Moose of Whitefish Lake First Nation

Photographer Joel Sartore is on a mission to photograph every living species. His photographs are housed in the National Geographic Photo Ark. Inspired by his work, we put together a moose collage comprised of photographs of the animal we captured in our wildlife camera study at Whitefish Lake First Nation.

In our study, scientists and Whitefish members worked together on a study design based on questions the First Nation posed – How are forestry and oil and gas affecting moose distribution in their traditional territories?

We settled on a stratified-random design of 100 cameras that allowed us to capture species deep in the forest and not just those along roadsides and trails.

Whitefish members installed cameras, check them twice a year to change batteries and retrieve data cards. Whitefish members also sort through the thousands of photographs collected, identify and tag species and clean the raw data. At this point, they pass the baton back to scientists who create models of species distribution according to landuse.

Once enough data are collected by the community, reliable models and conclusions can be drawn. These learnings can be used to guide consultation requests and species management on the reserve. We will have real, local data that describes which land uses most impact species the community depends on – like moose.

For other nations wanting to start a wildlife camera program, we outline the outputs that can be achieved with increasing levels of activity, planning and study design.

Beautiful photographs are one output of wildlife camera projects. They also reveal which species roam what areas.

If the cameras are checked systematically, species are tagged, and raw data are cleaned, species detection rates can be calculated. This tells you what species are where, and how often.

If the cameras were placed according to a study design that supports statistical analysis, you can get much more than beautiful pictures – estimates of species richness, changes in species distribution according to landuse and through time are possible.

For now, we at Whitefish are at Level 2 (above). We know that moose was the most frequently detected mammal species, followed by wolf, hare and black bear. In a few months, we will be at Level 3, as we had a study design in place from the get-go.

For now, enjoy our moose collage!