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EDUCATION

- 2014 **Ph.D. Biology**
Duke University
Advisor: K. M. Pryer
Dissertation: Evolutionary patterns and processes in the desert-adapted fern genus *Myriopteris* (Pteridaceae)
- 2006 **B.S. Biology**
University of North Carolina Wilmington

RESEARCH FELLOWSHIPS

- 2014– **Postdoctoral Fellow**
Smithsonian National Museum of Natural History, Washington DC
- 2012 **Graduate Fellow**
R. J. Tysor Graduate Research Fellowship, Duke University, Durham, NC
- 2011 **Graduate Fellow**
Department of Biology Research Fellowship, Duke University, Durham, NC
- 2007 **Graduate Fellow**
Graduate School 1st Year Fellowship, Duke University, Durham, NC
- 2006 **Undergraduate Research Fellow**
CSURF Fellowship “Phylogenetic assessment of Pacific Costa Rican *Gelidium* (Gelidiales, Rhodophyta) using molecular and morphological analyses”, D. W. Freshwater lab, Center for Marine Science, UNC Wilmington, Wilmington, NC
- 2005 **Undergraduate Research Fellow**
National Science Foundation, Research Experience for Undergraduates (REU)
“Bioinformatic and Phylogenetic Approaches to the Study of Plant and Fungal Biodiversity”, K. M. Pryer lab, Duke University, Durham, NC

RESEARCH APPOINTMENTS

- 2007 **Research Associate**
Reconciling patterns of phylogenetic rate heterogeneity in ferns with morphology, ecology, and life history”, K. M. Pryer lab, Duke University, Durham, NC
- 2006 **Undergraduate Researcher**
Reconciling patterns of phylogenetic rate heterogeneity in ferns with morphology, ecology, and life history”, K. M. Pryer lab, Duke University, Durham, NC

TEACHING EXPERIENCE

- 2014 **Instructor**
Organization for Tropical Studies
Tropical Plant Systematics: June–July 2014
Responsibilities included lecture and field teaching, organizing invited faculty, and general logistics including lodging and transportation
- 2008–2014 **Teaching Assistant**
Department of Biology, Duke University
Organismal Diversity
Genetics and Evolution (Lab Instructor)
Molecular Biology (Lab Instructor)
Evolutionary Genetics
Plant Systematics and Evolution (Lab Instructor)
Animal Physiology (Lab Instructor)
Genetics and Molecular Biology (Lab Instructor)
- 2011 **Guest Lecturer**
Department of Biology, Duke University
Evolutionary Genetics (with T. Mitchell–Olds)
Topic: Speciation and Phylogenetics
- 2010 **Teaching Assistant**
Organization for Tropical Studies
Tropical Plant Systematics: June–July 2010
Responsibilities included organization of field equipment, general assistance with student research projects, and miscellaneous organizational tasks

REFEREED PUBLICATIONS

11. **Grusz, A. L.**, M. D. Windham, G. Yatskievych, L. Huiet, G. J. Gastony, and K. M. Pryer. 2014. Patterns of diversification in the xeric-adapted fern genus *Myriopteris* (Pteridaceae). *Systematic Botany* 39: 698–794.
10. **Grusz, A. L.** and D. W. Freshwater. 2014. Studies of Costa Rican Gelidiales (Florideophyceae): II. Two Pacific taxa including *Gelidium microglossum* sp. nov. *Pacific Science* 68: 97–110.
9. **Grusz, A. L.** and M. D. Windham. 2013. Toward a monophyletic *Cheilanthes*: the resurrection and recircumscription of *Myriopteris* (Pteridaceae). *PhytoKeys* 32: 49–64.
8. **Grusz, A. L.** 2013. *Myriopteris windhamii* sp. nov., a new name for *Cheilanthes villosa* (Pteridaceae). *American Fern Journal* 103: 112–117.
7. Lagomarsino, L. P., **A. L. Grusz**, and R. C. Moran. 2012. Primary hemiepiphytism and gametophyte morphology in *Elaphoglossum amygdalifolium* (Dryopteridaceae). *Brittonia* 64: 226–235.
6. Wolf, P. G., J. P. Der, A. M. Duffy, J. B. Davidson, **A. L. Grusz**, and K. M. Pryer. 2011. The evolution of chloroplast genes and genomes in ferns. *Plant Molecular Biology* 76: 251–261.

5. Pryer, K. M., E. Schuettpelz, L. Huiet, **A. L. Grusz**, C. J. Rothfels, T. Avent, D. Schwartz, and M. D. Windham. 2010. DNA barcoding exposes case of mistaken identity in the fern horticultural trade. *Molecular Ecology Resources* 10: 979-985.
4. **Grusz, A.L.**, M. D. Windham, and K. M. Pryer. 2009. Deciphering the origins of apomictic polyploids in the *Cheilanthes yavapensis* complex (Pteridaceae). *American Journal of Botany* 96: 1636-1645.
3. Windham, M. D., L. Huiet, E. Schuettpelz, **A. L. Grusz**, C. J. Rothfels, J. B. Beck, G. Yatskievych, and K. M. Pryer. 2009. Using plastid and nuclear DNA sequences to redraw generic boundaries and demystify species complexes in cheilanthoid ferns. *American Fern Journal* 99: 128-132.
2. Schuettpelz, E., **A. L. Grusz**, M. D. Windham, and K. M. Pryer. 2008. The utility of nuclear *gapCp* in resolving polyploid fern origins. *Systematic Botany* 33: 621-629.
1. Rothfels, C. J., M. D. Windham, **A. L. Grusz**, G. J. Gastony, and K. M. Pryer. 2008. Toward a monophyletic *Notholaena* (Pteridaceae): resolving patterns of evolutionary convergence in xeric-adapted ferns. *Taxon* 57: 712-724.

MANUSCRIPTS IN PREPARATION

2. **Grusz, A. L.** and K. M. Pryer. Development of microsatellite markers from 454 sequencing in the apomictic triploid fern *Myriopteris lindheimeri*. (In prep for submission to *Applications in Plant Sciences*)
1. **Grusz, A. L.** and K. M. Pryer. Exploring the origin of genotypic variation in the apomictic triploid *M. lindheimeri*. (In prep for submission to *Nature Plants*)

INTERNATIONAL (AND PROLONGED DOMESTIC) FIELD EXPERIENCE

United States

Extended (>14 days) field expeditions to the desert southwestern USA (including AZ, CA, NM, NV, and UT): 2005, 2008 (organized permits), 2010 (organized all aspects of expedition), 2013 (organized travel)

Costa Rica

Organization for Tropical Studies field course in Tropical Plant Systematics (>2 months): 2010 (teaching assistant), 2014 (coordinator; organized all aspects of course alongside M. Bonifacino)

Organized all aspects of expedition to collect ferns and lycophytes across all distinct habitat types in Costa Rica: 2008

Peru

Participated in field trek and collected ferns in the northern Andes of Peru (14 days): 2012

Scotland

Participated in foray led by botanists from the Royal Botanic Garden Edinburgh (2 days): 2011

Malaysia

Participated in National Geographic Society-funded field expedition to collect fern specimens for morphological, cytological, and molecular study throughout peninsular Malaysia (22 days): 2008

Austria

Participated in a short excursion to observe ferns in the Alps (4 days): 2005

Belize

Participated in field expedition to collect palms in southern Belize (10 days): 2005

RESEARCH GRANTS AND AWARDS

- 2010–2013 National Science Foundation Doctoral Dissertation Improvement Grant (\$14,956)
- 2010 American Society of Plant Taxonomists S. & A. Graham Graduate Research Grant (\$1000)
- 2009 Sigma Xi Grant in Aid of Research (\$500)
- 2009 Duke University Department of Biology Grant-in-Aid (\$1000)
- 2009 Botanical Society of America Women in Science Award (\$500)
- 2009 American Fern Society Pteridological Student Travel Award (\$500)
- 2008 Organization for Tropical Studies: Plant Systematics Research Award (\$963)
- 2008 Society of Systematic Biologists Graduate Student Research Award (\$2000)
- 2006 Deep Time Student Travel Award (\$700)
- 2006 University of North Carolina Wilmington, CSURF Student Travel Award (\$500)
- 2004–2006 University of North Carolina Wilmington, Chancellor's Achievement Award

RESEARCH PRESENTATIONS

Invited

- Grusz, A. L. 2014. *Myriopteris* and Mary of Nazareth: A pteridological take on the Immaculate Conception. Botanical Society of Washington, Washington, DC, USA.
- Grusz, A. L., M. D. Windham, and K. M. Pryer. 2012. Secret sex in the desert: Exploring evolution in New World cheilanthoid ferns. Royal Botanic Gardens Edinburgh, Edinburgh, UK
- Grusz, A. L. 2011. How to give a professional scientific talk. Research Scholars Program, Duke University, Durham, NC, USA.
- Grusz, A. L., M. D. Windham, and K. M. Pryer. 2010. Examining the role of apomixis in the evolution of desert-adapted ferns. Apomixis colloquium: Botanical Society of America annual meeting, Providence, RI, USA.
- Grusz, A. L., M. D. Windham, K. M. Pryer. 2010. Origins of genetic variation in apomictic desert ferns. Duke University, Department of Biology, Population Biology Seminar, Durham, NC, USA.
- Grusz, A. L. 2009. Secret Sex in the Desert: Polyploidy, hybridization, and recombination in myriopterid ferns. Duke University, Systematics Seminar, Durham, NC, USA.

Contributed

- Grusz, A. L., M. D. Windham, and K. M. Pryer. 2014. Premeiotic duplication and genetic variation in apomictic ferns. Botanical Society of America annual meeting, Boise, ID, USA.
- Grusz, A. L. 2012. Using next generation sequencing to develop microsatellite markers in ferns. Botanical Society of American annual meeting, Columbus, OH, USA.
- Grusz, A. L., M. D. Windham, and K. M. Pryer. 2009. A Cheilanthes by any other name: Evolutionary complexity in the New World myriopterid clade (Pteridaceae). Botanical Society of America annual meeting, Snowbird, UT, USA.

Grusz, A. L. and D. W. Freshwater. 2006. Morphological and molecular assessment of Pacific Costa Rican *Gelidium* (Gelidiales, Rhodophyta). 28th Annual Southeastern Phycological Colloquy, Wilmington, NC, USA.

Grusz, A. L., M. D. Windham, J. Metzgar, and K. M. Pryer. 2006. Polyploids and Reticulate Voids: the *Cheilanthes fendleri* complex revisited. Botanical Society of America annual meeting, Chico, CA.

Posters

Grusz, A. L., M. D. Windham, J. Metzgar, and K. M. Pryer. 2005. Chloroplast inheritance in *Cheilanthes yavapensis* (Pteridaceae). Poster Session: State of North Carolina Undergraduate Research Symposium (SNCURS).

Grusz, A. L., M. D. Windham, J. Metzgar, and K. M. Pryer. 2005. Chloroplast inheritance in the fern genus *Cheilanthes*. NSF-REU Presentations, Department of Biology, Duke University.

OUTREACH ACTIVITIES

- 2013 Leader of the Ellerby Creek Watershed Association Fern Hike, Durham, NC
- 2011, 2013 Science Fair Judge, North Carolina School of Science and Math Regional Science Fair, NCSSM, Durham, NC
- 2012 Volunteer, State of North Carolina Undergraduate Research and Creativity Symposium (SNCURCS), Durham, NC
- 2011 Instructor/Mentor, National Collegiate Honors Council, Partner in the Parks Program, Great Smoky Mountains National Park
- 2011 Volunteer Mentor, Research Scholars Program, Duke University, Durham
- 2011 Teacher, Females Excelling More in Math, Engineering, and Science (FEMMES), Duke University, Durham, NC
- 2011 Tutor, Bio101, Department of Biology, Duke University, Durham, NC
- 2011 Teacher, Let them eat cake!, 6th Grade Students, Brogden Middle School, Durham, NC
- 2010 Keynote Speaker, Kids Inquiry Conference, 7th Grade Students, Durham School of the Arts, Durham, NC
- 2010 Teacher, Females Excelling More in Math, Engineering, and Science (FEMMES), Duke University, Durham, NC
- 2009–2010 Athletic Tutor, Duke University, Durham, NC
Genetics and Molecular Biology, Principles of Biology
- 2009 ESL Tutor, E. K. Powe Elementary School, Durham, NC
- 2008 Mentor, Women and Math Mentoring Program (WAMM), Durham, NC
- 2008 Teacher, “Family Trees: You, me, and diversity”, Hearthstone School, Sperryville, VA
- 2006 Tutor, UNC–Wilmington, Wilmington, NC
Chemistry, Genetics, and Advanced Physics

PROFESSIONAL SERVICE

Member, ASPT Membership Committee

American Society of Plant Taxonomists, 2011–present

Chair, Women in Science Discussion Group

Department of Biology, Duke University: 2011 (Committee Member: 2009–2012)

Manuscript Review

Molecular Phylogenetics and Evolution, Molecular Ecology, Systematic Botany, American Fern Journal