

Jan Aagaard

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Education

Post.Doc. Department of Genome Sciences, University of Washington (current)
Ph.D. Center for Ecology and Evolutionary Biology, University of Oregon (2004)
M.S. Department of Forest Science, Oregon State University (1997)
B.A. Biology Department, St. Olaf College (1993)

Research Interests

Evolution of Gamete Interactions
Evolution of Floral Development
General areas: plant ecological genetics, speciation, and molecular evolution

Professional Experience

2004-present NIH Postdoctoral Fellow, Department of Genome Sciences, University of Washington. Postdoctoral research on reproductive proteins in abalone (advised by Willie Swanson, University of Washington).
2001-2004 Visiting Scholar and NSF Pre Doctoral Fellow, Biology Department, University of Washington (hosted by Dick Olmstead). Dissertation research on the evolution of genes regulating floral development in the Lamiales (advised by Patrick Phillips, University of Oregon).
1998- 2001 Graduate Teaching Fellow and NSF Pre Doctoral Fellow, Biology Department, University of Oregon. Teaching undergraduate lab sections in genetics and evolution. Dissertation research on the evolution of genes regulating floral development in the Lamiales (advised by Patrick Phillips, University of Oregon; John Willis, now at Duke University).
1997-1998 Research Technician and Teaching Instructor, Science Department, Washington State University, Vancouver. Design and teaching of undergraduate ecology lab sections. Research on community ecology of marine marshes (supervised by Sally Hacker, now at Oregon State University).
1994-1997 Graduate Research Assistant, Department of Forest Science, Oregon State University. Thesis research on population structure of forest trees based on markers of nuclear and mitochondrial origin (advised by Steve Strauss, Oregon State University).

Teaching Experience

Guest Lecturer, course on Evolution of Development. Biology Department, University of Oregon. November 2001.
Teaching Assistant, course on Plant Systematics. Biology Department, University of Oregon. March – May 2001.
Teaching Assistant and Lab Instructor, courses on Genetics and Evolution. Biology Department, University of Oregon. January – March 1999, 2000.
Teaching Instructor, courses on Ecology. Science Department, Washington State University, Vancouver. September 1997 – May 1998.

Fellowships and Grants

NIH Post Doctoral Fellowship (Individual NRSA). Department of Genome Sciences, University of Washington. May 2007-present.
NIH Post Doctoral Fellowship in Genomics (Institutional NRSA). Department of Genome Sciences, University of Washington. April 2004 – April 2006.
NSF Pre Doctoral Fellowship in Evolution, Development, and Genomics (Institutional IGERT). Biology Department, University of Oregon. July 1999 – June 2003.
NSF REU fellowship, Shannon Point Marine Lab, Western Washington University. June – August 1992.
NSF Doctoral Dissertation Improvement Grant. The evolution of floral developmental genes in *Mimulus* (\$9,221). July 2001 – June 2003.

Sigma Xi research grant. The contribution of floral developmental genes to floral morphological variation between *Mimulus* species (\$968). July 2000 – June 2001.

Honors and Awards

Department of Forest Science Faculty Award in Recognition of Graduate Student Achievement, Oregon State University
Elected to St. Olaf chapter of Phi Beta Kappa, graduated Magna cum Laude with departmental honors

Symposia Presentations

Poster, AGA symposium on Speciation Genetics. Vancouver, BC. July, 2006.
Invited talk, Society for the Study of Evolution symposium on Regulatory Genes and the Evolution of Plant Phenotype. Fort Collins, CO. June 2004.
Talk, Society for the Study of Evolution symposium on Evolution of Development. Chico, CA. June 2003.
Poster, NSF IGERT mini-symposium on Microevolution of Development. Bloomington, IN. September, 2002.
Poster, NSF IGERT mini-symposium on Evolution of Genetic Networks. Eugene, OR. September, 2001
Poster, NSF IGERT mini-symposium on Evolution of Gene Duplicates. Eugene, OR. June, 2000.
Poster, AAAS symposium on Conservation Genetics. San Francisco, CA. June, 1995.
Poster, symposium on Forest Tree Genetics. Western Forest Genetics Association, Vancouver, WA. 1994.

Journal Reviewer

Genetics
Journal of Molecular Evolution
Marine Biotechnology
Molecular Biology and Evolution

Publications

Fishman, L, Aagaard, J., and Tuthill, J. 2008. Towards the evolutionary genomics of gametophytic divergence: Patterns of transmission ratio distortion in monkeyflower (*Mimulus*) hybrids reveal a complex genetic basis for conspecific pollen precedence. *Evolution*, *in press*.
Aagaard, J., Xianhua, Y., MacCoss, M., and Swanson, W. 2006. Rapidly evolving zona pellucida domain proteins are a major component of the vitelline envelope of abalone eggs. *Proceedings of the National Academy of Sciences, U.S.A.*, **46**: 17302-17307.
Aagaard, J., Willis, J., and Phillips, P. 2006. Accelerated evolution following duplication of floral regulatory genes in the Lamiales. *Journal of Molecular Evolution* **63**: 493-503.
*Clark, N., Aagaard, J., and Swanson, W. 2006. Adaptive evolution of reproductive proteins from animals and plants. *Reproduction* **131**:11-22.
Aagaard, J., Olmstead, R., Willis, J., and Phillips, P. 2005. Duplication of floral regulatory genes in the Lamiales. *American Journal of Botany* **92**:1284-1293.
Aagaard, J., and Phillips, P. 2005. Accuracy and power of the likelihood ratio test for comparing evolutionary rates among genes. *Journal of Molecular Evolution* **60**:426-433.
Sorensen, F., Mandel, N., Aagaard, J. 2001. Role of selection vs. historical isolation in racial differentiation of ponderosa pine in southern Oregon--an investigation of alternative hypotheses. *Canadian Journal of Forest Research* **31**:1127-1139.
Aagaard, J., Harrod, R., and Shea, K. 1999. Genetic variation among populations of the rare lady-slipper orchid (*Cypripedium fasciculatum*) from Washington state. *Natural Areas Journal* **19**:234-238.
Krutovskii, K., Erofeeva, S., Aagaard, J., and Strauss, S. 1999. Simulation of effects of dominance on estimates of population genetic diversity and differentiation. *Journal of Heredity* **90**: 499-502.
Aagaard, J., Krutovskii, K., and Strauss, S. 1998. RAPD markers of mitochondrial origin exhibit lower population diversity and higher differentiation than RAPDs of nuclear origin in Douglas-fir. *Molecular Ecology* **7**: 801-812.
Aagaard, J., Krutovskii, K., and Strauss, S. 1998. RAPDs and allozymes exhibit similar levels of differentiation and diversity in Douglas-fir. *Heredity* **81**: 69-78.
Aagaard, J., Vollmer, S., Sorensen, F., and Strauss, S. 1995. Mitochondrial DNA products among RAPD profiles are frequent and strongly differentiated between races of Douglas-fir. *Molecular Ecology* **4**: 441-447.

*Review article, to which authors contributed equally.