# The Western Finger Lakes Forest Owner



Fall 2015 Volume 29 Number 3

## Hemlock/Canadice Lakes August Woods Walk

by Peter Muench

The forested section of the walk started at the abandoned Dixon Hollow road, and headed northerly along the top of the Canadice Lake outlet to the dam at Hemlock where the penstock shunts water to Hemlock Lake. This section is part of Compartment B of the DEC Unit Management Plan for the 6684 acre Hemlock/Canadice State Forest.

The forest is comprised of second growth hardwood sawtimber and softwood plantations of Norway spruce and red pine. Some of this dates back to the City of Rochester's program of tree planting in old agricultural fields during the early and mid 1900's to establish a healthy forest for improved watershed management. We observed several species of each of the oak subgenera. From the whites; white oak and chestnut oak, and from the reds we saw the classic red oak, black oak and a scarlet oak,



photo credit- Peter Muench

Participants get a closer look at the dam.



photo credit- Peter Muench

Approaching the Hemlock dam on the woodswalk.

discussing their uses from cooperage with the whites to furniture from the colored red oaks. There was one 18-inch DBH butternut, straight and clear for about three logs. All the classics were represented, hard and soft maple, various hickory's, hophornbeam, white pine, hemlock, and natural regeneration from the spruce plantations.

One unexpected species we crossed paths with, was northern white cedar, actually an arborvitae, as this area is getting close to the southern edge of it's range. Also noted was the presence of honeysuckle, an invasive, on an old access road that provided sunshine for its success, and extensive multiflora rose.

It was a very good day and interesting hike, improved by the presence of McDuff, as he ran along with the group and shared the day with all of us.

### In Our Woodlot

Ed & Wanda Piestrak

During 2014 we applied for an EQUIP Grant to perform timber stand improvement (TSI) to release a diverse forest on 40 acres of timberland that was clear cut in 2000. We were approved for the project and immediately contacted our forester, Mr. Bruce Robinson about marking the trees for removal. He related it would be easier just to do the work rather than mark the trees. Thus he agreed to perform the work and he completed the job in late spring. The

residual forest favored oak,

hickory, maple and aspen. He said the work came out perfect.

Now we only have to sit back for the next ten years



and observe the released trees take their rightful place in the forest make up. With a young forest, it is best to start early in the growing process since it is easier to remove smaller trees and the residual trees can get a head start in development. As usual, this was supposed to be a three year program but we have completed all our programs within a one year window.

## **About Us**

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P.O. Box 1281 Pittsford, NY 14534 (585) 414-6511 seager michael@yahoo.com The Western Finger Lakes Forest Owner is published for members of the Western Finger Lakes Chapter of the New York Forest Owners Association (NYFOA) and is published 4 times per year. NYFOA was founded in 1963 and is organized to encourage the wise management of private woodland resources in New York State by promoting, protecting, representing and serving the interests of woodland owners. The Western Finger Lakes Chapter was founded in 1988 and encompasses Genesee, Livingston, Monroe, Ontario, Orleans, Seneca, Steuben, Wayne, and Yates Counties.

Membership is open to anyone interested in understanding how to manage a woodlot. NYFOA membership can bring returns in the satisfaction of growing quality timber, stabilizing forest industries and markets, providing permanent jobs, increasing the value of your woods, enlarging areas of natural beauty across the state, and leaving behind a monument in living trees to bless the tomorrows for the youngsters of today. For information on becoming an NYFOA member, contact Liana Gooding, NYFOA Secretary, NYFOA, P.O. Box 541, Lima, NY, 14485 or at 1-800-836-3566. Annual membership is \$45 and includes: subscriptions to this newsletter; to the bimonthly NYFOA statewide publication, *The New York Forest Owner*; attendance at chapter meetings; and to statewide meetings. Membership at the Contributing level \$50-\$99; Sponsor level \$100-\$249; Benefactor \$250-\$499; and Steward \$500 or more are also offered. For more information visit www.nyfoa.org.

Readers are encouraged to submit articles for publication in this newsletter. Articles should be mailed or e-mailed to: Richard Starr at the address to the left. Electronic submissions are preferred. Any letters should be sent to the Chair for consideration.

For event reminders and late-breaking news, **subscribe to our email list** by sending a blank email to nyfoa-wfl-news-subscribe@npogroups.org

Note: The deadline for our Winter 2015 issue is December 1st.

## **Annual Dinner Meeting**

Wednesday October 21, 2015 is when our chapter will gather for this year's annual dinner meeting. Once again Laurier Catering will prepare a food feast for our dining pleasure. Chef Brad values the meal at \$28 but your board of directors will cover \$7 of this so the cost per attendee is \$21. To reserve your spot send a check made out to NYFOA/WFL for \$21 per person to Dick Starr, 231 Farmview Drive, Macedon, NY 14502 by Wednesday October 14th. Appetizers at 5:30 and dinner at 6:00.

We had to find a new location for this event as Monroe County closed the Highland Avenue facility where we've held many of our functions in the past. Our new location is St. Catherine of Siena Church at 26 Mendon-Ionia Road, Mendon, NY. Specifically, we'll be in the Monsignor Schnacky Community Center which is part of the parish complex. There's a big parking lot clearly marked and well illuminated. It's also handicap accessible. Note that Mendon-Ionia Road is also Route 64.

Our evening program is "Farming the Woods" with Steve Gabriel. Steve is an ecologist, educator, author and forest farmer who has called the Finger Lakes home for most of his life. His mission is to reconnect people of all ages to the natural world and provide tools for good management of forest and farm landscapes. He works for Cornell Cooperative Extension in the Department of Horticulture.

With professor Ken Mudge, Steve co-authored and published a book in fall 2014. The perspective is that a healthy forest can be maintained while growing a wide range of food, medicinal and other non-timber products. Forest farms can be productive where the plow is not. Unique value added forest products can add supplemental income for farmers and forest owners. Steve will have copies of his book available for purchase plus a free one will be in with the door prizes.

Join us for a fun and fact filled evening and feel free to bring a door prize. Who will win a new Stihl chain saw this year?

# Pruning Wild Apple Trees with Bruce Robinson

by Garrett Koplun and Mike Seager

Wild apple trees are a wonderful resource to have on your property. They may be abundant in early successional forest areas and field edges, but they are often rare gems in older woodlots with dense tree canopies. If you're lucky enough to have wild apple trees on your land you're well aware of the potential they offer. Their fruit provides a unique forage opportunity that is hard to resist for a wide range of wildlife. Stewarding apple trees is a worthwhile venture if you're interested in seeing more wildlife and looking for a fun activity that will offer gratifying results. When done correctly pruning can consistently improve apple yields. Good pruning can train young saplings and rejuvenate more mature trees. Even deteriorating trees can be brought back to youthful production with the right know how.

Despite all the wonderful benefits of apple tree pruning many people are reluctant to do it themselves. Pruning can seem like a daunting task, especially to the beginner. The physical nature of the work isn't necessarily the difficult part. Deciding if a tree really needs to be pruned and choosing where to make the cuts is where many of us have a hard time. It can be mentally tiring. At times we question if we're making the right choices or even wonder if we're doing more harm than good. These thoughts are discouraging and lead to hesitation before reaching for the pole saw & pruning shears.

Most of us look to online resources and books for assistance on tasks like tree pruning. There are many good articles and guides out there, but taking advice from the pages and applying them in the field is easier said than done. There are a number of reasons for this. First and foremost no two trees are the same and comparing a two dimensional picture to a three dimensional tree is not an easy thing. Second, most trees have a lot of limbs and branches. Trying to access them all could be an exhaustive task. Third, visualizing how the tree will take shape as branches are removed is something that truly requires experience. Descriptions and photos can only take you so far.

During a WFL board meeting one evening last fall

several members pondered the challenges of apple tree pruning. Most of us were just beginners ourselves with little experience and many stories to tell about our own struggles getting started. The discussion turned into an idea that prompted WFL board member, Mike Seager to suggest having a workshop at his property in Allegany County. Mike had already been in contact with consulting forester, Bruce Robinson for his assistance and expertise in the field. Bruce suggested expanding his training to a larger group and also offered his assistance in developing a guide that might be shared to other NYFOA members and landowners interested in learning about pruning wild apple trees.

The following example depicts Bruce's pruning instruction on one of many trees he demonstrated for the group during the workshop. The pictures, illustration, and captions are intended to help teach how Bruce viewed the tree and determined what pruning cuts were needed. Future newsletters will include additional examples from the same training exercise. Each example will show different situations and describe how decisions were made. The work done on most of these trees was rejuvenation pruning which will require additional treatments over a number of years. This is opposed to maintenance pruning which can be completed in a single treatment. Over time the trees will be rejuvenated and require only maintenance pruning at longer intervals between treatments. We intend to follow-up with the work on these trees in the future so you can see how they respond.

Also included in this newsletter is a more detailed diagram of one particular tree on which we focused. Over the next several newsletters, we plan to publish more such inserts – each one a case study of a particular tree highlighting different situations encountered in pruning wild trees. Our hope is that people will collect these pages and use them for reference when they have their own trees to prune.

It is important to note that these pages refer to rehabilitating apple trees as a source of food for wildlife, for home use, or for aesthetics. The prescription for a commercial orchard would be quite different – as Bruce noted, you often get more consistent fruit production more quickly by cutting down an old tree and planting a new one than by rehabilitating the old tree, a process which can take several years. But retaining an old tree can bring noncommercial benefits such as providing nest sites for birds and small mammals, preserving heritage varieties of fruit, and maintaining a more diverse structure in the landscape.

As with any management activity, the first step is to consider your goals for the project. A typical goal when managing wild apple trees is to increase fruit production, but you might prune a tree differently if you are focused on collecting fruit to make pies than if you want to provide a source of winter food for deer.

The other factor to consider at the start of a project is what resources you have available. An inventory of trees and their characteristics can be very useful. Identify the trees to manage, perhaps with numbered aluminum tags, and keep notes on them over the course of several years. These notes can guide management activity. If your goal is to produce apples for human consumption, for example, you can focus on trees that produce a consistent crop of large apples. If you want to produce the maximal benefit for wildlife, you might choose to focus on trees that hold their fruit well into the winter, even if it doesn't taste very good to humans. The inventory can help determine which trees have the characteristics you are looking for, and those trees should be the ones that receive most of your attention.

Here are some general principles to keep in mind when rehabilitating a tree:

- Remove competition. Apple trees need sunlight to produce fruit, so remove any trees overtopping the crop tree. This might be a sufficient treatment in the first year. When two apple trees are in competition with one another, having the data from the inventory makes it possible to choose which tree to keep and which to remove.
- Remove dead wood. Dead branches obviously produce no fruit, and they can make the tree vulnerable to diseases. Dead branches should be pruned back to live wood, so that the tree can seal off the wound by growing over it. Since no rule is absolute, some dead branches can be left to provide nesting sites for cavity-nesting birds such as bluebirds and chickadees.
- When removing live wood, remove at most one-third of the crown and preferably less. When a large fraction of the crown is removed, subsequent activities should be delayed for 1-3 years to give the tree time to recover.
- Most trees will require follow-up treatments over several years. Trees that have been neglected for many years will not be rehabilitated in a single session.

## The Maple Sap Business

Greg Michne

In this summer's issue I wrote about maple sugaring and some of the opportunities that exist for forest owners with a substantial amount of sugar maple. For this issue I will be providing a brief overview on the economics of selling sap and leasing trees.

One doesn't have to be a syrup producer to take advantage of what the maple industry has to offer. Selling sap through leasing or setting up your own tubing system can provide annual cash flow that helps offset the cost of property ownership. The summer issue also mentioned an adjusted assessment for the land based on its agricultural use. More about this in a future issue.

How much cash can you earn selling sap? There are quite a few variables such as how many trees you have, variations in yield from season to season and your actual agreement with the buyer. People with smaller plots may simply want to receive syrup in exchange for allowing a producer to tap the trees. Depending on your involvement, you could easily get half of the syrup your sap will produce plus the cost of the container. In regard to your involvement, I am referring to you bringing the sap directly to the producer's facility. If you have a substantial sugar bush, perhaps more than 500 taps available, you may want to consider leasing or selling sap by the gallon.

Leasing could provide you with \$0.50/tap on the low end to as much as \$1.00/tap. A long-term lease, good vehicle access and the ability to offer the producer the privilege of installing a permanent tubing system will command a higher price. The benefit is you save the time and expense of setting up your own tubing system. Additionally, a lease can provide more stable income if it is not structured to be dependent on sap yield.

Alternatively, you could do the tapping and sell your sap by the gallon. Selling sap by the gallon is typically done based on sap sugar content and bulk syrup prices. For brevity we'll assume that you have agreed to accept payment in cash based on 50% of the bulk price of syrup, a typical agreement. On a big sap run you collected and sold 1,000 gallons of sap from 1,000 taps. The sap is at 2.2% sugar content and the bulk price of syrup is \$2.40/pound and maple syrup weighs 11.1382 pounds per gallon. If you divide 87.1 (see last paragraph) by the sap sugar content of 2.2% you find out how many gallons of sap it takes to yield

one gallon of syrup at 66.5% sugar. In this case the answer is 39.59 gallons of sap = 1 gallon of syrup. One gallon of syrup yields \$26.73 bulk price (11.1382 lbs. x \$2.40), which means that each gallon of sap has a value of \$0.675 (\$26.73/39.59 gallons). Split the \$0.675 in half because you are receiving 50% and you should sell the sap for \$0.34/gallon thus collecting \$340 for this sap run. Cornell University has a sap sales spreadsheet you can use for free available at http://maple.dnr.cornell.edu/sapbuying.htm. I recommend using this to see how the variables work.

In the example above assume that you have an average season and get 10 gallons of sap per tap. If the sugar content and bulk prices remain constant as above, you would earn \$3400 from your sap sales for the season. For next season you install a vacuum system which doubles sap yield and the earnings approach \$7000. The vacuum pump can increase syrup yield per tap from an average of 0.25 gallons to 0.5 gallons in an ideal season. Lastly, don't forget to factor in whatever reduced tax assessment you may qualify for based on the land being used for agricultural purposes.

The number 87.1 is derived from the original Jones Rule of 86 which is a quick rule-of-thumb to calculate how much sap is required to make a gallon of syrup if you know the sugar content expressed as a percentage. You divide 86 by the sap sugar content. For example, it takes 43 gallons of sap at 2% sugar to make one gallon of syrup (86/2 = 43). However, this formula was derived before the legal minimum syrup sugar content was deemed to be 66% in most states including NY and underestimates the sap required for today's standards. In Vermont and New Hampshire, 66.9% is the minimum. Therefore the rule of 86 can be adjusted to the rule of 87.1 to receive a number that yields syrup at 66.5% sugar content, which is a compromise between 66% and 66.9%. 88.2 would be used to yield 66.9% sugar content syrup. It's a good idea to use these updated figures to ensure proper payment for sap.

Obviously there are many variables to consider when selling sap or leasing trees. Properly structured agreements provide benefits to producer and landowner. In addition, the maple sap and sap-derived beverage market is growing. As most forest owners know, maple has value as lumber as well. However, as a maple syrup enthusiast I lean toward maple sap/syrup production over logging. As always, feel free to reach me at gmichne@gmail.com with comments or questions.

#### Firewood 3

Dick Starr

A full cord of wood is a pile 4 feet x 4 feet x 8 feet. Chunks 4 feet long is a hold over from the days of the steam engine. Railroads wanted their firewood in 4 foot lengths because that fit in the firebox on the old steam locomotives. Thus a 4 foot length became the standard. Homeowners rarely have a wood stove capable of accepting a 4 foot chunk, so firewood is often measured in face cords. A face cord (short cord) looks like a full cord on the face of it but is only 12 to 18 inches deep rather than 4 feet. If logs are diced to 16 inches the face cord is 1/3 of a full cord since 16 inches is one third of 4 feet. With logs diced to 16 inches, 3 face cords equals 1 full cord.

The accompanying chart attempts to compare the cost of various fuels. I adopted Sugar Maple as the reference standard at 24 million BTUs potential per full cord and assumed it could be purchased for \$225. How much does it take for other fuels to give the same heat energy as a cord of Sugar Maple? Column 2 gives the BTUs/unit of fuel. Natural gas, for example, is measured in cubic feet and it generates 1030 BTUs/cubic foot. Propane generates 91,600 BTUs/gallon etc. Dividing the Sugar Maple standard of 24 million BTUs by column 2 obtains column 3

which is the number of fuel units to give 24 million BTUs. It takes 1.5 tons of wood pellets, for example, to give 24 million BTUs. Multiplying column 3 by the fuel cost/unit (column 4) gives the cost (column 5) to get 24 million BTUs from the other fuels. This assumes all heating devices are equally efficient which I'm sure is a faulty assumption.

It seems the cost for coal, Sugar Maple and natural gas are nearly equal at about \$225 - \$250 for 24 million BTUs. Ouch if you're heating with electricity which tops the list at \$915 for 24 million BTUs. Propane and fuel oil are not too far behind in the ouch department. It would seem if electricity is your source of heat, burning a cord of Sugar Maple would save you \$690, obtained by paying \$225 for the wood and not paying \$915 for the electric. A new wood stove would soon be paid for. The real monetary saving occurs if you have access to a wood lot and cut your own fire wood.

Wood stove efficiency is a critical factor in how many BTUs of heat energy actually heats the living space as opposed to how much goes up the chimney. Modern wood stoves can be fairly sophisticated and some approach 90% delivery of the heat energy available in the wood. It's probably correct to say the older the unit the less efficient it is.

## **Common Fuels**

		Units/ 24 million		
Fuel	BTUs/unit	BTUs	Cost/unit	Cost
Sugar Maple	24,000,000/cord	1 cord	\$225/cord	\$225
Natural Gas	1030/cubic foot	23,300 cuft	\$00.01/cuft	\$230
Anthracite	25,000,000/ton	1 ton	\$250/ton	\$250
Wood Pellets	16,000,000/ton	1.5 tons	\$245/ton	\$370
#2 Fuel Oil	140,000/gallon	260 gallons	\$3.50/gallon	\$600
Propane	91,600/gallon	170 gallons	\$3/gallon	\$780
Electricity	3410/kwhr	7040 kwhrs	\$00.13/kwhr	\$915

## A Gift

A gift membership to NYFOA is a wonderful way to introduce a friend or family member to the wonders of the woodland. Contact Liana Gooding at 585 624-3385 (lgooding@nyfoa.org) for details. Alternatively, register on-line at www.nyfoa.org.

## Welcome New Members

Jim Lickfeld Williamsville
Keith Nehrke Rush
Cathy Saunders Dansville

#### What's A Samara?

Dick Starr

If you guessed an ancient Japanese warrior with a neat looking sword you guessed wrong. As I write this in late May, our yard and street are littered with samaras. Samara is the official term for seeds that have a flattened wing of fibrous papery tissue. This allows them to spin as they fall and enables the wind to carry them farther from the parent tree. It's how maple and ash seeds, among others, disperse.

During WW II the U.S. military developed a drop package of up to 65 pounds that was patterned after the samara. They are also known as whirlees, wingnuts, helicopters, whirlibirds, polynoses, whirligigs, and spinning jenny in northern England.



Strobe photo of a samara in free fall.

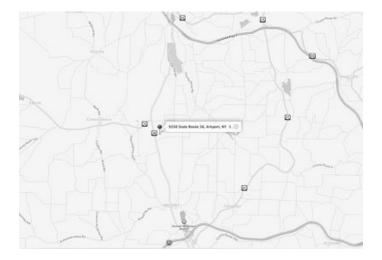
## **Upcoming Events**

## October 17, 2015 Woods Walk

Steve Marcus and Gail Wechsler will be hosting a woods walk on Saturday October 17th in Arkport, NY, Steuben County. Start time is 2:00 PM. Marcus Farms is a leading producer of evergreen and deciduous trees and over the last 25 years have grown from several thousand evergreen trees to over a million. Both evergreen and deciduous trees are being grown and dug on over 500 acres. Steve will provide a tour of the original part of the tree farm, its operation and a walk through a 90-acre stand of managed timber.

The location is 9350 County Route 36, north of Arkport. Signs will be posted on Route 36 at the entrance. Follow the gravel driveway up a short distance and park next to the barn on the right. The hosts will provide water and snacks.

October colors should be in full display so join us for a couple hours of beauty in the fall air and a healthy well managed wood lot. Hope to see you there.



#### Classifieds

Tree Tubes for Sale - Member(/Non-Member) price: 4' (\$4.50/\$5.00); 4' w/ stake (\$5.50/\$6.00); 5' (\$5.00/\$5.50); 5' w/ stake (\$6.50/\$7.00). Proceeds benefit WFL chapter. (585) 367-2847.

PLEASE NOTE: SPACE PERMITTING, THE WFL STEERING COMMITTEE ALLOWS MEMBERS TO PLACE FREE CLASSIFIED ADS IN THIS NEWSLETTER PERTAINING TO GOOD STEWARDSHIP PRACTICES. HOWEVER, ADS PRESENTED HERE ARE NOT AN ENDORSEMENT BY WFL.



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# The Western Finger Lakes Forest Owner



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Have Saw - Will Prune

The ubiquitous WFL board member, Dale Schaefer is locked 'n' loaded to do some serious pruning. See the related article on Apple Tree Pruning inside.

## Mark Your Calendar

- October 14: Annual meeting deadline\*
- October 17: Woods Walk\*
- October 21: Annual dinner meeting\*

\* See inside for details.

Note: For event reminders and late-breaking news, subscribe to our email list by sending a blank email to-

nyfoa-wfl-news-subscribe@npogroups.org