



NEWSLETTER

SOUTH LAKE SIMCOE NATURALISTS

SLSN is an incorporated not-for-profit Member of Ontario Nature.

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(www.slsnc.ca)

Research Partner with The Zephyr Society of Lake Simcoe (www.zephyrsociety.ca)

Member: Rescue Lake Simcoe Coalition

Member: Ontario Greenbelt Alliance

Note: Please renew your membership to receive future Newsletters

Meetings and Outings

Meetings: All Meetings start at 7:30 p.m. at the York Region Police Building Meeting Room (Baseline Road between McCowan and Civic Centre Road) unless noted otherwise. No July or August Meetings. Members events (insurance compliance). Visitors welcome.

York Regional Police, 3 District Community Meeting Room
3527 Baseline Road, Georgina.



Tuesday, March 13 Hurricanes: How are they formed and what is their impact on our lives with Bill and Doris Major, exploring personal experiences of recent hurricane Irma in Cuba. They

have planned a power point presentation, and briefly include definitions; categories; naming; seasons; anatomy of a hurricane; impact on nature and on humans; role of human activity; influence of climate change; and predicting hurricanes. They will have pictures to illustrate as we go, and will show pics – and videos! – of their experience with Irma.

Tuesday, April 10 Ontario's Greenbelt: The Greenbelt in Ontario has been a leading land use planning tool that, after a number years in existence has recently completed a review. SLSN members will interrogate its form, extent and function. In recent months the province has engaged Ontarians in an exercise at growing the Greenbelt. Club members research, presentation and conversation meeting.

Outings: All regular outings – Note: **Paid-up members may participate (for insurance compliance).**

2018 Spring

Saturday April 28: Spring Birding and Nature Study: The annual Spring Birding trip along Lake Simcoe will concentrate on waterfowl and shorebirds, this year to the east. Rare migrants can sometimes turn up unexpectedly so be prepared. Later in the day we may do some hiking and general nature study in one of our local natural areas. Meet at 8:00 a.m. at the Tim Horton's in Sutton on Dalton Road. Dress for the weather. Bring binoculars etc.

Members, please consider writing and submitting an article to the Talon Newsletter. Submit to one of the Executive members.

Phone Paul 905-722-8021 or Norma 905-476-4747 for further information about meetings and naturalist outings.

York Region Forest News

York Region's ***Parking Lot design*** contractor will be undertaking work in the **Drysdale Tract** shortly. The operation is expected to last *two months*. For the safety of the public and workers please keep clear of the operation.

Also, Region's ***2018 Timber Harvest*** contractor will be undertaking work in the **Hollidge, Scout, Robinson, Davis Drive, and Porritt Tract** next week. The operation is expected to last one months.

Contact Colin.macdonald@york.ca or 905-830-4444 x75258 for further information.

Controlled Burn: The Regional Municipality of York's Natural Heritage and Forestry Services Branch is planning a controlled burn of tallgrass prairie/oak savanna habitat located within the **Bendor & Graves Tract** of the York Regional Forest early spring 2018. Please visit www.york.ca/yrf for more information.

As of March 1, 2018 we have officially entered the Burn Window (March 1st – April 30th, 2018). Staff and the burn consultant will be monitoring the weather and site conditions. Very precise wind and moisture conditions are required in order to proceed with ignition.

For more information contact Dayna at dayna.laxton@york.ca ext. 73119 or Kevin Reese (kevin.reese@york.ca) Program Manager, Forest Conservation ext. 76033.

Environmental Issue that affects us all

Plastic Use and Starbucks

Source: Sum OF Us Petition - 2018-03-08

According to ""Sum of Us each minute the equivalent of a garbage truck full of plastic ends up in the ocean, and Starbucks coffee cups, straws, and plastic cutlery are a huge part of the problem.

That's why in just two weeks they will be taking a campaign to Starbucks' AGM. They are

asking people to help make sure they can deliver a huge petition and speak to Starbucks with the clout of having hundreds of thousands of people across the world on side?

According to their research the world's oceans are full of plastic and 4 billion plastic-lined Starbucks cups end up in the garbage every year. These are nearly impossible to recycle because of their plastic lining.

In 2008, Starbucks boldly told the world it would serve a 100% recyclable paper cup and increase reusable cup usage to 25% by 2015. To date, it hasn't kept either of these promises.

They suggest Starbucks is part of the problem: **tell the coffee giant to switch to 100% recyclable cups! The world's oceans are full of plastic and 4 billion plastic-lined Starbucks cups end up in the garbage every year. They note that Starbucks is part of the problem: and are asking people tell the coffee giant to switch to 100% recyclable cups!**

By 2050, the world's oceans are projected to have more plastic in them than fish, and yet still Starbucks continues to serve billions of plastic-lined single-use coffee cups. These are nearly impossible to recycle because of their plastic lining. And, the sheer amount of plastic trash created by Starbucks is out of control according to Sum of Us, and is ending up in waterways and other fragile ecosystems.

In 2008, Starbucks boldly told the world it would serve a 100% recyclable paper cup and increase reusable cup usage to 25% by 2015. To date, it hasn't kept either of these promises. **It is suggested it is time for Starbucks to live up to its promises to give us a 100% recyclable cup, not be part of the global plastic problem.** Sum of Us is asking people to **sign their petition telling Starbucks to cut down on the sheer amount of plastic trash it creates.**

The Sum of Us campaign is being run in partnership with the Break Free From Plastics Coalition, Stand.earth, Greenpeace USA, Clean Water Action, UpStream, Story of Stuff, 5 Gyres, Texas Campaign for the Environment, PPC, Care2, and Coworker.org. For more information, and to see the petition google "Sum of Us – Starbucks Petition".

Forest Conservation

Ontario Tree Seed Facility Feared to be Closing

Letter from Forests Ontario

February 23, 2018 – distributed to member organizations from Ontario Nature.

An open letter to all concerned conservation interests regarding the future of native tree seed in southern Ontario.

In August of 2017 the Ministry of Natural Resources and Forestry announced its intention to close the Ontario Tree Seed Plant (OTSP) located in Angus Ontario, with the closure slated for September 2018.

Shortly after the government's announcement, a group of concerned clients of the OTSP came together to assess the impacts the closure of the seed plant will have on their programs and aspirations. A fruitful dialogue with Ministry staff was initiated to search for ways to mitigate those impacts.

Part of the Ministry's rationale for closing the OTSP, was that it is aging and operated at a level far below its original capacity, ultimately making it inefficient from a cost and operational perspective. Regardless, the OTSP and the seed that it has produced form the foundation on which most ecological restoration efforts across southern Ontario are based on. Simply put, it takes a seed to grow a tree and many genetically appropriate seeds to replace a forest. Ontario will need billions of genetically appropriate seeds in the coming decades as we grapple with challenges such as climate change adaptation, biodiversity loss, restoring Species at Risk habitat and controlling invasive species through restoration.

Many of you participated in a letter writing campaign to ask the government to reconsider its decision to close the OTSP and for that we thank you sincerely. Despite our campaign, plans to shutter the facility are proceeding, and this letter provides you with an update on our efforts to date and our plans to ensure all the activities offered by the OTSP will be replaced.

Ontario Tree Seed Coalition (OTSC) This loosely knit group includes Forests Ontario, Forest Gene Conservation Association, the five southern Crown Land Sustainable Forest Licence Holders, and several growers who provide Ontario source-identified nursery stock (Somerville Seedlings and Ferguson Tree Nursery). This coalition and its membership is not exclusive, however with so many things to accomplish and challenges to tackle in such a short time frame, this initial group has focused on moving forward. Discussions and negotiations with the provincial government have been led by Forest Ontario (FO) and the Forest Gene Conservation Association (FGCA) and their members and partners. Both

organizations are broad based, well-networked organizations committed to forest health and well-being, and collaboration with similarly focused organizations.

Progress to Date The first task was to understand what should be included in a fully functional seed management system. It is safe to say that with the OTSP being a fixture on the landscape since 1923 many of these functions “just seemed to happen.” While organizations like FO and FGCA and native seedling nurseries were active in many operational aspects of seed management, the OTSP was the hub and facilitator of all of these activities. As such the OTSP was largely taken for granted and was not well recognized for its essential role in the whole ecosystem restoration cycle. To replace what has existed at the OTSP for decades, we have identified that the following six discrete processes are required for the sustainability of a future seed system:

1. Seed demand forecasting - Determine number of seed of each seed source and species required by conservation and restoration agencies. Nurseries typically require three years to produce a seedling. For example, to produce tree seedlings for 2021 planting, we need to collect or have seed in storage by 2018.
2. Seed crop forecasting - Monitoring what crops are developing for over 120 species across Ontario. We need to be in a position to organize collection activities at the exact time crops ripen wherever they occur.
3. Seed collection - Coordinate a seed collector network to facilitate collectors' essential role in providing high quality seed that is source identified, appropriately handle thousands of bags of cones and trays of fruit each year until they can be sown or further processed and stored.
4. Seed extraction & processing – Extract seeds from cones and fruit, sort, clean and dry down to appropriate moisture content for storage, etc.
5. Seed storage - Long-term frozen (up to 20 years) storage of orthodox seed in airtight containers, regular seed quality monitoring and testing for viability (germination % and vigour).
6. Seed source tracking - Maintain chain of custody (seed source identification) throughout the seed collection, extraction and processing, and storage processes

to ensure seed of known origin is available to produce nursery stock appropriate for planting sites across Ontario.

In other provinces like British Columbia, the management of native seed has been deemed “mission critical” however Ontario has taken a different direction and is getting out of the business of seed management. OTSC members have therefore created a work plan addressing all issues that will result from the closure of the seed plant and reduced government involvement in seed operations. Major items within the work plan that are in progress or complete include: A. The acquisition of tree seed from the Ontario Tree Seed Plant inventory (to be utilized in Ontario-based programs), B. A draft discussion paper that outlines the complexities of native seed management.

Ongoing work plan efforts include: A. Identifying and securing high quality long-term storage for the current seed inventory, B. Developing a business plan that includes and proposes a mechanism for all of the steps listed above, C. Working with government to secure adequate, stable, long-term funding to ensure that we continue to have a system in place that will provide source identified and native seed for restoration programs into the future.

Many organizations including Conservation Authorities and Municipalities are the ultimate end users of a seed management system. Your support is critical to the success of what we are trying to accomplish. There are several ways in which you and other concerned agencies and organizations can assist at this time: ● Advocate strongly for provincial support for a native seed management system that is long term, stable and sustainable in nature, ● Provide input into plans and documents produced by the OTSC when requested, ● Contribute to the development of our Seed Collection Area Network (SCAN) by identifying stands of good seed production potential in your areas of jurisdiction, ● Continue to support ecological restoration and reforestation projects in your jurisdictions using seed sources that are adapted to your local conditions, and advocate strongly for more support for them at every opportunity.

If southern Ontario is to approach the minimum accepted level of ecological sustainability of 30% natural cover on the landscape we will require the naturalization of 600,000 ha which will take approximately 2 billion new trees. Clearly there is both need and demand for seed in Ontario.

Sincerely,

Rob Keen & Barb Boysen CEO, Forests Ontario.
General Manager, Forest Gene Conservation Association

Note: Ontario Nature (Eco Spark, Storm Coalition, Earthroots) previously sent a letter to November 20, 2017, that was featured in a previous SLSN Newsletter.

Climate Change Science News

New study: Sea level rise accelerating

Eleanor Imster *in* EARTH | February 16, 2018

Global sea level rise has been accelerating in recent decades, rather than increasing steadily, according to a new study based on 25 years of NASA and European satellite data.

A new study says that global sea level rise is accelerating incrementally over time, rather than increasing at a steady rate, as previously thought. The study, published February 12, 2018, in the journal *Proceedings of the National Academy of Sciences*, is based on 25 years of NASA and European satellite data.

The researchers say that this acceleration – driven mainly by increased melting in Greenland and Antarctica – has the potential to double the total sea level rise projected by 2100, when compared to projections that assume a constant rate of sea level rise.

If the rate of ocean rise continues to change at this pace, the researchers suggest, sea level will rise 26 inches (65 centimeters) by 2100. That's enough to cause significant problems for coastal cities.

Steve Nerem, the study's lead author, is a professor of Aerospace Engineering Sciences at the University of Colorado Boulder, a fellow at Colorado's Cooperative Institute for Research in Environmental Sciences (CIRES), and a member of NASA's Sea Level Change team. Nerem said in a statement:

This is almost certainly a conservative estimate. Our extrapolation assumes that sea level continues to change in the future as it has over the last 25 years. Given the large changes we are seeing in the ice sheets today, that's not likely.

Rising concentrations of greenhouse gases in Earth's atmosphere increase the temperature of air and water, which causes sea level to rise in two ways. First, warmer water expands, and this "thermal expansion" of the ocean has contributed about half of the 2.8 inches (7 centimeters) of global mean sea level rise we've seen over the last 25 years, Nerem said. Second, melting land ice flows into the ocean, also increasing sea level across the globe.

These increases were measured using measurements since 1992 from multiple satellite, managed by multiple agencies in both the U.S. and Europe. According to the data, the rate of sea level rise in the satellite era has risen from about 0.1 inch (2.5 millimeters) per year in the 1990s to about 0.13 inches (3.4 millimeters) per year today.

Even with a 25-year data record, detecting acceleration is challenging. Episodes like volcanic eruptions can create variability: the eruption of Mount Pinatubo in 1991 decreased global mean sea level, for example. Global sea level can also fluctuate due to climate patterns such as El Niños and La Niñas, which influence ocean temperature and global precipitation patterns. For the study, the researchers used climate models to account for the volcanic effects and other datasets to determine the El Niño/La Niña effects.

Bottom line: According to a new study based on 25 years of NASA and European satellite data, global sea level rise has been accelerating in recent decades, rather than increasing steadily.