale habitat changes, threatening forest regeneration (Figure 1) and biodiversity. Deer are selective browsers, and many of the tree species that they prefer to consume are valued for timber, or as food-producing trees for wildlife. Deer also eat wildflowers to a point that previously abundant species, such as orchids or trillium, have suffered dramatic population declines. The preference of deer for consuming native wildflowers, and tree and shrub seedlings, is favoring invasive plants such as Japanese barberry. Barberry provides ideal habitat for black-legged ticks that transmit Lyme disease to people and pets. In addition, changes in the forest herbaceous and shrub layers may reduce available food and habitat for other wildlife, including insects, small mammals, and songbirds.

When the variety of species in the forest declines, so does the way that forest ecosystems function. Resilience to natural disturbances and the quality of ecosystem services may be reduced. Fewer trees and herbaceous plants may grow to maturity and reproduce, and excessive deer browsing could prevent establishment of new forests. Deer not only remove natural regeneration, but may also severely impact tree plantings. This potentially has large ecological and economic consequences for conservation and timber management, and limits opportunities for climate change mitigation through reforestation. Landowners, foresters, conservation organizations, and wildlife agency staff across New York State are becoming increasingly concerned about deer impacts in their woodlands. NYFOA promotes sustainable forest management, and initiated a campaign called *Restore New York Woodlands* (RNYW) that specifically addressed forest regeneration. This effort included managing the deer population to keep their numbers in balance with the habitat available.

Figure 1. Six-year-old yellow birch stems in a fenced research plot near Old Forge, New York. Note the lack of woody seedlings, and abundance of deer-resistant ferns outside the fence in this regeneration cut. Photo credit: P. Curtis.

Hunting has been the primary management tool used by state wildlife agencies to bring deer numbers in balance with forest ecosystems (Figure 2). For several decades, taking antlerless deer with deer management permits (doe tags) issued by the New York State Department of Environmental Conservation (NYSDEC) kept herds in check in many rural parts of the state. However, conventional recreational hunting has not always been successful for helping landowners achieve their deer management goals (Curtis et al. 2005). In about 2010, reports from The Nature Conservancy (Shirer and Zimmerman et al. 2010), and Cornell University (Connelly et al. 2009), indicated that forest regeneration, especially desirable hardwood species (maples, oaks, etc.), in many parts of the state were being severely impacted by deer. At Cornell's Arnot Teaching and Research Forest, despite an *Earn-a-Buck Program* (requiring taking two antlerless deer before harvesting a buck), and abundant antlerless deer tags, deer still impact forest regeneration in most stands. Recreational hunting by itself was not reducing deer impacts sufficiently for university staff to meet our forest regeneration goals and maintain biodiversity in our outdoor classrooms. Lack of sufficient regeneration is a common issue on both private and public lands throughout much of the state (Connelly et al. 2009, Shirer and Zimmerman 2010).

In May 2021, NYSDEC released a new Statewide Deer Management Plan (NYSDEC 2021). Important elements

continued on next page

Figure 2. Successful deer hunter checking in a buck at the Cornell University Arnot Teaching and Research Forest near Van Etten, New York. Photo credit: G. Goff.

of the plan included: (1) Establishing desired deer population trajectories for 23 ecologically unique regions of the state using an assessment of deer impacts on forest regeneration and public preferences for deer population changes; (2) Providing additional hunter opportunity and increasing antlerless harvest strategically where needed; and (3) Working with landowners and land managers to monitor deer browse impacts on forests with the *Assessing Vegetation Impacts of Deer* protocol (AVID, https://aviddeer.com). NYSDEC has proposed rule changes that will improve deer management, simplify big game hunting, expand hunting opportunity, and increase hunter safety.

In addition to forest impacts, deer may damage property, threaten human health and safety, and spread tick-borne diseases to people and pets. National estimates of the cost of wildlife damage to agriculture exceeded $1.5 billion USD annually in the 1990s, and similar losses were associated with accidents caused by collisions between wildlife and vehicles. Deer may be considered as one of the most dangerous animals in the U.S. because 200 or more people lose their lives each year in deer-related vehicle accidents. Thousands of Lyme disease cases are reported each year to the Federal Centers for Disease Control, and the economic cost of these health concerns is unknown but substantial. In 2019, State Health Departments reported 34,945 cases of human Lyme disease in the U.S., and 4,243 of those cases were from New York State. However, this is likely the tip of the iceberg, as other estimates from the Federal Centers for Disease Control suggest that at least 476,000 people get Lyme disease annually in the U.S. Newer tick-borne diseases (e.g., Powassan virus), may have additional negative impacts because human fatality rates may be much higher than for Lyme disease. Ehrlichiosis, and the alpha-gal red meat allergy have also been associated with bites from lone star ticks.

So, if deer are overabundant in some areas, and conventional hunting programs are insufficient to reach management objectives or regenerate forests, what about regulated commercial hunting? Is it feasible to commercialize this high-quality local source of protein? Is commercial hunting compatible with the North American Model of Wildlife Conservation (The Wildlife Society 2012)? The North American Model has been the foundation for wildlife management for decades. The model has seven basic tenets: (1) Wildlife resources are held in public trust; (2) Markets for game are eliminated; (3) Wildlife use is allocated by laws and regulations; (4) Wildlife can be killed only for legitimate purposes; (5) Wildlife is considered an international resource; (6) Science is the proper tool to develop wildlife policies; and (7) Democracy of hunting is standard- everyone has equal opportunity. Can regulated commercial hunting work under this scenario? There are no simple answers to these questions, and the issue of commercial hunting has been hotly debated by wildlife biologists (VerCauteren et al. 2011). Let me highlight some of the arguments both for and against regulated commercial hunting of deer in New York or elsewhere in the United States.

Arguments for Developing a Program for Regulated Commercial Harvest of Deer

1. The greatest benefit would be the opportunity to reduce overabundant deer populations by providing an economic incentive for increased harvest pressure. Such a program would provide an additional management tool for use in areas where recreational hunting has not sufficiently reduced local deer herds. Commercial harvest may be more cost-effective than sharp-shooting or other forms of controlled hunting because entrepreneurs would pay the state wildlife agency for the opportunity to harvest deer.

2. Commercially harvested deer could provide a source of healthy, natural, and locally grown protein to more people than just hunters (along with their family and friends). Societal health benefits could be derived by consuming venison because it is a high-protein, low-fat, and cholesterol-balanced food source which is readily available across much of the eastern and mid-western United States.

3. Economic benefits may be gained by providing a new marketable product which could stimulate entrepreneurship in specialized areas of deer harvest, processing, packing, transportation, marketing, sales, and service. Benefits could be experienced at multiple economic scales, from local markets to international trade.

4. Applying additional harvest pressure may help alleviate deer–human conflicts, such as crop damage or forest regeneration failures. Public attitudes may change from viewing overabundant deer as a problem to again seeing them as a valuable natural resource. Also, the nonhunting public may support hunting as a valuable tool once they see the effectiveness, humaneness, and economic benefits of regulated commercial deer harvest.

5. Commercial markets already exist for certain wildlife species, for example

the trapping and selling of furbearer pelts. Furbearer management provides a good example of how wildlife resources could be managed both commercially and sustainably. In addition, some people already pay for guided hunts, and these hunts are accepted as an appropriate use of wildlife resources.

Arguments Against Developing a Program for Regulated Commercial Harvest of Deer

1. Unregulated market hunting harkens back to the exploitive time in the history of wildlife management in North America when some species were driven nearly to the brink of extinction. Many stakeholders don't want to see wildlife species being over-exploited.
2. Wildlife resources are held in the public trust and managed to benefit everyone. Regulated market hunting would potentially privatize a public resource that we all share.
3. Commercial deer harvesting may reduce public access to hunting opportunities in some areas.
4. Creation of legitimate game markets may expand black markets for the trade of illegally obtained animals.
5. Many existing laws and regulations would need to be changed to create a legitimate program and markets for commercially selling free-ranging game meat such as venison.

What Does the Future Hold?

The wildlife profession is split about whether or not to pursue regulated market hunting for white-tailed deer. There are strong proponents both for and against changing existing laws and regulations to allow development of such a program. Some wildlife managers argue that they do not have the strength, stamina, or political will needed to implement such sweeping changes. Other natural resource managers may appreciate having an alternative tool for managing locally overabundant deer populations and their associated negative impacts.

Sportsmen and women often oppose the concept of market hunting because it may reduce recreational hunting opportunities. Under public trust doctrine, they don't want to see a commercial company privatize and sell "their" deer, or other wildlife. Hunters may view commercial deer harvest as a competing entity with recreational hunting because of the use of otherwise restricted tools (e.g., bait, lights at night, etc.), lack of fair chase, and the potential to over harvest a valued resource. However, harvesting deer under a regulated commercial harvest program may increase the overall value of deer to society, and enhance the intrinsic values that hunters cherish.

State and federal laws, along with state hunting regulations, would need to be modified to legally sell wild-harvested venison. Bills have been proposed in some states to develop a regulated commercial hunting program for deer, but none has passed in state legislatures to date. It may be difficult to mediate a change in attitudes regarding commercial wildlife harvest. To be successful, it will require adoption from stakeholders at all administrative and decision-making levels. State laws and regulations that dictate harvest, taking, possession, transport, distribution, sale, and use of wildlife will need to be reviewed and some will have to be modified. The political will to put such a concept into action does not currently seem to exist. I think this is understandable when even professionals cannot agree if this would be an appropriate use of wildlife resources.

Food safety will be an important component of any pilot program, as consumers will want to know if free-ranging deer have been exposed to environmental contaminants (e.g., heavy metals, pesticides, or diseases). Also, for deer taken with firearms, there is concern about lead fragments in venison, and safeguards must be established to ensure that minimal lead enters the food chain. Commercial deer harvesters may be required either to use archery equipment, or nontoxic ammunition, to ensure no lead will taint the meat. Increased inspection of venison would provide an excellent opportunity to collect and examine data on other possible environmental contaminants.

Ultimately, a pilot project would need to be developed to field-test this concept. Regulated commercial harvest of deer could effectively reduce overabundant herds along with many of their associated negative impacts. To date, no state has mustered the political will to implement such a program, and I don't see this happening any time soon. Various stakeholder groups that are negatively affected by deer will need to be much more organized and speak with a collective voice to pass the legislation needed to modify existing laws and regulations. It will take vision and leadership to collectively address the concerns associated with deer overabundance.

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