

# Sarah B. Carey

## *Curriculum vitae*

Department of Biology  
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University of Florida  
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## Education

Expected 2020 **University of Florida, Department of Biology**

Ph.D., Botany

Advisor: Stuart McDaniel

Dissertation topic: Sex chromosome evolution and comparative genomics in bryophytes

2014 **University of Florida, Department of Biology**

B.S., Biology, *Summa cum laude*

2012 **Saint Johns River State College**

A.A., *Summa cum laude*

## Professional Appointments

2016-present **Research Assistant, University of Florida**

Genealogy of Flagellate Plants Project

Advisors: J. Gordon Burleigh, Emily Sessa, Stuart McDaniel, and E. Christine Davis

2014-present **Teaching Assistant, University of Florida**

Introductory to Botany, Plant Diversity, Principles of Biology II Lab

2011-2012 **Chemistry Lab Assistant, Saint Johns River State College**

Advisor: Nell Freeman

## Publications

Pereira, M.R., P.E.A.S. Câmara, B.S. Amorim, S.F. McDaniel, A.C. Payton, **S.B. Carey**, A.M. Sierra, and C.E. Zartman. "Advances in Calymperaceae (Dicranidae, Bryophyta): Phylogeny, divergence times and pantropical promiscuity." *The Bryologist* 122, (2), 183-196. 2019

Lewis, L.R., E.M. Biersma, **S.B. Carey**, K. Holsinger, S.F. McDaniel, R. Rozzi, B. Goffinet. Resolving the northern hemisphere source region for the long-distance dispersal event that gave rise to the South American endemic dung moss *Tetraplodon fuegianus*. *American Journal of Botany* 104 (11), 1651-1659. 2017

**Carey, S.B.**, A.C. Payton, and S.F. McDaniel. A method for eliminating bacterial contamination from in vitro moss cultures. *Applications in Plant Sciences* 3(1):1400086. 2015  
[doi:10.3732/apps.1400086](https://doi.org/10.3732/apps.1400086)

## Publications in Progress

Shortlidge, E.E., S.F. McDaniel, **S.B. Carey**, A.C. Payton, T.N. Rosenstiel, S.M. Epply. Microarthropods increase fitness and promote sexual selection in the moss *Ceratodon purpureus*. *Submitted*

Valle, N., P. Anonenko, L. Endara, E. C. Davis, G. Somarriba, E. Sessa, F. Luo, **S. Carey**, S. Dogan, G. Burleigh, M. von Konrat and S. McDaniel. Inquiry learning, storytelling or community science? Exploring affective outcomes and the role of gender in online botany learning. *Submitted*

## Non-refereed Publications

F.E. Putz, E.C. Davis, and **S.B. Carey**. University of Florida Introductory Botany Laboratory Manual. 2016.

G. Ionta, M. Blanco, B. Knorr, S. Allen, **S. Carey**, and S. McDaniel. University of Florida Plant Diversity Lab Manual. 2016.

## Grants Awarded

2018	Botanical Society of America Genetics Section Student Award (\$1000)
2016	Sigma Xi Grant-In-Aid of Research (\$1000)
2015	Society for the Study of Evolution Rosemary Grant Award (\$2500)
2015	microMORPH Cross-Disciplinary Training Grant (\$3254)
2015	Mildred Mason Griffith Botany Grant, UF (\$1000)

## Travel Funding

2018	Wellcome Genome Campus 30 Year Anniversary Award (\$300)
2017	International Botanical Congress Outstanding Student Award (\$300)
2017	Botanical Society of America IBC Travel Award (\$2400)
2016	UF Graduate Student Council Travel Grant (\$350)
2016	UF College of Liberal Arts and Sciences Travel Award (\$200)

## Honors and Awards

2018	Best talk iMoss Meeting, St. Petersburg, FL
2016	NSF GRFP Honorable Mention
2015	Runner-up best graduate student talk, South Eastern Population Ecology and Evolutionary Genetics Meeting, Eaton, GA
2014	Runner-up best talk, UF URAP, Gainesville, FL
2012	Saint Johns River State College Hall of Fame
2012	Dr. Gary B. Lott Memorial Scholarship (\$750)

## Meeting Oral Presentations

2019	<b>"Phylogenomic analyses uncover ancient but highly dynamic moss sex chromosomes"</b> . Plant and Animal Genome Conference. San Diego, CA
2018	<b>"Genome analysis in a polymorphic moss with large, ancient sex chromosomes"</b> . Genome Informatics. Hinxton, UK
2018	<b>"Ancient sex chromosomes in plants"</b> . Botany Meeting. Rochester, MN
2018	<b>"Ancient sex chromosomes in bryophytes"</b> . iMoss Meeting, St. Petersburg, FL
2017	<b>"An ancient UV sex chromosome system in mosses"</b> . International Botanical Congress. Shenzhen, China

- 2017    **"An ancient UV sex chromosome system in mosses"**. Evolution Meeting. Portland, OR
- 2016    **"Sex-biased gene expression in 6 day old *Ceratodon purpureus*"**. South Eastern Population Ecology and Evolutionary Genetics Meeting. Madison, FL
- 2016    **"Using a SNP-corrected genome-guided approach to infer transcriptional dimorphism in *Ceratodon purpureus*"**. Evolution Meeting. Austin, TX
- 2016    **"Transcriptional dimorphism in juvenile tissue of the moss *Ceratodon purpureus*"**. UF Plant Molecular and Cellular Biology Meeting. Daytona, FL
- 2015    **"The genetic basis of spore production in the moss *Ceratodon purpureus*"**. South Eastern Population Ecology and Evolutionary Genetics Meeting. Eaton, GA
- 2014    **"A method for eliminating bacterial contamination from in vitro moss cultures"**. UF URAP. Gainesville, FL

## Meeting Poster Presentations

- 2017    **"An ancient UV sex chromosome system in mosses"**. Evolution Meeting. Portland, OR
- 2014    **"A method for eliminating bacterial contamination from in vitro moss cultures"** UF Undergraduate Research Symposium Poster Session
- 2013    **"A method for eliminating bacterial contamination from in vitro moss cultures"** UF Chemistry Department Alumni Weekend Poster Session

## Guest Lectures

- 2019    **"Orthofinder"**. Bioinformatic Users Group Series. Texas Tech University. Lubbock, TX

## Mentoring

- 2018-present    Tikahari Khanal, undergraduate REU recipient
- 2016-present    Emily Lockwood, undergraduate UF University Scholars Program recipient
- 2016-present    Wes Burcher, undergraduate
- Summer 2018    Joan Glenny-Pescov, UF Summer Undergraduate Research Fellow
- Summer 2018    Jordon McBreen, undergraduate (now PhD student, UF)
- 2017-2018    Kaylee Hoffman, undergraduate
- 2017-2018    Kristen Gaines, undergraduate
- 2015-2016    Marna List, undergraduate (UF University Scholars Program recipient; now UF Medical Honors Student)
- 2014-2016    Roth Conrad, undergraduate (UF University Scholars Program recipient; now PhD student, Georgia Tech)

## Academic Service and Outreach

- Summer 2019    Co-organizer Population Biology Summer Seminar Series
- 2014,2019    Poster judge, UF Biology Department URAP Committee
- 2015-2018    UF Biology Department URAP Committee
- 2015-2017    Organizer of "Art of Biology" Art Exhibition, UF Dept. of Biology
- 2015-2016    UF Biology Department Awards Committee
- 2014-2016    Graduate Student Advisor, GROW Botany
- 2013-2014    Vice-President & Founding Member, GROW Botany  
(Recipients of Champions for Change Award, Campus Organization of the Year)
- 2013-2014    Vice-President, Botanical Society of America UF Student Chapter

## **Professional Affiliations**

2015-present      Society for the Study of Evolution  
2013-present      Botanical Society of America

## **Additional Roles**

Manage the lab's research computing account. Maintain the lab's genome/transcriptome lines.