

AMANDA L. GRUSZ

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EDUCATION

- 2014 **Ph.D. Biology**
Duke University
- 2006 **B.S. Biology**
University of North Carolina Wilmington

PROFESSIONAL APPOINTMENTS

- 2018–2021 **Research Associate**
Department of Botany, National Museum of Natural History, Smithsonian Institution, Washington, DC
- 2016– **Assistant Professor**
Department of Biology, Swenson College of Science and Engineering, University of Minnesota Duluth, Duluth, MN
- 2016– **Director, Olga Lakela Herbarium (DUL)**
Department of Biology, Swenson College of Science and Engineering, University of Minnesota Duluth, Duluth, MN

RESEARCH FELLOWSHIPS

- 2014–2016 **Postdoctoral Fellow**
Identifying the evolutionary drivers and consequences of an extreme makeover in ferns, E. Schuettpelz (supervisor), Department of Botany, Smithsonian Institution, Washington, DC

TEACHING EXPERIENCE

- 2017– **Instructor**
Department of Biology, University of Minnesota Duluth
Plant Taxonomy, Plant Diversity
- 2014–2018 **Coordinator/Instructor**
Organization for Tropical Studies, San Jose, Costa Rica
Tropical Plant Systematics: June–July 2014, 2016, 2018
Responsibilities included lecture and field teaching, organizing invited faculty, and general logistics including lodging and transportation.

SELECTED PEER-REVIEWED PUBLICATIONS

11. Robison, T., **A. L. Grusz**, P.G. Wolf, J.P. Mower, B.D. Fauskee, K. Sosa, and E. Schuettpelz. 2018. Mobile elements shape plastome evolution in ferns. *Genome Biology and Evolution* 10:2558–2571.
10. PPG I. 2016. A community-derived classification for extant lycophytes and ferns. *Journal of Systematics and Evolution* doi: 10.1111/jse.12229. *Awarded JSE Outstanding Paper 2016
9. **Grusz, A. L.** 2016. A current perspective on apomixis in ferns. *Journal of Systematics and Evolution* doi: 10.1111/jse.12228. *Awarded JSE Outstanding Paper by Young Investigator 2016
8. **Grusz, A. L.**, C. J. Rothfels, and E. Schuettpelz. 2016. Transcriptome sequencing reveals genome-wide variation in molecular evolutionary rate among ferns. *BMC Genomics* 17: 692.
7. **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.
6. **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.
5. **Grusz, A. L.** and M. D. Windham. 2013. Toward a monophyletic *Cheilanthes*: the resurrection and recircumscription of *Myriopteris* (Pteridaceae). *PhytoKeys* 32: 49–64.
4. **Grusz, A. L.** 2013. *Myriopteris windhamii* sp. nov., a new name for *Cheilanthes villosa* (Pteridaceae). *American Fern Journal* 103: 112–117.
3. Lagomarsino, L. P., **A. L. Grusz**, and R. C. Moran. 2012. Primary hemiepiphytism and gametophyte morphology in *Elaphoglossum amygdalifolium* (Dryopteridaceae). *Brittonia* 64: 226-235.
2. **Grusz, A.L.**, M. D. Windham, and K. M. Pryer. 2009. Deciphering the origins of apomictic polyploids in the *Cheilanthes yavapensis* complex (Pteridaceae). *Am. J. Bot.* 96: 1636-1645.
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.

RECENT RESEARCH GRANTS AND AWARDS

2018	Legislative-Citizen Commission on Minnesota Resources (\$350,000; \$68,000 to UMD)
2018	University of Minnesota Grant-in-Aid (rt-PCR, equipment: \$23,400)
2018	Smithsonian Institution, National Museum of Natural History Research Grant (\$139,880)
2017	University of Minnesota Grant-in-Aid (fluorescence microscope, equipment: \$31,787)
2010–2013	National Science Foundation Doctoral Dissertation Improvement Grant (\$14,956)
2010	American Society of Plant Taxonomists S. & A. Graham Graduate Research Grant (\$1000)

RESEARCH PRESENTATIONS (presenting author underlined; asterisk denotes students)

Recent Invited

- Grusz, A. L. 2019. Leveraging lip ferns (*Myriopteris*) to explore genome dynamics in seed free plants. Botanical Research Institute of Texas, Fort Worth, TX, USA.
- Grusz, A. L. 2019. Ten years later: Revisiting the *Myriopteris yavapensis* complex (Pteridaceae) in the genomics era. Colloquium honoring David Barrington: Botanical Society of America annual meeting, Tucson, AZ, USA.

- Grusz, A. L. 2018. Premeiotic endomitosis facilitates recombinant apomixis in land plants. Plant and Animal Genomes Conference XXVII, San Diego, CA, USA.
- Grusz, A. L. 2018. Deep time to species complexes: the evolution of genomic diversity in a eukaryotic non-model lineage. University of Minnesota, Saint Paul, MN, USA.
- Grusz, A. L. 2018. Deep time to species complexes: the evolution of genomic diversity in a eukaryotic non-model lineage. University of Louisiana Lafayette, Lafayette, LA, USA.
- Grusz, A. L. 2017. Recombinant asexuality: a novel source of genotypic diversity in ferns. Missouri Botanical Garden, St. Louis, MO, USA.
- Grusz, A. L., J. Pinson, M. D. Windham. 2015. Exploring genotypic diversity in widespread apomictic species: A case study in the xeric-adapted fern, *Myriopteris lindheimeri* (Pteridaceae). International Pteridological Symposium, Smithsonian Institution, 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.

Recent Contributed

- *Fauskee, B., E. Sigel, and A. L. Grusz. 2019. A tale of three maidenhairs—variable frequencies of plastid RNA editing in *Adiantum*. Botanical Society of America annual meeting, Tucson, AZ, USA.
- *Ranft, H., K. Picard, A. L. Grusz, M. D. Windham, and E. Schuettpelz. 2019. Sometimes it only takes one to tango: Using natural history collections to assess the impact of asexuality in the fern genus *Pteris*. Botanical Society of America annual meeting, Tucson, AZ, USA.
- Zenzen, A. and A. L. Grusz. 2019. A historical niche modeling approach to inferring hybridization in *Woodsia scopulina*. Botanical Society of America annual meeting, Tucson, AZ, USA.
- *Robison, T., A. L. Grusz, P. Wolf, J. Mower, *K. Sosa, *B. Fauskee, M. McKain, and E. Schuettpelz. 2018. Mobile elements shape plastome evolution in ferns. Botanical Society of America annual meeting, Rochester, MN, USA.
- *Zenzen, A., M. D. Windham, and A. L. Grusz. 2018. Who's your mama? Exploring the maternal evolutionary history of *Woodsia scopulina* subsp. *laurentiana* (Woodsiaceae). Botanical Society of America annual meeting, Rochester, MN, USA.
- *Fauskee, B. and A. L. Grusz. 2018. South of the border: herbarium specimens from northern Mexico illuminate patterns of genotypic diversity in a wide-ranging apomictic triploid fern. Botanical Society of America annual meeting, Rochester, MN, USA.

SYNERGYSTIC ACTIVITIES

Outreach

- 2019 Outreach: Discovering biodiversity using BIG data, Café Scientifique, Duluth, MN
- 2019 Herbarium Outreach: Orchids Unveiled, Olga Lakela Herbarium, Duluth, MN
- 2018 Herbarium Outreach: Halloween in the Herbarium, Olga Lakela Herbarium, Duluth, MN
- 2017 Herbarium Outreach: Specimen Mounting Workshop, Olga Lakela Herbarium, Duluth, MN

Professional Service

Chair, American Fern Society Membership

American Fern Society, 2020–

Member, ASPT Membership Committee

American Society of Plant Taxonomists, 2011–2014

Manuscript Review

American Fern Journal, American Journal of Botany, Annals of Botany, Botanical Journal of the Linnean Society, Brittonia, Ecology, Frontiers in Plant Sciences, International Journal of Plant Sciences, Journal of Plant Research, Molecular Ecology, Molecular Phylogenetics and Evolution, PLOS One, Scientific Reports, Systematic Botany