

Jennifer L. Williams

Department of Geography, University of British Columbia

217-1984 West Mall, Vancouver, BC V6T 1Z2 Canada

E-mail: jennifer.williams@geog.ubc.ca; Office: +1 (604) 827-1592

Website: <http://williamslabubc.weebly.com/>

EDUCATION

Ph.D. in Organismal Biology and Ecology, May 2008, *University of Montana*

B.A. in Integrative Biology, *Highest Honors*, May 2000, *University of California, Berkeley*

RESEARCH APPOINTMENTS

Assistant Professor (January 2013-present)

University of British Columbia, Department of Geography and Biodiversity Research Centre

Postdoctoral Associate (October 2011-November 2012)

Swiss Federal Institute of Technology (ETH Zurich), Institute of Integrative Biology

Research: Influence of landscape heterogeneity on the ecological and evolutionary dynamics of spreading populations (Advisor: Jonathan Levine)

Postdoctoral Fellow (December 2008-October 2011)

National Center for Ecological Analysis and Synthesis, Santa Barbara, CA

Research: Life history evolution of reproductive strategies and transient population dynamics

Short-term Postdoctoral Associate (May 2008-October 2008)

University of Montana, Missoula, MT, Dept. of Ecosystem and Conservation Sciences

Research: Population dynamics of perennial plants (Advisor: Elizabeth Crone)

Graduate Research (August 2002-May 2008)

University of Montana, Missoula, MT, Division of Biological Sciences

*Dissertation: An experimental demographic approach to exotic plant success: *Cynoglossum officinale* in its native and introduced ranges (Advisor: John Maron)*

Undergraduate Research (January 1999-May 2000)

Integrative Biology, University of California, Berkeley, Berkeley, CA

Honors thesis: Influence of growing season length on size structure of scarlet monkeyflower (Advisors: Mary Power, Jonathan Levine, Wayne Sousa and Carla D'Antonio)

National Science Foundation (NSF) Research Experience for Undergraduates (Summer 1998)

Kellogg Biological Station, Michigan State University, Kalamazoo, MI (Advisor: Jeffrey Conner)

GRANTS AND FELLOWSHIPS

Canadian Foundation of Innovation (CFI) Leadership Opportunity Fund, "Laboratory for Population Dynamics in Changing Environments," 2014 – 2017 (\$124,261)

British Columbia Knowledge Development Fund (BCKDF), "Laboratory for Population Dynamics in Changing Environments," 2014 – 2016 (\$124,261)

National Sciences and Engineering Research Council (NSERC) Discovery Grant, "The influence of environmental change and evolution on population dynamics," 2013 – 2018 (\$135,000)

Swiss National Science Foundation, "Patchy landscapes and the spatial advance of populations," co-authored with Jonathan Levine, though only he has official PI status (\$600,000)
Postdoctoral Fellowship, *National Center for Ecological Analysis and Synthesis*, 2008 -2011 (\$150,000)
NSF Doctoral Dissertation Improvement Grant, 2005-2007 (\$12,000)
Bertha Morton Fellowship, *University of Montana*, 2006-2007 (\$3000)
Grant-in-Aid of Research, *Sigma Xi*, 2007 (\$400)
Graduate Council Research Award, *University of Montana*, 2007 (\$500)
Graduate Travel Award, *University of Montana*, 2007 (\$200)
NSF Graduate Research Fellowship, 2001-2006 (\$110,500)
Besancon Fellowship, *University of Montana*, 2002-2003 (\$14,000)
Graduate Travel Grant, *Invasive Plants in Natural and Managed Systems Conference*, 2003 (\$500)
Gompertz Fellowship, *UC Berkeley, Department of Integrative Biology*, 2000 (\$3500)
California Alumni Leadership Scholarship, *UC Berkeley*, 1996-2000 (\$10,000)
Howard Hughes Biology Fellows Grant, *UC Berkeley*, 1999 (\$3500)
NSF REU Fellowship, *Kellogg Biological Station, Michigan State University*, 1998 (\$3500)

PUBLICATIONS

Journal Articles

- Williams, J. L.**, R. E. Snyder, and J. M. Levine. 2016. The influence of evolution on population spread through patchy landscapes. *American Naturalist* 188: 15-26.
- Williams, J. L.**, H. Jacquemyn, B. Ochocki, R. Brys and T. E. X. Miller. 2015. Life history evolution under climate change and its influence on the population dynamics of a long-lived plant. *Journal of Ecology*, Invited Special Feature, 103: 798-808.
- Williams, J. L.** and L. Fishman. 2014. Genetic evidence for founder effects in the introduced range of houndstongue (*Cynoglossum officinale*). *Biological Invasions* 16: 205 - 216.
- Crone, E. E., M. M. Ellis, W. F. Morris, A. Stanley, T. Bell, P. Bierzychudek, J. Ehrlén, T. N. Kaye, T. M. Knight, P. Lesica, G. Oostermeijer, P. F. Quintana-Ascencio, T. Ticktin, T. Valverde, **J. L. Williams**, D. F. Doak, R. Ganesan, K. McEachern, A. S. Thorpe, E. S. Menges. 2013. Ability of matrix models to explain the past and predict the future of plant populations. *Conservation Biology*, in press.
- Williams, J. L.**, T. E. X. Miller and S. P. Ellner. 2012. Avoiding unintentional eviction from integral projection models. *Ecology* 93: 2008-2014.
- Miller, T. E. X., **J. L. Williams**, E. Jongejans, R. Brys and H. Jacquemyn. 2012. Evolutionary demography of iteroparous plants: incorporating non-lethal costs of reproduction into integral projection models. *Proceedings of the Royal Society B* 279: 2831-2840.
- Ellis, M. M., **J. L. Williams**, P. Lesica, T. Bell, P. Bierzychudek, M. Bowles, E. E. Crone, D. F. Doak, J. Ehrlén, A. Ellis-Adam, K. McEachern, R. Ganesan, P. Latham, S. Luijten, T. N. Kaye, T. M. Knight, E. S. Menges, W. F. Morris, H. den Nijs, G. Oostermeijer, P. F. Quintana-Ascencio, J. S. Shelly, A. Stanley, A. Thorpe, T. Ticktin, T. Valverde, and C. W. Weekley. 2012. Matrix population models from 20 studies of perennial plant populations. *Ecology* 93: 951.
- Williams, J. L.**, M. M. Ellis, M. C. Bricker, J. F. Brodie, and E. W. Parsons. 2011. Distance to stable stage distribution in plant populations and implications for near-term population

- projections. *Journal of Ecology* 99: 1171-1178. [awarded Plant Population Ecology Postdoctoral Excellence Award]
- Crone, E. E., E. S. Menges, M. M. Ellis, T. Bell, P. Bierzychudek, J. Ehrlén, T. N. Kaye, T. M. Knight, P. Lesica, W. F. Morris, G. Oostermeijer, P. F. Quintana-Ascencio, A. Stanley, T. Ticktin, T. Valverde, and **J. L. Williams**. 2011. How do plant ecologists use matrix population models? *Ecology Letters* 14: 1-8.
- Williams, J. L.**, H. Auge, and J. L. Maron. 2010. Impacts of herbivore escape and disturbance on exotic plant success: a biogeographical test. *Ecology* 91: 1355-1366.
- Maron, J. L., C. Horvitz, and **J. L. Williams**. 2010. Using experiments, demography and population models to estimate interaction strength based on transient and asymptotic dynamics. *Journal of Ecology* 298: 290-301.
- Williams, J. L.** 2009. Flowering life history strategies differ between the native and introduced ranges of a monocarpic perennial. *American Naturalist* 174: 660-672. [Selected for monthly highlighted article on journal's website]
- Williams, J. L.**, H. Auge and J. L. Maron. 2008. Different gardens, different results: native and introduced populations exhibit contrasting phenotypes across common gardens. *Oecologia* 157: 239-248.
- Williams, J. L.** and E. E. Crone. 2006. Impacts of invasive grasses on the population growth of *Anemone patens*, a long-lived forb. *Ecology* 87: 3200-3208.
- Williams, J. L.** and J. M. Levine. 2004. Small-scale variation in growing season length affects size structure of scarlet monkeyflower. *Oikos* 106: 131-137.
- Williams, J. L.** 2002. The effects of a tropical freshwater shrimp on leaf litter decomposition. *Biotropica* 34: 616-619.
- Williams, J. L.** and J. K. Conner. 2001. Sources of phenotypic variation in floral traits in wild radish, *Raphanus raphanistrum* (Brassicaceae). *American Journal of Botany* 88: 1577-1581.

AWARDS

- Plant Population Ecology Postdoctoral Excellence Award, 2012, awarded by the Plant Population Ecology Section of the Ecological Society of America and the *Journal of Ecology*
- Murray F. Buell Award Honorable Mention and Rangeland Ecology Section best student oral presentation, *Ecological Society of America Annual meeting*, 2006
- University Medal Certificate of Distinction, *UC Berkeley*, awarded to the top five graduates for academics, research, and community service, 2000
- Joseph LeConte Award, *UC Berkeley*, for most outstanding Integrative Biology graduate, 2000

CONFERENCE AND INVITED PRESENTATIONS

- Meeting of the Society for Evolutionary Demography: 2013 (Odense, Denmark), 2015 (Lunteren, Netherlands)
- Annual Meeting of the Canadian Society for Ecology and Evolution, Kelowna, BC, 2013.
- Annual Meeting of the Ecological Society of America, oral presentations: 2000, 2006, 2007 (*invited symposium presentation*), 2009, 2010, 2012, 2014; poster presentation: 2011
- Plant Population Biology Conference (Ecological Society of Germany, Austria and Switzerland), Zurich, 2012, [award for best postdoc poster presentation]

Biodiversity Research Seminar Series, *University of British Columbia*, 2014
Department of Geography, *University of British Columbia*, 2012, 2014
Institute for Integrative Biology, *ETH Zurich*, 2011
Department of Botany & Plant Pathology, *Oregon State University*, 2011
Center for Population Biology, *University of California, Davis*, 2011
Departments of Zoology and Botany, *University of British Columbia*, 2011
Department of Ecology & Evolutionary Biology, *University of Tennessee*, 2010
Department of Ecology & Evolutionary Biology, *Rice University*, 2010
Tyson Research Center, *Washington University*, 2010
Department of Ecology, *Montana State University*, 2010
Ecolunch, *National Center for Ecological Analysis and Synthesis*, 2009
Organismal Biology and Ecology Departmental Seminar, *University of Montana*, 2003-2008
Helmholtz Center for Environmental Research, Germany, 2007
Montana Weed Control Association Annual Convention, 2005

TEACHING EXPERIENCE AND TRAINING

Professor (2013 – present)

Department of Geography, University of British Columbia, Vancouver, BC

Courses taught: Geog 310: Environment & Sustainability (Spring 2013, 2014, 2016), Geob 207: Introduction to Biogeography (Fall 2014, 2015, 2016), Geob 407: Advanced Vegetation Dynamics: Disturbance, Climate and Human impacts (Spring 2014, 2016)

Instructor, Short course on structured population modeling (October 2010)

National Center for Ecological Analysis and Synthesis, Santa Barbara, CA

Instructor, Short course on population modeling using integral projection models (July 2010)

Washington University, St. Louis, MO

Fellow, National Science Foundation (NSF) Faculty Institutes for Reforming Science Teaching (FIRST) IV (2009-2010), professional development program for improving teaching and learning in undergraduate biology courses

Lecturer & Co-Instructor, Introductory Ecology (Fall 2009)

University of California, Santa Barbara, Santa Barbara, CA (Mentor: Jonathan Levine)

Instructor, Listening to Ecology (for beginning graduate students) (2007-2008)

University of Montana, Missoula, MT

Teaching Assistant (2004 – 2008)

University of Montana, Missoula, MT

Courses taught: Botany (Spring 2007, 2008), Ecology (writing course) (Fall 2006, 2007), Genetics & Evolution (Spring 2005), Rocky Mountain Flora (Fall 2004)

AmeriCorps VISTA volunteer, Washington Reading Corps (2001-2002)

Bailey Gatzert Elementary School, Seattle, WA

Naturalist, Keewaydin Environmental Education Center, *Salisbury, VT* (2000-2001)

PROFESSIONAL ACTIVITIES AND SERVICE

Reviewer: *American Naturalist*, *Biological Conservation*, *Biological Invasions*, *BMC Ecology*, *Copeia*, *Diversity and Distributions*, *Ecography*, *Ecology*, *Elementa: Science of the Anthropocene*, *Forest*

Ecology and Management, Functional Ecology, Journal of Applied Ecology, Journal of Biogeography, Journal of Ecology, Journal of the Torrey Botanical Society, Methods in Ecology and Evolution, Nature Education Knowledge Project, New Phytologist, NSERC Discovery Grant, NSF DEB Population Biology, Oecologia, Oikos, Perspectives in Plant Ecology, Evolution and Systematics, Proceedings of the National Academy of Sciences, Proceedings of the Royal Society B

Department of Geography Graduate Committee, September 2013 - present

Research presentation at meeting of Nature Vancouver (Botany Section), March 2014

NCEAS working group, *invited participant*, "When are matrix models useful for management? An empirical test across plant populations", 2009-2011

Kids Do Ecology, taught ecology to 5th graders, Santa Barbara, CA, 2009, 2011

Co-organizer, Open House seminar series, NCEAS, 2009-2010

NSF ADVANCE Workshop, *invited participant*, Rice University, 2009

Judge, Buell Award, ESA meeting, Albuquerque, NM, 2009

Graduate student representative to the faculty, Organismal Biology and Ecology (OBE), University of Montana, 2006-2007

Adult Supervisor, Annual Mt. Sentinel Weed Pull, Missoula, MT, 2007

President, OBE Graduate Student Organization, University of Montana, 2005-2006

Co-organizer, OBE Seminar Series, University of Montana, 2003-2004

Tutor, Paxson Elementary School, Missoula, MT, 2003

Tutor, High School Biology and 5th Grade, Berkeley Public Schools, CA, 1998-2000