

Examining *Eritrichium* sp. in Alaska

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Introduction

There are many different theories about how many species of *Eritrichium* there actually are in Alaska, and how they got there. There are currently three recognized species of *Eritrichium* in Alaska. *E. splendens*, *E. aretioides*, and *E. chamissonis*. *E. aretioides* and *E. chamissonis* are extremely similar. *E. splendens* is the physically larger in several ways. All three overlap geographically at some point there is considerably more work to be done to better differentiate the species.

Purpose

Our project focuses on trying to identify all the species of *Eritrichium* in the state of Alaska, for the Flora of North America project. This project is attempting to identify all the species of plants in North America. Our focus was on the TRNSG and RPS16 genes.

Methods

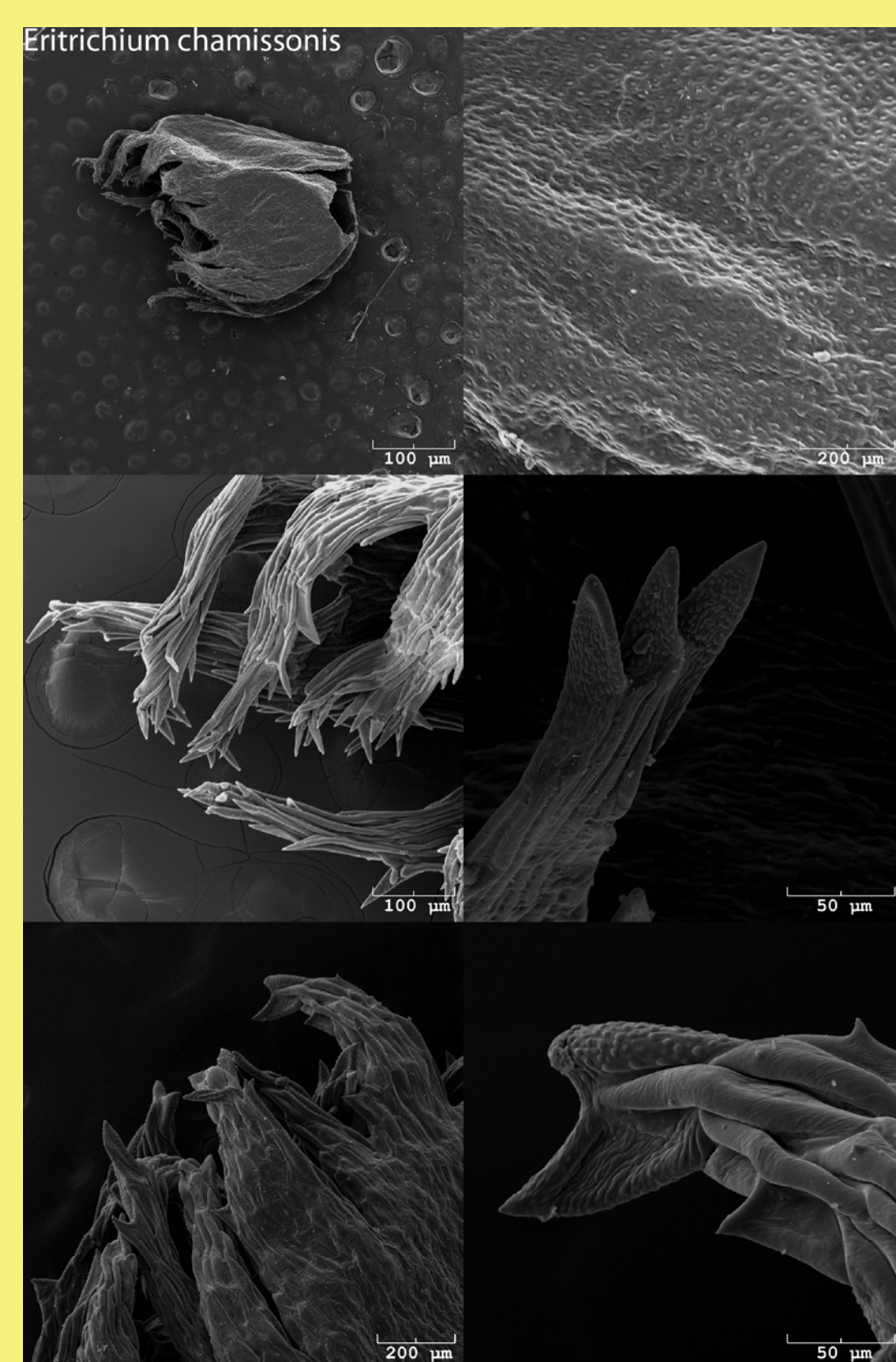
We used PCRs and ran our gels to collect data to compare the species, using red Taq, and Agarose gel. The end results will be transferred to a lab in Washington to be sequenced. The samples were acquired from the interior of the state, Kodiak, and the northern Yukon territories. In order to assign quantitative traits to the nutlet photos, we measured several physical characteristics. Teeth length in ratio to nutlet size ratio. Teeth number and lateral protrusion number; were among the traits scored.

Results

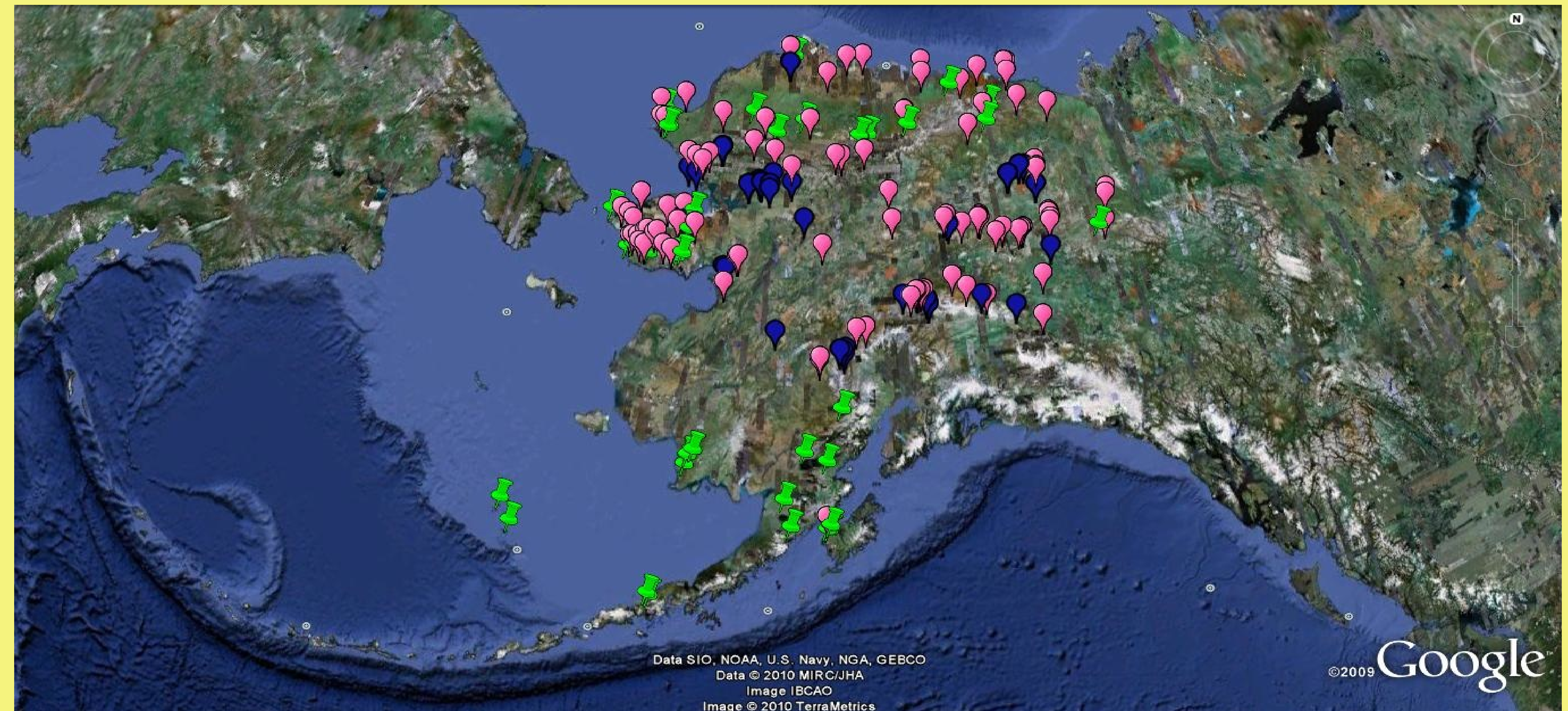
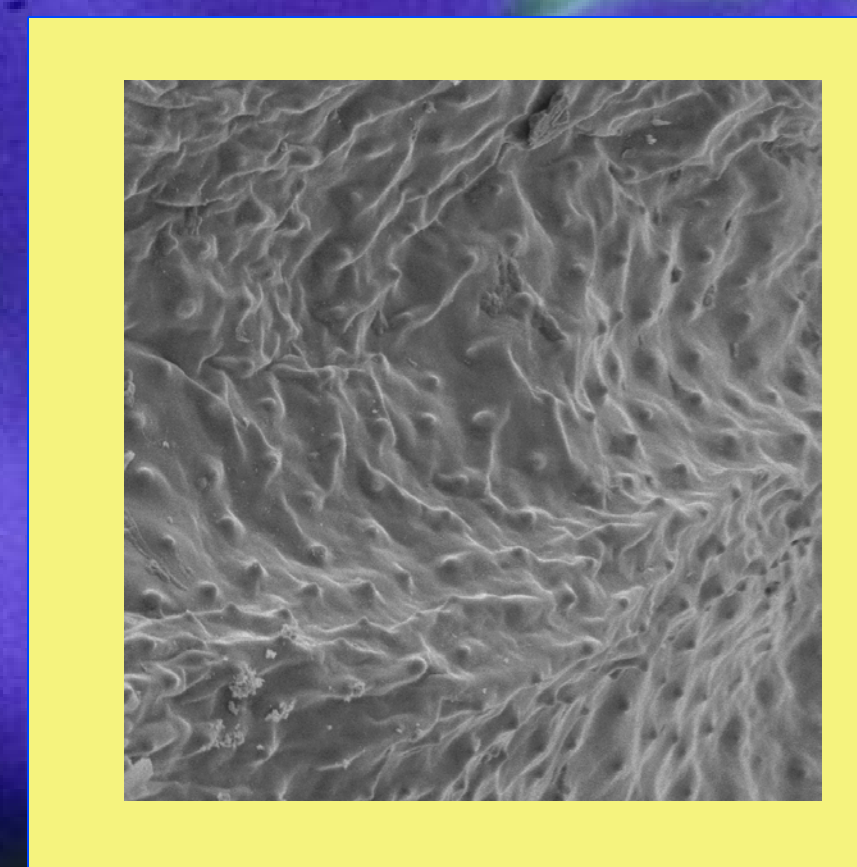
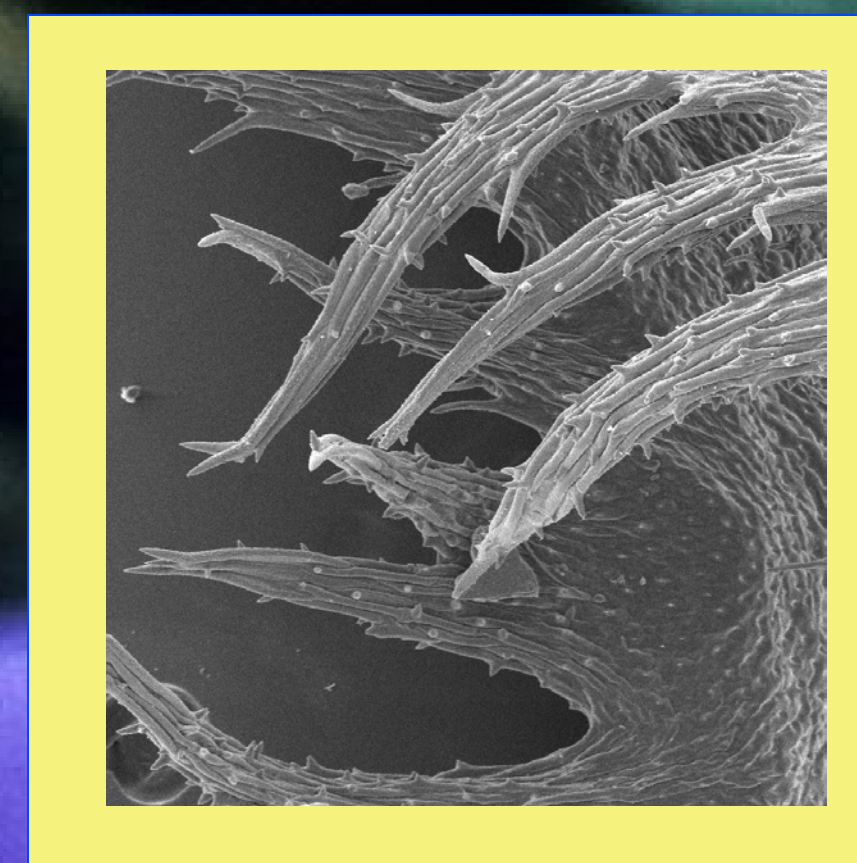
The data we collected is still not complete, there is still more to be done. Our project works with a much larger project for all of North America.



The "hair" of the plant



Photos taken by Monte Garrouette, background photo taken by Tom Schmitt



Distribution map of *Eritrichium* in Alaska
Eritrichium chamissonis in green *Eritrichium aretioides* in pink *Eritrichium splendens* in blue

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