

Eric G. DeChaine, PhD

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Education

NSF Postdoctoral Fellow, Harvard University, 2004-2006
Ph. D. Ecology and Evolutionary Biology, University of Colorado, Boulder, 2003
M. S. Zoology, University of Hawaii, Manoa, 1995
B. S. Biology, University California, San Diego, 1991

Professional Experience

Assistant Professor of Biology, Western Washington University	2006 - present
Herbarium Curator, Western Washington University	2006 - present
Teaching Assistant, University of Colorado	1999 - 2003
Research Assistant, University of Colorado	2000 - 2001
Instructor, Mendocino College	1996 - 1999
Instructor, Wenatchee Valley College	1996 - 1998
Wildlife Biologist, Great Plains Wildlife Institute, Jackson, WY	1995 - 1996
Teaching Assistant, University of Hawaii	1992 - 1995

Research Funding

National Science Foundation (ARC-0714232)	\$418,943	2007 - 2012
WWU Project Development Award	\$37,352	2006 - 2007
WWU Summer Research Grant		2006
NSF Postdoctoral Fellowship (DBI-0400591)	\$100,000	2004
Rozella Smith Fellowship		2003
University of Colorado, Grad Student Research Grant		2003
NSF Doctoral Dissertation Improvement Grant		2002
University of Colorado, Grad Research Fellowship		2002
University of Colorado, Grad Student Research Grant		2002
Beverly Sears Graduate Student Grant		2002
John W. Marr Ecology Fund		2002
Indian Peaks Wilderness Association Scholarship		2002
Hazel Schmoll Research Fellowship		2002
Undergraduate Research Apprentice Program Grant		2002
Canon-National Parks Scholarship		2001
Edna Bailey Sussman Fellowship		2001
University of Colorado, Grad Student Research Grant		2001
The Colorado Mountain Club Academic Fellowship		2001
Indian Peaks Wilderness Association Scholarship		2001
John W. Marr Ecology Fund		2001
Beverly Sears Graduate Student Grant		2000
University of Colorado Museum - Walker Van Riper Grant		2000
University of Colorado, EPOB Graduate Student Research Grant		2000

Research Funding in Support of Students at WWU

Western Washington University Women in Science Scholarship - Jenna McAleer	2008 - 2009
Research and Creative Opportunities Grants for Undergraduate Students - Christy Miller	2008 - 2009
WWU Foundation's Mentoring Undergraduates Grant - William Crowley, Jenna McAleer, and Jon Nichols	2007 - 2008
- M. Rick Raney	2006 - 2007
Washington NASA Space Grant Consortium Summer Research Award for Future Science Teachers - Andrew Nelsen	2007 & 2008

Peer-Reviewed Publications (Undergraduate Student)

- Ickert-Bond, SM, EG DeChaine, and DF Murray. Contrasting patterns of plant distribution in Beringia. Submitted.
- DeChaine, EG. 2008. A Bridge or a Barrier? Beringia's Influence on the Distribution and Diversity of Tundra Plants. *Plant Ecology and Diversity* 1: 197-207.
- Harmer, TL, RJ Rotjan, AD Nussbaumer, M Bright, AW Ng, EG DeChaine, and CM Cavanaugh. 2008. Free-living tubeworm endosymbionts found at deep-sea vents. *Applied and Environmental Microbiology* 74: 3895-3898.
- DeChaine, EG and AP Martin. 2006. Using coalescent simulations to test the impact of Quaternary climate cycles on divergence in an alpine plant-insect association. *Evolution*, 60: 1004-1013.
- DeChaine, EG, AE Bates, TM Shank, and CM Cavanaugh. 2006. Off-axis symbiosis found: characterization and biogeography of bacterial symbionts of *Bathymodiolus* mussels from Lost City hydrothermal vents. *Environmental Microbiology* 8: 1902-1912.
- Duperron, S, C Bergin, F Zielinski, A Blazejak, A Pernthaler, ZP Mckiness, E DeChaine, and C Cavanaugh. 2006. A dual symbiosis shared by two mussel species, *Bathymodiolus azoricus* and *Bathymodiolus puteoserpentis* (Bivaliva: Mytilidae), from hydrothermal vents along the northern Mid-Atlantic Ridge. *Environmental Microbiology* 8: 1441-1447.
- DeChaine, EG and AP Martin. 2005. Historical biogeography of two alpine butterflies in the Rocky Mountains: Broad-scale concordance and local-scale discordance. *Journal of Biogeography* 32: 1943-1956.
- DeChaine, EG and AP Martin. 2005. Marked genetic divergence among sky island populations of *Sedum lanceolatum* (Crassulaceae) in the Rocky Mountains. *American Journal of Botany* 92: 477-486.
- DeChaine, EG and CM Cavanaugh. 2005. Symbioses of methanotrophs and deep-sea mussels (Mytilidae: Bathymodiolinae). *Progress in Molecular and Subcellular Biology* 227-249.
- DeChaine, EG and AP Martin. 2004. Historic cycles of fragmentation and expansion in *Parnassius smintheus* (Papilionidae) inferred using mitochondrial DNA. *Evolution* 58: 113-127.

Invited Presentations

- DeChaine, EG. 2008. The impact of Quaternary climate change on genetic divergence in tundra flora. Australian Centre for Ancient DNA, University of Adelaide, Adelaide, Australia.
- DeChaine, EG. 2008. The sands of time: Exploring the arctic flora in a changing climate.

- Washington Native Plant Society, Salal Chapter.
- Ickert-Bond, SM, EG DeChaine, and DF Murray. 2008. Dispersal of Asian plants to North America via Beringia: Relict or Recent Mosaic? Alaska Park Science Symposium in conjunction with Beringia Days 2008 International Conference, Fairbanks, AK.
- DeChaine, EG. 2007. Unearthing the evolutionary history of tundra flora through comparative coalescent analyses. Symposium on the History, Evolution, and Future of Arctic and Alpine Flora. Botanical Society of Scotland. St. Andrews, Scotland.
- DeChaine, EG. 2007. A comparative coalescent approach for investigating the evolutionary history of tundra ecosystems. Dept. of Biology, Humboldt State University.
- DeChaine, EG. 2007. Refuge amongst glaciers: The impact of the Ice Ages on divergence of tundra flora. Dept. of Geology, Western Washington University.
- DeChaine, EG. 2006. Ice ages and arctic-alpine flora in northwest North America. The Washington Native Plant Society, Komo Kulshan Chapter
- DeChaine, EG. 2006. Evolution of alpine flora: The impacts of glacial cycles and ecological interactions on plant divergence.
- DeChaine, EG. 2005. Biogeography of chemosynthetic symbiotic bacteria at deep-sea hydrothermal vents. 105th General Meeting of the American Society for Microbiology.
- DeChaine, EG. 2005. Symbioses at deep-sea hydrothermal vents. Mendocino College.
- DeChaine, EG. 2004. From the Rockies to deep-sea hydrothermal vents, how do archipelagos influence gene flow? Mesa State College.
- DeChaine, EG. 2003. Food, flight, or frost: What governs population structure in the alpine herbivore, *Parnassius smintheus*?
Josephine Bay Paul Center, Marine Biological Lab, Woods Hole.
Dept. EEB, University of Colorado, Boulder
- DeChaine, EG. 2001. Historic effects of habitat change on alpine plant-insect interactions. Mesa State College.

Presented Papers (Undergraduate Student)

- Nelsen, A and E DeChaine. 2008. Alpine flora survey of the Mount Baker, Washington Area, additional findings. Sigma Xi, Western Washington University.
- Nichols, J, A Bunn, and E DeChaine. 2008. Modeling the effects of climate change on the distribution of the alpine wildflower, *Senecio elmeri* (Asteraceae). Sigma Xi, Western Washington University.
- Young, CR, EG DeChaine, and CM Cavanaugh. 2008. Hierarchical population structure of *Bathymodiolus* mussel symbionts from hydrothermal vents in two ocean basins. General Meeting of the American Society for Microbiology.
- Nelsen, A and E DeChaine. 2007. Alpine flora survey of the Mount Baker, Washington Area. Sigma Xi, Western Washington University.
- DeChaine, EG and AP Martin. 2005. Consequences of paleoclimatic cycles on an alpine plant-insect association. Society for the Study of Evolution
- DeChaine, EG, TS Shank, and CM Cavanaugh. 2005. Divergence in the deep: Inferring dispersal barriers for bacterial symbionts of deep-sea mussels (genus *Bathymodiolus*). 3rd International Symposium on Hydrothermal Vent and Seep Biology
- McCuddin, ZP, EG DeChaine, and CM Cavanaugh. 2005. The Role of Host and Habitat in the Evolutionary History of Chemoautotrophic Symbionts. American Society for Microbiology

- DeChaine, EG, AE Bates, TM Shank, and CM Cavanaugh. 2004. Off-axis symbiosis found: Endosymbionts of Bathymodiolus from the Lost City hydrothermal vent field. International Society for Microbial Ecology, Annual Meeting. RIDGE2000 Mid-Atlantic Ridge Workshop
- DeChaine, EG, TM Shank, and CM Cavanaugh. 2004. Biogeography of symbiotic bacteria from deep-sea hydrothermal vents. Society for the Study of Evolution
- DeChaine, EG and AP Martin. 2003. Cycles of population fragmentation and expansion from multiple interglacial refugia inferred for the Rocky Mountain butterfly, *Parnassius smintheus* (Papilionidae). Society for the Study of Evolution
- DeChaine, EG and AM Martin. 2002. Pleistocene Impacts on Genetic Diversity in the Alpine Butterfly, *Parnassius phoebus*. Rocky Mountain National Park Research Conference
- DeChaine, EG 2000. Local adaptation in an alpine plant-herbivore interaction. Dept. EPOB Graduate Symposium, University of Colorado

Teaching Honors

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| Excellence in Teaching Award, University of Colorado | 2003 |
| ASB Awarded Teacher of the Month, Wenatchee Valley College | 1996 |

Courses Taught (* courses created by E. DeChaine)

Anatomy & Physiology I	Evolution	Mycology*
Anatomy & Physiology II	Evolutionary Biology	Paleontology
Animal Biology	General Biology Lab I	Physical Chemistry
Animal Ecology	General Biology Lab II	Plant Biology
Astronomy	Genetics	Plant Systematics
Cell Biology	Geology	Quaternary Biogeography*
Ecology	Hawaiian Reef Ecology	Systematic Botany
Ecology Lab	Insect Biology	Watershed Ecology
Ecology of Migratory Birds	Insect Classification	Wildlife Management
Elementary Plant Classification	Introduction to Biology	Zoology
Environmental Biology	Meteorology	

Graduate Students - Total advised to date: 2 students

- Barry Wendling, expected graduation Winter 2009
- Chandra Llewellyn, expected graduation Spring 2010

Undergraduate Research Students - Total mentored to date: 9 students

- Current undergraduate research students: (3)
Patrick Flynn, Jenna McAleer, Christy Miller
- Previous undergraduate research students at WWU: (3)
William Crowley (2007-2008), Jon Nichols (2007-2008), Mathew Rick Raney (2006-2007)
- Previous undergraduate research students at other universities: (3)
Charles Kieswetter, Eric Lewallen, Andy Ng

Professional Service

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| Greenhouse Committee, WWU | 2006 - present |
| Ecological Genetics Search Committee, WWU | 2007-2008 |

Guest lecturer, Bellingham High School Science Class	2007
Seminars and Group Gatherings Committee, WWU	2006-2007
Faculty Fellow, Center for Service Learning, WWU	2006-2007
Undergraduate and graduate student mentor, Harvard University	2004 - 2006
Graduate Student Mentor, University of Colorado	2002
Outward Bound Pinnacle Scholarship Advisor, WVCN	1997-1998
Student Learning Outcome Assessment Committee, WVCN	1997-1998
Scientific Advisor, Forests of Okanogan County Balanced Resource Symposium	1997