The secret lives of Canada lynx

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Family of Canada lynx. Credit: Emily Studd

New technology captures never-before-heard sounds of lynx hunting, fighting, and sleeping.

Using a Fitbit and a spy mic, scientists have discovered new insight into the behavior of the elusive Canada lynx. A new study by researchers

from McGill University, University of Alberta, and Trent University provides a first look at how miniaturized technology can open the door to remote wildlife monitoring.

"Working on one of the boreal forest's top predators, the Canada lynx, we found that two different technologies, accelerometers and audio recording devices, can be used to remotely monitor the hunting behavior of predators, even documenting the killing of small prey," says lead author Emily Studd, a Postdoctoral Fellow under the supervision of Murray Humphries at McGill University and Stan Boutin at University of Alberta.

"We captured chases, screams of the prey as they were caught, calls of the prey as they escaped, and bones crunching, along with friendly and aggressive interactions between different lynx," says Studd. The recordings are available in Studd's recent CBC interview.

"A lot of people want to know what wild animals do when we can't see them. The ability to continuously record their movements and sounds in their natural environment can provide insight into mating rituals, parental care, social interactions—even how individuals differ from one another or change over time," says co-author Allyson Menzies, a recent Ph.D. graduate at McGill University.

Emily Studd and Allyson Menzies handling a Canada lynx. Credit: Kevin Chan

According to the researchers, understanding the hunting behavior of predators is key information for ecologists, providing insight into the wellbeing of an ecosystem.

"Unfortunately, predators are naturally secretive animals due to their need to sneak up on their prey, which makes studying them and recording this information incredibly difficult," explains Studd. Their use of accelerometers and audio recorders provide two new, highly effective methods that can be applied to any predator to monitor behavior and collect information.

More information: Emily K. Studd et al, The Purr-fect Catch: Using accelerometers and audio recorders to document kill rates and hunting behaviour of a small prey specialist, *Methods in Ecology and Evolution* (2021). DOI: 10.1111/2041-210X.13605

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