

# John Stanton-Geddes

211 Marsh Life Sciences

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## Appointments

- 2013–present **Postdoctoral research associate**, *University of Vermont*, Burlington, VT.  
Genomic basis of adaptation to climate in a common seed-dispersing ant species.  
Advisors: Drs. Nick Gotelli and Sara Helms-Cahan
- Jan 2013 **Faculty of the Citizen Science Program**, *Bard College*, Annandale-upon-Hudson, NY.  
January term Citizen Science course to first-year students.
- 2011–Jan 2013 **Postdoctoral research associate**, *University of Minnesota*, Twin Cities.  
Population and ecological genetics of the *Medicago truncatula* - *Sinorhizobium* mutualism.  
Advisors: Drs. Peter Tiffin and Nevin Young

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## Education

- 2006–2011 **Ph.D Ecology, Evolution and Behavior**, *University of Minnesota*, Twin Cities.  
Minor in Statistics  
Advisors: Drs. Ruth Shaw and Peter Tiffin  
Dissertation: *Limits to range expansion in the native annual legume Chamaecrista fasciculata*
- 2000–2004 **B.A. cum laude Biology**, *Amherst College*, Amherst, Massachusetts.  
Advisor: Dr. Jill Miller  
Honors Thesis: *Breeding systems and reproductive ecology of Lobelia spicata and L. siphilitica in Massachusetts*

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## Teaching

### Primary Instructor

- 2013 **Bard College**, Faculty member of the Citizen Science Program, January term

### Guest Lectures

#### University of Vermont

- 2013 *Human Genetics*, guest lectures on population genetics and HIV  
*Exploring Biology*, guest lectures on regulation of gene expression  
*Population Genetics*, guest lectures on association mapping

#### Macalester College

- 2010 *Biodiversity and Evolution*, guest lectures on plant diversity and evolutionary constraints

#### University of Minnesota

- 2012 *Quantitative Genetics*, guest lecture on association mapping  
2011 *Evolution*, guest lecture on molecular evolution  
2011 *Quantitative Genetics*, guest lecture on association mapping

### Teaching Assistant

#### University of Minnesota

- 2009 *Foundations of Biology*

- 2009 *Evolution*  
2008 *Evolution*  
2007 *Molecular, Cellular and Developmental Perspectives*

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## Teaching courses and workshops

- 2010 **Teaching in Higher Education Practicum**, Preparing Future Faculty II, mentorship with Dr. Sarah Boyer, *Macalester College*  
2010 **Interactive Lecturing in Large Classes**, Graduate School Workshop, *University of Minnesota*  
2009 **Running effective peer response workshops**, Writing Enhanced Curriculum Workshop, *University of Minnesota*  
2009 **Commenting on and grading student writing**, Writing Enhanced Curriculum Workshop, *University of Minnesota*  
2008 **Teaching Writing in Biology**, *University of Minnesota*  
2007 **Teaching in Higher Education**, Preparing Future Faculty I, *University of Minnesota*

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## Publications

- Yoder J, **J Stanton-Geddes J**, T Paape, R Briskine, P Zhou, M Sadowsky, N Young and P Tiffin. *Polygenic basis of adaptation to climate in Medicago truncatula*. accepted pending revisions Genetics.
- Stanton-Geddes J**, C Gomes de Freitas and C Dambros (in press) *In Defense of P-values: comment on the statistical methods actually used by ecologists*. Ecology.
- Stanton-Geddes J**, J Yoder, R Briskine, N Young and P Tiffin (2013). *Estimating heritability using whole genome sequence data*. Methods in Ecology and Evolution 4: 1151-1158
- Stanton-Geddes J**, T Paape, B Epstein, J Yoder, R Briskine, J Mudge, A Bharti, A Farmer, P Zhou, R Denny, G May, S Erlandson, M Sugawara, M Sadowsky, N Young and P Tiffin (2013) *Candidate genes and genetic architecture of symbiotic and agronomic traits revealed by whole-genome, sequence-based association genetics in Medicago truncatula*. PLoS ONE 8: e65688.
- Stanton-Geddes J**, R Shaw and P Tiffin (2012) *Insights from population genetics for range limits of a widely-distributed annual plant*. American Journal of Botany 100: 744-753.
- Stanton-Geddes J**, P Tiffin and R Shaw (2012) *Role of climate and competitors in limiting fitness across range edges of a widely-distributed annual plant*. Ecology 93: 1604-1613.
- Stanton-Geddes J**, R Shaw and P Tiffin (2012) *Interactions between soil habitat and geographic range location affect plant fitness*. PLoS ONE 7: e36015.
- Asplen M, E Bruns, A David, R.F Denison, B Epstein, M Kaiser, J Kaser, C Lacroix, E Mohl, G Quiram, K Prescott, **J Stanton-Geddes J**, J Vincent, P Wragg, and G May (2012) *Do trade-offs have explanatory power for the evolution of organismal interactions?* Evolution 66: 1297-1307.
- Ridley C, H Hangelbroek, S Wagenius, **J Stanton-Geddes**, R Shaw (2011) *The effect of plant inbreeding and stoichiometry on interactions with herbivores in nature: Echinacea angustifolia and its specialist aphid*. PLoS ONE 6: e24762.
- Stanton-Geddes J** and C Anderson (2011) *Does a facultative mutualism limit species range expansion?* Oecologia 167:149-155.
- Miller J and **J Stanton-Geddes** (2007) *Gynodioecy in Lobelia siphilitica and L. spicata (Lobeliaceae) from western Massachusetts*. Journal of the Torrey Botanical Society 134:349-361.

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## Fellowships and Honors

- 2011 **Best Graduate Student Presentation**, Ecological Section, Botany Conference
- 2010 **Ray C. Anderson Fellowship**, University of Minnesota
- 2010-2011 **Doctoral Dissertation Fellowship**, University of Minnesota
- 2006-2007 **Graduate School Fellowship**, University of Minnesota
- 2004 **Oscar E. Schotte Award**, Amherst College
- 2003 **James R. Elster Award**, Amherst College

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## Research Funding

- 2011 **Microbial and Plant Genetics Institute Grant**, Univ. of Minnesota
- 2010 **Dayton Research Grant**, Univ. of Minnesota
- 2010 **Thesis Research Grant**, Univ. of Minnesota
- 2009 **Center of Community Genetics Grant**, Univ. of Minnesota
- 2009 **Dayton Research Grant**, Univ. of Minnesota
- 2009 **Alexander & Lydia Anderson Grant**, Univ. of Minnesota
- 2008 **Dayton Research Grant**, Univ. of Minnesota
- 2008 **Carolyn Crosby Grant**, Univ. of Minnesota
- 2007 **Rothman Grant**, Univ. of Minnesota

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## Invited Seminars

- 2013 **University of Vermont, Department of Biology**, 25 February 2013  
A tale of two legumes: range limits of *Chamaecrista fasciculata* and genomics of the *Medicago* - rhizobium mutualism
- 2012 **University of Minnesota, Department of Plant Pathology**, 8 October 2012  
Association genetics of the *Medicago truncatula* - *Sinorhizobium* mutualism using whole genome sequence data
- SUNY Plattsburgh, Department of Biology**, 6 April 2012  
Evolution and diversification of flowering plants
- Amherst College, Department of Biology**, 2 April 2012  
Genes in ecosystems, ecosystems in genes: species' range limits and genomics of a mutualism
- Grinnell College, Department of Biology**, 2 March 2012  
Genes in ecosystems, ecosystems in genes: species' range limits and genomics of a mutualism

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## Conferences

- 2013 Gordon Conference on Ecological and Evolutionary Genomics, University of New England, Biddeford, Maine.
- 2012 **Stanton-Geddes J**, Paape T, Epstein B, Yoder J, Briskine R, Young N and P Tiffin. *Association mapping to understand the genetics of complex traits: analyses of a legume-rhizobia symbiosis reveal that full sequence data avoid some pitfalls from SNP platform data*. 1st Joint Congress on Evolutionary Biology. Ottawa, Ontario, Canada.
- 2011 **Stanton-Geddes J**, Tiffin P and R Shaw. *Ecological and genetic contributions to range limits of Chamaecrista fasciculata*. Botanical Society of America Conference, St. Louis, Missouri.
- 2010 **Stanton-Geddes J**, Tiffin P and R Shaw. *Does the dependence of fitness on habitat differ with geographic range location?*. Midwest Ecology and Evolution Conference. Iowa State University, Ames, Iowa.

2007 **Stanton-Geddes J**, and J Miller. *Reproductive ecology of Lobelia siphilitica and L. spicata in Massachusetts*. Botanical Society of America Conference, Chicago, Illinois.

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## Service

- Reviewer for journals including Ecology, Ecology Letters, Evolution, Global Change Biology and Proceedings of the Royal Society B. Complete list of reviews: <http://johnstantongeddes.org/ecological%20genetics/2013/07/10/reviews.html>
- Societies Botanical Society of America, Society for the Study of Evolution, Ecological Society of America
- Other Co-organizer of the Burlington UserR! Group: <http://www.meetup.com/Burlington-R-Users/>  
Contributor to The Molecular Ecologist Blog: <http://www.molecularecologist.com/author/johnstantongeddes/>