Greenleaves

Newsletter of the Bruce Grey Woodlands Association

WINTER 2020

www.bgwa.ca

President's Message

Alison Stewart

Well, Mother Nature is rejuvenating the planet as the human species takes a pause on daily life, as we know it, due to the COVID-19 outbreak.

During this time please self isolate and stay safe. Phone your friends and neighbours to stay in touch. Utilize technology to do video calls with each other to stay in communication with one another. The BGWA community is here to support each other. If you need help – please ask.

What a great time of year to be in the woods, move our bodies and get fresh air!

At first glance, the woodland is still and quiet, however with some patience and curiosity, you notice there is always something to stimulate the senses. There is everything from soft mosses, new growth and buds waiting patiently to come out, to remarkable patterns carved into fallen logs by various insects. Various bulbs are coming up

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Board Meetings:

21 APR @ 5PM—SVCA office (Formosa)

23 JUN @ 5PM—Owen Sound (location TBA)

18 AUG @ 5PM—SVCA office (Formosa)

20 OCT @ 5PM—Owen Sound (location TBA)

15 DEC @ 5PM – SVCA office (Formosa)

Members always welcome!

MAY 09	JUL 18	SEP 12	OCT
Planting/ Plantation Tour	Summer Hike Woodlot Tour	Bus Outing & BBQ	Tree Marking Workshop 2.0 date TBA

DATES SUBJECT TO CHANGE. Details to be posted to web site as event nears.

Would you like to host a member tour of your woodland property??

Contact Jim Coles:
jcoles@gbtel.ca
519-934-0020

(President's Message, from page 1)

The birds have returned this week and mating season is in the air, nests are being built and various bird songs & calls are heard in the air.

I am also noticing the silence this spring. Everything from a lack of airplane noise and contrails, to little traffic on the roads. It has been very lovely to hear more of nature these past few weeks.

Now onto Association business. We held our AGM on March 7, 2020 at the Grey Roots museum. Our guest speaker Anne Bartlett gave us much to consider and think about in our forests and woodlands. Please utilize her as a resource for asking questions and researching species.

We held our first board meeting with new board members on March 12, 2020. We have formed our committees and are busy at work preparing an exciting year of events, education and information for you all.

We have also introduced a new committee for Long Term Planning for the organization. More on this in the next newsletter.

If you have any suggestions about an event that would be suitable, please reach out to us. We would love your input!

Sincerely,

Alison Stewart

GREENLEAVES

is published by Bruce Grey Woodlands Association (BGWA) and distributed to members to provide information, guidance, instruction, ideas and opinions related to trees, woodland ecosystems, forest management, and recreation in forest settings in or relevant to Bruce and Grey counties.

Content of articles is the sole responsibility of the authors and does not necessarily represent the views of BGWA.

BGWA's vision:

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

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The Science of Thaw Circles

by Kevin Predon, RPF, BGWA Member & Director

Why does the snow melt around the trunks of trees and is it ecologically significant?

As we transition from winter to spring, you may notice and wonder about the snow melting from around the trunks of trees on your property. The occurrence of these "thaw circles" has to do with the contrast between the darkness of the tree bark and the lightness of snow. The open canopy of a deciduous forest in winter allows the base of the trees to receive full sunlight, which will then heat the tree trunks above the ambient air temperature and cause snow around each tree to melt.

An ecological significance of the thaw circle phenomenon is the leg-up that it may provide to spring ephemeral plants on the growing season. Species such as trout lily, red trillium, and Carolina spring beauty, typically only get about one month of direct sunlight to complete most, if not all, of their yearly photosynthesis, prior to the full-on leaf flush that inevitably chokes off their light supply. Therefore, even if this early snow melt only adds an extra week or two to their growing season, it can provide a substantial boost to the life cycle of spring ephemeral plants.

Of course, this is not the only reason why you may (or may not) find an abundance of trout lilies growing around your sugar maples, because forest ecology has many levels of complexity. However, if you go for a walk and look around the thaw circles of your own woodlands, perhaps you'll be able to find a little community of spring ephemerals taking advantage of their recently snow-free environment.

Ref: Information in this article extracted from "The Scientific Naturalist" Ecology, 98(12), 2017 pp. 3224-3226

Overwintering in the Pine Flatwoods of Northern Florida

By Jim Coles, BGWA Member & Director

My wife and I have spent the past few winters at Alligator Point on the "Forgotten Coast" of northern Florida. Alligator Point is SSW of Tallahassee and is "old" Florida - no resorts, no condo buildings, few people, few amenities but lots of wildlife. Most of Alligator Point is a State Park. Surrounding Alligator Point to the north and west is the Apalachicola National Forest and to the east St.Marks National Wildlife Reserve. It is not for everyone because the closest coffee shop is about 30 km away but if you like walking wide open beaches with your dog off leash, birding, hiking, fishing, paddling and biking, the area is wonderful. My favourite activity is biking on dedicated and paved trails through the pine flatwoods.

Alligator Point is within the Pine Flatwoods ecosystem. This is the most extensive terrestrial ecosystem in the State. This northern flatwoods site is characterised by flat, low topography; relatively poorly drained, acidic, sandy soils; and open woodlands dominated by pines. As the water table is close to the surface, the flatwoods are interspersed with many

a plantation with saw palmetto ground cover

wetlands and small ponds. Species associations include longleaf pine, wiregrass, live oak, slash pine and saw palmetto. The community evolved through frequent lightning and human-caused fires with seasonal droughts and flooded soil conditions. Nearly all plants and animals inhabiting this ecosystem are adapted to periodic fires and several species depend on fire for their existence. Without fire, the flatwoods would succeed into a hardwood dominated forest with a closed canopy. The Forest Service conducts prescribed burns in the area every year in January and February, to control undesirable species, improve wildlife habitat, enhance appearance and access, control disease, and speed woody plant decomposition. Most of the natural ecosystem has been converted to pine plantations for the vibrant forest industry.

a prescribed ground fire to control vegetation

Wildlife species associated with the ecosystem include very abundant white tailed deer that are about half the size of Bruce County deer, black bear, also smaller, bobcat, fox squirrel, grey fox, racoon, opossum, armadillo, several species of snakes and box turtles. My wife and I were extremely fortunate to see a Florida panther a couple years ago in the State Park and friends of ours saw one a couple of weeks ago while paddling. One of the interesting, endemic species is the endangered red-cockaded woodpecker. To prevent snakes from predating their nesting cavities, the woodpecker removes the bark around and below the cavity causing the pine resin to flow down the tree thus preventing snakes from climbing higher. The Forest Service has implemented a recovery program in the area. This involves hollowing-out a niche

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(Pine Flatwoods, continued from page 4)

in large longleaf pine trees about 8 metres above the ground and inserting an artificial nesting cavity. Although the red-cockaded woodpecker is making a dramatic comeback, we have yet to see one.

Biking through the pine flatwoods is a wonderful activity. A person can bike for 50 km or so and not come across an elevation change of more than 3 metres. And the local counties have a very enlightened approach to biking (unlike Bruce County) by building dedicated, paved bike trails or metre wide paved shoulders for bikers on county roads. And more new bike trails are being built annually.

the flatwoods after a recent controlled burn

the bike trail thru the pine flatwoods

Bald Squirrels

by Malcolm Silver, Newsletter Editor & BGWA Member

Mother Nature has been tardy in giving us spring-like weather this year. Nevertheless, squirrels have reappeared from hibernation. Theirs is not the winter-long sleep of a groundhog, for example, for they are active on some milder winter days. Some animals reappear sleek and fat but others are scruffy and bear unattractive areas of hair loss.

The most common cause of this change is a variety of superficial fungal diseases generally termed dermatophytoses. The hair of an infected squirrel typically breaks off at the skin, leaving a fine stubble of short hairs. Damp weather is thought to play a role in some fungal outbreaks. Most animals will eventually gain an immune response and recover from the fungal infection with no apparent consequences.

Some might assume that the baldness is a result of mange, a disease caused by microscopic mites that burrow into the skin causing hair loss, with associated dry thickened and dark skin, a condition most commonly spread by direct animal to animal contact. But this assumption is usually wrong.

Some hair loss in our squirrels is thought to be an inherited condition where the hair follicles are non-functional or absent, although studies confirming this have not been done. These squirrels have normal, but bare skin.

So, the next time you see a spring-time squirrel with hair loss, don't be alarmed. In most cases, the hair will return with no apparent ill affects to the animal.

Ladybug Invasion

by Malcolm Silver, Newsletter Editor & BGWA Member

In recent years, we have noticed swarms of ladybugs amassing in the fall; these are Asian lady beetles, *Harmonia axyridis* native to eastern Asia. This ladybug has large white "cheeks" and a black "W" (or "M", depending upon how you look at one) on its head. Other ladybugs have a black head and, if they have white marks, they are not as large as the cheeks of the Asian species. The latter were introduced into the USA as a bio-control for aphids and have since spread throughout that country and into Canada. Many now view them as a pest, partly because of their tendency to overwinter indoors; the unpleasant odor and stain left by their body fluid when frightened or squashed and their tendency to bite humans. In addition they are an agricultural pest contaminating crops of tender fruits and grapes; grape contamination alters the taste of wine. Native ladybird species have declined in areas invaded by *H. axyridis*.

Studying the problem Richard Hall (Research Scientist, University of Georgia Odum School of Ecology) commented "What makes this insect a good biocontrol also makes it a good invader; it has multiple generations per year, compared to just one for native ladybugs. It tolerates a wide range of environmental conditions and it has a generalist diet -- it likes aphids, but it will also eat other ladybugs. In other words, it eats its own competition." Hall explained that when an invader expands into an

open niche, with no native competitors, invasion happens faster than if a competitor was already there; native competitors slow the rate of invasion. If an invader can eat native competitor, however, it not only gains a source of nutrition but also reduces competition for lower-level food resources. If the resource benefit is a good one -- the native competitor is a rich source of nutrition -- the invader that eats its competition can invade even faster than if there were no competition at all. This may be the case with the Asian lady beetle.

In the fall, multicolored Asian lady beetles gather in large numbers on the outside of light-colored houses. As they gather on the house, some find cracks or holes. They use these holes to get inside. lady beetles enter quiet places like the attic. They hibernate through the winter and become active again in the spring

Building a Forest

by George Genyk, BGWA Member

A number of years ago I had made arrangements with Saugeen Conservation to have an abandoned field planted with a mixture of White Pine and White Spruce. This was to be accomplished in the usual way - a tractor towing a planting device - and ending up with the neat rows that we have been accustomed to seeing in the landscape. I would end up with a "plantation", but my aesthetics demanded a "forest". Having all winter to contemplate this, I came up with an idea that might work.

When the tractor operator arrived in the spring, I drew on my clip-board a continuous sine-curve, with varying wave lengths, and varying amplitudes. If I walked this along the fence row, ahead of the tractor, would he be able to follow, and would he be able to track successive passes using the first one as the guide? He answered in the affirmative.

I have my forest. No extra cost or labour was involved. The row spacing is standard, and parallel. Therefore if and when management is required in future (harvesting every fourth row), it can be done in the standard way, after marking the first few trees and showing the operator the sine-curve pattern. Perhaps you can use this simple idea when you plant your "forest".

The Genetically Engineered American Chestnut: Is It Safe?

by Gary Kenny, BGWA Member & Director

A century ago, it reigned supreme in southwestern Ontario's vast forests. It was the indisputable and unchallenged "king." No wonder. It stood up to 35 meters tall and its trunk could measure three meters in diameter. One of every four hardwood trees in the forest was this species. Given its woodland dominance, the American chestnut was surely worthy of its regal status.

Today, sadly, the majestic American chestnut (*Castanea dentata*) is close to disappearing. A fungal pathogen (*Cryphonectria parasitica*) was introduced from Asia in the early 1900s and has driven the tree to functional extinction. The American chestnut is now listed as Endangered and is protected under Ontario's Endangered Species Act (2007).

Many, especially tree enthusiasts, long for the tree's return. American chestnut was treasured for its stately beauty and prized for its multitude of uses. The tree has one of the strongest and most decay-resistant woods of any North American tree species. Past uses include for home construction, furniture, railroad ties, barrels, shingles and fence posts. Tannin present in the tree's bark was used in the manufacture of leather, and the species' highly nutritious and abundant nuts provided food for bears, deer, turkeys and squirrels and of course humans.

At the State University of New York College of Environmental Science and Forestry (SUNY ESF), scientists are determined to reintroduce the American chestnut and restore it to its former glory. They claim to have created, using biotechnology, a variety resistant to *Cryphonectria parasitica* and are seeking the approval of regulatory agencies in the U.S. to restore the tree to the country's natural environment.

If approved, the GE chestnut would be the first GE forest tree species to be planted out in forests with the deliberate intention of spreading freely.

Genetically engineered trees – genetically engineered anything, especially food items – is controversial across society. While official regulatory agencies may claim that GE (or GMOs – genetically modified organisms) plants and animals are safe for human use and consumption and not harmful to the environment, others knowledgeable about this biotechnology will tell you that no one really knows for sure.

Although the claims by proponents of GE technology, if correct, have obvious appeal, opponents say the uncertainties they pose, especially related to their potential injurious environmental impacts, outweigh any benefits. They cite, among other concerns, the possibility of transferring genes to other species and consolidating intensive cultivation at the expense of other, more sustainable, approaches.

The Canadian Biotechnology Action Network (CBAN) says regulatory agencies rely too much on information provided by advocates and manufacturers of GE life forms. And that information, CBAN adds, is not usually public. Releasing GE organisms into our food system and environment remains an ongoing experiment, still in need of testing and evaluation, CBAN says.

There may be other, safer ways to repopulate eastern North American forests with *Castanea dentata*. The American Chestnut Foundation has been working to implement a breeding program that would hybridize American chestnut with the naturally blight resistant Asian chestnut, and then backcross to produce a blight resistant tree that nonetheless preserves the growth characteristics of the American chestnut. Hundreds of thou-

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(American Chestnut, from page 7)

sands of hours of painstaking work across many years has gone into this breeding program.

The SUNY ESF scientists claim that GE will provide a faster solution. After experimenting with various genes and combinations of genes, they have settled on using a gene sequence derived from wheat that causes the tree to produce an enzyme, oxalate oxidase (OxO).

The enzyme, once established, inhibits the spread of the pathogen *Cryphonectria parasitica*, making it less lethal to the tree. OxO is apparently not uncommon in nature, and has been experimented with in a variety of everyday crops. However skeptics say that, in their promotional materials, the scientists are conspicuously careful to highlight the commonality of OxO. They stress that the gene comes from ordinary wheat, conjuring images of saving the chestnut with nothing more dangerous than a slice of buttered toast.

According to the article "The GMO American Chestnut: Restoration of a Beloved Species or Biotech Trojan Horse," (*In These Times*, July 16, 2019), "the OxO engineered chestnut is using language including 'nothing but a wheat gene' to 'restore a beloved iconic species' as a public relations tool – a trojan horse - for winning over public opinion toward GE trees more generally and for the use of biotechnology as a 'tool of conservation'." It's a strategy, the article says, "that biotechnology industry proponents expect will soften public opposition and open up the potential for commercializing a wide array of GE trees."

The Campaign to STOP GE Trees, a New York State organization established to protect forests and biodiversity, warns that monitoring or reversing the spread of GE trees, once they've been released into the natural environment, would likely be impossible. "Performing valid risk assessments of the potential impacts of GE American chestnut on forests, wildlife, water, soils, pollinators or people, is hampered by our lack of knowledge about both the ecology of the American chestnut and forest ecosystems," the group says. Furthermore, STOP GE Trees adds, "since American chestnuts can live for more than 200 years, risk factors may change over the tree's lifetime in unpredictable ways."

Much is at stake in the debate about whether the GE American chestnut should be turned loose in North America's forests. The choices we make about the chestnut will likely set a precedent for the future use of biotechnology on other forest tree species and, more broadly, on the use of biotechnology as a tool for conservation.

For more detailed information on the GE American chestnut, see Biotechnology for Forest Health? The Test Case of the Genetically Engineered American Chestnut and Genetic Frontiers for Conservation: An assessment of synthetic biology and biodiversity conservation.

Ideas+Discussions

Member Lloyd Holbrook writes:

One comment I would make is how economical it is to do your own selective logging and get custom sawing. I had two larger ash trees growing close together so decided to cut one for lumber that I needed for wagon sills and racks I needed to repair 3 older wagons. The smaller ash I cut was a bit over 100' tall and had a butt almost 3' in diameter. I put 5 x 12' logs on a wagon and took them to my neighbor, who has a portable sawmill. I gave him the specifications and picked up the cut lumber in 2 days. Cost was $175. My time spent was less than a day, and there was 1 or 2 cord of firewood from the top that. I valued my time low but the firewood maybe paid for it. So for $175 I got excellent quality hardwood for less than 1/4 the price of softwood at the local lumber store. I have sold 2 of the 3 wagons and will use one myself and have lumber left over.

Do you have a response, an idea, a notion, a tip or advice, to share with fellow members???
Send to newsletter@bgwa.ca (or use postal address on page 2) for inclusion in next newsletter.

UPDATES from BGWA Board Committees

EVENTS

In these very uncertain times, the Events and Education Committee has tentatively put together a program for the upcoming year. Needless to say, this all may change.

1. Our first outing will be Saturday May 9th at BGWA President Alison's farm where we will look at various aged plantations and learn proper seedling planting techniques.

2. On Saturday July 18, a summer hike/woodlot tour will be organized - possibly to Spirit Rock Conservation Area (just north of Wiarton) to walk the escarpment trails and view the old McNeill estate stone ruins.

3. The annual bus tour and BBQ is planned for Saturday September 12. Possible stops include Liverance Timber and Mill; Hayes Cedar Timber and Mulching and Bruce Peninsula Sportsman Association pavillion and fish hatchery - all on the Bruce Peninsula.

4. On Saturday October 17 (or 24) our second tree marking workshop will be held at Chris Vanderhout's farm

Kevin's popular TREEvia events will be held if and when the all clear is given on social gatherings.

MEMBERSHIP

Through our initial planning session we discussed:

Objectives

- Increase and maintain memberships as well as attract younger members

Initiatives

- Finalize BGWA brochure and look at methods to distribute brochures to potential members
- Potential Essay writing contest for students
- Student membership giveaways
- Potential membership discount for bringing forward new members
- Newspaper articles about BGWA and events

COMMUNICATIONS

First, I would like to welcome and introduce the committee members for 2020; Melena McGregor, Gary Kenny, Kevin Predon, Neil Baldwin, Alison Stewart and myself Jim White. Neil is mentoring me as I assume the role of committee chair.

What is the committee up to? We are developing a Communications Plan to guide us as we set goals and objectives for 2020-2025. Our committee members bring a broad range of skills and experiences so that means we will be trying some new approaches in the coming year without losing any of our core vehicles to reach members and potential new members. If you have ideas and suggestions please send them my way: jwhite007@sympatico.ca

I have been a member of the BGWA and its legacy organizations about 15 years. Our woodland is 30 acres of primarily hard maple near Wodehouse / Markdale.

LONG-TERM PLANNING

This new committee was struck at the first meeting of the new Board. Objectives are being defined and there will be an update in the next newsletter. Members with suggestions or input are invited to contact the committee chair, Alison Stewart (contact info on back page).

See back page for listing of committee membership.

BGWA Communication Options

BASIC includes newsletter 4 times/year, mandated notices (e.g., AGM), plus occasional updates (e.g., events) which cannot wait for next newsletter.

ENHANCED includes the above plus generates an email whenever new content is added to the BGWA web site (average 5 per month)

The default option is BASIC, which is the same whether by email or post. Email saves BGWA $$ and gets information to you sooner. To get ENHANCED, go to bgwa.ca and subscribe your email in the "Stay Connected" box

LEADERSHIP + SUPPORT

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Mike Fry
Kevin Predon
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Newsletter
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Malcolm Silver (editor)
newsletter@bgwa.ca

Loaning Library
Hunter Dickson
Alison Stewart
library@bgwa.ca

*non-Board positions

**committee Chair

Board Committees

Communications
Neil Baldwin
Gary Kenny
Melena McGregor
Kevin Pedon
Alison Stewart
Jim White**

Events & Education
Jim Coles**
Mike Fry
Donna Lacey
Scott McGregor
Ron Stewart

Membership
Larry Cluchey
Susan McGowan
Chris VanderHout**

Long-term Planning
Donna Lacey
Alison Stewart**
Chris VanderHout
Jim White

BGWA Member Doug Van Horne's favourite tree is this old apple tree that was likely planted in 1892 when the original house on his property was built. This very large apple tree still produces a red apple that is sweet like a Tollman Sweet.