

JENNIFER LOUISE MODLISZEWSKI

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EDUCATION

M.S. in Botany, December 2005, North Carolina State University

Thesis: The formation and maintenance of a hybrid zone of *Aesculus* L. (Sapindaceae) in the southeastern United States. (Thesis Co-Advisors: Dr. Jenny Qiu-Yun Xiang, Dr. Michael Purugganan)

B.S. in Botany, May 2002, North Carolina State University

B.S. in Horticultural Science, May 2002, North Carolina State University

Graduated summa cum laude (4.0 GPA)

RESEARCH INTERESTS

I am broadly interested in topics in the field of evolutionary genetics, including speciation, adaptation, and the evolutionary genetics of polyploidy. I am driven by an interest in the organismal response to polyploidy, whether or not this response is adaptive, and how these issues are related to the patchy distribution of polyploidy among lineages. My current research efforts are focused on investigating the demographic history of allotetraploid *Mimulus*, putative tetraploid hybrids between *M. guttatus* and *M. nasutus*.

RESEARCH

August 2006–present, (Duke University): Doctoral Student, Department of Biology. Advisor: Dr. John Willis. Current research project: Investigating the demographic history of polyploidy in *Mimulus guttatus* (monkeyflower) and close relatives.

January-May 2006, (NCSU): Research Assistant, Department of Genetics. Supervisor: Dr. Michael Purugganan. Assisted in the analysis of sequence data for the *Oryza* evolutionary genomics research project.

Fall 2002-December 2005, (NCSU): Graduate Research and Teaching Assistant, Department of Botany. M.S. research under the supervision of J.Q.-Y. Xiang and M.D. Purugganan. Research project: Analysis of gene flow in a hybrid zone of *Aesculus* using the geographical distribution and a combined phylogeographic and population genetic approach to analyze chloroplast haplotypes, exploring hypotheses regarding the formation and maintenance of the hybrid zone.

May-August 2001, (USDA, United States National Arboretum): Intern. Supervisor: Dr. Margaret Pooler. Research project: Genetic diversity of *Gaylussacia brachycera* (box huckleberry).

April 2000-May 2001, (NCSU): Undergraduate Research Assistant, Department of Genetics. Supervisor: Dr. Michael Purugganan. Collected and assisted in the analysis of phenotypic data regarding inflorescence architecture in *Arabidopsis thaliana*.

TEACHING

2007, (Duke): Laboratory Instructor, Principles of Biology

2003-2005, (NCSU): Laboratory Instructor, Core Technologies in Molecular and Cellular Biology

2003, (NCSU): Laboratory Instructor, Introduction to Ecology

2002, (NCSU): Laboratory Instructor, Introductory Plant Biology

SOCIETIES & SERVICE

Park Scholar Regional Selection Committee Volunteer (2007)

Phi Beta Kappa National Honor Society

Phi Kappa Phi National Honor Society

Gamma Beta Phi National Honor Society

Member, Botanical Society of America

FELLOWSHIPS & AWARDS

2007 Duke University Department of Biology Grant-in-Aid of Research (Duke, \$1000)
2006 Biology Graduate Student Fellowship (Duke)
2002 Outstanding Botany Student Award, Department of Botany (now Plant Biology) at NCSU
2002 Jerry G. Collier Graduate Fellowship (NCSU)
1998 Park Scholarship Recipient

PRESENTATIONS AND PUBLICATIONS

Modliszewski, J.L., D. Thomas, C. Fan, D. Crawford, C.W. dePamphilis and J.Q.-Y. Xiang. 2006. Ancestral chloroplast polymorphism and historical secondary contact in a hybrid zone of *Aesculus* (Sapindaceae). *American Journal of Botany*. 93(3): 377-388.

Modliszewski, J.L., and J.Q.-Y. Xiang. 2004. cpDNA Analysis of an *Aesculus* L. (Sapindales) Hybrid Zone: Implications for Evolutionary Processes. Session Moderator. Evolution 2004 Conference.

Modliszewski, J.L., and J.Q.-Y. Xiang. 2003. Chloroplast DNA Variation and Gene Flow in a Broad Hybrid Zone of *Aesculus* L. (Sapindaceae) in the Southeastern United States. Southeastern Ecology, Evolution and Population Genetics Conference (SEEPAGE) 2003.

Ungerer, Mark C., S.S. Halldorsdottir, **J.L. Modliszewski**, T.F.C. McKay, and M.D. Purugganan. 2002. Quantitative trait loci for inflorescence development in *Arabidopsis thaliana*. *Genetics*. 160:1133-1151.

REFERENCES

Available upon request