



# We Stand for Wildlife



## 911 call for bats

*Disease-causing fungus now confirmed in BC and Alberta*

It's not starting off as a good year for bats in Canada. First, the fungus that causes white-nose syndrome (WNS) arrived in Alberta. Now it has been detected in British Columbia. The presence of the fungus means WNS disease may now be impacting Canada's most bat-diverse province.

What will this mean for bats? That's a big question because despite the dedicated efforts of WCS Canada's bat team there is still a lot we don't know about western bats, including where the majority of them hibernate. It is during hibernation that WNS strikes, with the fungus growing on bat skin in the cool moist conditions of caves, mines or other underground refuges. This fungal growth rouses bats more often than normal, causing them to waste valuable energy, often leading to death by starvation.



Little brown bats have been devastated by WNS in eastern North America. They are one of 16 bat species found in BC. The inset photo shows the fungus growing on the nose of a bat. Main photo: Cory Olson/WCS



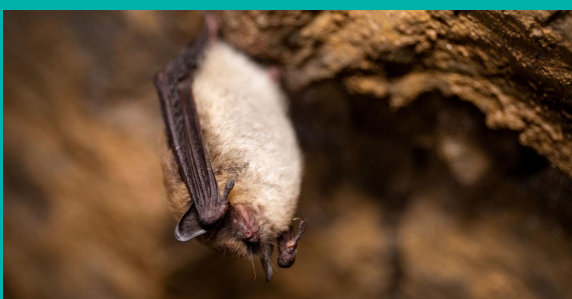
Part of our work in preparing for the almost inevitable arrival of WNS in our western-most provinces is to protect and restore bat habitat, especially summer habitat that is critical for the development of fat, healthy bats that have better odds of surviving WNS. This work also includes [developing better designs](#) for bat boxes and other artificial structures. And we will be watching the [trials of the preventative probiotic we helped to develop](#) that are underway in Washington State. WCS Canada has also been deploying the probiotic powder in summer roosting sites in BC, and sampling of bats in late summer has confirmed that many of these bats can carry those fungus-fighting microbes with them when they do head into hibernation.



WCS scientist Dr. Cori Lausen examining bat for probiotic research. Photo: Jared Hobbs

This spreading threat to bats was one of the topics addressed at the [first BC-based meeting of the Western Bat Working Group in Victoria](#) in early April. Biologists from Canada and the United States brought together their insights into the threats facing our only flying mammal — including WNS and the growing number of wind turbines — to help put forward solutions for how to conserve bats and the vital insect control services they provide. WCS Canada bat team leader Dr. Cori Lausen [explained the importance of the conference on CHEK-TV](#).

The biologists were also meeting on the heels of the release of a [North America-wide State of the Bats report](#) that found that [more than half of North America's bat species are likely to see significant declines](#) in the face of climate change, WNS and habitat loss. Dr. Lausen warned that the report may understate the threats facing Canada's bats and may not provide an up-to-date picture of the true state of some species such as migratory hoary bats that are facing increased mortality from wind turbines.



Sedge-dominated peatland in Manitoba Photo: Government of Manitoba

## More about bats

British Columbia Magazine [has an excellent feature this month](#) on the importance of bats and how we can help them. Worth reading!



## An oily future for Alberta's wetlands?

The ongoing devastation of the natural environment in northern Alberta by oil sands development was [captured headlines in March](#) with news that Imperial Oil had kept an ongoing leak from its massive Kearl Oil Sand Project secret for months. The Alberta Energy Regulator (AER) only took action on the leak after 5.3 million liters of contaminated water spilled from a drainage pond next to the tailings area in February. Nine months after Imperial discovered the initial leak, nearby First Nations and the federal government were finally informed of what was going on.

The situation at the Kearl Oil Sand Project – which threatens downstream water quality in Wood Buffalo National Park, a World Heritage Site – is just one example of many similar damaging incidents and real risks that give WCS Canada peatlands expert Dr. Lorna Harris pause about a plan to build a 14 km long wall to protect just part of a wetland from another oil sands development.



Oil sands tailings ponds cover an area of Alberta equal to the size of the City of Toronto. Above waste from the Kearl oil sands project flows into a tailings pond.

The McClelland Lake Wetland Complex, located about 90 kilometres north of Fort McMurray, includes a large patterned fen — a peat-producing wetland featuring long raised strings with trees and shrubs separated by narrow pools.

According to an assessment [shared by the Alberta Wilderness Association with the Canadian Press](#), the McClelland Lake Wetland Complex supports over 20 rare plants and provides breeding habitat for birds listed under *Canada's Species at Risk Act*. More than 200 migratory bird species have been recorded in the wetland, including endangered whooping cranes that



have used the wetland as a stopover.

And then there is the 11,000 years of carbon stored in the wetland.

The complex engineering and water management plan to try to save roughly half the peatland while destroying the other half for yet another oilsands mine is high risk to say the least. [As Lorna told CP](#), “It is untested. We do not have any certainty that it will work.” Lorna points out that the Kearl situation is a perfect example of the biggest flaw in the plan: “We know that these structures do leak.”

In fact, the Kearl mine site anticipates this seepage through these structures will occur, with a series of wells meant to collect fluids that are escaping and pump them back into its holding ponds. But that system is not designed to capture leakage through deeper groundwater layers.

It is good news that the AER has agreed to take another look at the proposals for destroying part of the critically important carbon-rich peatlands at McClelland Lake Wetland Complex for another oil sands mine, but the [AER has lost a huge amount of public trust with its actions around the Kearl leak](#). Other recent incidents have further eroded trust in the industry and AER, with [a large spill of sediment-laden water from a settlement pond](#) and a [report of dozens of dead birds and other animals found at another oilsands tailings pond](#). We will see whether the AER it is going to take its mandate to protect the public and the environment more seriously this time.



Sedge-dominated peatland in Manitoba Photo: Government of Manitoba

## Prairie peatlands

Lorna is [also featured in a CBC piece](#) that looks at the impacts of climate change on peatlands across the Prairies. Rule one: protect remaining high-integrity peatlands and restore those that have already been degraded.

## Hug a bug

[In a piece for Cottage Life magazine](#), our Key Biodiversity Areas assessment and outreach coordinator, Peter Soroye, takes on the daunting task of defending mosquitoes and swamps. Actually, Peter is explaining the importance of protecting biodiversity – including the elusive and globally endangered Hine’s emerald dragonfly, which not by chance can be found in the remarkable Minesing Swamp – and why giving even the most annoying or alarming (black widow spiders anyone?) species a little more respect is in our own best interest.



Painting a picture of an area often called “Canada’s Everglades,” Peter draws on the wonder of natural systems to explain their importance. Not everyone loves bugs the way Peter does, [but he makes a great case for their survival.](#)



Hine's emerald dragonfly. Photo: Paul Burton/USFWS



The remarkable Minesing Swamp in southern Ontario is often called "Canada's Everglades." Photo: Nottawasaga Valley Conservation Authority

## Big boots to fill



Dr. Don Reid capturing a lemming in the Yukon. We will miss this great scientist and team leader, who is retiring at the end of May after almost 20 years with WCS Canada. Photo: WCS Canada

When he set up shop in Whitehorse, Yukon in 2004 as the founding member of what would grow to become WCS Canada’s Northern Boreal Mountains conservation team, Dr. Don Reid knew what a special place he was going to spend the next two decades getting to know. Don has touched on so many different aspects of this globally important wild region spanning north-central B.C. and southern Yukon that it is hard to remember what his scientific efforts have not covered. From river otters and lakeshore ecosystems to wildlife on the farm, his efforts to promote conservation in this still largely intact landscape ranged far and wide.

A real feather in Don’s cap was his work on stickhandling the conservation assessment for the Peel Watershed in a groundbreaking land-use planning process, setting the stage for bold recommendations to protect 80% of this globally significant watershed. The scientific rigour of



the assessment helped to ensure that despite changing governments, court challenges and heavy industry pushback, the final Peel plan calls for 55% of the watershed to be immediately protected and another 28% to be put under interim protection.

It would take many, many words to capture all of Don's contributions to helping wildlife and wild places, [but we've set down a few in a blog about this soon-to-retire scientific leader in a Muddy Boots blog.](#)

## No beach holiday



From left: Hudsonian godwit, lesser yellowlegs, and whimbrel Photos: godwit - Roy Pilcher/iNaturalist; yellowlegs - swgarnett/iNaturalist; whimbrel - Rob Westerduijni/iNaturalist

It's summer at the seaside for two of our WCS Canada Weston Family Foundation research fellows, both of whom will be journeying to the Hudson Bay coast this spring and summer to study why this area is so important to so many birds. It will be no beach holiday, however, in this remote sub-Arctic environment that is being rapidly reshaped by climate change. Their work will help to conserve these rapidly declining shorebirds and help to assess potential Key Biodiversity Areas in this globally important stopover region.

Chrystyn Jones, an MSc candidate at Trent University, will be studying coastal wetland habitat in the Hudson Bay Lowlands and how it is used by two species: the whimbrel and the threatened Hudsonian godwit. Using drones, Chrystyn will attempt to map out both where wetlands are and how they are used by these two shorebirds. That, in turn, will give her some clues as to how shifts in wetlands driven by climate change might affect these birds and what can be done to help them.

Courtland Brown, an MSc candidate at Trent as well, will be heading to Churchill, Manitoba to rendezvous with the arrival of lesser yellowlegs. This medium-sized shorebird returns to the region from as far south as Argentina each year and is already considered threatened in Canada. Courtland's job is to assess the bird's breeding success by finding and monitoring their exquisitely camouflaged nests in order to help determine if the major threats to the bird's survival are linked to their breeding grounds or to other factors.

WCS Canada's Weston Family Boreal Research Fellowships allow us to work with early career scientists to advance our work in globally important places for wildlife, such as the Hudson Bay coast. Our scientists help mentor the next generation of researchers while we also learn from their results. It's a win-win-win for us, them and conservation!





Chyrstan Jones and Courtland Brown will both be studying shorebirds on the Hudson Bay coast this spring and summer.

### Donor profile:

## A young bat friend

Our Alberta Community Bat Program scientists are passionate about their mission to raise awareness about bats and the crucial role they play in maintaining healthy farms, ecosystems, and forests.

One of the most rewarding aspects of their work is connecting with young people who are eager to learn about bats through presentations and events.



Hoary bat. Photo: Jason Headley

WCS Canada scientists Cory Olson and Susan Holroyd are delighted to share their expertise and inspire the next generation of bat advocates. They are touched by how these young participants listen intently and often ask thoughtful questions about the challenges facing bats, including white-nose syndrome (WNS), a disease that has devastated bat populations in many parts of North America.

After a recent workshop, our Alberta Community Bat Program team was pleasantly surprised to receive a donation from Alex, a 9-year-old workshop participant, to support their efforts to fight WNS. Along with the donation came a heartwarming message from the young donor:



"Please use my money to help the bats fight white-nose syndrome. Thank you. The bats say thank you."

We are deeply moved by Alex's generosity and compassion and are inspired by the fact that community members like Alex care so deeply about these often-misunderstood creatures. Alex's action is a great reminder that all of us, regardless of age or background, can make a meaningful impact on nature and wildlife. [Please join Alex to help wildlife](#) thrive in healthy lands and waters across Canada and ensure that future generations can benefit from the wonders of nature.

**SUPPORT WILDLIFE TODAY!**

## Picture biodiversity

The countdown to International Biodiversity Day has officially begun! To celebrate Canada's rich biodiversity, we are hosting a photo contest called 'Canada's Diverse Wildlife Wonders' to encourage everyone to explore and SHARE photos of local wildlife to mark the occasion. Capture the incredible Canadian flora and fauna around you and get the chance to win exclusive WCS Canada swag and be featured on our platforms. No professional skills are needed, just let your curiosity and creativity shine!

To participate, submit your photo(s) of Canadian species to [this link](#). Maximum of 3 entries per person.

If you need help identifying the species, our scientists will be more than happy to offer their expertise! The contest runs till May 21st, 11:59 pm ET and is open only to Canadian residents. Three winners will be announced on May 22nd for International Biodiversity Day.

Tag WCS Canada or use #wscanadaphotocontest if you post your photos online! We look forward to seeing your incredible photos. Best of luck and enjoy your nature exploration!



# PHOTO CONTEST

for International Biodiversity Day



**MORE WCS CANADA  
NEWSLETTERS**

