

Supercubs, Satellite Tracking, and Chainsaw Charlie: The Untold Stories of a Wolverine SWAT Team

By: Alyssa Murdoch

Summary of an RCIScience Talk by Dr. Justina Ray – January 29th, 2017



Even for the most intrepid modern day explorers, the wolverine remains something of an enigma. As an avid nature enthusiast myself, the wolverine remains one of the few unchecked items on my wildlife ‘bucket list’. My deep interest in the wildness of our country’s northern frontier is what lured me to see Dr. Justina Ray’s RCI Science talk this past Sunday, titled **“How did the secretive and solitary wolverine of the north acquire its reputation as a dangerous and ruthless killer?”** In her talk, Dr. Ray was quick to

explain the reason for my predicament: that the wolverine distribution closely mirrors cold, undeveloped regions and that wolverines have a long history of avoiding direct contact with people. Wolverines, she described, have a reputation that precedes them for being both surreptitious and fiercely clever. As a result, wolverines can skillfully avoid occasional intruders into their home ranges, and are known to further punish those that stay by expertly pilfering their food caches.

The wolverine, Dr. Ray explained, provides many clues about its cold-adapted lifestyle through its physical make-up and choice of habitat. The wolverine is essentially built for long, harsh winters, with its strong, stocky frame, frost-resistant coat, wide snowshoe-like paws, and keen sense of smell for detecting prey deeply buried under snow. Its incredibly strong teeth allow it to crush through frozen carcasses, iced-over food caches, and even bone. During winter, it creates warm and cozy dens insulated under the snow where it keeps its kits safe from predation during their most vulnerable stage. Not surprisingly, the distribution of wolverines may be linked with persistence of spring snow cover, which promotes healthy kit development and helps to preserve their food caches.

How do you study an animal that is known for its aversion to humans, and would relocate its den site from the mere hint of a passerby? In the early 2000s, Dr. Ray’s team at Wildlife Conservation Society Canada (WCS) was asking this very question in response to the pressing need for environmental information in Ontario’s Far North. Before 2001, the answer was that we simply didn’t have a good understanding of wolverine populations in this relatively pristine region of our province. Identifying this data gap, the team at WCS stepped in (in a collaboration

with the Ontario Ministry of Natural Resources and The Wolverine Foundation) to become the first to radio-track wolverines in northern Ontario. The program required bringing in some unexpected allies: seasoned bush pilots from Alaska with experience finding and tracking wolverines using highly maneuverable Supercub planes. Radio tagging presented its own challenges, such as the need for custom-fit wolverine collars that wouldn't slip off their thick necks, and the constant need to check traps to avoid instances like "Chainsaw Charlie", a wolverine that successfully chewed through his trap on two different occasions. Lastly, the collection of knowledge from northern communities was combined with the collected data to provide a more holistic and long-term understanding of the region's wolverine populations.

Like many other areas in the north, northern Ontario is facing rapid changes including climate warming, population growth, and pressure from resource development. Ontario's Far North contains a wealth of natural capital in the form of important ecosystem services and economic development potential, which will require a fine balancing act if we are to achieve long-term sustainable development. In her talk, Dr. Ray painted a vivid picture of this elusive animal that heavily relies on large swaths of undeveloped land in cold northern regions for its long-term survival. Case in point, through their efforts in northern Ontario, WCS identified that some wolverines establish home ranges as large as 1000 km² – over 600 times the area of Toronto's High Park. Overall, it was uplifting to see that groups like WCS are aiming to be stewards of iconic northern wildlife that are inextricably linked to the protection and longevity of our country's wildest spaces. And while most of us will likely never meet a wolverine face to face, being regaled with captivating stories from someone who has was the next best thing.

About the Author



Alyssa Murdoch is an Aquatic Biologist researching the effects of human stressors on northern fish. She has previously worked as an environmental consultant, government biologist, and academic research assistant. She holds a Master of Science degree from the University of Waterloo, and is currently a PhD candidate at York University.