Tiny Organisms Are Having a Huge Impact on Land Protection Frosted Glass-Whiskers in Nova Scotia

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Extinction Rebellion members and allies at the Last Hope Camp. PHOTO: Simon Ryder-Burbidge

Imagine, for a minute, a microscopic organism stopping a 30-tonne tree harvester. It might seem hard to believe, but an oftenoverlooked rare species of lichen called the frosted glass whisker is doing just that.

This tiny, cryptic and globally rare stubble lichen is just one of many seemingly insignificant species helping to protect large tracts of land in Nova Scotia.

Their allies in conservation include groups like Extinction Rebellion, Canadian Parks and Wilderness Society and the Nature Conservancy of Canada. The federal Endangered Species Act works as a conservation shield to keep development projects threatening to harm important habitats at bay.

The frosted glass whisker was one of three rare, sensitive lichen species found growing on oak and maple trees in an Annapolis County forest.

When scientists discovered the lichen species and reported their findings, officials put logging on hold in the area in January 2022 because all three are endangered and require particular management techniques.

As a member of the Extinction Rebellion protest group camped in the area shared with Saltwire, stopping the cutting is a step in the right direction — but it doesn't protect the forest from being harvested in the future.

An official with Nova Scotia's Natural Resources Department said that buffers would be placed on the Crown land in Annapolis County to protect these at-risk species.

(Sclerophora peronella). PHOTO: Trov McMullin

Saved by the upswept moonwort (and friends)

In November 2022, ecologists warned that plans to build a golf course in Cape Breton's West Mabou Beach Provincial Park would further endanger many unique and rare species. But Acadia University biologist Alain Belliveau came forward with his 2018 study of the park, which revealed that the distinctive dunes and wetlands are home to at least 17 endangered species of flora and fauna. At-risk species found in the study include a rare fern known as the upswept moonwort and four at-risk bird species.

The Canadian Parks and Wilderness Society and Nature Nova Scotia have been working to oppose the golf course developers and emphasize the importance of protecting this biodiverse stretch of beach.

Grassroots conservation action

Elsewhere in Nova Scotia, other endangered species like the longleaved panic grass have helped protect land and permanently conserve fragile ecosystems.

Early in 2022, the Nature Conservancy of Canada (NCC) purchased 950 hectares of land, including about 25 kilometres of lakefront shoreline and 130 hectares of freshwater wetlands in the Wabanaki-Acadian Woodland near Upper Ohio. Before the NCC's purchase, the property was divided into 24 individual parcels, creating the potential for 24 separate developments that would fragment the land and ecosystems.

A survey of the land by the NCC discovered 300 different plants, including rare species such as Virginia meadow beauty, swamp loosestrife, 66 different bird species and a rare patch of mature forest containing eastern hemlock, maple and white spruce trees.

These cases show how some small yet essential species can make a big impact. By working together with conservationists and the Endangered Species Act, these often-tiny organisms have joined forces to significantly influence the protection of their habitats.

TAKE ACTION

Learn more about species at risk and the act on the national website: laws.justice.gc.ca/eng/acts/s-15.3/

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