# Greenleaves

*Newsletter of the Bruce Grey Woodlands Association*

**SPRING 2016**

**www.bgwa.ca**

## Introduction

**Malcolm Silver, Newsletter Editor**

Zowie, Times they are a' changing.

Here we are with a new name for the Association, a new logo and from this issue a new name for our newsletter. Amongst those suggested the Board decided that proposed by Tim Keeling was the best, so welcome to *Greenleaves*.

This issue lists Board Members for the coming year and defines Executive responsibilities. In addition, our Director of Communications had a holiday in Costa Rica and, as expected, has written about the forests encountered there. Following enthusiasm for the Extraordinary Tree Challenge in Grey/Bruce we begin a series covering member's favorite tree, especially one with some associated history. The first, from Roger and Sue Short, appears in this issue. Members wishing to participate must supply a photograph of the tree with typed text.

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**UPCOMING MEMBER LEARNING EVENT**

### Trail Building Workshop

**Come and see the Bruce County trails crew in action, and learn from the experts as they construct a new section of forest trail**

**TUESDAY, JUNE 21, 10AM - NOON (rain date: Jun 22)**

**Brant Tract parking lot, north side of Conc 12 just east of Bruce Rd 3**

**Advance sign-up preferred - www.bgwa.ca** (Advance registration enters you into prize draw, plus email notification in the event of deferral to rain date.)

**Questions? Contact Kevin Predon 519-270-0748**

**Next Board Meeting**

June 23, 7-9PM

GSCA Office

Inglis Falls Rd, Owen Sound

BGWA members always welcome to attend!

**2016 Password for web site Members' area**

If you are a current member you should have received a new password. If you did not, or have lost it, contact: bgwa@naturemail.ca

**GREENLEAVES**

is the member newsletter of the Bruce Grey Woodlands Association, published quarterly and distributed to current BGWA members. Submissions are always welcomed on any topic related to BGWA's vision:

*Promoting healthy forests and ecosystems in Bruce and Grey Counties through education, recreation and sustainable management practices.*

Information, opinions, and directions in this publication are those of the authors and do not necessarily reflect BGWA advice or policy.

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# President's Message

**Chris VanderHout**

Members,

Spring is finally in full swing and what a glorious time to witness the miracles of awakening forests. There are so many things to observe and marvel in. Like so many people, trilliums are a highlight for me. I always take great pleasure in their showy flowers and how they highlight the forest floor at this time of year.

As I write this, it looks as if it is a select year in which the sugar maple trees are flowering because I have noticed the slightly yellow tinge at the tops of trees. This indicates maple keys will be falling from the hard maples later this year as they do every few years. So much to enjoy and I trust all of our members are enjoying the woodlands that surround them.

A lot has happened since our last newsletter. Our AGM has come and gone, as has the Annual Woodlot Conference, and we have had 2 directors meeting as well.

The AGM was well attended by about 40 members. Some displayed some products that they made of wood from local forests. Reports of the past year's activities were shared by the programs and events, member communications and the membership committees.

Our new logo was revealed and the organization branded itself with a new name going from a Woodlot Association to a Woodlands Association. We reviewed a strategic planning document that the directors prepared last year to move forward into this one. You can find the draft minutes of this meeting in the documents section of the website. Our guest speaker Steve Hogbin closed the morning with his presentation on the Extraordinary Tree Challenge.

Through our last board meetings we determined our executive, to have myself sit again as President/Chair, Neil Baldwin will be Vice President, Larry Cluchey as Treasurer/Registrar, and Malcolm Silver will be Secretary.

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*(Editor's Comments, from page 1)*

I took some of the acorns the Shorts brought at a BBQ and planted them in a garden bed. Came this spring and need to transplant the seedlings. Boy did their roots go deep! Needed much care digging them out to avoid root injury; correspondingly holes to replant them had to be deep too. No plunging a shovel into the earth, levering it & slipping a seedling in behind it. What have I learned? Planting oaks or black walnuts from seeds is best done directly into the forest.

Read on.

*(President's Report, from page 2)*

We also established three committees

- **Programs and Events Committee**- Kevin Predon, Cam Bennet and Ron Stewart
- **Communications Committee-** Neil Baldwin and Malcolm Silver
- **Membership Committee-** Larry Cluchey, Donna Lacey and Ron Stewart

The typeface of text to accompany our new log was confirmed and, as you will now see in this newsletter, we approved renaming it.

The directors have now more fully reviewed last year's planning document and will be moving forward to implement the suggestions within it. You will see this in the rolling out of some new events, continued educational contributions and activities. As well we will be reaching out to some like minded organizations to network and share our passion for promoting healthy forests and ecosystems. Stay tuned as events and opportunities to volunteer are posted.

I also would like to invite all members to get involved. Come out to events, volunteer as you are able for educational initiatives and feel free to join us at our board meetings. Supply feedback and suggest ideas of things that you would like to see happen within the organization. Our job as Directors is to guide members to help meet BGWA's objectives:

- Promote sustainable forest management by increasing awareness of the forest's inherent social, economic and environmental values.
- Provide networking and sharing opportunities regarding forests and ecosystems.
- Promote enjoyment of woodlands and natural areas through education and recreational activities.
- Serve as a voice for the membership with respect to legislation, taxation and regulations as they affect forest property and associated business interests.
- Encourage non-typical forest management practices such as farm windbreaks, orchards, permaculture, riparian restoration, forest gardening etc.

On our path to fulfilling these objectives, I look forward to seeing members participating in any way they can and having some fun doing so.

All the best,

Chris Vander Hout

## Pine Beetle

**By Malcolm Silver**

To paraphrase a verse of Alfred Lord Tennyson's poem The Charge of the Light Brigade, Ontario faces *Pine beetles to the right of it; pine beetles to the left of it and pine beetles in front of it*.

To our west the mountain pine beetle (MPB) (*Dendroctonus ponderosae* Hopkins) is native from northern Mexico to northern British Columbia (BC). The insect has a one-year life cycle in most of its range. Adult beetles usually disperse in July or August to colonize new host trees. Female MPBs attack first and release aggregation pheromones that attract more females and males to the tree. Females lay eggs along the sides of vertical galleries they excavate in the inner bark. Newly hatched larvae mine away from these galleries. Insects usually overwinter as larvae and complete their development the following spring. During gallery construction, fungal symbionts are introduced. They colonize the inner bark and sapwood, interrupting tree function and defenses as well as changing moisture and chemistry of tree tissues where insects are developing.

The fungi sporulate in pupal chambers and new adults feed on them before emerging and dispersing to a new host tree. In northern BC and under normal circumstances infestations killed, over-mature pine trees, thinned-the canopy and allowed room and nutrients for younger trees to grow There lodgepole pines evolved defenses against the beetles, which were traditionally kept in check by harsh, cold winters that limited their damage to small outbreaks every 25 years or so. But these are not normal times. Warmer winters have allowed beetle populations to explode and they have expanded their range into

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*(Pine Beetle, continued from page 3)*

south east BC and Alberta where, in the boreal forest jack pines have no defenses against this invader. Millions of hectares of forest have been wiped-out with devastating effects on ecosystems and the forestry industry. It is highly likely MPS will extend further east.

The southern pine beetle (SPB), (*Dendroctonus frontalis* Zimmermann), kills all species of pine within its distribution. Adult female SPBs are responsible for host selection. They bore through the bark to initiate gallery construction in the inner phloem and soon afterwards emit an aggregation pheromone. This pheromone, in conjunction with host odors stemming from resin exudation at attack points, attracts more SPB.

The aggregation of beetles produces a *mass attack* over a short period. Mass-attacking enables beetles to overcome the tree's natural defense, its resin production system. Resin under pressure can successfully pitch out beetles if there are only a few and the tree is relatively healthy. Mass-attacking SPB deplete resin production capabilities so resin flow ceases and after that the tree is easily overcome. Mating soon takes place and females construct long, winding S-shaped galleries that cross over each other. The galleries are packed with frass and boring material by males. Up to 30 eggs are deposited in niches along each gallery. Parent adults may then reemerge one to 20 days following oviposition and proceed to attack the same tree or another. Larvae live predominantly in the inner bark and feed on phloem tissue constructing serpentine galleries. Like its western cousin SPB also carry, and introduce blue-stain fungi that colonize xylem tissue and block water flow also causing tree mortality. Consequently, once SPB have successfully colonized a tree, it cannot survive, regardless of control measures.

When beetle populations are low (endemic), attacks are generally restricted to senescent, stressed or damaged pines; however, epidemics periodically occurred and during them groups of infested trees may expand at rates up to 15 m/day; uncontrolled SPB infestations may grow to thousands of acres. Again, in normal times, this beetle was confined to the southern United States. However, climate changes have allowed its steadily progress north. The insect has been found recently in Connecticut, and the U.S. Forest Service entomologist says traps in Massachusetts and Rhode Island are detecting its presence.

Many species of our trees are threatened by insect and other invaders; these beetles could be another couple. Woodlot owners must be aware of these pests, read-up about them, be prepared to recognize them and act on advice if reported in your area.

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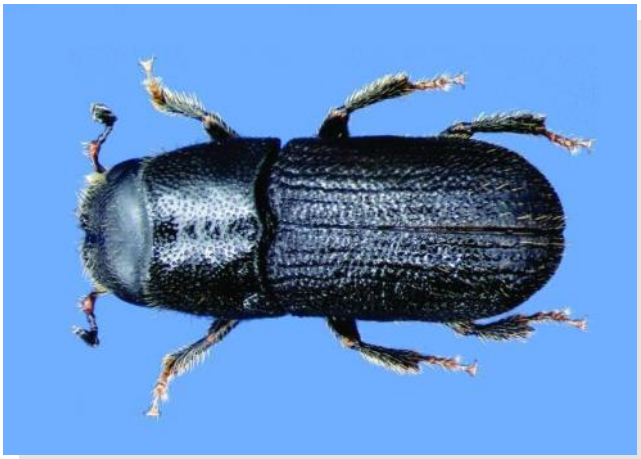

**Southern Pine Beetle**

FAVOURED TREES:

# The Story of an Oak Tree at Lecourt Farm

**By Roger & Sue Short**

This oak began as an acorn (as do they all) but in this case, one from the famous Sherwood Forest (UK).

Despite WW II hardships, and to help with the war effort, it arrived in Canada via an unusual courier, King George V1 as an outreach for help from Canada by the Monarch.

The King and Queen traveled across Canada by train with a train- load of acorns left as mementos along the way. Some "landed" in Ontario and fortunately for us a local forester, Herman McConnell came by close to a hundred acorns.

Herman planted them on a concrete pad in a nutritious mix (I'll leave you to conjure up what that might have been!) at his lower farm near the Beaver River, just south of Grey Road 40. The outcome was, with a few losses along the way, an unusual collection of "bonsai" hearts of oak!

In 1981 we moved to the Beaver Valley and as luck would have it, Herman owned the property directly to our north. Along the way we each discovered that the other had a history in forestry and were both intent on managing our forests. We cooperated on many fronts and learned a great deal about the local history from Herman.

Being a real neighbour he saw an opportunity to extend what was intended 40 years before by the King so, one day, he, in his gruff but friendly manner offered us 6 of the bonsai oak trees (about 12" tall after all that time!), FOB the concrete pad at his farm.

Despite all our efforts, we lost 3 trees, but now have 3 flourishing hearts of oak on our property.

These photographs are of one of the oak trees 35 years later in sumer and winter. Now 40+ feet high and with a 30 foot canopy it is in the centre of our lawn and the three trees regularly deliver the next crop of acorns which are passed on to others, including BGWA members.

Roger wrote the summer picture is of one tree, it may look like 3 due to our amateur photography.

There are two wooden seats underneath the tree, which we almost never have time to use! The intruding second tree to the right is a white pine……the oak will win one way or the other. Sue provided the photograph in the winter with seats removed.

# From Tame Forest to Rainforest

**By Neil Baldwin**

I missed attending the BGWA Annual General Meeting this year but it was not for lack of trees on my mind! As it happens, while many of you were talking woodlands at Williamsford, I was in the middle of spending a week living in the tropical rainforest of Costa Rica.

When I write *in* the rainforest, I mean *deep in*! Rancho Margot is a small eco-lodge nestled in its own 400 acres in the northwest part of the country near the Arenal volcano. It is surrounded by thousands more acres of national forest reserve. There are only 18 guest cabins with each huddled into the side of a valley teeming with dense vegetation, trees, and countless wildlife. We were at all times surrounded by tropical sights, sounds, smells and a forest very different than ours here in Grey-Bruce. Let me tell you about some of the most striking differences.

**There was nothing in this spot but pasture lands just a decade ago.**

The rainforest is, well, rainy! We were not there during the *wet season* but I don't know I would characterize it as a *dry season*. There is a constant, noticeable humidity in the air. Rain—usually, but not always, gentle—manifests itself within a matter of minutes and then disappears just as quickly. The humidity combined with the altitude result in an ongoing dance between sun and low cloud. But, clearly, the proportions of sun and moisture are ideal for optimal plant growth because all is green and lush. Factoid: glad we weren't there during rainy season… rainfall is measured in metres per month and we learned it has been as much as an astonishing 4 metres in July just a few years ago.

My woodlot, just southeast of Keady, was primarily marginal agricultural and pasture land back in the 1980s. Like other such lands it our area, it was purchased and converted to private forest through tree planting and forward-thinking human vision. For my land, that came in the form of Ken Peacock who was motivated to reforest the land, in large part, to replace the trees he *used* as a woodworker.

**My, how it grows: not trees but wild grasses!**

Originally the lands of Rancho Margot had also been cleared for pasture and crops. In this case, the visionary was Juan Sostheim, who saw the opportunity to replenish the earth after having spent much of his career working for a large chemical company and a major fast food chain. In a matter of just 12 years, thousands of trees were planted and the land has returned to abundant rainforest dotted with organic agricultural lands to supply food to the ranch and its visitors. Contrast that timeframe to the white pine on my land which, 30 years later, are mostly less than 30cm (12") diameter. Things grow quickly—very quickly—in the rainforest. But most die quickly as well, I was told, as the whole life cycle is accelerated by the constant growth in optimal conditions.

I found something very surprising when I went for a close look to assess the age of a large tree, about 75cm (30") diameter, which had been recently cut down. Trees in the rainforest have no discernable growth rings. This shouldn't really have been all that surpris-

*(Continued on page 7)*

*(Rainforest, continued from page 6)*

ing because, other than rain varying from lots to loads, there isn't a whole lot of difference in climate over the year and I guess they grow at a fairly constant rate. I also noticed that the bark on most trees was relatively thin and that many species appeared to shed their bark, perhaps as a way (my best guess) of periodically ridding themselves of other plants growing on and up them.

**"Colonized" tree, now dead, "lives" on as a host.**

The reason, methinks, there is a lot of plant growth on-and-up trunks and branches is because the forest canopy is so thick that very little light penetrates to the forest floor. So much of what is rooted in the soil—vines and all manner of other creeping plants—use the trees as hosts offering a highway to the sun. While there is a wide range of plant species in the rainforest, one might easily conclude there is more visible diversity on the forest floor of a hardwood forest here in southern Ontario.

I would not be digressing too far from the topic of trees if I were to discuss amphibians and reptiles, which are found (and quite easily located at night) in numerous varieties and quantities in and around trees of the rainforest. But I will save that for anyone foolish enough to ask to see the picture show on my computer.

**Common sight in the rainforest: 20m (65') trunk completely covered with multiple plant species.**

Instead, I will close by mentioning the bugs. Going to a tropical rainforest, we were a bit concerned about bugs and particularly mosquitoes which carry a range of viruses in those areas including, as of late, the Zika virus. We went prepared with bug jackets and even some of that horrible, plastic-melting DEET repellant in case things got really bad. Here's a reality check: yes there were mosquitoes (they are smaller than ours) and yes we got some bites, but we did not once bother using the bug juice or bug jackets. I can report that the bugs in the rainforest of northwest Costa Rica are nothing—not even one quarter as bad—compared to late spring and early summer ones in south-central Ontario. So consider yourself quite entitled to swear and complain about our bugs as you work in your woodlands this time of year. ☺

**Natural shedding reveals colourful inner bark!**

# Earthworms: As the worm turns

**By Malcolm Silver**

What a difference there is between my city life, where all is hectic and that at my woodlot where, despite having to work like a navvy at times, there is serenity. So too is there a difference between my attitude to earthworms in the city and in my woodlot.

Canadian native earthworms were extirpated by the last glaciers and of the 20 species confirmed in Ontario, most originated from Europe or Asia while 2 are from the United States. In this part of Ontario the common import is *Lumbricus terrestris,* a reddish worm beloved of fisherpersons, if I usually had to impale ones for my late wife to use. In the city I revere them, assiduously feeding them autumnal leaves, grass clippings and loads of mulch and am delighted by their ability to ingest these materials & both enrich and mix soils. In the country I have my doubts.

Since the retreat of the glaciers, Ontario's forest systems evolved without earthworms and their establishment in these areas significantly threatens the health of forest lands. Where earthworms have invaded, the forest dramatically changes by the absence of a leaf-litter layer and exposure of the soil. Earthworms consume the leaf litter causing tree seedlings, ferns, wildflowers, and potentially water quality to decline. They change soil structure and inhibit the historical and natural functioning of forest systems.

What can you do to help prevent the spread of these worms?
1) When moving soil or plants be careful to avoid moving earthworms into new areas.
2) Clean your boots! Soil on boots and equipment can easily transport worm eggs and other seeds into new areas.
3) Dispose of bait in an area of known worm infestation such as the garden at home, rather than dumping bait on land in natural areas.

4) Don't move earthworms into new natural areas such as forests.

5) Report sightings to the toll-free Invading Species Hotline at 1-800-563-7711 or online.

.My thanks to Kevin Predon who drew attention to an article which prompted this report.

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