

# AUSTIN HEIL, Ph.D.

University of Georgia  
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## 1. ACADEMIC APPOINTMENTS

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### Graduate Program Faculty

Aug. 2023 – Present

Academic Professional Associate & Director of Marine Science Instructional Lab, University of Georgia  
*Affiliated Faculty:* Office of Sustainability, River Basin Center, Owens Institute for Behavioral Research

### Public Service & Outreach Assistant Faculty

Sep. 2022 – Jul. 2023

Marine Educator & Public Programs Coordinator, University of Georgia Marine Extension & GA Sea Grant

## 2. EDUCATION

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### University of Georgia, Athens, GA

Dec. 2022

Doctor of Philosophy: Science Education

*A sociocultural perspective: Science epistemology, student learning and instruction in a Scientific Research Writing course*

### Florida State University, Tallahassee, FL

Aug. 2017

Master of Science: Biological Oceanography

*Life history, diet, and reproductive dynamics of the Sheepshead in the NE Gulf of Mexico*

### Florida State University, Tallahassee, FL

May 2013

Bachelor of Science: Biology | Minor: Chemistry

## 3. TEACHING & MENTORING EXPERIENCE

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### A. University Teaching

#### Instructor of Record, *University of Georgia*

Teaching in Marine Science (MARS 7360)

Fall 2024

University Teaching in Marine Science (MARS 7770)

Fall 2025

Research Internship in Marine Science (MARS 4960R)

Spring 2023, Summer 2024, Fall 2024

Introduction to Marine Biology (MARS 1020)

Spring 2024

Environmental Science Education (ESCI 6320)

Spring 2019

Marine Science in the Community (MARS 3900S)

\* developing as a Service-Learning Fellow

Introduction to Marine Science Lab (MARS 1020L)

Spring 2024

Introduction to Marine Environment Lab (MARS1010L)

Fall 2023, 2024

Organismal Biology Laboratory (BIOL 1104L)

Fall 2021, Spring 2022

Ecology Laboratory (ECOL 3500L)

Fall 2019

Introduction to Biology Laboratory (BIOL 1108L)

Spring 2019, Summer 2019, Spring 2020, 2021

### B. Field/Experiential-Learning Teaching (K-12)

Marine Educator, University of Georgia Marine Extension & GA Sea Grant: *350 hours* 2022-2023

Marine Educator, Florida State University Saturday at the Sea: *200 hours* 2013-2017

### C. Field/Experiential-Learning Teaching (College & Teaching Professional Development)

Sapelo Island Georgia Schoolyard Teacher Workshop, Education Coordinator 2024 - Present

Future Elementary Education Teachers: Investigating Nature Teacher Workshop, PI 2023 - Present

My Georgia Coast Teacher Workshop, Co-PI 2023 - Present

Rivers to Reefs Teacher Workshop, Co-PI 2023

### **D. Marine Science Summer Camp Instructor**

Fishing for Fun Summer Camp, University of Georgia Marine Extension & GA Sea Grant (2023)  
Ocean Discovery Summer Camp, University of Georgia Marine Extension & GA Sea Grant (2023)  
Ocean Discovery Camp Instructor, University of Georgia Summer Academy (2021 & 2022)  
Saturday-at-the-Sea Summer Camp, Florida State University (2013-2017)

### **E. Graduate Mentoring**

#### M.Sc. Students

Brooke Purves Expected graduation Fall 2025

#### UGA Sea Dawgs Outreach Mentor (2023-Present)

Autumn Baker, Angelica Dziurzynski, Carl Gibson, Zane Burris, Min Han, Michelle Demers, Randall Priest, Hannah Budroe

### **F. Undergraduate Mentoring**

#### Undergraduate Research Advisor

Darion Deviez, University of Georgia	FA 2024
Claire Whitley, University of Georgia	SU 2024
Brooke Purves, University of Georgia	SP 2023
Daniel Siegel, Florida State University	SU 2023
Lucia Gil, Florida State University	SP 2017

#### NSF REU

Alex Daniels, Missouri State University	SU 2022
Joshua Olaniran, Kennesaw State University	SU 2021

#### UGA Sea Dawgs Outreach Mentor (2023-Present)

Lauren Cunningham, Kennedy Ingram, Reagan Greene, Gabby Cruz, Jenna Brown

### **G. Professional Development in Teaching**

#### Faculty Learning Communities (FLCs)

Everything You Wanted to Know About Teaching, UGA	2024 - 2025
Service-Learning Research, UGA Service Learning	2024 - 2025
Teaching TAs to TA, UGA Center for Teaching & Learning	2023 - 2024
Biology Education Research Group	2020 - 2024
Scientists Engaged in Educational Research	2021 - 2024

#### Certificates

Interdisciplinary University Teaching Certificate, UGA	2022
Certificate in Diversity, Equity and Inclusion, UGA	2022
Project WET	2022

## **4. PROFESSIONAL EXPERIENCE**

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### **Virtual Student Intern, Florida Keys National Marine Sanctuary**

National Ocean & Atmospheric Administration Mission: Iconic Reefs, Florida Keys

August 2020 – May 2021

### **Molluscan Biologist, Florida Fish & Wildlife Conservation Commission**

Florida Fish & Wildlife Research Institute, St. Petersburg, FL

May 2017 – July 2018

## 5. RESEARCH

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### A. Publications

**Heil, AD.**, Olaniran, J., Gormally, C., & Brickman, M. (2024). It's in the syllabus: What syllabi tell us about introductory biology courses. *CBE - Life Science Education* 23(3), ar37 1-10.

<https://doi.org/10.1187/cbe.23-05-0081>

**Heil, AD** & Lindsay, A. (2024). A framework to analyze learning objectives in marine science education. *Current: The Journal of Marine Education* 39(1), 12-22. [DOI: 10.5334/cjme.92](https://doi.org/10.5334/cjme.92)

**Heil, AD.**, Brickman, M., & Gormally, C. (2023). Low-level learning: Leaving behind most students – the non-science majors. *Journal of College Science Teaching* 52(7), 96-102.

<https://doi.org/10.1080/0047231X.2023.12315884>

**Heil, AD.** & Youn-Heil, F. (2023). “Baby Shark, Doo Doo Doo Doo Doo Doo”: Issues of dead marine organisms in a K-12 summer camp. In S. Jeong, L.A. Bryan, D.J. Tippins, C. M. Sexton (Eds), *Classroom cases of elementary science teaching and learning - Navigating the challenges and contemplating actions in the 21st century*. Springer. Book. [https://doi.org/10.1007/978-3-031-33418-4\\_84](https://doi.org/10.1007/978-3-031-33418-4_84)

Gormally, C. & **Heil, AD.** (2022). A vision for university biology education for non-science majors. *CBE-Life Science Education*, 21(4), es51-9. <https://doi.org/10.1187/cbe.21-12-0338>

Granneman, J., Baxley, C., Bollinger, M., **Heil, AD.**, LeGanke, M., Levine, E., Pearson, W., Pudlak, E., Williams, K., & Gandy, R. (2021). Evaluation of the recreational harvest of bay scallops (*Argopecten irradians*) in Steinhatchee, Florida. *Marine and Coastal Fisheries* 13(4), 413-432. <https://doi.org/10.1002/mcf2.10161>

Brooke, S.D., Watts, M.W., **Heil, AD.**, Rhode, M., Mienis, F., Duineveld, G.C.A., Davies, A.J. & Ross, S.W. (2017). Distributions and habitat associations of deep-water corals in Norfolk and Baltimore Canyons, Mid-Atlantic Bight, USA. *Deep Sea Research Part II: Topical Studies in Oceanography* 137, 131-147.

<https://doi.org/10.1016/j.dsr2.2016.05.008>

### B. Publications in Review

Lahiri, S., **Heil, AD.**, Daniels, A., Gormally, C., & Brickman, M. (in review). Crafting a biology course for non-majors: Personas help delineate faculty decision making. *CBE-Life Science Education*.

Henley, J., Lin, M., **Heil, AD.**, & Atwater, M. (revise and resubmit). Establishing a science education assessment instrument - paper-format Implicit Association Test for Black and Latinx names. *Research in Science Education*.

### C. Publications in Preparation

**Heil, AD**, Gallagher, H., & Kittleson, J. (in preparation). Uncovering how a college instructor led science majors to write using a situated learning perspective. *Journal of Research in Science Teaching*.

**Heil, AD.** & Baker, A. (in preparation). Goliath grouper case study: To catch or not to catch. *CourseSource*.

**Heil, AD** & Kittleson, J. (in preparation). It's complicated: A qualitative study exploring how students learn to write research in their discipline. *Science Education*.

## D. International & National Presentations

**Heil, AD.** (2023, Jul. 23-27). A framework to analyze learning objectives in marine science education [Paper Presentation Submitted]. NMEA Conference, Bellingham, WA, United States.

Lahiri, S., **Heil, AD.**, Daniels, A., Brickman, M., & Gormally, C. (2023, Jul. 20-23). Crafting a biology course for non-majors: Factors impacting decisions of faculty in terms of socioscientific issues [Paper Presentation]. SABER Conference, Minneapolis, MN, United States.

**Heil, AD.** & Kittleson, J. (2023, Mar 7-9). Understanding how a college instructor led science majors to write using a situated learning perspective [Paper Presentation]. NARST Conference, Chicago, IL, United States.

**Heil, AD.** & Kittleson, J. (2022, July 7-10). Uncovering perceived weaknesses in biology majors scientific research writing abilities [Poster Presentation]. SABER Conference, MN, United States.

Brickman, M., Gormally, C., **Heil, AD.**, & Lahiri, S. (2022, Jun. 1-3). Creating validated learning objectives to improve course design and student outcomes in introductory biology [Poster Presentation]. NSF IUSE Summit, Washington D.C., United States.

**Heil, AD.** & Luft, J. (2022, Mar. 27-30). "Seriously... I want to teach": Exploring motivations of science majors pursuing teaching careers [Paper Presentation]. NARST Conference, Vancouver, BC, Canada.

Zhai, X. & **Heil AD.** (2022, Mar. 27-30). Are linguistic features of written argumentation associated with machine scoring accuracy? [Paper Presentation]. NARST Conference, Vancouver, BC, Canada.

Olaniran, J., **Heil, AD.**, & Brickman, M. (2021, Nov. 13). Zeroing in on non-majors [Poster Presentation]. NABT Biology Education Research Symposium, Atlanta, GA, United States.

**Heil, AD.**, Brickman, M., & Gormally, C. (2021, Jul. 16). What do faculty want non-majors to know? Characterizing the content, skills, and stated learning objectives from non-major syllabi. [Paper Presentation]. SABER Conference. Conference virtual due to COVID precautions.

**Heil, AD.**, Brickman, M., & Gormally, C. (2020, Jul. 24). Low-level learning: Leaving behind most students—the non-science majors [Paper Presentation]. SABER Conference, Twin Cities, MN, United States. Conference virtual due to COVID precautions.

Henley, J., Lin, E., **Heil, AD.**, & Atwater, M. (2020, Mar. 15-18). Reliability and validity of an implicit attitude test [Poster Presentation]. CADASE special session at the NARST Annual International Conference. Portland, OR, United States. Conference canceled due to COVID precautions.

Granneman, J., Baxley, C., Bollinger, M., **Heil, AD.**, LeGanke, M., Levine, E., Pearson, W., Pudlak, E., Williams, K., & Gandy, R. (2020, Mar. 29- Apr. 2). Evaluation of the recreational harvest of bay scallops (*Argopecten irradians*) in Steinhatchee, Florida [Paper Presentation]. National Shellfish Association Conference, Baltimore, MD, United States. Conference canceled due to COVID precautions.

Hardin, E., Granneman, J., Tatem, S., **Heil, AD.**, & Pudlak, E. (2019, Mar. 13-17). Bay scallop restoration: A community effort [Paper Presentation]. Citizen Science Association Conference, Raleigh, NC, United States.

Brooke, S., Watts, M., **Heil, AD.**, Rhodes, M., Meinis, F., Duineveld, G., Davies, A., & Ross, S. (2015, Aug. 31 - Sep. 4) Distribution and habitat associations of deep-water corals of the mid-Atlantic canyons [Paper Presentation]. Deep Sea Biology Symposium, Deep Sea Biology Symposium, Aviero, Portugal.

Rolfe, S. C., C. F. Cotton, Grubbs, R.D., & **Heil, AD.** (2015, Feb. 16-19). Life history characteristics of two common deep-water dogfishes (*Squalus cubensis* and *S. cf. mitsukurii*) from the northern Gulf of Mexico [Paper Presentation]. Gulf of Mexico Oil Spill & Ecosystem Science Conference, Houston, TX, United States.

Cotton, C., Rolfe, S., **Heil, AD.**, & R. D. Grubbs. (2014, Aug. 1). Life history characteristics of two common deep-water dogfishes (*Squalus cubensis* and *S. cf. mitsukurii*) from the northern Gulf of Mexico [Paper Presentation]. Annual Meeting of the American Elasmobranch Society (AES), Chattanooga, TN, United States.

## **E. Regional & Local Presentations**

Barriga, P., Black, K., Ford, K., **Heil, AD.**, Ferrari, B., Floyd, R., Lemon, L., Lira, C., Laura, M., Morelock, J., Morris, K., Ovid, D., Simpson, C., & Ward, M. (2024, Apr. 5). Teaching TAs to teach [Poster Presentation]. University Teaching Symposium. Athens, GA, United States.

**Heil, AD.**, Townley, A., & Lindsay, A. (2024, Feb. 23-24). My Georgia Coast: Connecting science teachers with informal educators to deepen understanding about issues facing the Georgia coast [Paper Presentation]. Georgia Science Teachers Association Conference. Columbus, GA, United States.

Purves, B., Kenworthy, E. & **Heil, AD** (2023, Mar 18). Get involved with Marine Extension and Georgia Sea Grant [Conference Presentation]. Georgia Confluence. Helen, GA, United States.

Brown, C., Tarsa, E., Takagagi, K., **Heil, AD.**, & Buck, C. (2023, May 15-17). Experiential learning and undergraduate research [Panelist]. Georgia Climate Conference. Athens, GA, United States.

**Heil, AD.** (2023, Mar. 30-31). An unexpected learning opportunity about the ethics of scientific research and sampling [Paper Presentation]. Georgia Water Resources Conference. Athens, GA, United States.

Daniels, A., Brickman, M., Gormally, C., Lahari, S., & **Heil, AD.** (2022, Jul. 21). Instructor motivation to change undergraduate non-major biology course content [Poster Presentation]. Undergraduate Biology Education Research Symposium. Athens, GA, United States.

**Heil, AD.** (2022, Apr. 5). BYOB: Build your own [ru]bric [Poster Presentation]. Spring Teaching Symposium. Athens, GA, United States.

Olaniran, J., **Heil, AD.**, & Brickman, M. (2021, Jul. 22). Zeroing in on non-majors [Poster Presentation]. Undergraduate Biology Education Research Symposium. Athens, GA, United States.

**Heil, AD.** (2016, Jun. 15). Spawning in different habitats and the formation of spawning aggregations of the sheepshead (*Archosargus probatocephalus*) in the northeastern Gulf of Mexico [Paper Presentation]. Ecological and Evolutionary Ethology of Fishes, Tallahassee, FL, United States.

**Heil, AD.** (2016, Oct. 14). Reproductive dynamics of the sheepshead (*Archosargus probatocephalus*) in the northeastern Gulf of Mexico [Poster Presentation]. Ecological and Evolutionary Ethology of Fishes Conference, Tallahassee, FL, United States.

**Heil, AD.**, C. F. Cotton, & R. D. Grubbs. (2014, Dec. 11). Age and growth of two sympatric deep-water dogfishes (*Squalus cubensis* and *S. cf. mitsukurii*) from the northern Gulf of Mexico [Poster Presentation]. Deep-C Student Research Symposium, Tallahassee, FL, United States.

## **F. Invited Talks**

**Heil, AD.** (Spring 2024). Navigating academia. Invited presentation to the 2024 Future Faculty Fellow Cohort, University of Georgia

**Heil, AD.** (Spring 2023). Careers in marine science. Invited presentation to the Department of Natural Sciences, Coastal College of Georgia

**Heil, AD.** (2023). Vision for public programs. Invited presentation to UGA Marine Extension and Georgia Sea Grant, Savannah, GA.

**Heil, AD.** (Fall 2021). Professional development for international graduate students. Invited presentation to the Division of Academic Enhancement, University of Georgia

**Heil, AD.** (Fall 2021). Making teaching fun as TAs. Invited presentation for the Center of Teaching and Learning's TA Café, University of Georgia

**Heil, AD.** (Fall 2021). Supporting student well-being as TAs. Invited presentation for the Center of Teaching and Learning's TA Café, University of Georgia

**Heil, AD.** (Spring 2021). Active learning for TAs. Invited presentation for the Center of Teaching and Learning's TA Café, University of Georgia

## **G. Other Publications**

**Heil, AD.** & Lindsay, A (2023). An unexpected learning opportunity about the ethics of scientific research and sampling. Proceedings of the 2023 Georgia Water Resources Conference, held March 30–31, 2023, at the University of Georgia

**Heil, AD.** (2021). Leading Laboratory Section. Resource for graduate student instructors for Center for Teaching and Learning: <https://wwwctl.uga.edu/grad-student/leading-laboratory-sections/>

Brooke S, Wolf-Watts, M., **Heil, AD.**, Meyer, K., Coykendall, D.K., Rhode, M., Young, C.M., & SW Ross. (2017). Chapter 8: Benthic invertebrate communities. In: *Exploration and Research of Mid-Atlantic Deepwater Hard Bottom Habitats and Shipwrecks with Emphasis on Canyons and Coral Communities*. CSA Ocean Sciences (Eds). U.S. Dept. of the Interior, Bureau of Ocean Energy Management, Atlantic OCS Region. OCS Study BOEM 2017-060 p333-434 plus Appendices

## **6. FUNDING**

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### **2024**

1. Co-PI: "Trophic consequences of climate migrants" (\$348,000) National Science Foundation [pending]
2. Education lead: "CAREER: Shedding light on the South Atlantic Bight optically complex coastal waters" (\$972,576) National Science Foundation [pending]
3. Education lead: "Long-term ecological research (GCE V)" (\$7,542,000) National Science Foundation [pending]

### **2023**

4. Co-PI: "My Georgia Coast" (\$10,000): UGA Marine Extension & Georgia Sea Grant Program Development Funding
5. PI: "FEET IN: Future elementary education teachers investigating nature (\$4,123) – UGA Parent Leadership Council Grant

## 7. HONORS

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2024	Service-Learning Fellow, UGA (\$2500)
2024	Citizen Science Curriculum Fellow, NSF (\$1000)
2022	Domestic Travel Grant, UGA (\$400)
2022	Graduate Student Travel Award, Scientists Engaged in Education Research Network (\$400)
2022	International Travel Grant, UGA (\$1000)
2021	Future Faculty Fellow, UGA (\$450)
2021	Outstanding Teaching Award, UGA
2020	Graduate Student Travel Award, National Association of Research in Science Teaching (\$500)

## 8. SERVICE

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### A. Marine Science Outreach

Sea Dawgs Outreach Program Leader 2023 - Present  
(Summary: 22 events; 4,966 people; 8 undergraduates, 5 graduate students, 1 staff, 1 post-bac)

2024	Barrow Elementary STEAM Night
2024	Oglethorpe Elementary STEM Night
2024	Gaines School STEM Night
2024	Oconee County Library: STEM Extravaganza
2024	Colham Ferry Elementary School Visit
2024	Timothy Road Elementary STEAM Night
2024	Experience UGA 9 <sup>th</sup> Grade Field Trip
2024	Fowler Drive Elementary STEM Night
2024	Earth Day Event
2024	Athens Farmers Market
2024	Georgia Critter's Summer Camp
2024	Salty Dawgs Summer Camp (MECA)
2024	Salty Dawgs Summer Camp (MECA)
2024	UGA Summer Academy Environmental Science Summer Camp
2024	ACC Library Summer Event
2024	Athens Water Festival
2024	Howard B. Elementary STEM Night
2023	Winterville Elementary STEM Night
2023	Clarke Middle STEM Night
2023	Barrow Elementary – 1 <sup>st</sup> grade classes

Marine Extension and Georgia Sea Grant Public Programs 2022-2023  
(Summary: 15 events; 12,800 people; 7 undergraduates, 4 interns)

### B. University & Community Service

2024 -	Faculty Senator, Franklin College of Arts & Science, UGA
2024 -	Curriculum Committee, Marine Science Department, UGA
2024 -	DEI Committee, Marine Science Department, UGA
2024 -	Education & Outreach Committee, LTER Network
2024	Instructional Laboratory Hiring Committee, Marine Science Department, UGA
2023	Planning Committee, State of the Coast Conference
2023	DEI Committee, Marine Extension GA Sea Grant
2023	Skidaway Marine Science Day Planning Committee, Marine Extension GA Sea Grant
2022-23	Development Committee, Marine Extension GA Sea Grant
2021-22	Treasurer, STEMzone, UGA
2021-22	President, SciREN, UGA

2021-22 Judge, Presentation Collaboratory Fellowship, UGA  
 2020-21 Graduate Student Panelist, Academic Honesty, UGA  
 2020-24 Science Fair Paper Judge, Clarke County School District, Athens, GA  
 2019 Moderator, Innovations in Teaching Conference, UGA  
 2017 Founder, Ecology Club, St. Joe High School, Port St. Joe, FL  
 2016 Educator, Florida Fish & Wildlife Education & Outreach  
 2016 Science Diver Mentor, Florida State University Coastal & Marine Laboratory

### **C. Editorial Service**

Managing Editor, Classic Journal 2019 – 2021

### **D. Manuscript and Conference Review**

Reviewer, The Electronic Journal for Research in Science & Mathematics Education 2021 - Present  
 Reviewer, School Science & Mathematics Journal 2021 - Present  
 Reviewer, CourseSource 2022  
 Proposal Review, Society for Advancement in Biology Education Research 2022  
 Proposal Reviewer, National Association for Research in Science Teaching 2020 – 2021

## **9. PROFESSIONAL AFFILIATIONS**

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### **National Organizations**

American Fisheries Society  
 National Association for Research in Science Teaching  
 National Marine Educators Association  
 Society of Advancement in Biological Education Research

### **Regional & Local Societies**

Coastal Museum Association  
 Georgia Marine Educators Association  
 Scientists Engaged in Educational Research, UGA  
 Biology Education Research Group, UGA