

Janelle Coultres' life could be the premise of a superhero comic book. She is a studious and mild-mannered undergraduate student by day, and outside the classroom, she saves lives as a search-and-rescue volunteer.

As president of the Search and Rescue Volunteer Association of Canada, Janelle is involved with a lot of people who enjoy spending time outside. When she mentioned her professional network to Tim Hain, an instructor at the Centre for Animals on the Move, he got excited.

"I love science projects that get the community involved. This sounded like a great opportunity to engage the public in data collection," says Tim. He asked Janelle about doing an honour's research project with him that could use her connections, and she agreed.

They decided to focus on the Red-eyed Vireo, a bird that sings so often that some birders refer to it as providing the soundtrack to the Canadian forest. It is found in every province and one territory in Canada. Notably, Louise de Kiriline Lawrence, a well-respected amateur ornithologist who was profiled in Marilyn Simonds' book *Woman Watching*, once counted over 22,000 songs from a wild Red-eyed Vireo male in a single day. Even for beginner birders, it would be an easy bird to find.

Over the summer of 2025, Janelle reached out to her search and rescue colleagues and to bird groups on Facebook. She created an advertisement asking volunteers to send her 90-second recordings of birds singing in the woods. Volunteers used Marlin, which is an app developed by Cornell University's Lab of Ornithology to make the recording and identify if there were Red-eyed Vireos present. The response was overwhelming: she received almost 1200 emails from the public with recordings from across Canada.

"Responses were coming in so quickly that it took hours each week just to thank everyone for their submissions," Janelle said. "One of the best parts was volunteers getting excited about capturing Red-eyed Vireo song, they were so eager to pass along their recordings, it was truly heartwarming!"

The next step is to analyze the recordings. Janelle is interested in questions about the variation in Red-eyed Vireo songs across their range. How do the songs vary from east to west or north to south? Do they sing differently in cities vs. rural areas? Do they adjust their song when they share habitat with the similar-looking and -sounding Philadelphia Vireo to make it easier to tell each other apart?

"There is a lot of information about Red-eyed Vireo songs and call frequencies that they utilize, but their geographic variations across Canada remain poorly understood. The Red-eyed Vireos use their songs for attracting mates and defending territory, and their

specific songs and repertoires help them identify members of their own species especially when they live in close proximity to similar species,” Janelle explained.

Earlier this year, ornithologists decided that the Warbling Vireo was actually two different species: The Eastern and Western Warbling Vireo. Differences in song were one of the features that scientists used to recognize that these were different species.

Janelle’s experience with the project has given her a new perspective on what she hears in our forests. “Prior to working on this study I had no idea that Red-eyed Vireos were as prevalent as they are, and that they sang so consistently each day. Now that I’ve been working in the ornithology field it’s opened up a whole new world of interests and possibilities.”



