

Curriculum Vitae  
Zachariah Gompert

Department of Botany, 3165 Phone: 307-760-3858  
1000 E. University Avenue Fax: 307-766-2851  
University of Wyoming zgomper@uwyo.edu  
Laramie, WY 82071 U.S.A. <http://uwstudentweb.uwyo.edu/z/zgomper>

## Degrees

- Ph.D., Ecology, University of Wyoming, began 2008.  
M.S., Population and Conservation Biology, Texas State University, 2006.  
B.S., General Biology, Texas State University, 2004.

## Professional Experience

### Research

- Graduate Research (2008–present), University of Wyoming, C. Alex Buerkle. Hybridization and speciation genetics.  
Graduate Research (2004–2006), Texas State University, Chris C. Nice. Evolutionary consequences of hybridization in the *Lycaeides* species complex.

### Teaching

- Teaching Assistant (2004–2006), Texas State University, TA for the following courses: Organismal Biology, Genetics, Biostatistics.

## Fellowships and Grants

- NSF EPSCoR WySTEP summer fellowship (\$3000), 2009  
Xerces Society, Joan Mosenthal DeWind Award (\$3750), 2009  
EPSCoR Ecology Project Research Grant (\$5000), 2008  
Society of Systematic Biologists Graduate Student Research Award (\$1650), 2008  
St. John's College Benefactors Scholarship (\$1000), 2007  
Eben-Ellege Award (\$5000), 2006  
Summer Institute in Statistical Genetics Scholarship (\$1000), 2006  
Texas State Outstanding Graduate Student Award for the College of Science, 2006  
Texas State Student Travel Grant (\$350), 2006  
NSF Graduate Research Fellowship (\$40,000 per year for 3 years), 2005  
Best Graduate Student Presentation Texas State University Student Colloquium (\$100), 2005  
Texas State Student Travel Grant (\$400), 2005  
Howard D. Schulze Scholarship (\$300), 2004  
Texas State Honors Thesis Research Grant (\$300), 2004

## Publications

- Gompert Z**, Willmott K, Elias M (XXXX) Heterogeneity in micro-habitat use and the maintenance of Müllerian mimicry diversity. *Proceedings of the Royal Society B: Biology*, in review.
- Teeter KC, Thibodeau LM, **Gompert Z**, Buerkle CA, Nachman MW, Tucker PK (XXXX) The variable architecture of isolation between hybridizing species of house mouse. *Evolution*, in press.
- Nice CC, **Gompert Z**, Forister ML, Fordyce JA (XXXX) An unseen foe in arthropod conservation efforts: the case of *Wolbachia* infections in the Karner Blue butterfly. *Biological Conservation*, in press.
- Gompert Z**, Buerkle CA (2009) *introgress*: a software package for mapping components of isolation in hybrids. *Molecular Ecology Resources*, in press, DOI: 10.1111/j.1755-0998.2009.02733.x.
- Nolte AW, **Gompert Z**, Buerkle CA (2009) Variable patterns of introgression in two sculpin hybrid zones suggest that genomic isolation differs among populations. *Molecular Ecology*, 18:2615-2627.
- Forister ML, Nice CC, Fordyce JA, **Gompert Z** (2009) Host range evolution is not driven by the optimization of larval performance: the case of *Lycaeides melissa* (Lepidoptera: Lycaenidae) and the colonization of alfalfa. *Oecologia*, 160:551:561.
- Gompert Z**, Buerkle CA (2009) A powerful regression-based method for admixture mapping of isolation across the genome of hybrids. *Molecular Ecology*, 18:1207-1224.
- Elias M, **Gompert Z**, Willmott K, Jiggins C (2009) Phylogenetic community ecology needs to take positive interactions into account: insights from colorful butterflies. *Communicative and Integrative Biology*, 2:1:4.
- Lucas LK, **Gompert Z**, Ott JR, Nice CC (2009) Geographic and genetic isolation in spring-associated *Eurycea* salamanders endemic to the Edward's Plateau region of Texas. *Conservation Genetics*, doi:10.1007/s10592-008-9710-2.
- Gompert Z**, Forister ML, Fordyce JA, Nice CC (2008) Widespread mito-nuclear discordance with evidence for introgressive hybridization and selective sweeps in *Lycaeides*. *Molecular Ecology*, 17:5231-5244.
- Elias M, **Gompert Z**, Jiggins C, Willmott K (2008) Mutualistic interactions structure a neotropical butterfly community. *PLoS Biology*, 6:e300.
- Gompert Z**, Fordyce JA, Forister ML, Nice CC (2008) Recent colonization and radiation of North American *Lycaeides* inferred from mtDNA. *Molecular Phylogenetics and Evolution*, 48:481-490.
- Forister ML, Nice CC, Fordyce JA, **Gompert Z**, Shapiro AM (2008) Considering evolutionary processes in the use of single locus genetic data for conservation, with examples from the Lepidoptera. *Journal of Insect Conservation*, 12:37-51.
- Gompert Z**, Fordyce JA, Forister ML, Shapiro AM, Nice CC (2006) Homoploid hybrid speciation in an extreme habitat. *Science*, 314:1923-1925.
- Forister ML, Fordyce JA, Nice CC, **Gompert Z**, Shapiro AM (2006) Egg morphology varies among populations and habitats along a suture zone in the *Lycaeides idas-melissa* species complex (Lepidoptera: Lycaenidae). *Annals of the Entomological Society of America*, 99:933-937.
- Crutsinger GM, Collins MD, Fordyce JA, **Gompert Z**, Nice CC, Sanders NJ (2006) Plant genotypic diversity predicts community structure and governs an ecosystem process. *Science*, 313:966-968.
- Gompert Z**, Nice CC, Fordyce JA, Forister ML, Shapiro AM (2006) Identifying units for conservation using molecular systematics: the cautionary tale of the Karner blue butterfly. *Molecular Ecology*, 15:1759-1768.

## Invited Seminars

*Hybrid speciation on mountain tops: replicated cases of hybridization in blue butterflies.* European Society of Evolutionary Biology, Turin, Italy (August 2009).

*Homoploid hybrid speciation in an extreme habitat.* Butterfly Biology, Mechanisms of Speciation symposium. Rome, Italy (July 2007).

## Presentations at Conferences

*A powerful regression-based method for admixture mapping of isolation across the genome of hybrids.* Society for the Study of Evolution. Moscow, ID (June 2009).

*Widespread mito-nuclear discordance caused by introgressive hybridization and selective sweeps.* Society for the Study of Evolution. Minneapolis, MN (June 2008).

*Hybrid speciation driven by adaptation to an extreme environment.* Society for the Study of Evolution. Stony Brook, NY (June 2006).

*The contribution of hybridization to diversification in North American Lycaenid butterflies.* Southwestern Association of Naturalists. Colima, Mexico (April 2006).

*DNA barcoding: boon or boondoggle? The cautionary tale of the Karner blue butterfly.* Society for the Study of Evolution. Fairbanks, AK (June 2005).

*Discordance between morphological and molecular markers in Lycaeides: hybridization or parallel evolution.* Southwestern Association of Biologists. Portal, AZ (October 2004).

## Service

Reviewer for the journals: Diversity and Distributions, European Journal of Entomology, Heredity, Molecular Ecology, Oecologia.

## Technical Skills

Statistical analysis

Population genetic analysis

Phylogenetic analysis

Computer simulation and modeling

Computer programming in R and PERL

Molecular laboratory methods

Field and ecological methods

## Memberships

Society for the Study of Evolution

The American Association for the Advancement of Science

## References

Dr. C. Alex Buerkle (current collaborator and Ph.D. adviser), Department of Botany, 3165, University of Wyoming, Laramie, WY 82071, buerkle@uwyo.edu, Ph: 307-760-3858, Fax: 307-766-2851

Dr. Chris C. Nice (current collaborator and M.S. adviser), Biology Department, Texas State University, San Marcos, TX 78666, ccnice@txstate.edu, Ph: 512-245-3358, Fax: 512-245-8713

Dr. James A. Fordyce (current collaborator), 569 Dabney Hall, University of Tennessee, Knoxville, TN 37996, jfordyce@utk.edu, Ph: 865-974-2925, Fax: 865-974-3067