



Shifting North: Caribou, Moose and Deer

Moose, caribou, and deer are important country food in Ontario. The hunting of these large animals is also of cultural significance having been traditionally harvested through generations. In these changing times, hunting of wild game can help ensure local food security, especially in remote communities.

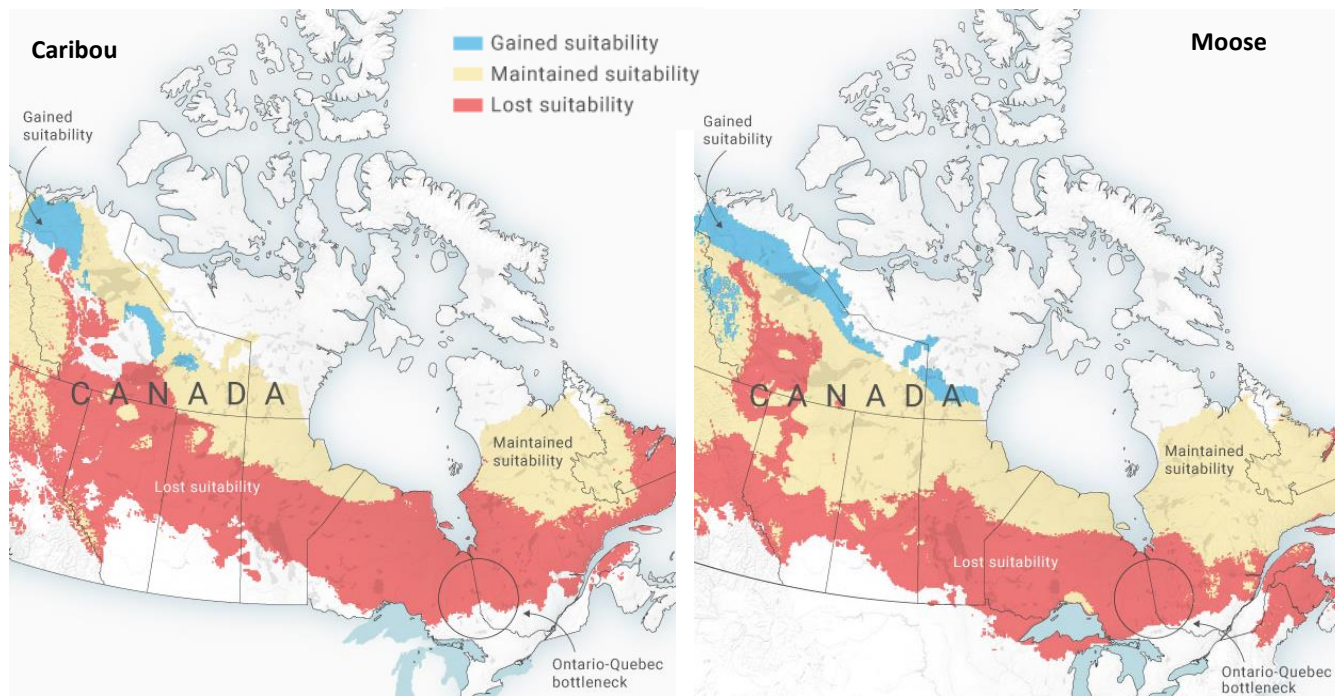
What have people noticed?

In the northwest, First Nation's Elders speak of seeing caribou in the hundreds or even thousands during their childhoods. Now, these large herds of the 1930s and 1940s are no longer seen on their traditional lands. Many across the province speak of moose being harder to find and some express concerns about their health. Harvesting has also become more challenging, with further travel sometimes required for harvest and freeze-up impacting travel over land. Warmer fall temperatures can also make it harder to keep harvested meat cool.

How could climate change impact these animals?

Climate change will impact where animals can live and thrive. Moose, for example, are a cold weather species and suffer heat stress when temperatures get too high. Moose and other cold adapted species are likely to shift their ranges further north. Landscape changes, such as permafrost loss, wildfire, or changes in vegetation, will also change where animals like moose, caribou, and deer can survive.

As the habitat for moose and caribou shrink toward the northern coast, the territory for deer will likely grow, as warmer temperatures and less snow in winter allow these animals to live further north than they're found today.



These maps show the predicted change of habitat range for caribou (left) and moose (right) in the boreal forest by the year 2080. Maps were featured in the Toronto Star and are based on the information presented in a scientific paper by Murray, et al. (2017). Toronto Star article found at <https://projects.thestar.com/climate-change-global-species-shakeup/>



How can we prepare?

Adjust Harvesting Practices

Many First Nations hunters have already had to adjust their harvest time and methods, particularly in the fall and early winter. Warmer fall temperatures can mean a greater chance of harvested meat spoiling, and hunting trips must sometimes wait for cooler weather. Less snow in winter means that snowmobiles must sometimes be swapped for ATVs. When hunters need to travel further from their communities to find game, transportation can become more expensive. Ride-sharing could be an option to help lower costs.

As some animals become less common on the land and others become more common, perhaps hunters can switch target species, like hunting deer instead of moose.

Community Initiatives

Sharing knowledge and harvests can help increase food security in a community. Community coolers can also help, lowering the risk of meat spoilage by providing people with a cool place to butcher or store meat they have harvested.

Habitat Restoration and Protected Areas

Protecting or restoring the habitat that moose and caribou need can help protect these populations in your area. Caribou, especially, need uninterrupted tracts of undisturbed land.

Monitoring

Understanding what is happening with the moose, deer, and caribou in your area can be an important step towards developing adaptation plans now and into the future.

Community-based monitoring is a monitoring initiative that is community-led and often driven by local information needs and guided by the values of the community. Monitoring activities can take many forms and can be conducted by environmental stewards, researchers, and community members. Monitoring can include having hunters, trappers, and other land users collecting data and observations while they're out on the land or can be high-tech where animals are tracked using GPS collars or recorded on trail cameras. It can be done as a single group or in partnership with other communities, organizations, or scientists.



Community cooler in Chapleau Cree FN. Photo by Dakota Souliere

Want to know more? Check out these examples:



A community-based monitoring program for moose was carried out in the Mayo region of the Yukon. This program had local hunters record their observations while they were out on the land to provide information about the local moose population. The final report can be found at:

http://www.env.gov.yk.ca/publications-maps/documents/MayoEarlyWinterMooseSurvey_2011.pdf



The Naskapi Nation of Kawawachikamach, in partnership with researchers and consultants, conducted an assessment of climate change impacts on their traditional lands and the caribou that reside there. The work incorporated TEK, mapping, and caribou surveys and set out priority actions for adaptation. The final report can be found at:

https://www.ouranos.ca/publication-scientifique/RapportMameamskum2014_EN.pdf

Climate change is affecting caribou, moose, and deer in Ontario. We need to prepare for the shift in their range by monitoring, protecting habitat and adjusting hunting practices.

