



NEWSLETTER

SOUTH LAKE SIMCOE NATURALISTS

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

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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, Mar. 14 **Mining-The environmental Cost:** Mining of rock, ore and precious stones is an activity well known to Canadians. Infact

it is responsible for much of our historical and contemporary wealth. Much of this activity occurs in Canada but also and increasingly in other countries in the world by Canadian Mining companies. This meeting will be a broad brush look at mining and practices and what impact this activity has on natural ecosystems, wildlife, water and other things here in Canada and abroad.

Tuesday, April 11 **Milkweed:** The milkweed plant is now well-known for its importance to Monarch butterflies. But it was not long ago that it was known as a pest plant and noxious weed. We will take a detailed look at this actually beautiful wildflower in our area, and consider recent efforts to encourage its introduction and expansion in Ontario as a grassland prairie meadow plant species.

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

NOTICE about Meeting hours – 7:30 to 9:30 p.m. only.

Paul Rothfels Gathering

The death of long-time club SLSN member Paul Rothfels on Thursday February 9th reported in our SLSN February E-Blast. As reported in the February 23rd Georgina Advocate and in Life News,

A Gathering in his memory will be held in the Udora Community Hall on March 4, from 2 - 4. In lieu of flowers, please consider a donation to one of his favourite charities: Ontario Nature, EcoJustice Canada, Earthroots Fund, and the David Suzuki Foundation.

2017 SLSN Executive

Following the February Annual Meeting the following positions were confirmed.

President: Paul Harpley

First Vice-President: Mark Calhoun

Second Vice-President: Gord Zwaigenbaum

Treasurer: Norma Knowlton

Recording Secretary (Appointed) Bill Major

York Regional Forest News

The Region's Timber Harvest operation contactor will be undertaking work in the North Tract. Operations are expected to start within 10 days and expected to last for 4 weeks.

For the safety of the public and workers please keep clear of the operation.

Young Ornithologists Program - Ontario

August 5th to 13th, 2017 - Long Point Bird Observatory 2017 Doug Tarry Natural History Fund: Young Ornithologist Workshop

To all young ornithologists: Long Point Bird Observatory is looking for keen teen birders to apply for the 2017 Doug Tarry Natural History Fund - Young Ornithologist Workshop to be held from August 5 to 13, 2017. Participants will receive hands-on training in field ornithology including bird banding, monitoring, field identification, birding trips, preparing museum specimens, guest lectures, and more! Six of Canada's most promising ornithologists between the ages of 13-17 will be selected to attend, and will receive the Doug Tarry Bird Study Award to cover all on-site expenses. **Applications are due April 30, 2017.** For more information and an application form visit www.birdscanada.org/lpbo, or contact lpbo@birdscanada.org.

SLSN Facebook Launched

Following out of conversation at our 2017 February Annual Meeting the SLSN have launched a Facebook page that was started in planning last

year. It is administered by members Mark Calhoun, Gord Zwaigenbaum and Paul Harpley.

Members can find it at coordinates;

Direct link to page: <https://www.facebook.com/slsnaturalists/>

Updates on Two Key Conservation Issues Our Club SLSN has been following

Internationally the conservation of the Amazon Rainforest is important to the entire Planet Earth. The subject of our SLSN February Meeting below is a breaking B.B.C. article, and a New York Times expose' about the Amazon.

In Ontario the plight of Moose in the province is very serious and many are calling for action immediately by the Province of Ontario for their conservation. A subject of a February SLSN E-Blast The Toronto Star has recently produced a Editorial on the issue (below).
P.H.

History sheds light on Amazon's rich tree diversity

Science & Environment B.B.C.

By Mark Kinver Environment reporter, BBC News, Feb. 14, 2017



Image copyright KYLE DEXTER
Image caption Within the Amazon basin, it is possible to find up to 300 tree species per hectare

The rich diversity of trees in the Amazon could be the result of widespread dispersal over geological time, a study has suggested.

Although the vast tropical area is now divided into regions, scientists suggest these areas did not evolve in isolation from one another.

Modern fragmentation could be damaging the process that made the Amazon so important for plant biodiversity.

The findings appear in the Proceedings of the National Academy of Sciences.

Writing in their paper, the authors said that while some of the estimated 16,000 tree species were spread throughout the Amazon, others were confined to particular areas.

They said that this had provided the basis for the vast seven million square-kilometre habitat to be divided into "floristic regions".

However, they observed: "The pattern of diverse local Amazonian tree communities assembled from a species pool composed of mostly regionally restricted species raises the question of how the regional communities are assembled over time."

In an attempt to answer this puzzle, the team studied the evolutionary history of four dominant groups of trees by analysing DNA, focusing their efforts on the genus *Inga* - a member of the legume (pea and bean) family.



Image copyright K. DEXTER
Image caption The Amazon Basin covers a vast area of land, stretching over a large part of South America

They found that a reason for the high levels of diversity was that the dispersal of the trees could have originated in any part of the whole Amazon basin.

"The history of the rainforest of the Amazon Basin has long intrigued scientists," explained co-author Kyle Dexter from the University of Edinburgh and the Royal Botanic Garden Edinburgh (RBGE).

"Our study used a phylogenetic, evolutionary approach to show the basin has essentially acted as a sloshing bowl of green soup, with tree lineages dispersing back and forth across the basin repeatedly, throughout the last Glacial Maximum and deeper into time."

Although the paper was an academic study on how one of world's most important biodiversity hotspots was created, it's findings could have an impact on the way people considered conserving the rainforest for future generations.



Image copyright T. PENNINGTON Image caption The biological bounties of the Amazon are very important to scientists

"We could be concerned about the implication of a recommendation that we did not have to worry about cutting down a corner of the Amazon basin because we have got a high

phylogenetic diversity of trees elsewhere," said fellow co-author Toby Pennington, also from RBGE and the University of Edinburgh.

"But we need to repeat the study, for example, for plants that have less dispersal capabilities."

Dr Pennington added that the dispersal patterns displayed by the trees in the Amazon were not repeated by other organisms.

"For example, birds seem to show much more geographically restricted patterns," he told BBC News.

"It's a complicated picture with different organisms with different biology doing different things."

Amazon Deforestation: Once Tamed. Comes Roaring Back

The New York Times, February 24, 2017 Hirocko Tabuchi, Claire Rigby, Jeremy White

COLONIA BERLIN, Bolivia — A few months ago, a representative from Cargill traveled to this remote colony in Bolivia's eastern lowlands in the southernmost reaches of the vast Amazon River basin with an enticing offer.

The American agricultural giant wanted to buy soybeans from the Mennonite residents, descendants of European peasants who had been carving settlements out of the thick forest for more than 40 years. The company would finance a local warehouse and weighing station so farmers could sell their produce directly to Cargill on-site, the man said, according to local residents.

One of those farmers, Heinrich Janzen, was clearing woodland from a 37-acre plot he bought late last year, hustling to get soy in the ground in time for a May harvest. "Cargill wants to buy from us," said Mr. Janzen, 38, as bluish smoke drifted from heaps of smoldering vegetation.

His soy is in demand. Cargill is one of several agricultural traders vying to buy from soy farmers in the region, he said.

Cargill confirmed the accounts of colony residents, and said the company was still assessing whether it would source from the community. That decision would depend on a study of the area's productivity and land titles, said Hugo Krajnc, Cargill's corporate affairs leader for the Southern Cone, based in Argentina. "But if a farmer has burned down its forest we'll not source from that grower," he said.

A decade after the "Save the Rainforest" movement forced changes that dramatically slowed deforestation across the Amazon basin, activity is roaring back in some of the biggest expanses

of forests in the world. That resurgence, driven by the world's growing appetite for soy and other agricultural crops, is raising the specter of a backward slide in efforts to preserve biodiversity and fight climate change.

In the Brazilian Amazon, the world's largest rain forest, deforestation rose in 2015 for the first time in nearly a decade, to nearly two million acres from August 2015 to July 2016. That is a jump from about 1.5 million acres a year earlier and just over 1.2 million acres the year before that, according to estimates by Brazil's National Institute for Space Research.

Here across the border in Bolivia, where there are fewer restrictions on land clearance, deforestation appears to be accelerating as well.

About 865,000 acres of land have been deforested, on average, annually for agriculture since 2011, according to estimates from the nongovernmental Bolivia Documentation and Information Center, an area nearly the equivalent of Rhode Island in size. That figure has risen from about 366,000 acres a year, on average, in the 1990s and 667,000 acres a year in the 2000s.

Now, a new study by an environmental advocacy group points to fresh indications of large-scale forest-clearing by Bolivian and Brazilian farmers who trade soybeans with Cargill.

That organization, Washington-based Mighty Earth, used satellite imaging and supply-chain mapping information from the Stockholm Environment Institute, an environmental think tank, to identify deforestation in Brazil where two American-based food giants, Cargill and Bunge, are the only known agricultural traders. The supply-chain mapping by the environmental institute uses customs, shipment and storage data, as well as production data from Brazilian municipalities to trace agricultural exports back to producers.

According to Mighty Earth's analysis, the Brazilian savanna areas in which Cargill operates, a region called the Cerrado, saw more than 321,000 acres of deforestation between 2011 and 2015. Mighty Earth also linked Bunge, the other agricultural giant, to more than 1.4 million acres from 2011 to 2015.

In Bolivia, where supply-chain mapping is not available, Mighty Earth sent employees to areas where Cargill operates. The organization used drones to record the clearing of forests and savannas in areas where Cargill operates silos.

The study was funded by the Norwegian Agency for Development Cooperation and a nongovernmental organization, Rainforest Foundation Norway.

A reporter for The New York Times independently traveled to remote areas of Bolivia described in the environmentalists' report and interviewed farmers engaged in deforestation who said they sold soy to Cargill. The farmers described what they called Cargill's push to increase its purchases of locally produced soy and its attempts to enhance bonds with local producers.

Photo



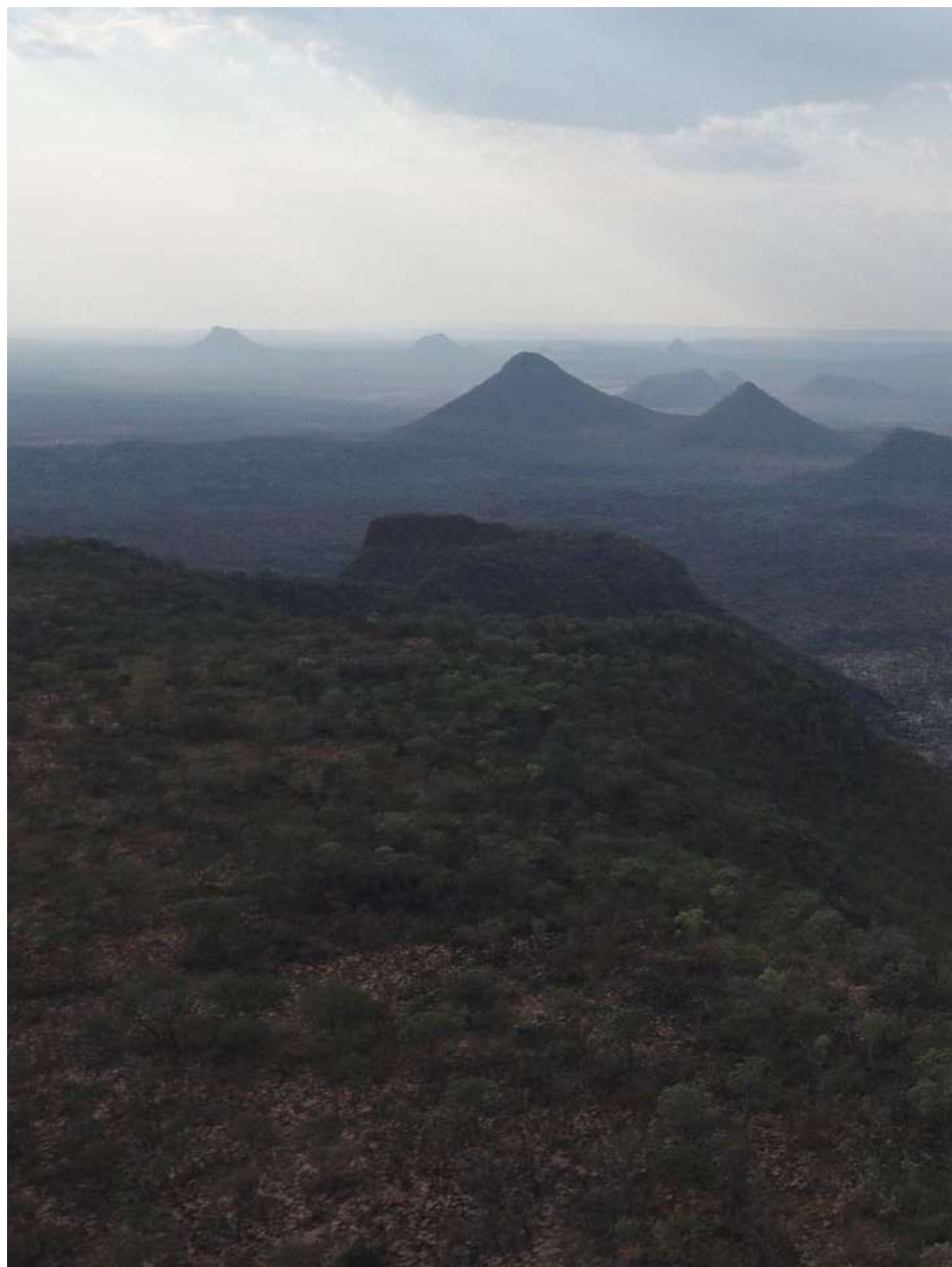
A charred landscape after deforestation in Bolivia. Credit Jim Wickens/Ecostorm

The reports of fresh deforestation come despite a [landmark deal](#) signed three years ago by Cargill and other companies that included a target of “eliminating deforestation from the production of agricultural commodities like palm oil, soy and beef products by 2020.” Experts at the time said the deadline, laid out in the New York Declaration of Forests, would require companies to start straightaway to make their sourcing more sustainable.

Both Cargill and Bunge said the report seemed to inflate its role in the region’s deforestation. Cargill’s share of soy in the Bolivia municipalities in which it operates came to about 8 percent, Cargill said. Meanwhile, in Brazil’s Matopiba region, Bunge’s share was about 20 percent, the company said.

And soy is just one crop behind deforestation, said Stewart Lindsay, Bunge’s vice president for global corporate affairs.

“One company alone cannot solve this issue,” Mr. Lindsay said. “A positive step would be for more companies to adopt zero deforestation commitments, apply controls to block crops grown in illegally cleared areas from entering their supply chains, report publicly on progress and invest millions of dollars to support sustainable land use planning efforts, all of which Bunge has done.” (Bunge, however, is not a signatory to the New York Declaration of Forests.)



Smoke wafts skyward in a forest in Brazil. Credit: Jim Wickens/Ecostorm

In an interview, Cargill chief executive David MacLennan said the company was studying the allegations of deforestation in Bolivia and Brazil linked to the company. “If there’s something there, if it’s substantiated, we’ll do something about it,” Mr. MacLennan said. “If that’s accurate, it’s not acceptable.”

“We’re going to honor our obligations and our commitments,” he continued. “We’ve committed to ending deforestation and to do our part in ending deforestation. Our word is our bond.”

National Priorities

Forest loss is detrimental to the earth’s climate. The clearing of woodlands and the fires that accompany it generate one-tenth of all global warming emissions, according to the Union of Concerned Scientists, making the loss of forests one of the biggest single contributors to climate change.

Only about 15 percent of the world’s forest cover remains intact, according to the World Resources Institute. The rest has been cleared, degraded or is in fragments, wiping out ecosystems and displacing indigenous communities, scientists say.

Behind the rise in deforestation is a strategy by multinational food companies to source their agricultural commodities from ever more remote areas around the world. These areas tend to be where legal protections of forests are weakest.

The Brazilian Amazon, a poster child for the global forest-conservation movement, has enjoyed increasing protections, like a moratorium announced in 2006 on forest clearing for soy production. Between that time and 2015, Brazil reduced Amazon deforestation by almost two-thirds, according to estimates by [Mongabay](#), the environmental news site, based on data from the Brazilian National Institute of Space Research and the United Nations Food and Agriculture Organization.

The uptick in forest loss since then, however, has raised concerns that the progress is far from secure.



AREA OF DETAIL

By The New York Times

Brazil was aware of the challenge of keeping deforestation at bay, Everton Lucero, the secretary of climate change and forests of Brazil's Ministry of the Environment, said in an interview.

"We are very uncomfortable with the bad news that we had a rise in deforestation, and we are taking every possible measure to reverse it next year," Mr. Lucero said. Budget shortfalls amid Brazil's recent economic and political turmoil, he said, had wreaked havoc with its policing of its rain forests.

When traveling to remote regions, "Sometimes our command and control units were without fuel for helicopters," he said. "Hopefully we are on a recovery path."

Bolivia, on the other hand, presents a different situation. President Evo Morales, a socialist, has made securing "food sovereignty" a major part of his agenda, driving Bolivia's agricultural expansion. There are relatively few forest protections, and the government's Forestry and Land Authority is tasked with the potentially conflicting roles of regulating land use, forestry and agriculture, and issuing concessions for logging and farming. The landlocked country has declared that it expects to clear almost 14 million more acres of forest by 2025, to convert into farmland.

Bolivia's greenhouse gas emissions levels per capita exceed that of many European countries, despite having a far lower per capita income. Deforestation is responsible for more than 80 percent of Bolivia's total carbon dioxide emissions, according to a [recent study](#) by researchers at Insead, a graduate school based in Fontainebleau, France.

A major culprit is the cultivation of soy, which has jumped more than 500 percent in Bolivia since 1991, to 3.8 million hectares in 2013, according to the most recent agricultural censuses. Little of that soy is consumed domestically. The vast majority is processed and exported as animal feed in a commodities trade that serves a global appetite for hamburgers, chicken and pork.

"The forest is seen as useless land that needs to be made useful," said Nataly Ascarrunz, executive director of the Bolivian Institute of Forestry Investigation, a joint monitoring effort started by the Bolivian government and the United States Agency for International Development.

"There's a lot of pressure for economic development," Ms. Ascarrunz said. "When resources are flowing, production is happening and people have work. It's very hard to argue with that."

Looking Toward 2030

Victor Yucra, the director general of Bolivia's forest and land management at the Forestry and Land Authority, stressed the need for the Bolivian government to balance the protection of its forests with the needs of its agricultural sector.

"Our concern is in ensuring that intensive agricultural production takes place within a framework that also provides for sustainable forestry and protection for standing forests," Mr. Yucra said.

Mr. MacLennan, the chief executive of Cargill, described a business trip to Brazil last year, during which he saw the Amazon from a plane window. "You look down and you see this beautiful forest," he said. "Kilometers and kilometers of forest. But you also see these big chunks of dirt.

"The brown really contrasts with the green," he continued, comparing the forest and deforested areas. "When you see it, it's like, 'Holy cow. That's what's happened.' It just hit me when I saw it in broad daylight — the impact the deforestation has."

Mr. MacLennan initially garnered praise among environmentalists for pledging to extend the no-deforestation pledge it had made regarding palm oil to cover every commodity the company handles. Cargill's commitment was called one of the most sweeping environmental pledges ever made by a large agricultural company. It earned Mr. MacLennan a photo opportunity with Ban Ki-moon, the United Nations secretary general at the time.

Even before the New York Declaration, Cargill had made significant efforts to buy palm oil sourced only from land not linked to fresh deforestation, according to a supply-chain expert with extensive experience working on Cargill's global sustainability efforts. The expert spoke on the condition of anonymity, saying that to do so openly would jeopardize professional relations with the company.



Cargill facilities in Luis Eduardo Magalhães municipality in western Bahia, Brazil. CreditJim Wickens/Ecostorm

Cargill continued to invest millions of dollars adding extra staff members and hiring third-party auditors to verify that the palm oil was coming from established fields, not farmland freshly carved from the forest, he said. But Cargill has been less aggressive with other commodities, he said.

Part of the issue was Cargill's decentralized setup, the expert said. Another problem was the resistance from commodities traders, whose incentive is to seek supplies from as many sources as possible in order to drive down costs. Buying only sustainably grown commodities would mean a more limited supply.

Now, environmental groups accuse Cargill of backtracking on its 2020 deadline. In recent statements, Cargill has adopted a 2030 deadline for elimination of deforestation from its supply chain — a separate deadline, mentioned elsewhere in the New York Declaration, that was meant to apply to ending all forms of deforestation, not just those related to agricultural commodities.

“They’re willfully misinterpreting the Declaration,” said Glenn Hurowitz, chief executive of Mighty Earth. “They’re breaking their own pledge.”

Cargill is committed, Mr. MacLennan said, to eliminating by 2020 deforestation from its production of palm oil, a commodity widely used in food, detergents and cosmetics. But, he said, Cargill had always understood the declaration to give all signatories until 2030 to tackle deforestation.

“I don’t think I or others appreciated the vast complexity of the task,” Mr. MacLennan said. “Let’s say that we are trading or buying and selling soybean meal. Where did the soybeans come from? And did they come from deforested land? Maybe we weren’t buying the soybeans directly. I don’t know.”

Holly Gibbs, an expert in tropical deforestation and agriculture at the University of Wisconsin-Madison, called the 2030 deadline interpretation devastating. “If we were to wait until 2030,” Ms. Gibbs said, “there would be no forest left.”

Photo



A forest area cleared in Bolivia. Credit Jim Wickens/Ecostorm

Fire and Water

In Mr. Janzen's newly cleared field, a long strip of land flanked by vivid vegetation, blue-white smoke drifted from a smoldering landscape.

The German-speaking Mennonites, who live amid horse-drawn buggies and farmhouses that wouldn't look out of place in rural Ohio or Pennsylvania, trace their origins to 16th-century Protestant reformists who migrated to Russia, the United States, Canada, Belize and Mexico in search of farming opportunities and religious freedom. Some moved to Bolivia in the last century, and about 57,000 Mennonites now live in 55 secluded settlements here, eschewing some aspects of 21st century technology, like modern cars, but enthusiastically embracing others, such as tractors and genetically modified seeds.

Their trade with companies like Cargill has transformed their communities into a bloc of relatively prosperous landowners. But in recent years, they have also been targeted by land reforms enacted by Mr. Morales, who has pledged to reverse the centuries of subjugation of Bolivia's indigenous majority.

The farmer, Mr. Janzen, with the help of two laborers, spent the day digging roots from the earth, between smoking woodpiles. There was a brown jumble of slender trees, saplings, shrubs, bushes, vines and roots. Occasional larger trees showed gashes where the bulldozer first made contact, pushing them to the ground.

Farther downfield lay more long, neat cordons of debris, waiting to be burned. "If the rain holds off, I'll burn the rest tomorrow," he said.

Correction: February 24, 2017

An earlier version of this article misidentified the country where the Matopiba region, where the American-based food giant Bunge has a 20 percent share of the soy crop, is located. It is in Brazil, not in Bolivia.

Ontario should stop hunt of moose calves: Editorial

Moose populations have plunged by 20 per cent across the province and are down 50 to 60 per cent in some areas. It's time to stop the moose calf hunt.



The Wildlands League is calling for a ban on hunting moose calves. (CPAWS WILDLANDS LEAGUE / EVAN FERRARI)

TORONTO STAR EDITORIAL BOARD

Sun., Feb. 5, 2017

One of Ontario's most iconic, majestic animals is under dire threat.

According to a report last fall from Ontario's environmental commissioner, moose populations have plunged across the province by 20 per cent. In some areas numbers are down by 50 to 60 per cent.

The reasons are many, according to commissioner Dianne Saxe: "Loss of roadless areas, too much fire suppression, disease, parasites and hunting all (make) life difficult for moose."

Now, just as the province is making its decision on the 2017 fall moose hunting season, comes a sensible request from the not-for-profit advocacy group Wildlands League: Stop the moose calf hunt.

"It doesn't make sense — in a population of animals that is declining — that you are taking out the future breeders," says Wildlands' Dave Pearce.

He is right. The government should act on the league's suggestion.

A ban on the moose calf hunt is also supported by some hunters, and it's a reasonable request. In parts of Manitoba and Minnesota, where moose populations are also in free-fall, the entire moose hunt has been cancelled, Saxe noted earlier.

As things currently stand, it's hard to believe that moose have any chance at all. There are 98,000 licensed moose hunters in Ontario. That's more than the number of moose, estimated at 92,300. And every one of those hunters is allowed to kill a calf every year. (Those numbers don't take into account First Nations hunters, who don't need a licence.)

In 2014 alone, 3,621 adult moose and 1,429 calves were legally shot and killed by licensed hunters. In other words, at least 5 per cent of Ontario's moose population was culled in a single year.

Declining moose populations are not just bad for the environment; they also hit First Nations communities hard. Members of northern Ontario's Nishnawbe-Aski Nation's 49 communities, for example, have noted the decline in moose available for harvesting, making them dependent on less nutritious processed and frozen foods that are available in remote grocery stores.

In the past, Kathryn McGarry, Ontario's minister of natural resources and forestry, has taken small steps to try to rein in the moose hunt. In 2015, for example, the province held a shorter moose hunting season in Northern Ontario, and in 2016 it delayed the start of the season.

But if Saxe's report is any indication, stronger steps are necessary. The province should heed the Wildlands League's call and stop the killing of moose calves until populations recover.

Ducks Unlimited Canada Nest Box Program

Ducks Unlimited Canada is currently looking for project sites that will help provide habitat for cavity nesters like wood ducks and Goldeneye. If you have a wetland on your property larger than a couple of acres, and would like to provide habitat for ducks and other wildlife (like tree swallows and screech owls), then this program is meant for you! Landowners are responsible for installing, maintaining and monitoring the nest boxes, but DUC provides the nest boxes and technical advice to landowners. Nest boxes are placed in wetland habitats like beaver ponds, where they will be most useful to ducks. If you're interested in more details, please contact Jenn Lavigne at Ducks Unlimited Canada: (705) 721-4444.