

More critical thinking needed about minerals

To make a green transition successful, we need deeper thinking about the climate and biodiversity impacts of mineral development

The buzz about critical minerals grows by the day thanks to their projected need in everything from personal electronics, to aerospace technology, to the batteries that will be needed to help us transition away from fossil fuels. Governments and mining companies are rising to the occasion with plans for making Canada a goto "green" source for minerals such as nickel or cobalt. But how can we best ensure that these plans truly contribute to meaningful climate action? We can start by ensuring the recently released draft Critical Minerals Strategy for Canada is better aligned with government-wide action on climate and truly embraces concepts of sustainability rather than just expediting new mines at any cost.

In our <u>submission on the draft strategy</u>, WCS Canada scientists stressed the need to acknowledge that many of the mineral-rich areas the strategy maps out are also some of the natural areas that are most important for fighting climate change. We need to ensure that mining carbon-rich places like northern peatlands will not release more carbon than it will save through providing minerals for green energy technologies. Also essential but largely absent from the strategy is thorough consideration of impacts on Indigenous communities, respecting and supporting Indigenous sovereignty in impacted regions.

At the same time, we are calling on the government to embrace approaches that avoid the impacts of new mines by, for example, increasing recycling of electronics, recovering minerals from old mining waste and focusing exploration on areas that have already been impacted by mining and forestry. Currently, the strategy focuses on pushing new mines into some of the last intact wild areas left on Earth and homelands for Indigenous Peoples.



Mining exploration camp in the Ring of Fire area in the far north of Ontario. Photo: Wyloo Minerals.

A critical part of ensuring mining is sustainable is to carefully monitor impacts on these globally important areas and to ensure we can still meet our commitments to protecting and restoring biodiversity while meeting climate targets. A sustainability mindset would lead to investments in science to better understand what is at stake from environmental and social perspective, as an alternative to subsidizing road building that breaks up intact areas.

If we truly want our minerals to be "green," we have a lot more work to do

Protecting an underwater community asset

There is a lot more to the Ring of Fire region in the far north of Ontario than minerals, as Neskantaga First Nation community members make clear in a new CBC piece. WCS Canada staff scientists Cheryl Chetkiewicz and Claire Farrell were invited to accompany Neskantaga First Nation community members on a river trip in August, to visit places that are important for Neskantaga First Nation — but also threatened by road development for the Ring of Fire. In



WCS Canada scientist Claire Farrell

particular, Neskantaga First Nation is concerned that the road crossings proposed for the routes leading to the Ring of Fire might damage habitat for lake sturgeon.

has been working with members of the Neskantaga First Nation to monitor healthy lake sturgeon populations in the area, which could be impacted by new mining projects. Photo: Dayna Scott

WCS scientists worked with Neskantaga youth to show what types of samples could be taken from lake sturgeon to monitor ages, health indicators, and contaminant levels in this important fish, as Neskantaga develops a lake sturgeon stewardship program.

This <u>fascinating fish</u> has declined through most of its range, but has some of its healthiest populations in northern Ontario, including in the Neskantaga homeland. It's an example of the kinds of values that are being overlooked in the rush to develop mineral resources in these remote areas. <u>The piece</u> does a great job of diving into the issues of what opening this globally important intact area could mean for fish and other animals, and for the people that depend on this wildlife.

Check out our Learning from Lake Sturgeon project

Understanding what wolverines are made of

Wolverines are, for the most part, loners. They travel across huge territories and that makes studying these elusive creatures incredibly challenging. That's why our lead wolverine scientist, Dr. Matt Scrafford, is so excited about a <u>successful WCS-led effort to sequence the entire wolverine genome for the first time</u>.

Having a full map of wolverine DNA is a sort of magic key for opening the door on many research questions and for identifying individual animals and assessing their health through hair or scat. As Matt told <u>Cabin Radio</u>, "It is a powerful thing, in the sense that we can now get so much more information from simple, non-invasive biological samples."



WCS Canada's wolverine team has been <u>live trapping wolverines</u> around Red Lake, Ontario for five winters now to understand how they are faring in a landscape with a mix of intact forest and industrial logging activity, an area that is also being altered by climate change. Now they have a new tool for sampling wolverines — one that will not require trekking through freezing cold nights to check distant traps.

Listen to Matt explaining the importance of the DNA sequencing on CBC

See for yourself



TVO also zooms in on these amazing animals in a<u>segment from its series about</u> <u>life around the Great Lakes</u> that includes some great footage of wolverines in the wild. A <u>five-minute watch</u> that will make you want to learn more about these rarely seen animals.

Vote for caribou

WCS Canada President Dr. Justina Ray makes the case for caribou in a TVO piece that asks whether Ontario should have an official animal Justina has spent hundreds of hours tracking caribou from small planes flying across northern Ontario, so she speaks from experience when she says "You fall in love with the animals first through their tracks, because they're such beautiful patterns ... you're flying for awhile ... then coming across a collection of tracks that are crossing large open areas ... and then you come upon them. I've been privileged enough to be able to see wildlife spectacles like that, and caribou never disappoint in that respect. They're very symbolic and illustrative of wild, remote places that we have not yet spoiled through industrial development."



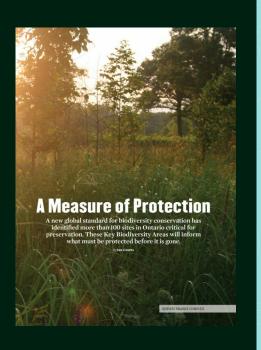
Caribou are supremely well adapted to winter conditions, unlike scientists flying over them in small unheated planes! Photo: LVors

Regardless of whether or not caribou become Ontario's official animal, they are officially a species WCS Canada is <u>paying a great deal of attention to</u>as roads, mines and forestry spread further north.

Let the voting begin!

Putting key pieces together

Ontario Nature Magazine has a great piece on how the Key Biodiversity Areas (KBA) program is helping to draw attention to some very unique places across Ontario. From the shores of Lake of the Woods in the province's northwest corner to the Minesing Wetlands surrounded by fast-growing urban communities in Southern Ontario, the piece looks at how KBA designation can help drive conservation in some key places.



Meet the Wildlife Conservation Society Canada team: Dan Kraus, Director of National Conservation

Dan's passion for nature has deep roots. The seed was planted in his childhood home in the countryside around



Waterloo, Ontario. Here he spent many happy hours exploring the wild spaces around his home, coming across everything from yellow-spotted salamanders to pileated woodpeckers. But the fragility of these pockets of nature came home to him when a part of the forest where he had caught salamanders and watched woodpeckers was

bulldozed to make way for a gravel pit.

That was among the experiences that set Dan out on a path to becoming a conservation scientist with hopes of sharing his love of the natural world in a way that would help people better understand why it needed to be protected. Now after 25 years of working in the field of conservation science, Dan remains a big believer in sharing stories and making science accessible as a way to build action for helping nature. At WCS, he is helping to lead initiatives like SHAPE of Nature, an easy-to-understand visual representation of the state of our natural world and the threats it faces, and the Key Biodiversity Areas (KBAs) program, which involves everyone from scientists to local nature buffs in a quest to identify special places.

Dan also teaches about wildlife extinction and recovery at the University of Waterloo, while working on his own PhD addressing how to accelerate endangered species recovery, which brings him full circle back to that lost woodland in his own backyard.



Bats are a Halloween staple,

Be a batty friend!

Our Friends for Bats campaign has taken flight with a goal of raising \$5,000 by Halloween to support the Alberta Community Bat program's efforts to give our only flying mammals some much needed help. We are excited that a bat-loving donor has agreed to match every dollar raised through this initiative. This means that you can double the impact of your gift and score a big win for bats through community conservation action. But that's not all. You can also win some WCS Canada swag in weekly draws right up to All Hallows' Eve (Oct. 31st). Every donation of \$10 and more counts as an entry. Donations of \$100 and

but they need our help now. Facing a devastating disease (white-nose syndrome), habitat loss and numerous other threats, these high fliers <u>need your help.</u>

more count as two entries. There will also be a special draw for those who help spread the word by using #FriendsForBats. **Donate** today!

Help the bats that help us!

Want to make a difference for wildlife?

Stand for Wildlife by supporting our important research today!

DONATE NOW









