



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.



NOTE: Consistent with YRP recent procedures in place regarding evening use of their Community Meeting Room (CMR), attendees of SLSN meetings must be current members of SLSN in good standing, and may be asked to provide further information, as requested.

Tuesday, Sept.11 Forest Wildfires in Ontario and beyond! In Ontario, and across Canada, especially the province of British Columbia unprecedented numbers of forest wildfires have been raging this summer. Many of them have been out of control for weeks. What are the reasons for this. How is forest ecology, wildlife and human safety being managed and planned to mitigate in the future. Is Climate Change a factor and many other perspectives and issues will be discussed. Club members research, presentation and conversation meeting.

Tuesday, October 9 Butternut tree, a once common, but now endangered tree species in our area: This tree we all remember in our youth as common everywhere has been dying a slow death over the last two decades in eastern North America including Ontario. At risk, and listed as endangered in Ontario, or local areas in Georgina have been an important refugia for them but recent suburban development has impacted some. There are many complex and interesting ecological and environmental aspects of its decline, and vital information about saving the species. Club members research, presentation and conversation meeting.

Tuesday, November 13 Annual SLSN Autumn Event: Details to be announced – SAVE THE DATE !
There will be a special illustrated presentation from a guest speaker, the annual silent auction and baked goods for sale as in past years, and other special features, and refreshments. Club members are asked to please donate a few, but unique auction items AND home-baking. *Paid up Club members reserve seats with \$2.00 donation. Non-members \$5.00. The event is at the Egypt Hall at 7:30 p.m.* Phone Paul 905-722-8021 or Norma 905-476-4747 for further information.

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

2018 Spring

Saturday September 22: Fall Birding and Nature Study - morning.

Early fall morning nature walk and Birding trip to the Arnold C. Matthews Nature Reserve in the North Keswick – North Gwillimbury Forest area. We will concentrate on forest birds like thrushes, grouse, confusing fall warblers and maybe owls. At this time of year rare migrant birds can sometimes turn up unexpectedly, so be prepared. Though we have had outings here in the past, not in the last few years. We will also look at some fall fungi and other general nature study. Meet at 8:00 a.m. at the Coffee Time south of Baldwin on Highway 48. Dress for the weather. Bring binoculars etc. We will start our walk at 8:30 a.m. If you will be going directly to the Matthews Nature Reserve phone 905-722-8021 for meet-up arrangements.

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

This email is to advise that the Region will be performing pond and dam maintenance at the Eldred King Tract. During this time, there will be no access to the pond edge. Trail closures will also be necessary to perform the work, please see attached map. Fencing and trail closures will begin the week of September 3. Maintenance work will begin the week of September 10 and is expected to last up to two weeks.

For the safety of the public and workers please keep clear of the operation regarding this operation phone -877-464-9675 ext. 75249.

Local Municipal Election – Candidate meetings

Sunday Sept. 23 – 4:00 – 5:30 p.m. – At the LINK – Local Candidates Debate for Ward 4 Councillor. Hosted by the Briars Community Association.

Tuesday Sept. 25 – 6:30 – 8:30 p.m. – Speeches 7:00 p.m. – The Link in Sutton.

Opportunity to meet candidates, ask questions and provide advice to candidates regarding the many natural heritage and environmental issues in our community.

Outing Reports

A Summer Project: Bird House Building

On June 16, 2018, several members of the South Lake Simcoe Naturalists gathered in the workshop of member Mary Green's husband, Gerry, on their farm in the Cannington area. This is a large, clean and airy (with the large door open), shop space. Paul Harpley, Gord Zwaigenbaum and Norma Knowlton worked with Gerry to build eight bird houses – 4 suitable for smaller birds such as Tree Swallows, 2 for Hairy Woodpeckers, and large ones, for a Flicker and a Screech Owl. Paul and Gerry instructed the novices, Gord and Norma, in all the steps of the making these re-cycled wood conservation project. We brought our tools and past woodworking experience to the task. These bird houses are made from pieces of old barn board, blending in with the environment, and saving them from rotting as waste or even worse as landfill somewhere. They will be for sale at our SLSN Annual Fall Event in November.

Norma Knowlton

Fungi Hunting Outing: Fall 2017

It is well known by naturalists that autumn in Ontario forests is the most important time to search for and identify many mushrooms, lichens, and other saprophytes. Although there are some of well-known edible species to be found in the spring, some of the most interesting and showy species are fruiting in our forests and meadows in South Lake Simcoe.

This naturalist field outing was a searching local area forests, fields and wetlands along established foot trails for fungi. The outing was late in the season to the Zephyr Tract of the York Region forest, and there was a light morning frost and some lingering snow from the night before. So, SLSN participants were indeed fortunate to find that most all fungi were still intact and in good condition. Locating and identifying the fungi took about two hours. There was a lot of time spent on the more difficult I.D.'s, but common species prevailed in numbers. We had confidently Identified about 7 species, including notables like Amanita muscaria and A. virosa, Boletes like the White Pine species, Honey mushrooms, Coxcomb coral, Fuzzy Foot and the common Artists fungus. Others were not in great condition and identification was reserved. There are as many as 1,800 types of mushrooms that grow in some part of Ontario and about 20 percent of them are poisonous, so plan to spend many hours in the field as a naturalist just as an introduction in the future.



Paul Harpley

Ontario Environmental Issue

Tell Ontario to fix the permitting system for bottled water companies

You probably heard that people (like you!) are outraged that water bottlers extract millions of litres of water a day from Ontario's aquifers for extremely low fees, and then sell the water back to us at a



huge mark-up in disposable plastic bottles that end up littering our waterways.

The good news is that the Ontario government recently announced plans to review this system. Now, we need your voice to ensure that any new rules protect our groundwater and put the needs of communities before the profits of water bottlers.

Act today! Tell the Ontario government that this review must result in:

- A science-based approach to approving water-taking permits where community, agricultural and ecosystem needs are prioritized over water bottlers;
- Increases in water-taking fees for water bottlers to align with the resources required to ensure the sustainable management of Ontario's water;
- Strong government oversight to ensure appropriate monitoring and timely responses to conditions that could negatively impact groundwater levels.

Currently, water bottlers pay only \$3.71 for a million litres of water. This means that a company like Nestlé could fill an Olympic size swimming pool for less than \$10! As a result of these extremely low rates, the Ontario government recovers only 1.2 per cent of the \$16.2 million it spends on water conservation and management programs.

It is time to fix the permitting system for water bottlers. Ontario needs to know that water is for life. Not for profit.

Environmental Defence, Toronto

Wildlife News

Migration News

EARTHSKY // [EARTH, SCIENCE WIRE](#) RELEASE DATE: APR 20, 2016

How monarchs find Mexico without a map

Researchers say they've cracked the secrets of the monarch butterfly's internal compass.



Photo: Monarch Watch

Each year, monarch butterflies across Canada and the United States migrate more than 2,000 miles (3,220 km) to the relative warmth of central Mexico, and then back north again in the spring.

The journey, repeated instinctively by generations of monarchs, continues even as their numbers have [plummeted](#) due to loss of their sole larval food source—milkweed. Now scientists think they have cracked the secret of the internal, genetically encoded compass monarchs use to determine the southwest direction they should fly each fall. Their study was [published](#) in the journal *Cell Reports* on April 14, 2016.

Researcher Eli Shlizerman is an assistant professor at the University of Washington. He said in [a statement](#):

Their compass integrates two pieces of information—the time of day and the sun’s position on the horizon—to find the southerly direction.



Photo: Wikimedia

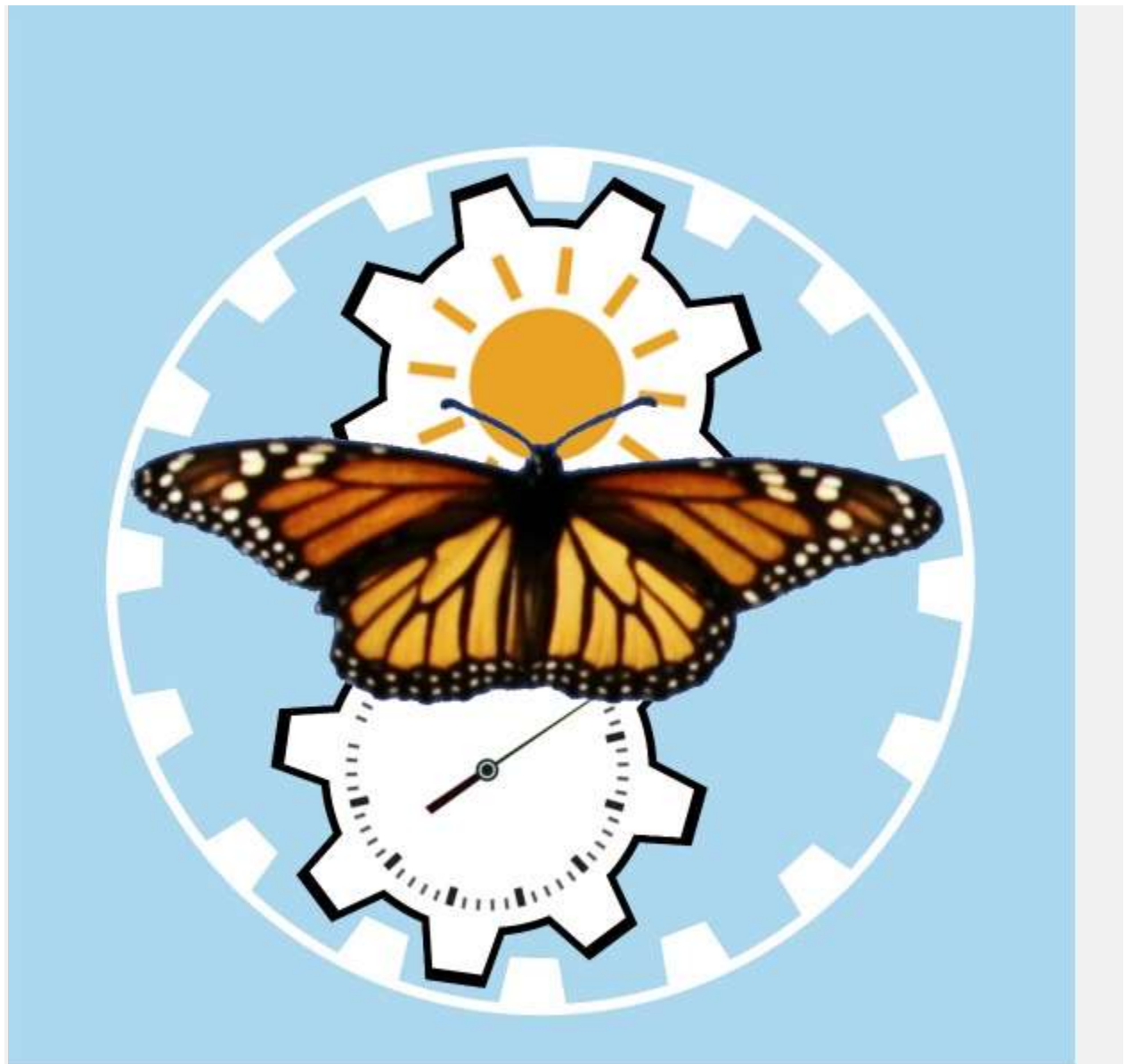
While the nature of the monarch butterfly’s ability to integrate the time of day and the sun’s location in the sky are known from previous research, scientists have never understood how the monarch’s brain receives and processes this information. For the study, researchers wanted to model how the monarch’s compass is organized within its brain.

Monarchs use their large, complex eyes to monitor the sun’s position in the sky. But the sun’s position is not sufficient to determine direction. Each butterfly must also combine that information with the time of day to know where to go. Fortunately, like most animals – including humans – monarchs possess an internal clock based on the rhythmic expression of key genes.

This clock maintains a daily pattern of physiology and behavior. In the monarch butterfly, the clock is centered in the antennae, and its information travels via neurons to the brain.

Biologists have previously studied the rhythmic patterns in monarch antennae that control the internal clock, as well as how their compound eyes decipher the sun's position in the sky. For the study, researchers recorded signals from antennae nerves in monarchs as they transmitted clock information to the brain as well as light information from the eyes. Shlizerman said:

We created a model that incorporated this information – how the antennae and eyes send this information to the brain. Our goal was to model what type of control mechanism would be at work within the brain, and then asked whether our model could guarantee sustained navigation in the southwest direction.



Researchers modeled how the monarch brain integrates the time of day with the sun's position in the sky. Image: Eli Shlizerman

In their model, two neural mechanisms — one inhibitory and one excitatory — controlled signals from clock genes in the antennae. Their model had a similar system in place to discern the sun's position based on signals from the eyes. The balance between these control mechanisms would help the monarch brain decipher which direction was southwest.

Based on their model, it also appears that when making course corrections monarchs don't simply take the shortest turn to get back on route. Their model includes a unique feature — a so-called *separation point* that would control whether the monarch turned right or left to head in the southwest direction. Shlizerman said:

The location of this point in the monarch butterfly's visual field changes throughout the day. And our model predicts that the monarch will not cross this point when it makes a course correction to head back southwest.

Based on their simulations, if a monarch gets off course due to a gust of wind or object in its path, it will turn whichever direction won't require it to cross the separation point. Shlizerman said:

In experiments with monarchs at different times of the day, you do see occasions where their turns in course corrections are unusually long, slow, or meandering," "These could be cases where they can't do a shorter turn because it would require crossing the separation point.

Their model also suggests a simple explanation why monarch butterflies are able to reverse course in the spring and head northeast back to the United States and Canada. The four neural mechanisms that transmit information about the clock and the sun's position would simply need to reverse direction.

Information about Monarch Butterflies from SLSN member Betty Banks

National Start Seeing Monarch's Day

National Start Seeing Monarchs Days is observed annually on the first Saturday in May. This day has been established to keep the Monarch butterfly from being added to the endangered species list.

The Monarch butterfly is a milkweed butterfly. It may be the most familiar North American butterfly because its wings feature an easily recognizable orange and black pattern. Monarchs typically reach 3 1/2 to 4" in size. In the fall, they migrate south to warmer climates. In the spring, they return further north.

How to Observe

How can you help prevent the extinction of the Monarch butterfly? You can plant a variety of native milkweeds in your backyard, a haven for all pollinators, like the Monarch butterfly. Without milkweed, the Monarch will cease to exist, so we need people to start planting Monarch Waystations in their backyards, safe havens where Monarchs don't have to worry about herbicides, pesticides and GMO's affecting their daily meals. You can tell your friends about what you're doing and get them to join in on the fun; the more Monarch Waystations, the better! You can stop using those chemicals that harm so many of the small creatures we rely upon to pollinate our fruits and vegetables; think about using organic alternatives that are much more environmentally friendly. Last, but not least, you can visit startseeingmonarchs.org and Monarchwatch.org to educate yourself on everything that is Monarch! It's time to take action! Be a part of the solution for this beautiful winged creature.

Mark your calendar and help us to START SEEING MONARCHS next year on the first Saturday in May!

International Conservation

Say 'no' to extinction: saving Bristly and his fourteen companions



One of Bristly's fourteen remaining companions. Female Stresemann's Bristlefront by [Ciro Albano](#)

By Shaun Hurrell, Thu, 28/04/2016 - 12:38

In Share

Stresemann's Bristlefront *Merulaxis stresemanni*: a long-tailed bird with distinctive forehead bristles, a rufous rump, a musical whistle song, seen perhaps eating frogs and insects, and with a tennis-ball-sized tunnel for its nest. Spotted a handful of times since its rediscovery in Brazil's Atlantic forest in 1995, that's about all we know of this unique bird. Apart from one scary fact: there are fewer than fifteen individual birds left of the entire species.

Some species cling to existence on mere scraps of remaining habitat until... they're gone. And once they're gone, there is no turning back. But while those few individuals resist we have a chance to save them. A chance we are not going to miss.

That is why, today, BirdLife International embarks on an ambitious new global initiative to prevent the extinction of endangered species including Stresemann's Bristlefront, as part of the Alliance for Zero Extinction (AZE).

The multi-million dollar initiative teams-up coordinators BirdLife, the American Bird Conservancy, the Global Environment Facility, and the United Nations Environment Program with the governments of Brazil, Chile, and Madagascar – where projects to restore and protect AZE species' habitat with community support will first be demonstrated.

AZE is a global initiative working to prevent species extinctions by identifying and safeguarding the places where Endangered or Critically Endangered species are restricted to single remaining, irreplaceable sites.

“Protecting the last remaining habitats for Critically Endangered species is a vital strategy for preventing extinctions,” said Braulio Dias, Executive Secretary of the UN Convention on Biological Diversity (CBD), with whom the initiative will work closely.

BirdLife is well-versed on Preventing Extinctions – **to not save the rarest of the rare would be unthinkable**. Saving these tiny habitats is saving entire species.

Stresemann's Bristlefront habitat is a remnant strip of humid forest in a valley at the border of Bahia and Minas Gerais states, Brazil. Every day the sound of chainsaws firing up, the crackle of forest fires, and the smell of cow dung are getting ever closer. Rapid deforestation for logging, plantations and cattle ranching have devastated the state's forest, which is a unique habitat-type (South American Atlantic forest) high in endemic species and of which only 10% of its original South American extent remains in Brazil. The ten individual birds are clinging to existence, stranded in an 'island' of forest.

With fewer than fifteen birds left – is it possible to save them?

It can be done. In arguably one of the world's great conservation success stories of recent times, BirdLife saved the Seychelles Warbler which survived only on a single island – Cousin Island in the Seychelles, a mere 0.3km². In 1959, only 26 birds remained. Through purchasing the island and involving local people in the project, a brand new home-grown conservation organisation was established – Nature Seychelles – who today care for several species that they

have brought back from the edge of extinction. Last year, Seychelles Warbler was taken off the endangered list, with a population of 3,000 birds and growing!

Carlos Alberto de Mattos Scaramuzza, Ministry of the Environment, Government of Brazil is onboard: “By expanding the Mata do Passarinho Reserve and working with local landowners, this initiative will provide a vital life line for the Critically Endangered Stresemann’s Bristlefront.”

The initiative, entitled the *Alliance for Zero Extinction (AZE): Conserving Earth’s Most Irreplaceable Sites for Endangered Biodiversity* aims to save AZE species at a total of five demonstration sites in Brazil, Chile, and Madagascar, and at an additional 10 sites globally.

“We are truly honoured to be working with the Governments of Brazil, Chile and Madagascar”, said Pepe Clarke, Head of Policy at BirdLife International.

Saving the rarest frogs, reptiles and plants too

“In Chile, the initiative seeks to create conditions for the survival of three amphibian species,” says Diego Flores Arrate, Ministry of the Environment, Government of Chile, “by protecting their habitat and reducing impacts from farming, ranching and logging activities, considering a participatory approach with different stakeholders.”

Additionally, Tsitongambarika forest in Madagascar provides habitat for two plant and eleven recently-discovered frog and reptile species. This is also a BirdLife [Forest of Hope site](#), where Asity Madagascar (BirdLife Partner) [recently secured a permanent protected area status](#). Asity Madagascar is now co-manager of the site together with local communities, and has already been fulfilling this role to ensure the site's conservation for several years. But the site next needs the implementation of a management and financing plan in order to secure its future for the endemic and endangered species that live there.

“The initiative is particularly links local action to national and international policy, helping minimise the impact of development projects on the sites.” emphasises BirdLife’s Clarke.

When a species only has a few individuals left, we think each deserves a name.

So let’s start by naming Stresemann’s Bristlefront ‘Bristly’, who was last spotted in Mata do Passarinho Reserve with an active nest. Now, thanks to this project there is more hope for the future of Bristly’s family.

Forest loss this century is driving many species towards extinction, warns new study



Long-tailed Parakeet has lost 17% of the forest in its distribution during 2000-2012 (image © Lip Kee).

By Adrian Long, Fri, 15/04/2016 - 00:01

[inShare4](#)

Deforestation since the turn of the century has driven at least 500 species of mammals, birds and amphibians closer to extinction, according to a newly published scientific study.

Scientists from BirdLife International, the Royal Society for the Protection of Birds (BirdLife in the UK), and universities in Wrocław, Rome, Grenoble and Queensland used Google's 'Earth Engine' cloud-computing power to analyse high-resolution open-access satellite maps.

"We measured the extent and change in tree cover between 2000 and 2012 within the distributions of over 11,000 forest-dependent birds, mammals and amphibians" said lead author Łukasz Tracewski of the University of Wrocław, Poland. "We then applied these data to assess the potential implications for the extinction risk of these species, in terms of their status on the IUCN Red List, which is the most widely used objective framework for assessing species' extinction risk".

The study found that in the vast majority of cases the species with an increased extinction risk are those which now have highly restricted areas of occupancy, resulting from little forest cover remaining within their ranges.

Co-author Dr Stuart Butchart, Head of Science at BirdLife International and IUCN Red List Steering Committee member, noted:

"The results were pretty shocking, with the overall proportion of species of conservation concern potentially increasing by 15% for birds, 25% for mammals and 33% for amphibians. The

total numbers of species affected include 198-490 amphibians, 251-253 birds and 51-135 mammals, with the higher estimates including Data Deficient species for which we are less certain about their distributions.”

Examples for potential uplisting include:

- Long-tailed Parakeet *Psittacula longicauda*, which lost 17% of the forest in its distribution (mainly in Indonesia and Malaysia) during 2000-2012, qualifying it for uplisting from Near Threatened to Vulnerable.
 - Cayenne Stubfoot Toad *Atelopus flavescens*, which has just 400 km² of suitable forest habitat left within its current known range in French Guiana, qualifying it for uplisting from Vulnerable to Endangered.
 - Hagen’s Flying Squirrel *Petinomys hageni*, which loss of 73% of the forest within its range in Sumatra, Indonesia during 2000-2012, qualifying it for Endangered status.
-