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EDUCATION

1991 – 1993	University of Oregon, Postdoctoral Research Associate Michael Lynch, postdoctoral advisor
1991	University of Chicago, Ph.D. in Ecology and Evolution Dissertation Title: "*The Role of Inbreeding Depression in the Evolution of Two Partially Self-Fertilizing Populations of Mimulus guttatus*." Douglas Schemske and Deborah Charlesworth, Ph.D. advisors
1985	Brown University, A.B. with Honors in Biology Johanna Schmitt, thesis advisor

PROFESSIONAL APPOINTMENTS

2000 – present	Associate Professor, Department of Biology, Duke University
1999 – 2000	Associate Professor, Department of Biology, University of Oregon
1993 – 1999	Assistant Professor, Department of Biology, University of Oregon
1991 – 1993	Postdoctoral Research Associate, Michael Lynch, advisor Department of Biology, University of Oregon
1985 – 1991	Teaching Assistant, University of Chicago
1983 – 1985	Teaching Assistant, Brown University

HONORARY APPOINTMENTS

Member, University Program in Genetics and Genomics, Duke University
Member, University Program in Ecology, Duke University

PUBLICATIONS

Fishman, L., and J. H. Willis. 2007. Pollen limitation and natural selection on floral characters in the yellow monkeyflower *Mimulus guttatus*. New Phytologist, in press.

Wu, C. A., D. B. Lowry, A. M. Cooley, K. M. Wright, Y.W. Lee, and J. H. Willis. 2007. *Mimulus* is an emerging model system for the integration of ecological and genomic studies. Heredity, advance online publication.

Mitchell-Olds, T., J. H. Willis, and D. Goldstein. 2007. What evolutionary processes influence natural genetic variation for phenotypic traits? Nature Reviews Genetics 8:845-856.

McDaniel, S.F., J. H. Willis, and A. J. Shaw. 2007. A linkage map reveals a complex basis for segregation distortion in an inter-populational cross in the moss *Ceratodon purpureus*. Genetics 176:2489-2500.

Rieseberg, L. H., and J. H. Willis. 2007. Plant speciation. Science 317:910-914.

Martin, N. H. and J. H. Willis. 2007. Ecological divergence associated with mating system causes nearly complete reproductive isolation between sympatric *Mimulus* species. Evolution 61:68-82

Sweigart, A. L., A. Mason, J. H. Willis. 2007. Natural variation for a hybrid incompatibility between two species of *Mimulus*. Evolution 61:141-151.

Hall, M. C., J. H. Willis. 2006. Divergent selection on flowering time contributes to local adaptation in *Mimulus guttatus* populations. Evolution 60:2466-2477.

Aagaard, J. E., J. H. Willis, and P. C. Phillips. 2006. Relaxed selection among duplicate floral regulatory genes in Lamiales. Journal of Molecular Evolution 63:493-503.

Fishman, L. and J. H. Willis. 2006. A cytonuclear incompatibility causes anther sterility in *Mimulus* hybrids. Evolution 60:1372-1381.

Sweigart, A. L., L. Fishman, J. H. Willis. 2006. A simple genetic incompatibility causes hybrid male sterility in *Mimulus*. Genetics 172:2465-2479.

Hall, M. C., C. Basten, and J. H. Willis. 2006. Pleiotropic quantitative trait loci contribute to population divergence in traits associated with life-history variation in *Mimulus guttatus*. Genetics 172:1829-1844.

Aagaard, J. E., R. G. Olmstead, J. H. Willis, and P. C. Phillips. 2005. Duplication of floral regulatory genes in the Lamiales. American Journal of Botany 92:1284-1293.

Hall, M. C. and J. H. Willis. 2005. Transmission ratio distortion in intraspecific hybrids of *Mimulus guttatus*: Implications for genomic divergence. Genetics 170:375-386.

Fishman, L., and J. H. Willis. 2005. A novel meiotic drive locus almost completely distorts segregation in *Mimulus* (Monkeyflower) hybrids. Genetics 169:355-373.

Sweigart, A.L., and J. H. Willis. 2003. Patterns of nucleotide diversity are affected by mating system and asymmetric introgression in two species of *Mimulus*. Evolution 57:2490-2506.

Kelly, J. K., and J. H. Willis. 2002. A manipulative experiment to estimate bi-parental inbreeding in Monkeyflowers. International Journal of Plant Science 163:575-579.

Fishman, L., A. J. Kelly, and J. H. Willis. 2002. Minor QTLs underlie floral characters associated with mating system divergence in *Mimulus*. Evolution 56: 2138-2155.

Fishman, L., A. J. Kelly, E. Morgan, and J. H. Willis. 2001. A genetic map in the *Mimulus guttatus* species complex reveals transmission ratio distortion due to heterospecific interactions. Genetics 159:1701-1716.

Fishman, L. and J. H. Willis. 2001. Evidence for Dobzhanzsky-Muller incompatibilities contributing to the sterility of hybrids between *Mimulus guttatus* and M. *nasutus*. Evolution 55:1932-1942.

Kelly, J. K., and J. H. Willis. 2001. Deleterious mutations and genetic variation for flower size in *Mimulus guttatus*. Evolution 55:937-942.

Willis, J. H. 1999. The role of genes of large effect on inbreeding depression in *Mimulus guttatus*. Evolution 53:1678-1691.

Willis, J. H. 1999. Inbreeding load, average dominance, and the mutation rate for mildly deleterious alleles in *Mimulus guttatus.* Genetics 153:1885-1898.

Sweigart, A., K. Karoly, A. Jones, and J. H. Willis. 1999. The distribution of individual inbreeding coefficients and pairwise relatedness in a population of *Mimulus guttatus*. Heredity 83:625-632.

Willis, J. H. 1999. The contribution of male sterility mutations to inbreeding depression in *Mimulus guttatus*. Heredity 83:337-346.

Schultz, S. T., M. Lynch, and J. H. Willis. 1999. The genomic mutation rate for fitness in *Arabidopsis thaliana*. Proceedings of the National Academy of Science, USA 96:11393-11398.

Lynch, M., J. Blanchard, D. Houle, T. Kibota, S. Schultz, L. Vassilieva, and J. H. Willis. 1999. Spontaneous deleterious mutation. Evolution 53:645-663.

Kelly, A. J. and J. H. Willis. 1998. Polymorphic microsatellite loci in *Mimulus guttatus* and related species. Molecular Ecology 7:769-774.

Willis, J. H. 1996. Measures of phenotypic selection are biased by partial inbreeding. Evolution 50:1501-1511.

Schultz, S. T. and J. H. Willis. 1995. Individual variation in inbreeding depression: the roles of inbreeding history and mutation. Genetics 141:1209-1223.

Gimelfarb, A. and J. H. Willis. 1994. Linearity vs. nonlinearity of offspring-parent regression: experimental study. Genetics 138:343-352.

Willis, J. H. and H. A. Orr. 1993. Increased heritable variation following population bottlenecks: The role of dominance. Evolution 47:949-957.

Willis, J. H. 1993. Effects of different levels of inbreeding on fitness components in *Mimulus guttatus*. Evolution 47:864-876.

Willis, J. H. 1993. Partial self-fertilization and inbreeding depression in two populations of *Mimulus guttatus*. Heredity 71:145-154.

Willis, J. H. 1992. Genetic analysis of inbreeding depression caused by chlorophyll-deficient lethals in *Mimulus guttatus.* Heredity 69: 562-572.

Willis, J. H., J. A. Coyne, and M. Kirkpatrick. 1991. Can one predict the evolution of quantitative traits without genetics? Evolution 45:441-444.

Bergelson, J. M., J. H. Willis, and P. E. Robakiewicz. 1986. Variance in search time: Do groups always reduce risk? Animal Behavior 34:289-291.

FORTHCOMING PAPERS

Case, A. L. and J. H. Willis. 2007. Hybrid male sterility in *Mimulus guttatus* (Phrymaceae) is associated with a geographically-restricted mitochondrial rearrangement. Evolution, submitted.

Lowry, D. B., R. C. Rockwood, and J. H. Willis. 2007. Ecological isolation of ecogeographic races of *Mimulus guttatus*. Evolution, submitted.

Cooley, A. M., G. Carvallo, and J. H. Willis. 2007. Floral pigmentation differences in Chilean *Mimulus* are not associated with variation in pollinator preference. Annals of Botany, submitted.