The Yukon needs to prepare for a different future

*The territory needs land-use plans that can help species survive in the face of landscapes reshaped by climate change*

*This short video explains why the Yukon cannot plan for the landscape of today if it wants to conserve wild places for tomorrow.*

For a large number of plant species in the Yukon, climate change could lead to a “nowhere to go from here” future.
That’s the finding in a just released scientific paper coauthored by a number of WCS scientists, including lead author post-doctoral fellow Dr. Tobi Oke, that looks at how plants that are only found in the Yukon and Alaska might shift their current ranges in response to landscapes being reshaped by a warmer and wetter climate. It found that more than 80 percent of the species studied would need to shift their range northwards under this future climate to find more accommodating conditions. The problem for many species, however, is that they are already at the northern limit of their range in the Yukon and the potential for further northward movement is limited by a wide variety of factors – from habitat availability to barriers to range shifts, especially in mountain areas. Many of these plants are nationally endemic to Canada and are at risk of extinction.

With this area already experiencing warming that is 2-3 times the global average, conservation planning is challenging in a fast-changing landscape. That’s why our Northern Boreal Mountains team has just launched a new YukonClimateChange.ca website and data portal to help land-use planners, conservationists and governments in the Yukon better understand how climate change is reshaping the territory.

The message in this work is simple – we can’t plan for the landscape that is here today because it is going to look quite different tomorrow. The data portal is the only tool of its kind available for the Yukon and we hope it will, along with the resources on the website, be a valuable tool for anyone thinking about how to conserve the Yukon’s globally important natural areas.

Whether it is ensuring connections are retained between natural areas, protecting climate refugia areas that will have greater stability or that cumulative effects are properly addressed in development plans, our YukonClimateChange.ca website describes how we can be proactive in responding to the challenges posed by climate change.

Read more about the paper and the portal in the Toronto Star.
Lack of suitable habitat at higher elevations is just one of the challenges facing endemic plants in the Yukon.  
Photo: Hilary Cooke/WCS Canada

Find your place in the Yukon

Want to join us in our work in the Yukon? We are hiring up to three field technicians to assist with a study of the relationship between fire severity and bird communities in boreal forests, and a related study on climate change refugia across boreal mountain landscapes.

Penguins of the Arctic

Thick billed murres have a lot in common with penguins living at the opposite end of the world. The black and white murres look a bit like their Antarctic counterparts, and are deep-diving (reaching up to 200 metre depths) seabirds that live in a challenging and rapidly-changing polar environment.
One key difference is that murres can fly. And despite not being the world's most graceful fliers, recent research conducted by WCS Canada found that they can fly long distances. In fact, our team found that members of an isolated colony in Canada’s Western Arctic journey more than 3,500 km (one of the longest migrations known for this species) to the Bering Sea after raising their chicks.

Dr. Rosanna Paredes talks about what it was like to finally encounter these seldom seen birds after repeated delays due to the pandemic. She also explains how they are facing the same sort of climate-driven challenges as penguins, with a rapidly warming Arctic leading to shifts in food availability and other conditions, in a story in Canadian Geographic.

Spreading our conservation wings

In an interview to mark Black History month, WCS Canada’s Key Biodiversity Areas Assessment and Outreach Coordinator Peter Soroye talks about the importance of involving multiple perspectives and voices in conservation efforts with our friends at Vancouver’s Science World. As a self-confessed “butterfly nerd,” Peter also explains how his conservation career has helped him spread his wings when it comes to seeing these colourful insects in many different environments – from northern Canada to Arizona and Nigeria.
**Zooming in on trouble spots for Arctic whales**

*Mapping potential collision hot spots could reduce conflicts between whales and ships*

With climate change changing the amount and duration of sea ice in the Arctic Ocean, more and more shipping companies are becoming interested in using the Arctic as a “shortcut” between Asia and Europe. For marine mammals, this increased ship traffic has multiple consequences, from increased noise to increased risk of deadly ship strikes.

WCS Canada scientists recently looked at potential collision hotspots for bowhead whales in the Canadian Arctic based on remote tracking of both whales and ships. Their research highlights five areas with the highest risk for collisions: Cumberland Sound, Isabella Bay, Gulf of Boothia, Tuktoyaktuk, and Utqiagvik, Alaska.

The team has produced an online storymap to illustrate their research on the areas frequented by whales, routes travelled by ships, and the overlap between these. The maps also let viewers explore the types of vessel that pose the greatest risk in each area and strike risk in different seasons.

While the International Maritime Organization has published voluntary guidelines for reducing ship noise, more can be done to ensure growing ship traffic doesn’t impact whales. Understanding where some of highest conflict areas are located is vital for ensuring that good rules are in place to keep whales and ships from coming into conflict in these areas before we end up with a situation like we are seeing in already busy Atlantic shipping corridors with species like North Atlantic right whales.

You can read more about our team’s work in *Canadian Geographic*, and check out all of the stories we shared on #WorldWhaleDay earlier this month.
Our team has identified five areas in the Arctic Ocean where there is high risk for whale and ship conflicts. Map: WCS Canada

A river runs through it

Staff profile: Claire Farrell

For WCS Canada scientist Claire Farrell, it was the first time she slipped on a pair of chest waders that she knew she wanted to pursue a career in environmental science. A love of the environment had been baked into her by a childhood spent exploring the boreal forest around Thunder Bay, Ontario, but it was wading into a river for a high school science project that cemented Claire’s commitment to conservation.

At WCS Canada, she has found joy in working with Indigenous youth, particularly around efforts to conserve lake sturgeon in the Moose Cree homelands. As Claire notes, these fish could easily outlive many of us, so ensuring a new generation of caregivers for this at-risk species is in place is vitally important. She notes that working alongside and co-leading research projects with Indigenous Peoples to create better outcomes for important animals and landscapes is a hugely rewarding part of her work.

“WCS Canada is a group of warm, funny, passionate, brilliant people who work together to conserve wildlife and wild places – I am always excited to hear what the people I work with have come up with, what new innovation they’ve brought to a project, and how we support each other along the way within and among our team,” Claire says, adding “I can’t possibly work with all the amazing animals in Canada, so I love working for an organization that is addressing threats and working to protect the full diversity of wildlife in Canada.”
Try your skills at tracking wildlife

Can you tell us who made these tracks?

To find dens, our wolverine team often has to track these elusive members of the weasel family through forests, across frozen lakes, and over snow-covered wetlands. But to do that successfully, they have to know which tracks to follow. Take a look at these three sets of tracks. Do you know which set is from a wolverine? We'll post the answer in our next newsletter, and one lucky person who answers here will win a touque to match our team!

Win a Wildlife Conservation Society Canada Touque!

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Top banner image: Bowhead whales (Canva Images)