

Research Day | March 15, 2017

Title: Continuing botanical discoveries in the BC alpine

Presenter: Ken Marr

Abstract:

Plants have achieved their current distributions through many episodes of range expansion and contraction during the Pleistocene. The distribution of plants in the BC alpine is poorly known, particularly in the north. To address this gap in knowledge, we have three research goals, none of which are being undertaken by any other group:

- 1) make comprehensive collections from remote mountains from which there are no previous collections;
- 2) use DNA markers to trace the migration into B.C. of selected alpine (collaboration with University of Victoria);
- 3) analyze our species lists to search for geographic patterns in the assemblages of alpine species, and areas of highest diversity (collaboration with the provincial Research Ecologist Min. of FLNRO).

The knowledge gained to date has appeared in several peer reviewed articles, InSight Articles, Pocket Gallery, 'mini-museums', new entrance to the Ice Age exhibit, presentations at academic conferences, newspaper articles, and public presentations in Vancouver, Smithers, Prince George, Revelstoke and Victoria. Our 2014 and 2015 collections from the Northern Rockies – within the Peace Region, documented new locations for 12 rare species. In 2016, funded in part by BC Parks, RBCM botanists and entomologists and staff from Min. of Environment and Min. of FLNRO collected in the alpine of Sustut Provincial Park, where no previous biological inventory had ever been undertaken. We also collected from four other mountains including one in the Peace Region. This year Parks Canada has invited RBCM staff to participate in a bioblitz at Kluane National Park in the Yukon. We will also make collections in the Atlin area, including Atlin Provincial Park. DNA analysis of four species, whose ranges include the Peace Region will be completed with funds from a private donor. During the next 5 years we will collect once more from the Northern Rockies, then emphasize southern BC.

