

Moose tracking: There's an app for that

April 10 2017



An app developed by UAlberta researcher Mark Boyce takes citizen science approach to population modeling for moose in Alberta. Credit: Vince Crichton

Ecologists in the University of Alberta's Department of Biological Sciences have developed an app to improve population modeling for moose, asking hunters record the number of moose they see while hunting in Alberta.

Population modeling for big game, such as [moose](#), is extremely difficult but critically important for understanding the status of moose in Alberta and developing conservation strategies. Traditionally, biologists have used helicopters to track moose populations, a method both expensive and dangerous for researchers.

Inspired by similar practices in Norway and Sweden, Mark Boyce, UAlberta professor and Alberta Conservation Association endowed chair in fisheries and [wildlife](#), came up with the idea of a [smartphone app](#). Simple and easy to use, the app provides invaluable information about moose in Alberta engaging wildlife aficionados who are already in the field.

"At the end of every day, your phone will emit the sound of a cow moose in heat to remind you to enter data," he explains. "The interface prompts users to enter how many moose they saw and the number of hours they were hunting that day."

Having [cell phone service](#) isn't necessary—a critical factor for analyzing remote populations of moose, typically deep in Alberta's forests. "The information is stored on your phone until you have access to cell service," says Boyce.

Developed by a second-year undergraduate student in the U of A's Department of Computing Sciences, the app has been disseminated to hunters through the Alberta Fish and Wildlife Division of the Ministry of Environment and Parks since 2012.

"They simply contact everyone who drew a moose tag and invited them to participate in the project," explains Boyce. " Hunters specify their Wildlife Identification Number as well as the Wildlife Management Unit they're in.

The app received nearly 14,000 submissions in 2016, up from 3,000 in 2012.

The Alberta Conservation Association (ACA) has now taken over management of the app and accompanying data, Boyce explains.

"As an ongoing project managed by the ACA, the app can be used for modeling, monitoring, and managing moose populations across the province," he says. "This allows us to detect and understand the impact of changes in harvest regulations, disease outbreaks, territory shifts, and potentially even climate change."

Moose Survey is available free of charge for both iPhone and Android users on the Moose Hunter Survey website.

Provided by University of Alberta

Citation: Moose tracking: There's an app for that (2017, April 10) retrieved 25 April 2024 from <https://phys.org/news/2017-04-moose-tracking-app.html>

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