



Brian J. Knaus

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Education:

Ph.D. 2009 (expected Sept. 2008): Botany & Plant Pathology, Oregon State University.

B.S. 1997: Ecology & Evolutionary Biology with an incorporated minor in Chemistry, Math and Physics, The University of Arizona.

Appointments:

Sept. 2006 – Sept. 2008	Graduate Teaching Assistant , Oregon State University.
June 2008 – present	Botanist , USDA Forest Service PNW, Forest Genetics Team.
Mar. 2007 – June 2008	Organizer and regular presenter , OSU R group. http://oregonstate.edu/~knausb/R_group/R_User.html
June 2007 - Sept. 2007	Botanist , USDA Forest Service PNW, Forest Genetics Team.
July 2006 - Sept. 2006	Botanist , USDA Forest Service PNW, Forest Genetics Team.
Sept. 2003 - Sept. 2006	Graduate Research Assistant , Oregon State University.
June 2003 - Sept. 2003	Ecologist , USDA Forest Service, Sierra Nevada Forest Plan Amendment.
Sept. 2002 - June 2003	Graduate Teaching Assistant , Oregon State University.
July 2000 - July 2001	Biological Sciences Technician , Death Valley National Park.
March 2000 - July 2000	Biological Sciences Technician , USDA Forest Service, Dorena Tree Improvement Center.
Jan. 2000 – Mar. 2000	Biological Sciences Technician , USDA Forest Service PSW Riverside Fire Lab.
May 1999 – Oct. 1999	Biological Sciences Technician , Sequoia and Kings Canyon National Parks.
May 1998 – Oct. 1998	Biological Sciences Technician , USGS Sequoia and Kings Canyon Field Station.
June 1996 - June 1998	Student Research Assistant , Laboratory of Tree-Ring Research, The University of Arizona.

Publications:

- Knaus, B.J.** 2008, in manuscript. A fistful of *Astragalus*: the morphometric architecture of an infraspecific group.
- Knaus, B.J.** In prep. Genomatic: an R package for the management of DNA fragment analysis project management. http://oregonstate.edu/~knausb/software/bjk_software.html.
- Haig, S.M., E. Beever, S.M. Chambers, H.M. Draheim, B.D. Dugger, S. Dunham, E. Elliott-Smith, J. Fontaine, D.C. Kesler, **B.J. Knaus**, I.F. Lopes, P. Loschl, T.D. Mullins, and L.M. Sheffield. 2006. Taxonomic considerations in listing subspecies under the U.S. Endangered Species Act. *Conservation Biology* 20(6): 1584-1594.
- Knaus, B.J.**, R.C. Cronn, and A. Liston. 2005. Genetic characterization of three varieties of *Astragalus lentiginosus* (Fabaceae). *Brittonia* 57(4): 334-344.
- Knaus, B.J.** 2005. Noteworthy collection: *Penstemon pahutensis*. *Madroño* 52(3): 207-208.

Presentations/Posters:

- Knaus, B.J.**, R.C. Cronn, and A. Liston. July 2008. A fistful of *Astragalus*: incipient speciation in the American West? Presentation at Botany 2008, Vancouver, B.C. Recipient of the Cooley Award (see awards).
- Knaus, B.J.** February 2008. A fistful of *Astragalus*: incipient speciation in the American West? Presentation at the O.S.U. Biology Graduate Student Symposium, Newport, OR.
- Knaus, B.J.** February 2008. What's in a name? The taxonomic history of *Astragalus lentiginosus*. Presentation at the Native Plant Society of Oregon, Corvallis chapter.
- Knaus, B.J.** December, 2007. Introduction to the R programming language. Presentation at the Portland Linux/Unix Group, Portland, OR.
- Knaus, B.J.**, R.C. Cronn, and A. Liston. June, 2007. The architecture of infraspecific differentiation: a case study in *Astragalus lentiginosus* (Fabaceae). Presentation at Botany 2007, Chicago, IL.
- Knaus, B.J.**, R.C. Cronn, and A. Liston. June, 2006. Incongruence between chloroplast and morphological data in the varietal complex *Astragalus lentiginosus*. Presentation at Evolution2006, SUNY Stonybrook, NY.
- Knaus, B.J.**, R.C. Cronn, and A. Liston. April, 2006. Relationships in the most variable species of *Astragalus* inferred from chloroplast microsatellites. Presentation at EVO-WIBO (evolutionary biologists of Washington, Idaho, British Columbia, and Oregon). Port Townsend, WA.
- Knaus, B.J.** 2006. Divergence within the most variable species of *Astragalus*. Presentation at the O.S.U. Biology Graduate Student Symposium, Newport, OR.
- Knaus, B. J.**, R. C. Cronn, and A. Liston. 2006. Genetic characterization of three varieties of *Astragalus lentiginosus* (Leguminosae). Poster at Botany2006. Austin, TX.

- Knaus, B. J.** May, 2004. A freckled fracas: evolution in the varietal complex *Astragalus lentiginosus*. Thesis proposal seminar to the Department of Botany and Plant Pathology, Oregon State University.
- Knaus, B. J.** January 12, 2004. Rare *Astragalus* of Oregon. Presentation to the Corvallis chapter of the Native Plant Society of Oregon on the 24 rare *Astragali* of Oregon presented in Barneby's system of Phalanxes.
- Knaus, B. J.** November 12, 1999. Mountain Research Center MRC 500 Seminar Speaker. Presentation on the practical aspects of fire scar collection for dendrochronological analysis. Montana State University.

Awards/Funding:

2008

George R. Cooley Award for best contributed paper in plant systematics by a young botanist. Botany 2008, Vancouver, B.C. ASPT [announcement](#).

2007

Bonnie C. Templeton Award for Plant Systematics. 2007. An endowment to support research in plant systematics. \$1,500.

2006

Anita Summers Travel Grant. 2006. An award to help facilitate travel of graduate students to academic meetings. \$300.

2004

The Hardman Foundation, Inc. 2004. Support for graduate student research concerning the native plants of Oregon. \$1,500.

Native Plant Society of Oregon Field Research Grant. 2004. Award to finance the field study of varieties of *Astragalus lentiginosus* Douglas ex Hook. native to Oregon. \$750.

Nevada Native Plant Society. 2004. Grant for the field study of varieties of *Astragalus lentiginosus* Douglas ex Hook. native to Nevada. \$500.

Teaching Experience:

Introductory Biology for Majors (OSU BI21X): Lead laboratories of ~48 students in organismal diversity, organ systems, plant and animal physiology, genetics, evolution and ecology. Fall 2002, Winter 2003, Fall 2006, Winter 2007, Spring 2007, Fall 2007, Winter 2008

Plant Systematics (OSU BOT321): Lead laboratories in vascular plant identification, diversity, and evolutionary relationships. Spring term 2003.

Botany for Non-Majors (OSU BOT101): Lead laboratories of ~24 students in the relevance of botany to everyday life. Spring term 2008.

Synergistic Activities:

My synergistic philosophy has led to attempts to incorporate broad fields within the sciences together in an integrated manner to address questions of interest to science, conservation, and management. Experiences as an undergraduate in The University of Arizona's Laboratory of Tree-Ring Research sparked an interest in biotic response to climate change while my studies exposed me to the field of phylogenetics. Recognizing that climate may not only

play an important role in plant distribution but may apply selective pressures leading to the diversification and eventual divergence of lineages, I chose a taxon for my graduate studies that I perceived to encompass these processes. Further investigations as a graduate have led me towards the tips of the branches of the phylogenetic tree where I have begun to explore population biology and evolutionary theory. These interests have led to the publication of scientific papers as well as an exchange with the broader public through presentations at Native Plant Societies and Natural Heritage Programs. My current research includes work that has been funded by Native Plant Societies and will result in future presentations, continuing the flow of information from the scientific world to the greater community.

Collaborators and Other Affiliations:

Graduate and Postgraduate Advisors:

A. Liston. Botany and Plant Pathology, Oregon State University (Ph.D. co-advisor).

R.C. Cronn. USDA Forest Service Pacific Northwest Research Station (Ph.D. co-advisor).

M.B. Cruzan. Biology, Portland State University (Ph.D. committee member).

T.N. Kaye. Institute for Applied Ecology, Corvallis, OR (Ph.D. committee member).

S.H. Sharrow. Rangeland Ecology and Management, Oregon State University (Ph.D. committee member).

Collaborators:

A. Liston, Department of Botany and Plant Pathology, Oregon State University.

R.C. Cronn, USDA Forest Service Pacific Northwest Research Station.

P. Dolan. Department of Zoology, Oregon State University.

Professional/Societal membership:

American Society of Plant Taxonomists

Native Plant Society of Oregon