

# *Woodland PEI*

Newsletter of the PEI Woodlot Owners Association



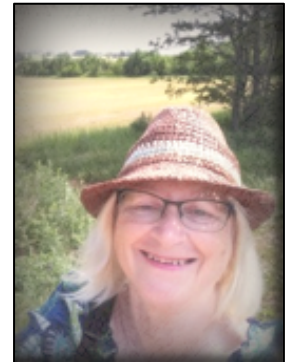
*Focus on  
Firewood*

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## Editor's Message . . .

This is the final newsletter under my watch as Editor. As I retire, I am very pleased to pass along this task to the eager volunteers and staff who have helped to make PEIWOA the strong organization it has become. Piloting our newly incorporated organization could not have been done without the loyal efforts of everyone on the Board, past and present, pitching in to help in so many ways. It has been a pleasure and a privilege to have served the vibrant woodlot owner community over the past six years.



No less than a revolution is occurring across the whole spectrum of forestry, its environment and woodlot management, especially in a place as densely populated as PEI. PEIWOA has grappled with so many challenges and continues to meet new ones head on under the astute leadership of Thomas Baglole as Chair, with the forward-thinking vision of Barry Murray as Project Manager. The future is finally looking brighter for PEI woodlot owners with the game-changing introduction of carbon credits that place a monetary value on biodiversity and sustainable forest management.

The firewood theme of this issue is timely for another reason: the risk of harm to our forest industry is very serious when infected firewood and round wood is imported without due care from outside the province. To prevent invasive species from entering PEI on firewood, the general public must be reminded, and at our points of entry: ***“Don't Move Firewood!”***. For more information on this, see an article from the Invasive Species Council on page 4.

Are you still be searching for firewood and questioning what is safe to burn? If so, be sure to read Doug Millington's latest article on page 6. He takes the us through a lighthearted but well-researched foray into the local firewood market. Next page, Barry Murray reports on the woodlot walk activities for members that were held this Fall, and gives a sneak preview of further events coming up in the new year.

– Kathy Stuart, Past President, PEIWOA

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 Ex-Officio: **Barry Murray** (*Project Officer*), **Kathy Stuart** (*Past President*)

## Biodiversity Woodlot Walk Series Report. . .

Barry Murray, Project Officer



Thanks to our members' response, our fall round of woodlot walks and the Bonshaw seminar were very well attended and we received plenty of positive remarks.

The variety in the approaches and progress regarding managing for biodiversity was an eye-opener for many of us. John Lane's woodlot near Bloomfield is being left to grow without wood extraction, and the various plantations and stands in this woodlot provide a wide range of habitat, and plenty of it. Selectively removing logs and firewood is the technique Perry Jantzi is employing in Farmington, east of St. Peters. The various stages of forest growth are providing a wide range of habitat. His vision of his woodlot 20 and 40 years from now is quite inspiring. Jon Hutchinson and Lyette Sansoucy's woodlot in DeSable demonstrated how managed plantations and mixed stands can provide a wide range of biodiversity, firewood and select sawlogs. Wanson Hemphill's woodlot is in one of the areas hardest hit by Fiona. The work being done and the long-term planning for restoration with strong biodiversity goals was inspiring for those of us who have Fiona-impacted woodlots.

Nova Scotian biologist Mark Pulsifer, our seminar host in Bonshaw, provided excellent information on how management decisions by woodlot owners can increase habitat opportunities for many kinds of wildlife. We will post a video/slideshow on our website in the coming weeks of Mark's presentation.

Our focus shifts now to the next series of woodlot walks. We are in the advanced planning stages of organizing walks to demonstrate woodlot trail and road construction to minimize impact and promote habitat creation and maintenance. We hope to have a tour that will focus on growing trees and shrubs from seed, and one that will focus on songbirds.

This format of providing information to woodlot owners through woodlot walks has proven to be popular and informative. We will continue to expand on this method. Stay tuned to our website and Facebook page for more information as plans take shape. Members will also receive information directly via email.



## *Update on PEIWOA Board Activities. . . by Barry Murray*

The PEIWOA board is working with the PEI Invasive Species Council on a couple of fronts. **"Don't Move Firewood"** is an important policy that will reduce the risk of threats like *emerald ash borer (EAB)* and *hemlock woolly adelgid (HWA)* from entering the province and causing economic and ecological damage. The **Survey of Eastern Hemlock Locations** is described in a separate article on page 9 in this newsletter.

WOA board members were invited recently to make a presentation to the **PEI Legislature's Standing Committee on Natural Resources and Environmental Sustainability**. We expressed special concern over the depletion of funds in the Forest Enhancement Program for Fiona salvage and cleanup. There is hope that the FEP will receive the necessary funds.

We are working on revitalizing the **Woodlot Owner of the Year** award. A committee has made recommendations to the board, and candidates for the award are being sought.

We are reviewing how we manage our finances and our membership data. We hope to have good policy in place to modernize the way we manage both in the upcoming months.

Our **Forest Landscape Priority Places project (FLPP)** has been quiet successful to date, with around 100 hundred attendants at our 4 woodlot walks and seminar. Three more woodlot walks are being planned by next spring. The encouraging numbers in attendance is an indicator that our project is a good one.

We have board members attending the **PEI Federation of Agriculture meetings** representing our members, as we do for the **Canadian Forest Owners**. We continue to have a regular bi-monthly report from the PEI WOA in the industry magazine, the **Atlantic Forest Review**.

These issues and a few others are keeping our board busy, as we aim to steadily improve the performance of our Association.

## ***Guarding PEI Forests: Unmasking Invasive Threats***

*-- by Clay Cutting*

The PEI Invasive Species Council, in partnership with the Woodlot Owners Association, would like to wish everyone a happy firewood month this October! Prince Edward Island is an integral part of the endangered Wabanaki-Acadian Forest Region where less than 1% of old-growth forests remain. As the pressures on our forests continue to mount, it is crucial to support local wood producers by limiting the spread of invasive insects and diseases that jeopardize our ecological, social, and economic well-being.

Invasive species not only slow down tree growth and reduce lumber quality but can also result in trade restrictions. The consequences of their introductions can be far-reaching. Every year in Canada, approximately 400,000 hectares of forest fall victim to these invaders, nearly half of the 930,000 hectares

harvested by the forest industry. Sick and infested trees can lead to infrastructure damage, diminish recreational opportunities, and result in a loss of trees that hold a cultural importance as medicine plants and food sources. Preserving and restoring biodiversity in these areas also means building resiliency and protecting wildlife habitat.

On the mainland there are some invasive species present that threaten some of our most important trees. Limiting the movement of firewood from off-island and across PEI can help prevent their spread.

**Oak wilt:** A disease that affects all oaks including our provincial tree, red oak, *Quercus rubra*. Oak wilt can cause tree mortality in as little as one year. Red oak has shown no resistance. The disease is caused by a fungus, *Bretziella fagacerum*. Present in three small populations in Ontario.

**Hemlock woolly adelgid (HWA), *Adelges tsugae*:** A small aphid-like insect that affects hemlock trees including eastern hemlock, *Tsuga canadensis*. The insect feeds on the base of hemlock needles and is able to kill infested trees in 3-5 years. Present in parts of Nova Scotia and Ontario.

**Emerald ash borer (EAB), *Agrilus planipennis*:** A small metallic green wood boring beetle that threatens true ash trees including **Black ash**, *Fraxinus nigra*. True ash trees on PEI are already imperiled, and this insect is able to kill them within three years. Present in Manitoba, Ontario, Quebec, New Brunswick, and Nova Scotia.

**Spotted lanternfly, *Lycorma delicatula*:** A leafhopper that threatens over 70 species of plants. It can cause serious harm to the apple and grape industry as they steal the sugars from the plants. Recreationally, they impact trails by secreting a sticky-sweet honeydew which results in mold and attracts stinging insects. They can also have a serious impact environmentally as they negatively affect red maples, birch, willow, and poplars. They have not yet been found in Canada but are near our southern border.

Without humans, these species typically have a low dispersal rate. For example, hemlock woolly adelgid rarely moves more than 600m in a season on its own. One of the ways these species get spread around to new areas is by hitching a ride with humans on firewood. Diseases (like oak wilt) have spores that are invisible to the naked eye and can grow fungal mats below the bark. Insect eggs (like those of HWA and spotted lanternfly) can be transported on the surface of bark or in their crevices. Wood borers (like EAB) can overwinter as larvae in the hardwood of a tree.

Invasive insects can also be spread through nursery stock, so it is important to always thoroughly inspect plants before introducing them to your landscape. To prevent the spread of invasive insects across PEI, we encourage everyone to hold off until the end of October to do any non-essential pruning as trees can release stress hormones attracting invasives.

To learn more, visit <https://peiinvasives.com/dont-move-firewood/home/>

Thank you for hearing our message. Have a happy firewood month this October!

**Clay Cutting,**  
**Invasive Species Technician,**  
**PEI Invasive Species Council**  
[www.peiinvasives.ca](http://www.peiinvasives.ca)



# Seasoned Firewood . . . Lessons Learned the Hard Way

— By Doug Millington



*“When somethin’ goes wrong, I’m the first to admit it. First to admit it. Last one to know.” —Paul Simon*

I may be a woodlot owner, but I’m a babe in the woods when it comes to purchasing firewood. Recently I had reason to deepen my understanding of the firewood marketplace. The arrival of my winter firewood supply led to an eye-opening search for something better than the soaking-wet assortment of bolts and branch ends dropped off in my driveway.

Maybe I’m just getting fussy in advancing years. In the past I had taken for granted a noticeable percentage of wrist-thin branches and a profusion of softwood sticks in the nominally hardwood delivery. After all, the price was on the low side and the provider was the very soul of geniality and accommodation.

In retrospect, the wood had always arrived a bit on the wet side, not producing that pleasing, hollow ‘knock’ until close to Christmas. I took this as a natural consequence of the rains of summer and early autumn. This year’s product was a different order of moisture. It simply would not burn. After whittling down select splits of straight-grained maple and/or birch into finger-thick lengths of kindling, strategically positioned in criss-cross ‘cabin’ formation and surrounded by mounds of newsprint and birchbark, the wood just would not stay lit.

During the off-loading of my wet wood, I had taken the opportunity to chat up the supplier. I learned that the wood had been blocked and split immediately prior to delivery. This was his standard procedure; cut in the fall, store in piled logs on dry ground for the winter, block and split prior to delivery. I was assured that the wood had been aging for over a year, from Fiona in September to delivery in late October.

My background as an intrepid (some would say muck-raking) journalist led me to make further inquiries. My colleagues on the PEIWOA board were unanimous; felling the prior autumn is fine, but year-old wood must have been blocked and split at least 3 to 4 months prior to delivery. Blocking and splitting year-old wood just prior to delivery pretty much guarantees ‘green’ wood.

I then looked for the official PEI ‘forestry’ standard. Unfortunately, it was not to be found. There are no PEI government regulations on the subject of firewood moisture levels or drying procedures. However, forestry officials I spoke with knew and agreed with the standards suggested by PEIWOA board members and with the guidelines of other Maritime jurisdictions.

## Seasoned Firewood . . . Lessons Learned the Hard Way . . . (cont'd)

From the Nova Scotia Environment Department: firewood should be felled in fall, aged (at a minimum) over winter, then blocked, split and dried outside under cover for at least six months. From the Canadian Council of Ministers of the Environment: firewood should be seasoned for 3 to 6 months, drying to a moisture content of no more than 20%.

That 20% moisture maximum appears in many online references. In my quest for dry wood, I threw caution and economy to the wind and purchased a moisture meter (*Dr. Meter*, \$40 on Amazon). My wet firewood registered from 32% to 38% moisture content, dangerously high given the creosote and resulting flue-fire risk associated with burning such 'green' wood.

My firewood load had failed the grade. It had not been blocked, split and dried outdoors under cover for a season, missing the moisture goal by a mile and promising to generate creosote and a serious flue-fire threat. With that 'wall of wood' from Fiona now being offered up as retail firewood across PEI, I wonder how many other loads of unseasoned firewood are currently coating Island flues with creosote?

### ***Other Lessons Learned***

I eventually located a firewood provider who promised hardwood dried according to the exacting standards quoted above. On my moisture meter this wood registered from 18% to 23%. My newfound firewood provider had done a much better job of supplying dry hardwood.

There were, however, some dodgy details in the presentation. The wood was marketed as being stored on 4' x 4' x 4' pallets, which would be 64 cubic feet or a true half-cord. But the actual pallet turned out to be 4' long and 4' high but noticeably narrower, closer to 3 feet. That narrower width held 2 rows of wood split into 16-inch lengths, so the wood on that pallet could have fit in a space 4' x 4' x 32",

actually, just two-thirds of a half-cord. At the listed price of \$130/load, I would need to pay \$195 for a true half-cord, or \$390 for a true full cord. Kinda steep.

And my dry pile of wood had another dodgy detail. The wood was stacked to maximize volume. The Nova Scotia Environment and Canadian Environment Ministers' documents quoted above specify that, for accurate measurement, individual pieces of wood should be stacked with the longitudinal axes approximately parallel... in other words, with all the pieces pointing in the same direction. The seller of my 'dry' firewood had the wood pieces stacked in alternating rows at right angles to each other, great for airflow but also great for making the pile taller and just a bit more profitable.



## Seasoned Firewood . . . Lessons Learned the Hard Way . . . (cont'd)

At least the dry hardwood was just that... hardwood and nothing but... no 'substitutions'. Thanks to Fiona there's a literal windfall of softwood on the ground, basically free stock to many wood suppliers. This firewood season, some of that softwood might end up finding its way into hardwood deliveries.

The heating potential of firewood is rated in BTU's. The BTU, or 'British Thermal Unit', is defined as the amount of heat needed to raise one pound of water through one degree Fahrenheit. Sugar maple is PEI's most coveted firewood at 29 million BTU's per cord. At the other end of the spectrum are the plentiful balsam fir and white spruce, offering a measly 16.2 and 16.3 million BTU's per cord respectively, just over half the heat yield of sugar maple.

After stacking my 'wet' firewood piece by piece, I estimated it was between 5-10% softwood. Compared to a load of sugar maple, or even a lower valued hardwood like yellow birch, 10% softwood would translate to a loss of at least a million BTU's per cord.

Comparing firewood to furnace oil is instructive. The Nova Scotia Department of Natural Resources says a cord of sugar maple can produce as much heat as 490 litres of oil. Let's say a load described as sugar maple is actually 10% softwood. So, 10% of that load's hardwood-oil value, 49 litres, is reduced to just 30 litres of softwood-oil value (applying the 16:29 softwood/hardwood BTU ratio). Bottom line: 10% softwood costs the buyer the equivalent of 19 litres of furnace oil. At \$1.39/litre (Nov. 22, 2023), that's a loss in value of \$26.41/cord.

I feel the math-weary eyes of our readers glazing over. Some folks enjoy having softwood mixed in with their wood supply, the lower softwood heat being preferred in early fall or late spring. But on a frosty January morning, any softwood I jam into the overnight cinders is like throwing money in the fire.

My venture into the wood market taught me that it's more of a jungle than a forest out there.



There are no formal PEI regulations describing approved firewood drying procedures or firewood moisture goals. 'Fiona' firewood, unless split and stacked under cover for a season, may be dangerously green. Flyweight sticks of softwood may be mixed in with 'hardwood' loads. Wood volumes may be cleverly manipulated, adding to the confusion already created by an array of cord varieties; face cord, bush cord, thrown cord, short cord, processed cord - all impressive terms but not legal measures in Canada. *Caveat emptor.*

-- Doug Millington



## ***The PEI Invasive Species Council (PEIISC) needs to know where your hemlocks are!***

In an ongoing project, the PEIISC is creating an early detection and rapid response program for the future establishment of the hemlock woolly adelgid (HWA) on PEI.

This pest currently infests thousands of acres of Eastern hemlock stands in Southern Nova Scotia, and is moving northward towards PEI. So far, the insect has killed over 90% of the trees which it has infested.

In order to mount a successful eradication effort against the future arrival of HWA on PEI, the PEIISC needs to know where Eastern hemlocks are on PEI. This will allow for future monitoring of Eastern hemlock populations. In the event of an observation of HWA on the Island, this would also allow for the monitoring of all Eastern hemlocks in the vicinity of an outbreak of HWA for additional infested trees.

By collecting data before disaster strikes, we can mount the fastest, most efficient effort to eradicate HWA before it becomes widespread.



***This is where you come in:*** By sharing the location of your hemlocks with the PEIISC, you are helping support an efficient response to HWA. Any other data about your hemlock stands that you are willing to share would also be greatly appreciated. Other than location, we are seeking:

- The approximate area of the stands.
- The number of mature hemlock in each stand.
- Any known pests or other stressors currently impacting your hemlocks.
- Approximate economic value of hemlocks on your property.
- Your contact information, which will help notify you and plan a response in the event of HWA establishment in your area.

Data can be shared via this google form: <https://forms.gle/JHSxM3cDe3ShdmL58>, by email at [clay@peiinvasives.org](mailto:clay@peiinvasives.org), or by some other means as needed.

Anybody interested in monitoring their hemlocks for HWA presence is encouraged to reach out to the PEIISC at any time for further information. An information session through the PEIWOA is forthcoming within the next six months to teach woodlot owners monitoring techniques.

***Clay Cutting, Invasive Species Technician, PEI Invasive Species Council.*** [www.peiinvasives.ca](http://www.peiinvasives.ca)

## Membership in PEIWOA

To join as a new member of PEIWOA, or to simply renew if your current membership has expired, just **do two things**: (1) fill out membership form online at [www.peiwoa.ca](http://www.peiwoa.ca);

(2) **INTERAC etransfer from your bank to [etransfer@peiwoa.ca](mailto:etransfer@peiwoa.ca)** (NO HYPHEN!) where it will be auto-deposited securely into our account.

If you prefer to mail your cheque, include your **current civic address, e-mail address & phone number**.  
Send to: PEI Woodlot Owners Association, 81 Prince Street, Charlottetown PE C1A 4R3

### 2023-25 Membership Rates

One-year PEIWOA membership*, ending March 31, 2024 .....	\$ 25.00
Two-year membership, ending March 31, 2025 .....	40.00
50% discounted rate for members of PEIFA or NFU, ending March 31, 2025 .....	20.00

\*You may be asked for your number of acres (kept confidential) and the **County** where your woodlot is located to become an **Active** (voting) member. **Associate** (non-voting) members pay the same rates but are not required to own a woodlot.

PEIWOA very much appreciates the support of members and advertisers.

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