Track early warning signs of ecosystem disruption



At Western's Centre for Animals on the Move, we're protecting wildlife and the ecosystems we all depend on by studying why animals move, where they go and how they get there.

Each year, billions of animals, including birds, bats, fish, butterflies, and sea turtles travel hundreds or even thousands of kilometres to find places to breed, feed and rest. Animal migration isn't just a spectacular natural event; it's a sign of ecosystem health. When species can move freely across landscapes and oceans, they pollinate crops, fertilize forests, move nutrients between land and sea, and even help regulate the climate.

If migrations falter, it signals deeper problems like declining insect populations, deforestation or warming seas that threaten food security and biodiversity. Protecting migration pathways means protecting the natural systems that sustain us, and ensuring these incredible journeys continue requires smart conservation strategies that safeguard animals along the way.

Western is internationally recognized as a leader in animal movement and migration research, particularly in the study of bird migration. At the Centre for Animals on the Move, we investigate how environmental change and human activity influence animal movement. With climate change and urbanization reshaping habitats, understanding these patterns is critical to protecting Canada's wildlife and preserving natural migration systems.

Our work brings together interdisciplinary expertise from bird neurobiology to fisheries science to track movement across species. A new Western-led project is enhancing the Motus Wildlife Tracking System — a global network that follows migratory animals and insects with tiny radio tags — by improving capabilities and expanding Canadian coverage, making it the most powerful land-based animal tracking tool in the world.

Our ability to protect wildlife begins with understanding it. With your support, we can expand our impact even further by training the next generation of conservation leaders and equipping communities and policymakers with the data they need to protect migratory species and the habitats we all share.

Canada cannot be resilient to the effects of changing climate and human activity without studying the health and mobility of its migratory species. It is our responsibility to protect our rich natural heritage of migratory animals and ultimately keep our broader ecosystems safe.

Chris Guglielmo, Director of the Centre for Animals on the Move

MOTUS ON THE MOVE

Migratory animals are driven farther and faster by pollution, wildfires and shifting habitats caused by climate change. Western researchers are taking the Motus Wildlife Tracking System to the next level with advanced technology and broader Canadian coverage, positioning it as the world's leading land-based system for tracking wildlife.

1.

In just over a decade, the Motus network has grown to over 2,150 active stations operating in 34 countries.

2.

By 2025, over 55,000 animals from more than 400 species have been tracked using Motus, including over 150 species of conservation concern.

3.

With over 250 published studies using Motus data, researchers and conservationists are gaining important insight into animal behaviour and movement, the pressures they face, and the habitats they rely on throughout their life cycles.

Are you <u>all in?</u> Get in touch.

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