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Imagine you are a bear living in a forest with plenty of berries, like in the picture in the top left. Resources are high and predictable, so you don’t have to forage much before you get full.

As summer leads to fall and fall to winter, food becomes scarce. Fortunately, you predicted resources would be low and prepared to hibernate instead of searching for food far and wide.

Once the warm spring weather wakes you from hibernation, you start feeding on young plants. However, this year is different. Food is still abundant, but it isn’t raining as often, so it’s hard to predict where the greenest spots are.

As summer comes, you expect to find an abundance of berries again, but a fire sweeps through the forest. The once lush environment is now a barren landscape you can no longer rely on for food.

*(1:00)*

Resource abundance and unpredictability strongly affect how much space animals need to survive and be healthy. While these ideas are conceptually simple, producing appropriate statistical models is much more complex. But without these models, we do not know how much more space animals need in times of scarcity, so we cannot make informed decisions on where and how big protected areas should be. These are critical issues, particularly since the federal government committed to conserving 30% of Canada’s land and waters by 2030, which requires doubling our protected areas in 7 years.

*(2:00)*

This is where my work comes in. Using decades of environmental data and tracking data from over 3,000 animals and 85 mammal species worldwide, I am estimating the effects of resource abundance and unpredictability on mammals under different climate change scenarios. My statistical models will help ensure the areas we protect will provide animals a place to live in times of unpredictable scarcity.

*(2:30)*

We know climate change is a serious threat to us humans and the rest of Nature, but we do not know much about how climate change will affect animal movement. Well-informed predictions of habitat quality are the first step towards providing wildlife a safe place to live long-term and ensuring our children and grandchildren will be able to see wildlife without going to the zoo.

**Thank you.**

Avoid dropping tone by end of sentence

No pointing!