Stuart Wagenius

Conservation Scientist Chicago Botanic Garden 1000 Lake Cook Road Glencoe, IL 60022 phone: 847 835 6978

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Publications, continued:

- X Shaw, R. G., C. J. Geyer, S. Wagenius, H. Hangelbroek, and J. R. Etterson. 2008. Unifying lifehistory analyses for inference of fitness and population growth. <u>American Naturalist</u> 172: E35 -E47.
- X Recipient of Presidential Award by American Society of Naturalist, details under Academic Honors.

Wagenius, S., E. Lonsdorf, and C. Neuhauser. 2007. Patch aging and the S-Allee effect: breeding system effects on the demographic response of plants to habitat fragmentation. <u>American Naturalist</u> 169:383-397.

Geyer, C. J., S. Wagenius, and R. G. Shaw. 2007. Aster models for life history analysis. <u>Biometrika</u> 94: 415-426.

Wagenius, S. 2006. Scale-dependence of reproductive failure in fragmented *Echinacea* populations. <u>Ecology</u> 87: 931-941.

Wagenius, S. 2004. Style persistence, pollen limitation, and seed set in the common prairie plant *Echinacea angustifolia* (Asteraceae). <u>International Journal of Plant Sciences</u> 165: 595 603.

Neuhauser, C., D. A. Andow, G. E. Heimpel, G. May, R. G. Shaw, S. Wagenius. 2003. Community genetics: expanding the synthesis of ecology and genetics. <u>Ecology</u> 84: 545-558.

Publication in press or review:

Kittelson. P. M., S. Wagenius, R. Nielsen, S. Qazi, M. Howe, G. Kiefer, and R. G. Shaw. Leaf functional traits, herbivory and genetic diversity in *Echinacea*: Implications for fragmented populations. <u>Ecology</u>. *In review*.

Shaw, R. G., S. Wagenius, C. J. Geyer. The roles of plant phenotype and genotype of *Echinacea* angustifolia in its susceptibility to a specialist aphid and the demographic consequences. <u>Journal of Ecology</u>. *In review*.

Muller, K. and S. Wagenius. *Echinacea angustifolia* and its specialist ant-tended aphid: a multi-year study of manipulated and naturally-occurring aphid infestation. <u>Ecological Entomology</u>. *In revision*.

Gallagher, M. K. and S. Wagenius. Seed source impacts germination and early establishment of dominant grasses in prairie restorations. Journal of Applied Ecology. *In review*.

Wang, M., S. Wagenius. Dormancy breaking and germination techniques for the cool season prairie grass, Dichanthelium leibergii (Vasey) Freckmann. Native Plants Journal. In revision.

Publications, not peer-reviewed:

Shaw, R. G., C. J. Geyer, S. Wagenius, H. H. Hangelbroek, and J. R. Etterson. 2008. Yet More

Previous Grant-Awarded Funding, continued:

- "The interplay of genetic and numerical dynamics in severely fragmented prairie populations of *Echinacea angustifolia*." National Science Foundation. 2006 2011. \$450,000. Pls: Stuart Wagenius (Chicago Botanic Garden), Ruth Shaw (University of Minnesota).
- "Summer field research experience for an undergraduate student." 2011. NSF-REU supplement. \$7,000. PI: Stuart Wagenius.
- "Summer field research experience for a high-school biology teacher." 2011. NSF-RET supplement. \$21,459. PI: Stuart Wagenius.
- "Summer field research experience for an undergraduate student." 2010. NSF-REU supplement. \$7,000. PI: Stuart Wagenius.
- "Summer field research experience for a high-school biology teacher." 2010. NSF-RET supplement. \$8,986. PI: Stuart Wagenius.
- "Summer field research experience for an undergraduate student." 2009. NSF-REU supplement. \$7,000. PI: Stuart Wagenius.
- "Summer field research experience for a high-school biology teacher." 2009. NSF

Invited Symposium Presentation and Seminars

Other Contributed Conference Presentations, continued:

Gallagher*, K., M. Jenkins*, A. Gallinat*, G. Diersen, and G. Kiefer, S. Wagenius. 2010
"Interspecific co-flowering prairie plants compete for pollinators." Ecological Society of America annual meet

Teaching Experience:

2007 -

Mentoring Experiencel Former Graduate Students, continued.

Graduate student committee member: Tracy Misiewicz (MS 2009), Diane Huebner (MS 2009), Amy Price (MS 2011), Melissa Tienes (MS 2011), and Colby Witherup (MS 2012) Plant Biology & Conservation at Northwestern University.

Mentoring Experiencel Research Interns.

High School: Will Reed, 2014. Jefferson High School (Alexandria, MN). JII Meyer, 2011 - 2012. St. Martin de Porres High School. Nicole Baylon, 2010 - 2011. St. Martin de Porres High School. Octavio Brindis, 2009 - 2010. St. Martin de Porres High School (Waukegan, IL).

Select Professional Service & Current Affiliations:

Founder and leader of The Echinacea Project, Douglas County, Minnesota. A field research program dedicated to investigating ecology and evolution in fragmented prairie habitat and to training field biologists.

http://echinaceaProject.org/

http://www.facebook.com/echinaceaProject

http://twitter.com/#!/TeamEchinacea

Contributor to the development of a new statistical method for analysis of life history data. The R software package is freely available and includes two datasets from the *Echinacea* project. I am also co-author on 4 technical reports. http://www.stat.umn.edu/geyer/aster/>

Developed and taught a lesson and supervised an experiment about plant reproductive biology to 127 seventh-grade science students at Northwood Junior High School, 3 10 May 2013.

Appointed to the City of Highland Park's Natural Resources Commission effective 1 January 2014.

Member of ad hoc scientific advisory committee developing a decision tree on "Optimal Monitoring for Rare Plants." I participated in the initial workshop convened by the U.S. Forest Service and Center for Plant Conservation, St. Louis, Missouri and contributed to the final report October 2009 June 2010.

Contributor to management and research of Western prairie fringed orchid, *Platanthera praeclara*, a federally threatened species 2000 present.

Guest lecturer in Conservation Genetics class, Northeastern Illinois University, November 2009 and 2011.

Member of ad hoc scientific advisory committee on "Ecotypes and genetic issues in revegetating federal lands." convened by Bureau of Land Management and Center for Plant Conservation, St. Louis, Missouri, 6 8 September 2006.

Wrote interactive web content on topics in evolutionary biology for an introductory biology textbook (Freeman 2002).

Reviewed chapters in the textbook Introduction to Population Genetics (Halliburton 2004).

Reviewed chapters on evolution and ecology for textbook Biological Science (Freeman 2002).

Peer reviewer for: Evolution, Annals of Botany, Ecological Applications, Ecology, Ecosphere, American Naturalist, International Journal of Plant Science, Journal of Ecology, Plant Biology, Journal for Nature Conservation, Biological Invasions, American Midland Naturalist, Journal of the Torrey Botanical Society, Journal of Economic Entomology, Oecologia, Oikos, PLoS One, Restoration Ecology, Natural Areas Journal, Canadian Journal of Botany, Botany, Molecular Ecology, Trends in Plant Science, Ecological Restoration, New Phytologist, and Biological Conservation.

NSF reviewer: Member of Population and Community Ecology Panel, October 2010 and November 2012. LTREB panel, May 2012. Ad hoc reviewer for Population and Evolutionary Processes (2006 - 2011) and Ecology (2007 -2009).

Member of American Society of Naturalists, Ecological Society of America, and Minnesota Ornithologists' Union.

Professional Associates

Ph. D. advisor: Don Alstad (University of Minnesota) deceased

Post-doctoral advisor: Ruth Shaw (University of Minnesota)