

Alaska Dispatch News

Published on *Alaska Dispatch* (<http://www.adn.com>)

[Home](#) > Botanists find rare moss in Alaska's Wrangell-St. Elias National Park

Yereth Rosen ^[1]

September 22, 2014

Main Image:

Wrangell St. Elias Moss ^[2]

Main Image Caption:

A crew monitors plants at a plot in Alaska's Wrangell-St. Elias National Park, part of a larger plant survey being conducted in Interior Alaska National Parks.

A rare type of moss never before spotted on U.S. soil has been discovered growing in Alaska's Wrangell-Elias National Park, scientists reported in a study ^[3] published in the journal *Evansia*.

A routine plant survey, part of a National Park Service program ^[4] intended to create baseline data about the vegetation in three Interior Alaska national parks, turned up a moss of the species *Trematodon laetevirens*, the scientists report. That species, so obscure there is no common name, has been found in only one other North American site -- in Canada's Yukon Territory -- and is also known to grow in Greenland and Scandinavia, according to the scientists.

The moss was found in a boulder field near the upper reaches of Trail Creek, a tributary of the Nabesna River, according to the study.

The discovery was made during a multiyear vegetation survey in which species growing in various study plots were cataloged, said Sarah Stehn, a Denali National Park botanist who was part of the team that found the *Trematodon laetevirens*.

"We weren't looking for these guys at all, beyond the fact that we were recording all the bryophyte species that were in our monitoring plots," said Stehn, the study's lead author.

Trematodon laetevirens is distinguished by its long bristle, its straight, smooth-necked capsule and its long, narrow leaves, according to the study. Stehn described it as "a small green moss that grows upright in a little tuft." The team found it growing in rock crevices, she said.

Stehn, who specializes in bryophytes -- non-vascular plants such as mosses and liverworts -- said it is possible, or even likely, that other patches of this rare moss are growing elsewhere in Alaska and have yet to be found.

"There's some factor of just needing to look, having someone with attention to details and skills in plant ID or even bryophyte ID," she said.

Other interesting discoveries made in Wrangell-St. Elias included the fourth inland Alaska find of *Herbertus dicranus* south of the Brooks Range, a species also known as Pacific scissorleaf or Pacific prongwort, and the first non-Arctic Alaska discovery of *Oreas martiana*, also known as oreas moss, a plant that grows in mountainous areas of Yukon, British Columbia and Alberta and is found as far south as Colorado, as well as in oceanic Arctic areas.

The team also found the most northerly known growth of *Plagiomnium insigne* ^[5], a plant more

commonly known as plagiomnium moss and found in coastal areas from the Aleutian Islands to California and in moist parts of shaded forests in the Rocky Mountain region.

The Wrangell-St. Elias discoveries came during field seasons from 2009 to 2011.

They are considered side benefits of the comprehensive and unprecedented plant surveys that began in 2001 in Interior Alaska national parks, Stehn said. The parks being studied are Denali National Park and Preserve and Yukon-Charley Rivers National Preserve as well as at Wrangell-St. Elias, the largest U.S. national park, she said.

It is not overly surprising that plants previously undocumented in this region have been found during the project, since much of the territory was not well-studied before, she said.

For now, there are no conclusions about vegetation changes, since the surveys are aimed at establishing baseline information, she said.

"We want to, eventually, be able to detect changes of the ecosystem over time," she said.

Trematodon laetevirens is not the only rare plant that has recently been discovered in Alaska by park service botanists.

In Denali, Stehn and her colleagues a few years ago found a population of Erioderma pedicellatum, also known as boreal felt lichen, a plant classified as critically endangered by the International Union for the Conservation of Nature [6]. Findings from 2009 field work were detailed in a paper published last year in The Bryologist [7].

Outside of Alaska, boreal felt lichen are known to exist only in Newfoundland and Nova Scotia, according to the IUCN; the Denali National Park discovery increased the documented world population by 10-fold, according to last year's research paper.

The botanists' Denali plant findings are also detailed in a study [8] published last year in Evansia.

Source URL: <http://www.adn.com/article/20140922/botanists-find-rare-moss-alaskas-wrangell-st-elias-national-park>

Links:

[1] <http://www.adn.com/authors/677736>

[2] <http://www.adn.com/image/wrangell-st-elias-moss>

[3] <http://www.bioone.org/doi/abs/10.1639/079.031.0304>

[4] <http://science.nature.nps.gov/im/units/cakn/vitalsign.cfm?vsid=37>

[5] http://blogs.ubc.ca/biology321/?page_id=516

[6] <http://www.iucnredlist.org/sotdfiles/erioderma-pedicellatum.pdf>

[7] <http://www.bioone.org/doi/abs/10.1639/0007-2745-116.1.002>

[8] <http://www.bioone.org/doi/abs/10.1639/079.030.0105?journalCode=evia>