E. Christine Davis, Ph. D.
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Education

Ph.D. Botany, 2005; Duke University, Department of Biology, Durham, NC
B.S. Botany, 1998; University of Florida, Gainesville, FL

Academic appointments

Senior Lecturer; Department of Biology, University of Florida, Gainesville, FL; 7/16 – present.

Lecturer; Department of Biology, University of Florida, Gainesville, FL; 4/13 – 7/16.

Visiting Assistant Professor; Department of Natural and Social Sciences, Bowling Green State University Firelands, Huron, OH; 8/11 – 5/12.

Instructor of Biology; Arts, Sciences, and University Transfer, Durham Technical Community College, Durham, NC; 1/09 – 8/11.

Visiting Assistant Professor; Department of Biological Sciences, Meredith College, Raleigh, NC; 08/07-07/08.

Research Associate (post doc); Biology Department, Duke University, Durham, NC; 12/1/05-08/31/07. Assembling the Liverwort Tree of Life. NSF funded research to Dr. A. J. Shaw.

Publications in last 10 years

Valle, N., Antonenko, P., Endara, L., **Davis, C.,** Somarriba, G., Sessa, E., Luo, F., Carey, S., Dogan, S., & McDaniel, S. (MS accepted). Community science, storytelling, or inquiry-based learning? Evaluating three technology-enhanced pedagogical approaches in an online botany course. *American Biology Teacher*.

Breinholt, J.W., Carey, S.B., Tiley, G.P., **Davis, E.C.,** Endara, L. McDaniel, S.F., Neves, L.G., Sessa, E.B.. Von Konrat, M., Chantanaorrapint, S., Fawcett, S., Ickert-Bond, S.M. Labiak, P.H., Larraín, J., Lehnert, M., Lewis, L.R., Nagalingum, N.S., Patel, N., Rensing, S.A., Testo, W., Vasco, A., Villarreal, J.D., Williams, E.W., Burleigh, J.G. 2021. Target enrichment for flagellate plants: A target enrichment probe set for resolving the flagellate plant tree of life. *Applications in Plant Sciences* 9:e11406.

Luo, F., Antonenko, P., Valle, N., Sessa, E., Burleigh, G., Endara, L., McDaniel, S., Carey, S., & **Davis, E. C.** (2020). Collaborative Design Reasoning in a Large Interdisciplinary Learning Tool Design Project. *International Journal of Designs for Learning, 11*(1), 85–97.

Luo, F., Antonenko, P., & **Davis, E.C.** 2020. Exploring the evolution of two girls' conceptions and practices in computational thinking in science. *Computers & Education* 146: 103759.

Luo, F., Antonenko, P. "Pasha", Valle, N., Sessa, E., Burleigh, G., Endara, L., McDaniel, S., Carey, S., & **Davis, E.** 2020. Collaborative Design Reasoning in a Large Interdisciplinary Learning Tool Design Project. *International Journal of Designs for Learning, 11*(1), 85-97.

Luo, F., Antonenko, P., & **Davis, C.** 2019. Computational thinking integration: Curriculum design for leveraging robotics in elementary science class. 2019 CoNECD - the Collaborative Network for Engineering and Computing Diversity, American Society for Engineering Education.

Shaw, B., B. Crandall-Stotler, J. Váňa, R.E. Stotler, M. von Konrat, J. J. Engel, **E. C. Davis**, D. G. Long, P. Sova, A. J. Shaw. 2015. Phylogenetic Relationships and Morphological Evolution in a Major Clade of Leafy Liverworts (Phylum Marchantiophyta, order Jungermanniales): suborder Jungermanniineae. *Systematic Botany* 40: 27-45.

Laenen B., B. Shaw, H. Schneider, B. Goffinet, E. Paradis, A. Désamoré, J. Heinrichs, J.C. Villarreal, R. Gradstein, S. McDaniel, D. Long, L. Forrest, M. Hollingsworth, B. Crandall-Stotler, **E. C. Davis**, J. Engel, M. Von Konrat, E. D. Cooper, J. Patiño, C. J., Cox, A.Vanderpoorten, A. J. Shaw. 2014. Extant diversity of bryophytes emerged from successive post-Mesozoic diversification bursts. *Nature Communications* 5: 5134.

U'Ren, J. M., Dalling, J. W., Gallery, R. E., Maddison, D. R., **Davis, E. C**., Gibson, C. M., and A. E. Arnold. 2009. Diversity and evolutionary origins of fungi associated with seeds of a neotropical pioneer tree: a case study for analyzing fungal environmental samples. *Mycological Research* 113: 432-439.

Presentations in last 10 years

Elkin, L., Mansour, I., Kollar, L., Antonenko, P., Sessa, E., **Davis, C.** (2019). Combating plant blindness with web-based modules that teach flagellate plant morphology. Presented at the 2019 Botany Conference, Tuscon, AZ.

Valle, N., Antonenko, P., Endara, L., **Davis, C.,** Somarriba, G., Sessa, E., Luo, F., Carey, S., Dogan, S., Burleigh, G., von Konrat, M., & McDaniel, S. (April 2019). *Inquiry learning, storytelling or citizen science? Exploring perceptions of learning in an online Biology course.* Presented at the 2019 Conference of the American Educational Research Association, Toronto, CA.

Luo, F. & Antonenko, P., & **Davis, C.** (April 2019). Evolution of children's conceptions and skills in computational thinking in science: A multiple-case study. Presented at the 2019 Conference of the American Educational Research Association, Toronto, CA.

Valle, N., Antonenko, P., Endara, L., **Davis, C.**, Luo, F., Sessa, E.,…McDaniel, S. Cyberlearning Activities on Flagellate Plants to Improve Learners' Knowledge of Flagellate Botany and Perceptions of Science Learning. Presented at the International Molecular Moss Science Society (iMOSS) meeting, St. Petersburg, FL. June, 2018.

Davis, E.C., Harmon, A.C., and Antonenko, P. *Learning Assistants in Large-Enrollment Undergraduate Biology: Results of a Multi-Year Quasi-Experimental Study*, National Association for Research in Science Teaching, Atlanta, GA. March 10, 2018.

Lindbeck, G., **Davis, C.,** Jensen, J., Murphy, K., and Surmacz, C. *Learning to Study Smart: Building Metacognitive Skills Using Evidence-Based Study Practices.* Pearson Biology Leadership Community. Orlando, FL. February 24, 2018.

Davis, E.C. *Using peer mentors to support evidence-based teaching in undergraduate courses.* Office of Faculty Development and Teaching Excellence - Fusing Teaching and Research Symposium. Gainesville, FL. March 30, 2017.

Davis, E.C. *Assessment to Support Student Academic Development*. UF Office of the Provost - Assessment@UF: Focus on Successful Practices. Gainesville, FL. March 28, 2017.

Davis, E.C., and A.C. Harmon. *Transforming a large lecture class: Learning Assistant Program in Biology at the University of Florida*. American Society of Plant Biologists. July 9-13, 2016.

Davis, E.C., and A.C. Harmon. *Student-to-Student Teaching and Learning through the Biology Learning Assistants Program*. Office of Faculty Development and Teaching Excellence, Beyond the Podium Seminar Series. April 15, 2016.

Davis, E.C. *Curing plant blindness.* Florida Native Plant Society - Sea Oats Chapter. St. Augustine, FL. January 21, 2016.

Davis, E.C. *Teaching skills for all audiences.* Plant Molecular and Cellular Biology Graduate Program. University of Florida, Gainesville, FL. November 5, 2015.

Davis, E.C. *Discipline based education research - broadening the impact of our science and our teaching.* Department of Biology, University of Florida. Department of Biology, University of Florida, Gainesville, FL. Aug 27, 2015.

Davis, E.C. *Liverworts, Symbiosis, and the Science of Teaching.* Department of Biology, University of Florida. 2014.

Davis, C. *Why plants are at the "root" of everything.* Presentation to the Firelands Audubon Society. Huron, OH. 2011.

J. Shaw, B. Shaw, B. Crandall-Stotler, R. Stotler, M. von Konrat, J. Engel, D. Long, **C. Davis**, L. Forrest, N. Devos. Introductory address: phylogeny of liverworts. International Botanical Congress, XVIII. Melbourne, Australia. Symposium: "Liverwort Phylogeny And Evolution: A Window Into Early Land Plant Diversification." 2011.

Honors

College of Liberal Arts and Sciences Professional Development Leave Award – 2020
College of Liberal Arts and Sciences Teacher of the Year - 2018

Nominee - University of Florida Teacher of the Year - 2018
National Academies Education Mentor in the Life Sciences - 2015-2016.
National Academies Education Fellow in the Life Sciences - 2014-2015.

Research grants and travel awards in last 10 years

January 2021-December 2021. PI. **$60,000.** Award in Advancing Racial Justice Through Inclusion, Diversity, Equity, and Access at UF. Cultivating equity in STEM classrooms at UF: A multidisciplinary collaboration to create a training course in inclusive, antiracist teaching practices for Learning Assistants (LAs) in STEM courses.
July 2020 – June 2023. Co-PI**. $1,120,163**. NSF DRL: RIEL Biology: Responsive Instruction for Emergent Bilingual Learners in Biology.
May-July 2019. Co-PI. **$14,000**. NSF REU: Cultivating Botanical Engagement Using Innovative Technology.
May-July 2019. Co-PI. **$19,703**. NSF RET: Building a Comprehensive Evolutionary History of Flagellate Plants. UF IRB #1900103.
January 2016-December 2020. Co-PI. **$2,233,768**. NSF GoLife. Collaborative Research: Building a Comprehensive Evolutionary History of Flagellate Plants.
2015-2016. **$29,313**. Co-PI. College of Liberal Arts and Sciences, UF - Funding for internal grant proposal "Promotion of active and collaborative learning in the introductory biology course series – a proposal to incorporate undergraduate learning assistants in the classroom".

Leadership and service at UF

Department of Biology

- Associate Chair of Biology (2021-)
- Antiracism Reading Group founder (2020)
- Coordinator of Introductory Biology (2017-2020)
- Biology Learning Assistants Program – Director (2015 -)
- Introductory Biology Committee – Chair (2017- 2020)
- Biology Bylaws Committee (2019-2020)
- Search committee - Marine Biology and Ecology Lecturer (2019)
- Search committee - Biology Lab Manager (2018)
- Search committee - Botany Lab Manager
- Undergraduate Coordinator (2014 - 2017)
- Curriculum Committee – Chair (2014 - 2017)
- Biology Major Executive Committee (2014 - 2017)
- Advisory Committee (2014 - 2017)
- Academic Committee (2014 - 2017)
- BSC Textbook Review Committee – Chair (2016 - 2017)

Service for the College and University

- Racial Justice Symposium Steering Committee (2022 -)
- ASPIRE Inclusive Hiring Practices Task Force (2022 -)
- Preview Advisor (2019 -)
- Coordinator, CLAS Continuing our Conversation Mentoring Series (2019 - 2021)
- CLAS Assembly Chair (2019 – 2020)
- CLAS T&P Criteria Revision Committee (2019)

- CLAS 2019 Teacher of the Year Awards Committee
- CLAS Faculty Council (2017 – 2019; re-elected 2020 -)
    - Chair, CLAS Best Practices for Faculty Mentorship Initiative Subcommittee (2018 – 2019)
    - CLAS Faculty Council – Chair (2017 - 2018)
- University Curriculum Committee (2017 - 2019)

Service for the Profession

- Partner - Provost's Moonshot Proposal: *Scientist in Every Florida School,* PI: Bruce J. MacFadden, Distinguished Professor, Florida Museum of Natural History and Thompson Institute for Earth Systems.
- Participant - *Scientist in Every Florida School* Educator Retreat. Randell Research Center, Pineland, FL. January 19, 2019.
- Science fair mentor – Howard Bishop Academy for Technology and Gifted Studies (2017)
- Botany team leader – UF Bioblitz at the Natural Areas Teaching Lab (2017)
- Participant - Biology Leadership Community, sponsored by Pearson Education (2017)