

Emily B. Sessa

Department of Biology
University of Florida
521A Bartram Hall
Gainesville, FL 32611

Office: (352) 392-1098
Fax: (352) 392-3704
Email: emilysessa@ufl.edu
Web: <http://sessalab.biology.ufl.edu>

I. RESEARCH INTERESTS

Plant systematics and evolution, phylogenetics, historical biogeography, diversification processes, physiological ecology, functional traits, community assembly, reticulate evolution, ferns and lycophytes.

II. EDUCATION

- 2012 **University of Wisconsin–Madison**, Madison, Wisconsin
Ph.D., Botany
Dissertation: *Phylogenetics and physiological ecology of Dryopteris (Dryopteridaceae)*
Advisor: Dr. Thomas Givnish
- 2005 **Cornell University**, Ithaca, New York
B.A., *magna cum laude*, Ecology & Evolutionary Biology
Thesis: *Effects of the presence of a bryophyte layer on AMF colonization and phosphorus uptake in wetland vascular plants*
Advisor: Dr. Barbara Bedford

III. PROFESSIONAL APPOINTMENTS

- 2013–present **University of Florida**, Gainesville, Florida
Assistant Professor, Department of Biology
- 2013–present **Florida Museum of Natural History**, Gainesville, Florida
Affiliate Assistant Curator of Molecular Systematics, Department of Natural History
- 2014–present **University of Florida Genetics Institute**, Gainesville, Florida
Member
- 2012–2013 **University of Arizona**, Tucson, Arizona
Postdoctoral Research Associate, Department of Ecology and Evolutionary Biology
Mentor: Dr. Michael Barker
- 2005–2007 **Paleontological Research Institution & Museum of the Earth**, Ithaca, New York
Assistant to the Director and Assistant Editor, *American Paleontologist* magazine

IV. FUNDING

- 2018–2021 NSF IOS 1754911. Collaborative Research: RUI: Understanding the effects of ploidal level on responses to global change in plants. **PI: EB Sessa**. \$338,035.
- 2018–2021 NSF DBI 1802134. Digitization TCN: Collaborative Research: The Pteridological Collections Consortium: An integrative approach to pteridophyte diversity over the last 420 million years. A consortium of 39 institutions, led by UC Berkeley. **UF PI: EB Sessa**. \$147,790.
- 2018 NSF DEB 1820535. REU supplement to NSF DEB 1541506, Collaborative Research: Building a comprehensive evolutionary history of flagellate plants. **PI: EB Sessa**, Co-PIs: P Antonenko, EC Davis, SF McDaniel. \$7,500.
- 2017 NSF DEB 1722132. REU supplement to NSF DEB 1541506, Collaborative Research: Building a comprehensive evolutionary history of flagellate plants. **PI: EB Sessa**, Co-PIs: P Antonenko, EC Davis, SF McDaniel. \$6,500.
- 2017–2019 NSF DEB 1701708. Dissertation Research: The Evolutionary Significance of Gametophyte Morphology in Epiphytic Ferns. **PI: EB Sessa**, Co-PI: Jerald Pinson. \$19,816.

- 2016–2019 NSF DEB 1541506. Collaborative Research: Building a comprehensive evolutionary history of flagellate plants. PI: JG Burleigh, **Co-PIs: EB Sessa**, P Antonenko, EC Davis, SF McDaniel. \$2,227,377.
- 2014–2016 Eppley Foundation for Research. A novel network and molecular approach to conserving the globally imperiled pine rockland ecosystem of south Florida. PI: B Baiser; **Co-PIs: EB Sessa**, J Hulcr. \$25,470.
- 2014 UF Genetics Institute 89167530. A Preliminary Investigation of Genome Size and Structure in Ferns: The Role of Transposable Elements and Duplicate Gene Copies. PI: PS Soltis; **Co-PIs: EB Sessa**, WB Barbazuk, M Kirst, DE Soltis. \$15,000.
- 2011 NSF DEB 1110335. DISSERTATION RESEARCH: Investigating Phylogeny, Reticulate Evolution, and Gene Tree Discordance in New World *Dryopteris* (*Dryopteridaceae*). PI: TJ Givnish; **Co-PI: EB Sessa**. \$14,864.

V. PUBLICATIONS

42. Luo F, P Antonenko, N Valle, EC Davis, **EB Sessa**, JG Burleigh, L Endara, S McDaniel, and S Carey. Collaborative design reasoning in a large interdisciplinary educational technology design project. *In review*.
41. Howard CC, CM Tribble, J Martinez-Gomez, J Males, V Sosa, **EB Sessa**, CD Specht, and N Cellinese. Digging deeper: The evolutionary complexity of underground storage organs. *In review*.
40. **Sessa EB**, S Kinosian, WL Testo, and SM Chambers. Using RAD data to confirm parentage of polyploids in a reticulate complex of ferns. *American Fern Journal*. *In review*. *Invited for special issue on fern genomics*.
39. Molino S, JM Gabriel y Galán, **EB Sessa**, and P Wasowicz. A multi-character review of *Struthiopteris* leads to the rescue of *Spicantopsis* (*Blechnaceae*, *Polypodiopsida*). *In revision*.
38. Molino S, JM Gabriel y Galán, P Wasowicz, P de la Fuente, **and EB Sessa**. The *Struthiopteris spicant* (*Blechnaceae*, *Polypodiopsida*) complex in Western Europe, with proposals for some taxonomic and nomenclatural changes. *In revision*.
37. One Thousand Plant Transcriptomes Initiative*. A phylogenomic view of evolutionary complexity in green plants. *In revision*. *A consortium of 192 authors.
36. Rivero Castro R, R Zenil-Ferguson, **and EB Sessa**. EyeChrom and CCDBcurator: Visualizing chromosome count data from plants. *Applications in Plant Sciences*. *In press*.
35. Testo WL, **EB Sessa**, and DS Barrington. The rise of the Andes promoted rapid diversification in Neotropical *Phlegmariurus* (*Lycopodiaceae*). *New Phytologist*. *In press*.
34. **Sessa EB**. (2019) Commentary: Polyploidy as a mechanism for surviving global change. *New Phytologist* 221(1): 5–6. *This commentary was invited by the editors*.
33. Trotta L, B Baiser, J Possley, D Li, J Lange, S Martin, **and EB Sessa**. (2018) Community phylogeny of the globally critically imperiled pine rockland ecosystem. *American Journal of Botany* 105: 1735–1747.
32. Pinson JB, SR Manchester, **and EB Sessa**. (2018) *Culcita remberi* sp. nov., a tree fern from the Miocene of northern Idaho. *International Journal of Plant Sciences* 179 (8): 635–639.
31. Jabaily RS, KA Shepherd, PS Michener, CJ Bush, R Rivero, AG Gardner, **and EB Sessa**. (2018) Employing mitochondrial sequences and hypothesis testing to resolve recalcitrant backbone nodes in *Goodenia* s.l. (*Goodeniaceae*). *Molecular Phylogenetics and Evolution* 127: 502–512 .
30. **Sessa EB**, M Vicent, SM Chambers, and JM Gabriel y Galán. (2018) Evolution and reciprocal origins in Mediterranean ferns: The *Asplenium obovatum* and *A. adiantum-nigrum* complexes. *Annals of the Missouri Botanical Garden* 103(2): 175–187.
29. **Sessa EB**, SM Chambers, L Endara, JG Burleigh, and B Baiser. (2018) Community assembly of the ferns of Florida. *American Journal of Botany* 105(3): 549–564.

28. Soltis DE, M Moore, **EB Sessa**, S Smith, PS Soltis. (2018) Using and navigating the plant tree of life. *American Journal of Botany* 105(3): 287–290.
27. **Sessa EB**. (2018) Evolution and classification of ferns and lycophytes. Pages 179–200 in: *Current Advances in Fern Research*. H Fernández, Ed. Springer: Switzerland.
26. Pinson JB, SM Chambers, and **EB Sessa**. (2017) *Vittaria graminifolia* (Pteridaceae) and *Didymoglossum petersii* (Hymenopyllaceae) in Broxton Rocks, GA. *American Fern Journal* 107(4): 257–264.
25. Vicent M, JM Gabriel y Galán, and **EB Sessa**. (2017) Phylogenetics and historical biogeography of *Lomaridium* (Blechnaceae, Polypodiopsida). *Taxon* 66(6): 1304–1316.
24. Berger BA, J Han, **EB Sessa**, AG Gardner, KA Shepherd, V Ricigliano, RS Jabaily, and DG Howarth. (2017) The unexpected depths of genome skimming data: a case study examining Goodeniaceae floral symmetry genes. *Applications in Plant Sciences*. 5(10): 1700042.
23. Cai S, G Chen, Y Wang, Y Huang, DB Marchant, G Jing, Y Wang, Q Yang, F Dai, A Hills, PJ Franks, E Nevo, DE Soltis, PS Soltis, **EB Sessa**, P Wolf, D Xue, G Zhang, BJ Pogson, and Z-H Chen. (2017) Evolutionary conservation of ABA signaling for stomatal closure in fern. *Plant Physiology* 174(2): 732-747.
22. Chambers SM, JE Watkins, Jr., and **EB Sessa**. (2017) Differences in desiccation tolerance among populations of a gametophyte-only fern. *American Journal of Botany* 104(4): 598–607.
21. **Sessa EB**, A Juslén, H Väre, and SM Chambers. (2017) Into Africa: Molecular phylogenetics and historical biogeography of sub-Saharan African woodferns (*Dryopteris*). *American Journal of Botany* 104(3): 477–486.
20. Pinson JB, SM Chambers, J Nitta, L-Y Kuo, and **EB Sessa**. (2017) The separation of generations: Biology and biogeography of long-lived, sporophyte-less fern gametophytes. *International Journal of Plant Sciences* 178(1): 1–18.
19. PPG 1: The Pteridophyte Phylogeny Group*. (2016) A community-derived classification for extant lycophytes and ferns. *Journal of Systematics and Evolution* 54(6) 563-603.
*This project was organized by E Schuettpelz, H Schneider, AR Smith, P Hovenkamp, J Prado, G Rouhan, A Salino, M Sundue, TE Almeida, B Parris, **EB Sessa**, AR Field, AL de Gasper, CJ Rothfels, MD Windham, M Lehnert, B Dauphin, A Ebihara, S Lehtonen, PB Schwartsburd, J Metzgar, L-B Zhang, L-Y Kuo, PJ Brownsey, M Kato, and MD Arana, with 68 additional contributors.
18. Link-Pérez MA, TG Ludwig, CJ Ledford, MH Seabolt, and **EB Sessa**. (2016) Lectotypification of *Adiantopsis alata* Prantl (Pteridaceae) and descriptions of new palmate species in the Guiana Shield. *Systematic Botany* 41(4): 906-918.
17. Haufler CH, KM Pryer, E Schuettpelz, **EB Sessa**, DR Farrar, R Moran, JJ Schneller, JE Watkins, Jr., and MD Windham. (2016) Sex and the single gametophyte: Revising the homosporous plant life cycle in light of contemporary research. *BioScience* 66(11): 928–937.
16. Visger CJ, CG Germain-Aubrey, M Patel, **EB Sessa**, PS Soltis, and DE Soltis. (2016) Niche divergence between diploid and autotetraploid *Tolmiea* (Saxifragaceae). *American Journal of Botany* 103(8): 1396–1406.
15. **Sessa EB**, W Testo, and JE Watkins, Jr. (2016) On the widespread capacity for, and functional significance of, extreme inbreeding in ferns. *New Phytologist* 211(3): 1108-1119. **This paper is featured on the cover of the volume in which it appears.**
14. **Sessa EB** and JP Der. (2016) Evolutionary genomics of ferns and lycophytes. Pages 215–254 in: *Genomes and Evolution of Charophytes, Bryophytes, and Ferns*. SA Rensing, Ed. *Advances in Botanical Research*, vol. 78. Elsevier: Massachusetts, USA.

13. Gardner AG*, **EB Sessa***, P Michener, E Johnson, KA Shepherd, DG Howarth, and RS Jabaily. (2016) Utilizing next-generation sequencing to resolve the backbone and inform taxonomy of the Core Goodeniaceae. *Molecular Phylogenetics and Evolution* 94:605–617. ***Authors contributed equally.**
12. Li Z, A Baniaga, **EB Sessa**, M Scascitelli, SW Graham, LH Rieseberg, and MS Barker. (2015) Early genome duplications in conifers and other seed plants. *Science Advances* 1(10): e1501084.
11. Wolf PG, **EB Sessa**, DB Marchant, F-W Li, CJ Rothfels, EM Sigel, MA Gitzendanner, CJ Visger, JA Banks, DE Soltis, PS Soltis, KM Pryer, and JP Der. (2015) An exploration into fern genome space. *Genome Biology and Evolution* 7(9): 2533–2544.
10. **Sessa EB**, L-B Zhang, H Väre, and A Juslén. (2015) What we do (and don't) know about ferns: *Dryopteris* (Dryopteridaceae) as a case study. *Systematic Botany* 40(2): 387–399.
9. Tank DC, JM Eastman, MW Pennell, PS Soltis, DE Soltis, CE Hinchliff, JW Brown, **EB Sessa**, and LJ Harmon. (2015) Nested radiations and the pulse of angiosperm diversification: increased diversification rates often follow whole genome duplication. *New Phytologist* 207: 454–467.
8. Lessl JT, D-X Guan, **EB Sessa**, B Rathinasabapathi, and LQ Ma. (2015) Transfer of arsenic and phosphorus from soils to the fronds and spores of arsenic hyperaccumulator *Pteris vitatta* and non-arsenic hyperaccumulators. *Plant and Soil* 390: 49–60.
7. **Sessa EB**, JA Banks, MS Barker, JP Der, AM Duffy, SW Graham, M Hasebe, J Langdale, F-W Li, DB Marchant, KM Pryer, CJ Rothfels, SJ Roux, ML Salmi, EM Sigel, DE Soltis, PS Soltis, DW Stevenson, and PG Wolf. (2014) Between two fern genomes. *GigaScience* 3:15.
6. **Sessa EB** and TJ Givnish. (2014) Leaf form and photosynthetic physiology of *Dryopteris* species distributed along light gradients in eastern North America. *Functional Ecology* 28: 108-123.
5. **Sessa EB**, EA Zimmer, and TJ Givnish. (2012) Unraveling reticulate evolution in North American *Dryopteris* (Dryopteridaceae). *BMC Evolutionary Biology* 12(1): 104.
4. **Sessa EB**, EA Zimmer, and TJ Givnish. (2012) Reticulate evolution on a global scale: a nuclear phylogeny for New World *Dryopteris* (Dryopteridaceae). *Molecular Phylogenetics & Evolution* 64(3): 563-581.
3. Zhang L-B, L Zhang, S-Y Dong, **EB Sessa**, X-F Gao, and A Ebihara. (2012) Molecular circumscription and major evolutionary lineages of the fern genus *Dryopteris* (Dryopteridaceae). *BMC Evolutionary Biology* 12(12): 180.
2. **Sessa EB**, EA Zimmer, and TJ Givnish. (2012) Phylogeny, divergence times, and historical biogeography of New World *Dryopteris* (Dryopteridaceae). *American Journal of Botany* 99(4): 730-750.
1. Ross RM, F Allaby, CS Buckler, **EY Butler**, D Gabreski, L Paciulli, KJ Gremillion, and WD Allmon. (2008) The Hyde Park Mastodon Matrix Project, with particular reference to the mollusks and seeds. In *Mastodon Paleobiology, Taphonomy, and Paleoenvironment in the Late Pleistocene of New York State: Studies on the Hyde Park, Chemung, and North Java Sites* [WD Allmon and PL Nester, eds]. *Paleontographica Americana* 61: 111–134.

VI. PRESENTATIONS

Invited seminars

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| 2018 | University of Arizona, Department of Ecology and Evolutionary Biology |
| 2018 | University of Alabama, Department of Biological Sciences |
| 2018 | Harvard University Herbaria |
| 2018 | University of Georgia, Department of Plant Biology |
| 2018 | Ohio State University, Department of Evolution, Ecology & Organismal Biology |
| 2017 | Plant Conservation Alliance, U.S. Bureau of Land Management, Washington, D.C. |
| 2017 | University of Wisconsin–Madison, Department of Botany |

- 2017 Oregon State University, Department of Botany & Plant Pathology
Invited to give the 2017 Dr. Bonnie C. Templeton Annual Lecture, delivered each spring by a woman working in the field of plant systematics.
- 2017 Chicago Plant Science Symposium, Field Museum
- 2017 Duke University, Department of Biology
Invited to be the Spring 2017 Duke Systematics Discussion Group Super-Speaker.
- 2016 Iowa State University, Department of Ecology, Evolution, and Organismal Biology
- 2016 University of California, Santa Cruz, Department of Ecology & Evolutionary Biology
- 2014 Missouri Botanical Garden
- 2014 Finnish Museum of Natural History, University of Helsinki
- 2013 Rhodes College, Department of Biology
- 2010 University of California–Berkeley, University & Jepson Herbaria

*Invited conference presentations (speaker indicated with *)*

- 2018 **Sessa EB***, AL de Gasper, VA de Oliveira Dittrich, A Salino, JM Gabriel y Galán, and W Testo. Historical biogeography of the fern family Blechnaceae. In *S35: Avances en el conocimiento de la historia evolucionaria de las plantas flageladas*. Symposium at the XII Latin American Botanical Congress, Quito, Ecuador.
- 2018 **Sessa EB***. Exploring a paradox of global botanical biodiversity: Why is Africa the “odd man out”? In: *Biodiversity for Sustainable Agriculture in Africa*, networking seminar at the Finnish Museum of Natural History, Helsinki, Finland.
- 2017 **Sessa EB***, SM Chambers, and B Baiser. Community phylogenetics of Florida ferns: insights from integrated analyses of trees, traits, and climate data. In: *Taxonomy and conservation of ferns and lycopods*, symposium at the XIX International Botanical Congress, Shenzhen, China.
- 2017 **Sessa EB***. Understanding the “Odd Man Out” pattern in African plant: New insights from ferns. In: *Evolution of intercontinental disjunctions in ferns and lycophytes*, symposium at the XIX International Botanical Congress, Shenzhen, China.
- 2017 Burleigh JG*, J Breinholt, S Carey, EC Davis, S McDaniel, L Nieves, **EB Sessa**, M von Konrat. GoFlag: A next generation sequencing perspective on flagellate plant phylogeny. In: *Phylogenomic perspectives on flagellate plant evolution*, symposium at the XIX International Botanical Congress, Shenzhen, China.
- 2017 Marchant DB*, **EB Sessa**, PG Wolf, PS Soltis, and DE Soltis. Unfurling monilophyte genomics: how polyploidy, transposable elements, and the alternation of independent generations drive fern evolution. In: *Plant genome evolution from the very beginning*, symposium at the XIX International Botanical Congress, Shenzhen, China.
- 2016 **Sessa EB***, B Baiser, SM Chambers. Florida ferns: Community phylogenetics and traits. In: *Community Ecology of Florida*, symposium at ESA, Ft. Lauderdale, FL.
- 2016 Chambers SM*, **EB Sessa**, B Baiser. Florida ferns: Species’ distributions and climatic tolerances. In: *Community Ecology of Florida*, symposium at ESA, Ft. Lauderdale, FL.
- 2016 Trotta LB*, B Baiser, J Possley, **EB Sessa**. Phylogenetic signal to invasion and rarity in Florida’s imperiled Pine Rockland flora. In: *Community Ecology of Florida*, symposium at ESA, Ft. Lauderdale, FL.
- 2016 **Sessa EB***, SF McDaniel, EC Davis, P Antonenko, M von Konrat, E Gaus, and JG Burleigh. Building a comprehensive evolutionary history of flagellate plants. In: *Seed-free plants at the genomics scale*, colloquium at Botany, Savannah, GA.

- 2016 Marchant DB*, WB Barbazuk, **EB Sessa**, M Kirst, PS Soltis, and DE Soltis. Explorations into the C-Fern genome. Plant & Animal Genome Conference (PAG) XXIV, San Diego, CA.
- 2015 **Sessa EB***, P Szovenyi, S Graham, D Stevenson, P Wolf, C Rothfels, F-W Li, G K-S Wong, and J Der. Gametophyte vs. sporophyte dominance and accompanying changes in gene content across land plants. In: *Phylogenomics and the 1000 plants (1KP) initiative*, colloquium at Botany, Edmonton, Canada.
- 2015 **Sessa EB***, L Trotta, S Stevens, L Endara, JG Burleigh, B Baiser. Phylogenetic structure and diversity of Florida ferns. In: *The integration of ecological and phylogenetic approaches in pteridology*, colloquium at Next Generation Pteridology, Washington, D.C.
- 2015 Der JP* and **EB Sessa**. Next-generation technology unfurls new opportunities for the next generation of pteridology. In: *Genomics and Transcriptomics of Ferns and Lycophytes*, colloquium at Next Generation Pteridology, Washington, D.C.
- 2015 Marchant DB*, **EB Sessa**, K Heo, PS Soltis, and DE Soltis. Delving into the C-Fern genome. In: *Genomics and Transcriptomics of Ferns and Lycophytes*, colloquium at Next Generation Pteridology, Washington, D.C.
- 2015 Wolf PG*, **EB Sessa**, DB Marchant, F-W Li, CJ Rothfels, EM Sigel, MA Gitzendanner, CJ Visger, JA Banks, DE Soltis, PS Soltis, KM Pryer, and JP Der. Skimming the surface of fern nuclear genomes. In: *Genomics and Transcriptomics of Ferns and Lycophytes*, colloquium at Next Generation Pteridology, Washington, D.C.
- 2015 Zhan SH, CJ Rothfels, A Larsson, S Westrand, D Burge, M Ruhsam, F-W Li, EM Sigel, S Ellis, S Shaw, A Calcedo, T Chen, L DeGironomo, **EB Sessa**, JP Der, MS Barker, J Leebens-Mack, M Deyholos, G K-S Wong, DW Stevenson, and SW Graham*. Phylotranscriptomics of the seed-free vascular plants. In: *Genomics and Transcriptomics of Ferns and Lycophytes*, colloquium at Next Generation Pteridology, Washington, D.C.
- 2014 Barker MS* and **EB Sessa**. Increases in plant diversity associated with changes in genome composition and WGDs. *Evolution*, Raleigh, NC.
- 2011 **Sessa EB***, Zimmer EA, and Givnish TJ. Phylogeny, physiology, and reticulate evolution: an integrated approach to North American *Dryopteris* (Dryopteridaceae). International Botanical Congress, Melbourne, Australia.
- 2009 **Sessa EB***. Phylogenetics and physiological ecology of North American *Dryopteris* (Dryopteridaceae). NSF-MORPH Workshop, *The Leaf: Integrating Evolution, Development, and Function*. University of Colorado, Boulder, CO.
- 2009 **Sessa, EB***. Relationships of North American *Dryopteris*. Cullowhee Conference: Native Plants in the Landscape, Western Carolina University, Cullowhee, NC.
- Contributed conference presentations & posters (presenter indicated with *)*
- 2018 Luo F, N Valle, P Antonenko, DC Davis, **EB Sessa**, JG Burleigh, CL Endara, S McDaniel, S Carey. DELT-Collaborative Design in STEM Education: Developing An Online Tool for Learning Flagellate Plants. AECT (Association for Educational Communications & Technology) International Convention: *Learning for All*. Kansas City, MO.
- 2018 Molino S, JM Gabriel y Galán, **EB Sessa**, P Wasowicz, and P de la Fuente. Historical biogeography of spicantoid Blechnaceae ferns: the genera *Struthiopteris*, *Spicantopsis*, and *Blechnidium* (Blechnaceae, Polypodiopsida). 7th Asian Symposium of Ferns and Lycophytes. Taipei, Taiwan.
- 2018 Molino S, JM Gabriel y Galán, **EB Sessa**, and P Wasowicz. A multi-character review of *Struthiopteris*: most of the Asian diversity is better placed in *Spicantopsis* (Blechnaceae, Polypodiopsida). 7th Asian Symposium of Ferns and Lycophytes. Taipei, Taiwan.

- 2018 **Sessa EB***, AL de Gasper, JM Gabriel y Galán, and W Testo. Historical biogeography of the fern family Blechnaceae. Botany, Rochester, MN.
- 2018 Zeller ZC*, N Triester, C Krieg, K McCulloh, and **EB Sessa**. Environmental drivers of intra-specific trait variation and adaptation in the fern *Polystichum imbricans*. Botany, Rochester, MN. Poster.
- 2018 Krieg C*, K McCulloh, R Guralnick, and **EB Sessa**. Niche divergence and novel eco-physiological traits in a North American polyploid fern complex. Botany, Rochester, MN.
- 2018 Pinson JB*, SM Chambers, and **EB Sessa**. Biogeography of filmy ferns in eastern North America. Botany, Rochester, MN.
- 2018 Pinson JB*, S Manchester, and **EB Sessa**. *Culcita remberi* sp. nov., a tree fern from the Miocene of northern Idaho. Botany, Rochester, MN.
- 2018 Testo W*, **EB Sessa**, and DS Barrington. Phylogenetic systematics, morphological evolution, and natural groups in Neotropical *Phlegmariurus* (Lycopodiaceae). Botany, Rochester, MN.
- 2018 Testo W*, **EB Sessa**, and DS Barrington. The rise of the Andes promoted rapid diversification in Neotropical *Phlegmariurus* (Lycopodiaceae). Botany, Rochester, MN.
- 2018 Marchant DB*, **EB Sessa**, P Wolf, PS Soltis, DE Soltis. Incorporating a fern genome into land plant evolutionary genomics. Botany, Rochester, MN.
- 2018 Riibe L* and **EB Sessa**. Phylogeny and biogeography of endemic ferns in a biodiversity hotspot. Botany, Rochester, MN. Poster.
- 2017 **Sessa EB***, B Baiser, and SM Chambers. Florida ferns: Community phylogenetics and traits. Florida Rare Plant Task Force meeting, Sarasota, FL.
- 2017 Chambers SM*, B Baiser, and **EB Sessa**. Distributions and environmental divergences of Florida ferns. Florida Rare Plant Task Force meeting, Sarasota, FL.
- 2017 Pinson JB*, SM Chambers, and **EB Sessa**. Florida's sinkholes and the separation of generations in ferns. Florida Rare Plant Task Force meeting, Sarasota, FL.
- 2016 Pinson JB*, SM Chambers, and **EB Sessa**. Florida's sinkholes and the separation of generations in ferns. Botany, Savannah, GA.
- 2016 Trotta L*, B Baiser, J Possely, and **EB Sessa**. Phylogenetic signal of invasion and rarity in Florida's imperiled Pine Rockland flora. Botany, Savannah, GA.
- 2016 Chambers SM*, B Baiser, and **EB Sessa**. Distributions and environmental divergences of Floridian ferns. Botany, Savannah, GA.
- 2016 Michener P*, **EB Sessa**, C Bush, and RS Jabaily. Grow a backbone: mitochondrial exome sequencing provides a surprisingly rich source of phylogenetically informative characters in the enigmatic Australian clade *Goodenia* s.l. Botany, Savannah, GA.
- 2016 Jabaily RS*, AG Gardner, **EB Sessa**, P Michener, E Johnson, and KA Shepherd. Molecules, morphology, and monophyly: revising the enigmatic Australian clade *Goodenia* s.l. (*Goodeniaceae*) using comprehensive sampling and big data. Botany, Savannah, GA.
- 2016 Marchant DB*, WB Barbazuk, M Kirst, **EB Sessa**, PS Soltis, and DE Soltis. Gene evolution and specificity underlying the alternation of independent generations in *Ceratopteris richardii*. Botany, Savannah, GA.
- 2016 Jabaily RS*, A Gardner, KA Shepherd, **EB Sessa**, and DG Howarth. Phylogenetics and floral symmetry evolution of the core *Goodeniaceae*. Evolution, Austin, TX.

- 2016 Michener P*, **EB Sessa**, and RS Jabaily. Utilizing genome skimming of the mitochondria, chloroplast, and nuclear genomes to resolve the recalcitrant *Goodenia* Clade C backbone. Evolution, Austin, TX. Poster.
- 2015 **Sessa EB***, M Vicent, and JM Gabriel y Galán. Exploring potential asymmetric hybridization in a Mediterranean fern complex: the *Asplenium obovatum* group. Botany, Edmonton, Canada. (Received the Edgar T. Wherry award for this talk.)
- 2015 Marchant DB*, **EB Sessa**, K Heo, PS Soltis, and DE Soltis. Transcriptomic and genomic investigations of the homosporous fern, *Ceratopteris richardii*. Botany, Edmonton, Canada.
- 2015 Berger B*, V Ricigliano, **EB Sessa**, A Gardner, K Shepherd, J Han, RS Jabaily, and DG Howarth. Using genome skimming to uncover coding and regulatory sequences of floral symmetry genes in Core Goodeniaceae. Botany, Edmonton, Canada. Poster.
- 2015 Link-Pérez MA*, TG Ludwig, **EB Sessa**. Investigating reticulate evolution in *Adiantopsis* using nuclear data: first glimpses. Next Generation Pteridology, Washington, D.C.
- 2015 Der JP*, **EB Sessa**, DB Marchant, F-W Li, CJ Rothfels, EM Sigel, JA Banks, MA Gitzendanner, CJ Visger, DE Soltis, PS Soltis, KM Pryer, and PG Wolf. Comparative exploration of fern genome space. Plant & Animal Genome XXIII, San Diego. Poster.
- 2015 Zhan SH, CJ Rothfels, Z Xi, F-W Li, **EB Sessa**, MS Barker, JP Der, M Ruhsam, A Larsson, D Burge, L DeGironimo, S Ellis, CC Davis, PG Wolf, J Leebens-Mack, M Deyholos, G K-S Wong, DW Stevenson, SW Graham*. Phylotranscriptomics of ferns and lycophytes, two key lineages in land-plant evolution. Plant & Animal Genome XXIII, San Diego. Poster.
- 2014 Gardner A*, K Shepherd, DG Howarth, J Fitz Gerald, **EB Sessa**, and RS Jabaily. In the Goodeniaceae, broad and deep sequencing facilitates taxonomic revision and development of the floral symmetry evolution model. Goodeniaceae Working Group Mini-Symposium, Western Australian Herbarium, Perth, Australia.
- 2014 **Sessa EB***, W Testo, R Momin, and JE Watkins, Jr. Mating systems in ferns: frequencies, functional significance, and phylogenetic signal. Botany, Boise, ID.
- 2014 Marchant DB*, **EB Sessa**, WB Barbazuk, PG Wolf, DE Soltis, and PS Soltis. Delving into the C-Fern genome. Botany, Boise, ID. Poster.
- 2014 Gardner AG*, **EB Sessa**, P Michener, KA Shepherd, and RS Jabaily. Leveraging the power of next-generation sequencing to resolve the phylogenetic backbone of Core Goodeniaceae. Botany, Boise, ID.
- 2013 **Sessa EB***, TJ Givnish, and MS Barker. Sequencing a Lazarus transcriptome: reconstructing "*Dryopteris semicristata*". Botany, New Orleans, LA.
- 2013 **Sessa EB***, MS Barker. Absolute dosage and functional diversification drive the majority of gene retention following polyploidy in the Compositae. Botany, New Orleans, LA.
- 2013 **Sessa EB***, MS Barker. Absolute dosage and functional diversification drive the majority of gene retention following polyploidy in the Compositae. Evolution, Snowbird, UT.
- 2012 **Sessa EB***, TJ Givnish. Leaf form and photosynthetic physiology of eastern North American *Dryopteris* (Dryopteridaceae). Botany, Columbus, OH.
- 2010 Gardner A*, **EB Sessa***, B Sidoti*, and EW Williams*. Ecological cladogenesis: Searching for adaptation on several scales. UW-Madison Evolution Seminar Series.
- 2010 **Sessa EB***, TJ Givnish, and EA Zimmer. Relationships of New World *Dryopteris*. Botany, Providence, RI.
- 2010 **Sessa EB***. Phylogenetics of North American *Dryopteris* (Dryopteridaceae). University of Wisconsin-Madison Biology Colloquium.

- 2009 **Sessa EB***, TJ Givnish, and EA Zimmer. Relationships of North American *Dryopteris* based on plastid and nuclear sequences. Botany, Snowbird, UT.
- 2008 Pryer KM*, **EY Butler**, D Farrar, R Moran, JJ Schneller, E Schuettpelz, JE Watkins, Jr., and MD Windham. On the importance of portraying the plant life cycle accurately: ferns as a case study. Botany, Vancouver, British Columbia.
- 2008 **Butler EY***, TJ Givnish. In the light of evolution: A proposal to integrate phylogeny and ecophysiology in New World *Dryopteris*. Botany, Vancouver, British Columbia. Poster.
- 2005 **Butler EY***. Effects of the presence of a bryophyte layer on AMF colonization and phosphorus uptake in wetland vascular plants. *Honors thesis symposium*, Department of Natural Resources, Cornell University.

VII. AWARDS & FELLOWSHIPS

- 2017 Faculty development trip to South Africa & Swaziland, UF International Center
- 2016 UF Faculty Teaching Award (nominated but ineligible)
- 2015 Global Fellows Program, UF International Center
- 2015 Edgar T. Wherry Award, Botanical Society of America
- 2012 Exceptional Service Teaching Assistant Award, University of Wisconsin
- 2011 ON & EK Allen Memorial Fellowship, Botany Department, University of Wisconsin
- 2011 Graduate Student Research Fellowship, Torrey Botanical Society
- 2009 Davis Summer Fellowship, Botany Department, University of Wisconsin
- 2009 Honorable Mention, Graduate Research Fellowship (Pre-Doc), NSF
- 2008 Graduate Research Fellowship, National Museum of Natural History, Smithsonian Inst.

VIII. TEACHING (*Semesters taught: F=Fall, S=Spring, ##=Year*)

University of Florida, Professor

- S18 BOT 6935/ZOO 6927, Special Topics: *On the Origin of Species* Reading Group (1 cr)
- F17 BOT 4935, Special Topics: Medical and Forensic Plant Biology (3 cr)
- F16 BOT 6935, Special Topics: Ecophylogenetics Seminar (1 cr)
- S16 BOT 6935, Special Topics: Plant Physiology Reading Group (1 cr)
- F15 BSC 2011, Integrated Principles of Biology II (3cr)
- S15, S17 BOT 6726/ZOO 6927, Principles of Systematic Biology (4cr)
- S15, S18 BOT 5725, Taxonomy of Vascular Plants (4cr)
- F14, F16, F18 BOT 2710, Practical Plant Taxonomy (3cr)
- S14 BOT 6935/BOT 4935, Special Topics: Variation & Evolution in Plants (1 cr)
- S14, S16, S18 BOT 6935/ZOO 6927, Special Topics: Phylogenomics (3 cr)
- F13 BOT 6935/BOT 4935, Special Topics: Genome Doubling (1 cr)
- F13–present (every Fall) BOT 6935/ZOO 6927, Special Topics: Phylogenetic Systematics Seminar (1 cr)

University of Wisconsin–Madison, Graduate teaching assistant

- S12 Biocore 304, Cellular Biology Laboratory (2 cr)
- F09, F10 BOT 400, Plant Systematics (4 cr)
- S10, S11 BOT 401, Vascular Flora of Wisconsin (4 cr)
- F07, S08, S09 BOT 130, Introductory Botany (5 cr)

Cornell University, Undergraduate teaching assistant

- F04 NTRES 419, Wetland Ecology & Management Laboratory (3 cr)

IX. MENTORING

Postdoctoral Researchers

- 2018–present **Weston Testo**. Postdoc on NSF DEB 1541506, Collaborative Research: Building a Comprehensive Evolutionary History of Flagellate Plants.
- 2014–2017 **Sally Chambers**. Now a Research Botanist at Selby Botanical Gardens in Sarasota, FL.

Graduate Students

- 2017–present **Lindsey Riibe**, PhD Student. *Biogeographic patterns and conservation of ferns in the Greater Antilles*.
- 2015–present **Christopher Krieg**, PhD Candidate. *Niche differentiation and abiotic stress tolerance in an allotetraploid fern*. NSF Graduate Research Fellow (2016–2019), recipient of NSF GROW Award (2018) and Australia-Americas PhD Research Internship (2018).
- 2014–present **Jerald Pinson**, PhD Candidate. *Natural history and genetics of fern gametophytes*. Winner of the UF's 3-Minute Thesis Competition (2015), recipient of Sigma Xi award (2015), Florida Native Plant Society Research award (2016), and NSF DDIG (2017-2019).
- 2014–2016 **Lauren Trotta**, MS '16. PhD Student, co-advised by Ben Baiser, UF WEC. *Phylogenetic signal to invasion and rarity in Florida's imperiled Pine Rockland flora*. Recipient of Florida Native Plant Society Research award (2016).

Undergraduate Researchers (names are bolded for the year in which they joined the lab); Total to date: 13

- 2018–2019 **Kadeen Lyttle**, Botany '20; David Adelhelm, Botany '19.
- 2017–2018 **Andrea Hammer**, Botany '18; **David Adelhelm**, Botany '19.
- 2016–2017 Rodrigo Rivero, Botany '17; Emily Lockwood, Biology '18; Samantha Chavez, Nutritional Sciences '18.
- 2015–2016 **Rodrigo Rivero**, Botany '17 (2016 UF University Scholar); **Emily Lockwood**, Biology '18; **Matthew Richardson**, Biology '18; **Maria Rodriguez**, Biology '18; **Samantha Chavez**, Nutritional Sciences '18; Allan Gonzalez, WEC '16.
- 2014–2015 **Allan Gonzalez**, WEC '16; **Kaitlynn Zemaitis**, Chem Eng '14; Naomi Senehi, Env Eng '17; Mary Regan, Ag Bio Eng '16; Ashley Hale, Chem Eng '16.
- 2013–2014 **Naomi Senehi**, Env Eng '17; **Mary Regan**, Ag Bio Eng '16; **Ashley Hale**, Chem Eng '16.

X. SERVICE & OUTREACH

Service for the Profession

- 2018–present Member of F1000 Faculty, Plant Genome & Evolution Section
- 2018 Elected **President** of the American Fern Society (term as President-Elect starts July 2018)
- 2018 Elected **Council Member** of the Society of Systematic Biologists (term starts Jan 2019)
- 2018 Nominated to run for **Communications Director** of the Society of Systematic Biologists
- 2017 **Doctoral Thesis Examiner** for Monash University, Melbourne, Australia
- 2014–2017 **Communications Coordinator**, American Society of Plant Taxonomists
- 2014–present **Proposal review** (panel and ad hoc): NSF, NASA, Fonds de recherche du Québec, American Society of Plant Taxonomists
- 2010–present **Associate Editorships:**
- *Systematic Biology* (2017–present)
 - *American Journal of Botany* (2015–present)
 - *American Fern Journal* (2010–present)

2009–present **Peer review for:** *American Fern Journal*, *American Journal of Botany*, *Botanical Journal of the Linnean Society*, *Conservation Genetics*, *Evolution*, *Genome Biology & Evolution*, *Genome*, *International Journal of Plant Sciences*, *Journal of Biogeography*, *Journal of Plant Research*, *Journal of Systematics and Evolution*, *Molecular Phylogenetics and Evolution*, *New Phytologist*, *Oxford Bibliographies*, *Phytotaxa*, *Plant Systematics and Evolution*, *PLOS One*, *Systematic Botany*, *Taxon*.

Service for the University of Florida

2018–present **Member**, CLAS International Committee

2017 **Represented UF** at SACNAS Annual Diversity in STEM conference, Salt Lake City, UT

2017–present **Member**, Harn Art Museum Faculty Council

2017–present **Member**, Natural Areas Advisory Committee

2017 **Reviewer**, Research Abroad for Doctoral Students (RADS) Program (UFIC/OGRE)

2013–present **Faculty advisor** for student organizations:

- WiSE (Women in Science & Engineering), graduate student club (2013–present)
- GROW Botany (Gators Reaching Out With Botany), undergraduate club (2013–2017)

2013–present **Member**, Biology Department committees:

- Graduate Admissions Committee (2017–present)
- Introductory Biology Curriculum Committee (2017–present)
- Strategic Planning Committee (2014–2017)
- Greenhouse Committee (2013–present)
- Botany Major Review Committee (2013)

2013–present **Member**, UF Search Committees:

- CLAS, Director of CLAS Learning Resources (Teaching Center & Language Learning Center) (2019)
- Biology Department, Plant Physiology assistant professor (2018)
- FLMNH, Herbarium Keeper Search Committee, external member (2017)
- Biology Department, Evolutionary Developmental Biology assistant professor (2017)
- Biology Department, Plant Genomics Preeminence position (2014)
- Biology Department, Chair position (2013)

Outreach activities

2018 **Invited scientist** at *Talk Science With Her* event in celebration of the U.N. International Women and Girls in Science Day

2017 **Invited scientist** at *She's a Scientist* event for Girl Scouts at the Florida Museum of Natural History

2009–2013 **Scientist Mentor** and member of Master Plant Science Team (2009–2011), PlantingScience.org: www.plantingscience.org

2008–present **Maintain online blog** about fern biology and plant science: <http://noseeds.blogspot.com>

2007–present **Public outreach** about fern biology & natural history, via walks, talks, and workshops.

XI. PROFESSIONAL AFFILIATIONS

American Fern Society, American Society of Plant Taxonomists, Botanical Society of America, International Association of Plant Taxonomists, International Association of Pteridologists, International Biogeography Society, Society for the Study of Evolution, Society of Systematic Biologists