



Assessing the value of indigenous plant foods in Wyoming

By Jill F. Keith

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American Indians and Alaska Natives suffer disproportionately from diet-related chronic health conditions and it has been proposed that this is due to the change from traditional foods (including indigenous plants) to a “westernized” diet. Research has shown that the nutritional values of indigenous plants are superior to that of contemporary foods, and that indigenous people following a more traditional diet are healthier than those following a more contemporary diet. However, it is difficult to support the “food value” hypothesis without information about the nutritional quality of traditional foods.

The overarching purpose of this collaborative project is to evaluate indigenous plant foods in Wyoming for nutrient content, contribution to dietary patterns, and past/present use and value. Specifically, we plan to: 1) identify the complete nutrient profile of indigenous plant foods beginning with biscuitroot (*Lomatium cous*; right), sego lily bulbs (*Calochortus* spp.), yampah roots (*Perideridia gairdneri*), 2) compare the nutrient profile of indigenous plant foods to reference foods available in nutrient databases, and 3) gather information regarding past and present use of indigenous plant foods from tribal members of the Wind River Reservation.



We were very fortunate to be able to gather our first plant samples at the Rocky Mountain Herbarium! 100 mg samples of biscuitroot, sego lily, and yampah were sent to the USDA/ARS Human Nutrition Research Center in Grand Forks, ND, for pilot testing of methods. The tested micronutrients are stable for extended time. Nutrients analyzed included: Ca, Cu, Fe, K, Mg, Mn, P and Zn. Our next samples will be gathered this summer. Roots and bulbs will be freeze dried for expanded nutrient analysis. Vouchers will be collected and deposited at RM.

Long-term goals include expanded analysis, including medicinal plants.

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Ultimately, results will inform community projects and health promotion efforts on the Wind River Reservation.



Announcing RM Event:

Edible Plants of Wyoming



Where: Berry Biodiversity Conservation Center at @ 10th and Lewis Streets (U-WY)



When: April 27 @ 5:30 pm. Reception and Book-signing will follow the talk.



Botanist and author Brian Elliott will discuss the use of wild edible plants, some common mistakes made in using wild plants for food, and common wild edible plants of Wyoming. Elliott is author of “Handbook of Edible and Poisonous Plants of Western North America” and Vice-President of Elliott Environmental Consulting.



This event is sponsored by RM and the Biodiversity Institute (UW).



Left: Cassie Heikkila

(Editor’s note: We are pleased to introduce you to many people you might be able to meet in your next visit to RM, including student employees.)

RM Faces: Cassie Heikkila

Cassie Heikkila is a sophomore majoring in Criminal Justice, born and raised south of Jackson. Before accepting her work-study position at RM, she had never heard of a herbarium. Now she “thinks it’s the coolest job on campus and I’m grateful to have it.” She is Finnish and says “it is awesome to see plants from all over the world, including Finland...and close to home in Wyoming.”

She thoroughly enjoys working with the RM volunteers and the interaction they have teaching and helping each other. She plans on working her entire undergraduate years at the RM – *thank you, Cassie!*