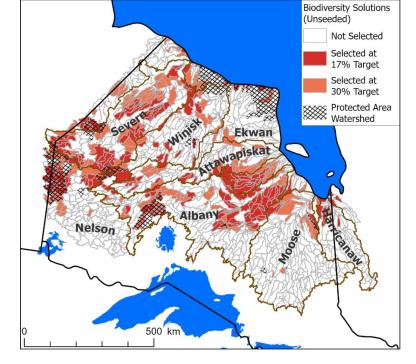


# The big fish story mapped

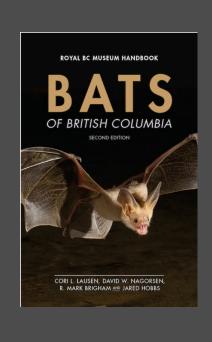
WCS Canada scientists find innovative ways to zero in on key habitat for fish

For a fish, there are few better places than the rivers, lakes and wetlands of the far north in Ontario. This landscape is as much water as land and has seen little in the way of human disturbance. But that could quickly change if mining projects, roads and even hydro dams currently being considered for the area move forward. This looming development made it important to identify the key areas for fish across this vast landscape before it is changed by industrial development. WCS Canada scientists knew they had a big challenge of their hands looking at the thousands of lakes and long winding rivers crisscrossing this region. Their usual field techniques like tagging individual fish and doing population counts on individual lakes needed to be scaled up to get a comprehensive picture of this water-covered landscape. So they went virtual, using information about landscape types and other habitat features, as well as historical scientific sampling records, to find areas where the most fish feel at home. Lead scientist Dr. Constance O'Connor and GIS specialist Meg Southee explain how they mapped the fish and what it all means in a Canadian Geographic blog.



With thousands of lakes and hundreds of kilometers of river, our scientists needed to think big about how to identify key areas for fish across the far north in Ontario before these areas were impacted by industrial development, new roads or dams. The result was a series of maps, including the one above, highlighting priority watersheds for up to 30 species of fish.

#### Cover to cover on BC bats



Our lead bat researcher, Dr. Cori Lausen, has collaborated with some fellow bat fans, including photographer Jared Hobbs who supplied the terrific images, for a long overdue update of the definitive guide to bats in British Columbia. The new fully revised edition of <u>Bats of British Columbia</u> covers the skyfront on Canada's most diverse group of bats – 18 species! Two decades of research on west coast bats are rolled into a userfriendly guide that covers everything from identification and conservation concerns to how Dr. Lausen's team uses acoustic monitoring to learn more about bat behaviour. You can order it now from Chapters/Indigo.

## Things are about to get noisy for whales

We know that a warming Arctic means less ice, and less ice means more ships. And

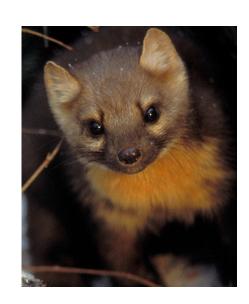
more ships means more noise and collision risk, particularly for whales. So it is great that Canada has established a Marine Protected Area (MPA) called Tallurutiup Imanga at the eastern entrance of the Northwest Passage in Lancaster Sound, Nunavut. This is core habitat for narwhal, beluga and bowhead whales but it is also likely to see a lot more ships in coming years as companies look for a faster route between Europe and Asia and find it in a warming Arctic. Already, ship traffic from a large iron ore mine in Nunavut is changing the soundscape in this area. WCS Canada scientist Dr. Bill Halliday was a member of a team that looked at the potential impact of ship noise on the MPA as part of a study that combined data gathered through acoustic monitors deployed by scientists and traditional knowledge gathered from local Inuit communities. Combining these two information sources led to a richer picture of whale life in the region and better identification of potential conflict zones for whales and ships. For both scientists and Inuit communities, the research also highlights the importance of collaboration for understanding how climate change is affecting both wildlife and people.



Bowhead whale. Photo: NOAA

### Help us win for wildlife

You may not be able to track wolverines from your condo in Calgary or count caribou from your cabin in Chicoutimi. But you can help WCS Canada with our efforts to protect wildlife and wild places in an important way this month. CanadaHelps.org, which collects online donations on behalf of WCS Canada and many other charities, is running a "Great Canadian Giving Challenge" this month. And that means that every dollar you donate to support our work for wildlife also gives us a chance to win a \$20,000



prize that can help us dig even deeper. So if you care about Canada's big wild places and iconic wildlife, there has never been a better time to give to an organization that gets its boots muddy to find out what it will take to keep Canada wild! Donate today through CanadaHelps.org and join us in standing for wildlife!

Help us win \$20,000 to help wildlife. Your donation through CanadaHelps.org in June gives us more chances to win!

#### Being social

Our social media coordinator, Rachel Godinho, recently had a chance to hang out with 375 science nuts on Zoom. Actually, this crowd was a huge array of folks involved in all sorts of science communications and enrolled in the <a href="Banff Science">Banff Science</a> <a href="Communication Workshop">Communication Workshop</a>. Fortunately for Rachel, she did not actually have to stand up (virtually) in front of this huge crowd, but instead worked with smaller groups to hone ideas about how to explain scientific concepts and findings, and their importance to non-scientists. <a href="Rachel talks about">Rachel talks about</a> how social media has made it possible to hear from a wider variety of people and perspectives -- and to reach wider audiences -- along with what she took away from her 16 hours of screen time in <a href="Muddy Boots blog">A Muddy Boots blog</a>.



Barren ground caribou on the move

### Keeping wildlife on the move

The mass migration of hooved mammals (ungulates), from tens of thousands of caribou streaming across the tundra to wildebeest thundering across an African

savanna, is one of the world's greatest natural phenomena. It is also one of the most endangered thanks to things like roads, pipelines or human developments that block or divert traditional migration routes. In an effort to better understand these routes and how to protect or restore them, WCS is collaborating with conservation scientists around the world to create an atlas of ungulate migrations as part of the <u>Global Initiative on Ungulate Migration (GIUM)</u>. The initiative, in turn, is tied to the implementation of the Convention on the Conservation of Migratory Species of Wild Animals (CMS), a UN treaty.

What the initiative is looking to do is to closely map the migratory movements of species so that conservation efforts can focus on protecting migration routes, removing barriers and preventing further barriers or habitat loss from taking place along the annual migration journey. Here in Canada, caribou are our most iconic migrants and play a key ecological and cultural role in northern ecosystems. But proposals for things like oil drilling in Alaska's Arctic National Wildlife Refuge pose a direct threat to the magnificent Porcupine Herd, which annually travels 2,400 km between the refuge and wintering grounds in Yukon. The good news is that the Biden Administration has just announced a suspension of drilling leases in the reserve.

#### Support our work to save wildlife!

At WCS Canada, we stand for wildlife and are in the field every day working to save wildlife and wild places. You can support our work by <a href="mailto:making">making a secure donation</a> right now!

Top banner image of brook trout: Shutterstock

DONATE NOW





