

CURRICULUM VITAE

Merrill A. Peterson

EDUCATION

- 1994 Ph.D. in Ecology and Evolutionary Biology, Cornell University.
1987 B.S. in Zoology, University of Washington.

PROFESSIONAL APPOINTMENTS

- 2007- Professor, Biology Department, Western Washington University
2004- Adjunct Associate Professor, Entomology Department, Washington State Univ.
2003-4 Humboldt Fellow, Zool. Institut und Museum, Universität Hamburg, Germany
2001-2007 Associate Professor, Biology Department, Western Washington University
1997-2001 Assistant Professor, Biology Department, Western Washington University
1994-1997 Postdoctoral Research Associate, Department of Entomology, Univ. of Maryland, College Park
1990-1993 Graduate Teaching Assistant, Section of Ecology & Systematics, Cornell Univ.
1987-1990 National Science Foundation Graduate Fellow, Cornell University

AWARDS & HONORS

- 2003 Research Fellowship, Alexander von Humboldt Foundation, Germany
2003 Named as Beckman Scholars Mentor in Beckman Foundation Award to WWU
1993 Outstanding Teaching Assistant, College of Agric. & Life Sci., Cornell Univ.
1987 National Science Foundation Graduate Fellowship
1987 Cornell University Sage Supplemental Fellowship

TEACHING (1997 – present)

- Biol. 101 Introduction to Biology
Biol. 202 General Biology II, with lab
Biol. 325 Ecology

Biol. 326	Ecology lab
Biol. 432	Evolution
Biol. 434	Population Biology, with lab
Biol. 445/545	Aquatic Insect Ecology Seminar
Biol. 445/545	Population Genetics
Biol. 445/545	Species & Speciation Seminar
Biol. 445/545	Plant-Insect Interactions Seminar
Biol. 462	Entomology, with lab
Biol. 503	Metapopulation Biology Seminar
Biol. 503	Evolutionary Ecology Seminar
Biol. 525	Research Mentorship
Biol. 598	Teaching Practicum

RESEARCH EXPERTISE: Insect Ecology and Evolutionary Biology

MENTORING

Research Advisor to 46 undergraduates, 3 M.S. students, and 1 postdoctoral research associate

Faculty Advisor for 3 Honors Theses

Minor committee member for 16 M.S. students

GRANTS

- 2006 Summer Research Grant, Bureau for Faculty Research, WWU, A field guide to Pacific Northwest Insects.
- 2005 NSF-REU Supplement to DEB-0212652: for two students.
- 2004 NSF-REU Supplement to DEB-0212652: for two students.
NSF-INT Supplement to DEB-0212652 for sabbatical research in Germany.
- 2003 NSF-REU Supplement to DEB-0212652: for two students.
- 2002 NSF Grant, DEB-0212652, RUI: Gene flow, selection, and the evolution of premating barriers.

- NSF Grant, DBI-0216618, MRI/RUI: Instrumentation for sequencing and genomic analysis.
- US Fish & Wildlife Service, via subcontract from Coastal Resource Alliance, Genetic variation in released populations of *Prokelisia marginata*.
- 2001 Bureau of Faculty Research, WWU, PDA-31: The evolution of reproductive barriers between hybridizing beetles: development of an NSF proposal to test speciation theory.
- 2000 Bureau of Faculty Research, WWU, PDA-27: Understanding the evolutionary significance of hybridization.
- 1994 Maryland Agric. Exp. Sta. Competitive Grants Program, ENTO-95-10: The influence of habitat fragmentation on the genetic diversity of Chesapeake Bay marsh insects: implications for the design of habitat preserves (M.A. Peterson & R.F. Denno).
- 1991 NSF Doctoral Dissertation Improvement Grant, BSR-9100860: Dispersal in metapopulations of butterflies: implications for the dynamics and genetic structure of local populations (R.B. Root & M.A. Peterson).

PEER-REVIEWED PUBLICATIONS (*undergraduate coauthors; **grad student coauthors)

- Denno, R.F., Peterson, M.A., M.R. Weaver, and D.J. Hawthorne. In press. Life history evolution in native and introduced populations. Pp. XXX-XXX in (K.J. Tilmon, ed.) **Evolutionary biology of plant and insect relationships**. University of California Press, Berkeley, CA.
- Peterson, M.A., LaGasa, E.H., Robinson, G.S., Passoa, S., and D. Holden. 2007. First report of *Oecophora bractella* (L.) (Lepidoptera: Oecophoridae) in North America. **Journal of the Lepidopterists' Society** 61: 165-171.
- Monsen, K.J., *Honchak, B.M., *Locke, S.E., and M.A. Peterson. 2007. Cytonuclear disequilibria in *Chrysochus* hybrids is not due to patterns of mate choice. **Journal of Heredity** 98: 325-330.
- Peterson, M.A., Dobler, S., *Larson, E.L., *Juárez, D., Schlarbaum, T., Monsen, K.J., and W. Francke. 2007. Profiles of cuticular hydrocarbons mediate male mate choice and sexual isolation between hybridising *Chrysochus* (Coleoptera: Chrysomelidae). **Chemoecology** 17: 87-96.
- [**Savage, A. and M.A. Peterson. 2007. Mutualism in a community context: the positive feedback between an ant-aphid mutualism and a gall-making midge. **Oecologia** 151: 280-291.](#)
- [**Schwartz, S. and M.A. Peterson. 2006. Strong material benefits and no longevity cost of multiple mating in an extremely polyandrous beetle **Behavioral Ecology** 17: 1004-1010.](#)
- [Peterson, M.A., *Honchak, B., *Locke, S., *Beeman, T., *Mendoza, J., *Green, J., *Buckingham, K., *White, M.A., and K. Monsen. 2005. Relative abundance and the species-specific reinforcement of male mating preference in the *Chrysochus* \(Coleoptera: Chrysomelidae\) hybrid zone. **Evolution** 59: 2639-2655.](#)
- [Peterson, M.A., Monsen, K., *Pedersen, H., *Bearden, J., and T. *McFarland. 2005. Direct and indirect evidence of low hybrid fitness in the *Chrysochus* hybrid zone. **Biological Journal of the Linnean Society** 84: 273-286.](#)

Denno, R.F. and M.A. Peterson. 2004. From ecosystems to molecules: cascading effects of habitat persistence on dispersal strategies and the genetic structure of populations. Pp. 147-156 in (A. Moya and E. Font, eds.), **Evolution: From Molecules to Ecosystems**. Oxford Univ. Press.

[Denno, R.F., Gratton, C., Peterson, M.A., Langellotto, G.A., Finke, D.L., and A.F. Huberty. 2002. Bottom-up forces mediate natural-enemy impact in a phytophagous insect community. *Ecology* 83: 1443-1458.](#)

[Peterson, M.A., Dobler, S., *Holland, J., *Tantalo, L., and S. *Locke. 2001. Behavioral, molecular, and morphological evidence for a hybrid zone between *Chrysochus auratus* and *C. cobaltinus* \(Coleoptera: Chrysomelidae\). *Annals of the Entomological Society of America* 94: 1-9.](#)

Peterson, M.A., Denno, R.F., and L. *Robinson. 2001. Apparent widespread gene flow in the predominantly flightless planthopper, *Tumidagena minuta*. **Ecological Entomology** 26: 629-637.

[Denno, R.F., Peterson, M.A., Gratton, C., Cheng, J., Langellotto, G.A., Huberty, A.F., and D.L. Finke. 2000. Feeding-induced changes in plant quality mediate interspecific competition between sap-feeding herbivores. *Ecology* 81: 1814-1827.](#)

Denno, R.F. and M.A. Peterson. 2000. Caught between the devil and the deep blue sea, mobile planthoppers elude natural enemies and deteriorating host plants. **American Entomologist** 46: 95-109.

[Peterson, M.A. and R.F. Denno. 1998. The influence of dispersal and diet breadth on patterns of genetic isolation by distance in phytophagous insects. *American Naturalist* 152: 428-446.](#)

Peterson, M.A. and R.F. Denno. 1998. Life history strategies and the genetic structure of phytophagous insect populations. Pp. 263-322 in: **Genetic structure and local adaptation in natural insect populations: Effects of ecology, life history, and behavior** (S. Mopper & S. Strauss, eds.). Chapman & Hall, New York, NY.

[Peterson, M.A. 1997. Host plant phenology and dispersal by a montane butterfly: Causes and consequences of uphill movement. *Ecology* 78: 167-180.](#)

Peterson, M.A. and R.F. Denno. 1997. The influence of intraspecific variation in dispersal strategies on the genetic structure of planthopper populations. **Evolution** 51: 1189-1206.

Peterson, M.A. 1996. Long-distance gene flow in the sedentary butterfly, *Euphilotes enoptes* (Lepidoptera: Lycaenidae). **Evolution** 50:1990-1999.

Denno, R.F., Roderick, G.K., Peterson, M.A., Huberty, A.F., Döbel, H.G., Eubanks, M.D., Losey, J.E., and G.A. Langellotto. 1996. Habitat persistence underlies intraspecific variation in the dispersal strategies of planthoppers. **Ecological Monographs** 66: 389-408.

- Peterson, M.A. 1995. Phenological isolation, gene flow and developmental differences among low- and high-elevation populations of *Euphilotes enoptes* (Lepidoptera: Lycaenidae). **Evolution** 49: 446-455.
- Peterson, M.A. 1995. Unpredictability in the facultative association between larvae of *Euphilotes enoptes* (Lepidoptera: Lycaenidae) and ants. **Biological Journal of the Linnean Society** 55: 209-223.
- Denno, R.F., and M.A. Peterson. 1995. Density-dependent dispersal and its consequences for population dynamics. Pp. 113-130 in **Population dynamics: New approaches and synthesis** (N. Cappuccino and P.W. Price, eds.). Academic Press, San Diego, CA.
- Peterson, M.A. 1993. The nature of ant attendance and the survival of larval *Icaricia acmon* (Lycaenidae). **Journal of the Lepidopterists' Society** 47: 8-16.
- Edwards, J., Crawford, R.L., Sugg, P.M., and M.A. Peterson. 1986. Arthropod colonization in the blast zone of Mount St. Helens. Pp. 329-333 in **Mount St. Helens: Five Years Later** (S.A.C. Keller, ed.). Eastern Washington University Press, Cheney, WA.

INVITED BOOK REVIEWS

- [Peterson, M.A. 2005. Is less more? \(review of D.J. Futuyma \(2005\) *Evolution*. Sinauer Associates, Inc., Sunderland, MA\). **Evolution** 59: 2721-2723.](#)