

Philip M. Gravinese

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Professional Preparation

Florida Institute of Technology	Biology	Ph.D., December, 2016
Florida Institute of Technology	Marine Biology	M.S., May, 2007
Florida Institute of Technology	Marine Biology	B.S., May, 2003 - <i>Cum laude</i>

Current Faculty Appointments

Assistant Professor, Marine Science, Eckerd College (August 2022–present)

Current Research Appointments

Adjunct Scientist, Mote Marine Laboratory and Aquarium, (August 2020–present)

Previous Research Appointments

Postdoctoral Fellowship, Fisheries Ecology & Enhancement Program, Mote Marine Laboratory (2017–2020)
NSF Doctoral Research Assistantship, Dept. of Marine and Environmental Systems, Florida Institute of Technology (2014)

Link Foundation Graduate Fellow, Smithsonian Institution, Ft. Pierce, FL (2004)

NSF Research Experience for Undergraduate Fellowship, Dept. of Biological Sciences, Florida Institute of Technology (2002)

Previous Teaching Appointments

Assistant Professor, Biology Department, Florida Southern College (August 2020–August 2022)

Adjunct Professor, Oceanography and Biology courses, St. Petersburg College, FL (2016–2020)

Professional Educator, Dept. of Biological Sciences, Florida Institute of Technology (2017–2020)

- contracted to design inquiry-lessons centered around ongoing faculty research

Adjunct Professor, Eastern Florida State College (2006–2011; 2016)

- Oceanography, Biology, Environmental Science courses

Graduate Teaching Assistant, Dept. of Biological Sciences, Florida Institute of Technology (2012–2016)

- Biological Statistics and Invertebrate Zoology courses

Ph.D. Graduate Fellowship, NSF GK–12 Program, Dept. of Biological Sciences, Florida Institute of Technology (2011–2012)

M.S. Graduate Fellowship, NSF GK–12 Program, Dept. of Biological Sciences, Florida Institute of Technology (2006–2007)

Graduate Teaching Assistant, Dept. of Biological Sciences, Florida Institute of Technology (2003–2006)

- Marine Ecology, Tropical Marine Ecology field course, Biology, and Community Ecology courses

Additional Teaching Experience

Certified Professional Educator, Hillsborough Public Schools, Tampa, FL (2016–2017)

Professional Educator and Academic Lead, Broadreach Academic Treks, (2011)

- Mentored students conducting independent research on Sea Turtle biology in Costa Rica

Environmental Academy Director, Brevard Public Schools, Melbourne, FL (2009–2011)

Certified Professional Educator, Brevard Public Schools, Melbourne, FL (2007–2011)

Professional Educator Fellowship, NSF GK–12 Program, Florida Institute of Technology (2008–2010)

Research and Education Funding

Current Research Funding

National Science Foundation ([NSF OCE-BIO 2049047](#)): *Collaborative Research: Larval orientation, dispersal and connectivity in a brachyuran crab under ocean acidification and elevated temperature.* – 4-years of funding, \$294,372 (2021–present); in collaboration with Louisiana State University: total award \$922,033.

NOAA Ocean Acidification Program: *Ocean Acidification Toolkits for Educators* – 2-years of funding to create ocean acidification themed educational lessons, (2022-present) in collaboration with Mote Marine Laboratory: total award \$39,500

Tampa Bay Environmental Restoration Fund: *Do pH variable habitats provide refuge for stone crabs from ocean acidification?* – 2-years of funding, \$70,155 (2019–present)

Previous Research Funding

Protect Our Reef Grant: *The effects of ocean acidification and elevated temperature on the Caribbean king crab: Implications for coral restoration* – \$14,415; (2019–2021)

Mote Marine Laboratory Post-doctoral Fellowship: *Determining the impacts of environmental stressors on commercially important crustaceans* – 3.5 years of funding, \$416,098 (2017–2020)

Mote Scientific Foundation: *Determining the tolerance of sublegal stone crabs to natural variations in red tide: A rapid response assessment* – \$8,200; (2019–2020)

Protect Our Reef Young Investigator Award: *Measuring the impacts of Everglades restoration on post-larval swimming behaviors of the Florida stone crab* – \$12,667; (2017–2019)

Protect Our Reef Young Investigator Award: *Effects of elevated pCO₂ and temperature on larval development and survivorship of the commercially important reef tract organism, The Florida stone crab* – \$13,243; (2014–2016)

Protect Our Reef Grant: *Effects of ocean acidification on embryonic development and larval morphology in commercially and ecologically important reef organisms* – \$27,017; (2012–2013)

Research and Education Funding for Hands-on Student Research Experiences

Florida Southern College Faculty-Student Collaborative Research Grant – \$8846; (2021), housing, stipend, and research supplies for 2 undergraduates to conduct independent research experiences at FSC

Mote Doctoral Student Fellowship – \$15,000; (2019), research supplies and stipend to provide an independent research experience in my laboratory for a Florida Institute of Technology Ph.D. candidate

Mote NSF REU – \$5000 stipend for three different undergraduates, (summer 2018–2020), research supplies and stipend to provided independent research experiences for my students

Mote REU – \$5000 stipend for four different undergraduates, (2019–2020), research supplies and stipend to provide independent research experiences for my students

Mote Scientific Foundation: *Habitat selection in juvenile stone crabs* – \$3,450; (2018), independent research experiences for a St. Petersburg College undergraduate to work in my laboratory at Mote.

St. Petersburg College – Excellence in Teaching and Learning Award: *Incorporating Videography and Art into the Oceanography Course* – \$750; (2016), provided equipment to enhance student inquiry-learning experiences in the classroom

Captain Planet Foundation – \$4000; student monitoring water quality along the Indian River Lagoon

Brevard Schools Foundation – \$2000; funding to support inquiry projects in a science research course

Florida Sport Fishing Association – \$1500; to monitor water quality in local seagrass habitats

Best Buy Educator Grants – \$4000; to fund my high school classroom with laptops for students to complete data analyses on research projects and to design posters for research presentations

Peer-Reviewed Publications (Undergraduate mentees as co-authors are underlined)

Google Scholar Profile (since graduating with my Ph.D. in 2016)

h-index: 8

i10-index: 7

1. Alaerts, L., Dobbelaere, T., **Gravinese, P.M.** and Hanert, E., 2022. Climate change will fragment Florida stone crab communities. *Frontiers in Marine Science*, 9:839767. <https://doi.org/10.3389/fmars.2022.839767>.
2. **Gravinese, P.M.**, Perry, S.A., Spadaro, A.J., Boyd, A.E. and Enochs, I.C., 2022. Caribbean king crab larvae and juveniles show tolerance to ocean acidification and ocean warming. *Marine Biology*, 169(5), 1-12. <https://doi.org/10.1007/s00227-022-04053-8>.
3. Boehme-Terrana, L., Roux-Osovitiz, M., Goergen, E., Mancke, H., Fisher, S., and **Gravinese, P.M.** 2022. Habitat selection by post-settlement juvenile stone crabs (*Menippe mercenaria*) and predation risk in shallow near-shore habitats. *Journal of Experimental Marine Biology and Ecology*. 547:151679. <https://doi.org/10.1016/j.jembe.2021.151679>.
4. **Gravinese, P.M.**, Douwes, A., Eaton, K., and Muller, E.M. 2022. Ephemeral hypoxia reduces oxygen consumption in the Caribbean coral, *Orbicella faveloata*. *Coral Reefs*. 41: 13–18. <https://doi.org/10.1007/s00338-021-02197-5>.
5. **Gravinese, P.M.**, Page, H.N., Butler, C.B., Spadaro, A.J., Hewett, C., Considine, M., Lankes, D., Fisher, S. 2020. Ocean acidification disrupts the orientation of postlarval Caribbean spiny lobsters. *Scientific Reports*, 10(1): 1–9. <https://doi.org/10.1038/s41598-020-75021-9>.
6. **Gravinese, P.M.**, Munley, M.K., Kahmann, G., Cole, C., Lovko, V., Blum, P., Pierce, R. 2020. The effects of prolonged exposure to hypoxia and Florida red tide (*Karenia brevis*) on the survival and activity of stone crabs. *Harmful Algae*. 98: 101897. <https://doi.org/10.1016/j.hal.2020.101897>.
7. **Gravinese, P.M.**, Aronson, R.B., Toth, L.T. 2020. Digging into the geologic record of environmentally driven changes in coral reef development. *Oceanography*. 33(1): 85–91. <https://doi.org/10.5670/oceanog.2020.113>.
8. **Gravinese, P.M.** 2020. The response of juvenile stone crabs to hypoxia: size matters. *Journal of Experimental Marine Biology and Ecology*. 523:151269. <https://doi.org/10.1016/j.jembe.2019.151269>.
9. **Gravinese, P.M.**, Enochs, I., Manzello, D., van Woesik, R. 2019. Ocean acidification reverses the swimming direction of larval stone crabs. *Biology Letters*. 15:20190414. <https://dx.doi.org/10.1098/rsbl.20190414>.
10. Frehm, V., **Gravinese, P.M.**, Toth, L.T. 2019. Cultivating future environmental stewards: a citizen science case study at John D. MacArthur Beach State Park. *Florida Scientist*. 82(4):112–121.
11. **Gravinese, P.M.**, Saso, E., Lovko, V.J., Blum, P., Cole, C., Pierce, R.H. 2019. *Karenia brevis* causes high mortality and impaired swimming behavior of Florida stone crab larvae. *Harmful Algae*. 84:188–194. doi: <https://doi.org/10.1016/j.hal.2019.04.007>.
12. **Gravinese, P.M.**, Toth, L.T., Randall, C.J., Aronson, R.B. 2018. How do upwelling and El Niño impact coral-reef growth? A guided, inquiry-based lesson. *Oceanography*. 31(4):148–188. doi: <https://doi.org/10.5670/oceanog.2018.424>.
13. **Gravinese, P.M.** 2018. Vertical swimming behavior in larvae of the Florida stone crab, *Menippe mercenaria*. *Journal of Plankton Research*. doi: <https://doi.org/10.1093/plankt/fby040> (Featured Article).
14. **Gravinese, P.M.**, Kronstadt, S.M., Clemente, T., Cole, C., Blum, P., Henry, M.S., Pierce, R.H., Lovko, V.J. 2018. The effects of red tide (*Karenia brevis*) on reflex impairment and mortality of sublegal Florida

- stone crabs, *Menippe mercenaria*. *Marine Environmental Research*. 137:145–148. doi: <https://doi.org/10.1016/j.marenvres.2018.03.004>.
15. **Gravinese, P.M.**, Enochs, I., Manzello, D., van Woesik, R. 2018. Warming and $p\text{CO}_2$ effects on Florida stone crab larvae. *Estuarine, Coastal and Shelf Science*. 204:193–201. doi: <http://doi.org/10.1016/j.ecss.2018.02.021>.
 16. **Gravinese, P.M.** 2018. Ocean acidification impacts the embryonic development and hatching success of the Florida stone crab, *Menippe mercenaria*. *Journal Experimental Marine Biology and Ecology*. 500: 140–146. doi: <http://doi.org/10.1016/j.jembe.2017.09.001>.
 17. Staatterman E.R., Bhandiwad, A.A., **Gravinese, P.M.**, Moeller, P.M., Reichenbach, Z.C., Shantz, A.A., Shiffman, D.S., Toth, L.T., Warneke, A.M., Gallagher, A.J. 2014. Lights, camera, science: The utility and growing popularity of film festivals at scientific meetings. *Ideas in Ecology and Evolution*: 7:11–16. Link: <https://ojs.library.queensu.ca/index.php/IEE/article/view/5098>.
 18. Boleman, C.L., **Gravinese, P.M.**, Muse, E., Marston, A., Windsor, J.W. 2013. Corals on Acid: Inquiry-based activity bringing students to a better understanding in ocean acidification impacts. *Oceanography*. 26(4): 164–169. doi: <https://doi.org/10.5670/oceanog.2013.87>.
 19. Krinsky, L., **Gravinese, P.M.**, Epifanio, C., Tankersley, R.A. 2009. The timing of larval release from different tidal regimes in the Florida Stone crab, *Menippe mercenaria*. *Journal Experimental Marine Biology and Ecology*. 373(2). 96–101. doi: <https://doi.org/10.1016/j.jembe.2009.03.013>.

Published Technical Reports

1. **Gravinese, P.M.**, Flannery, J.A., and Toth, L.T. 2016. A methodology for quantifying trace elements in the exoskeletons of Florida stone crab (*Menippe mercenaria*) larvae using inductively coupled plasma optical emission spectrometry (ICP–OES). U.S. Geological Survey Open-File Report 2016–1148, 12p. doi: <http://doi.org/10.3133/ofr20161148>.

Manuscripts in Preparation (Undergraduate and Ph.D. mentees as co-authors are underlined)

1. Gigliotti, M., **Gravinese, P.M.**, Aronson, R.B. The effects of elevated temperature and hypoxia on juvenile stone crab physiology. *In preparation for Journal of Experimental Biology*.
2. **Gravinese, P.M.**, Douwes, A., Perry, S., MacDonald, J. Detection and avoidance of hypoxic water by sublegal stone crabs. in preparation for *Marine Biology*.
3. **Gravinese, P.M.**, and Pipkin, C. The cost of delayed metamorphosis in blue and stone crab post-larvae. in preparation for *Journal Experimental Marine Biology and Ecology*.
4. **Gravinese, P.M.**, M. Foy, E. Lessard, J.W. Murray. The effect of elevated $p\text{CO}_2$ on microzooplankton biomass, abundance, and community structure – A mesocosm study in the Salish Sea. in preparation for *Journal of Plankton Research*.

Contributed Papers Presented at Scientific Meetings and Invited Seminars

Gravinese, P.M., The effects of reduced pH on stone crab reproductive success. BASIS Conference, February, 2022.

Jarrett, M. and **Gravinese, P.M.**, Do pH variable habitats provide refuge for stone crabs from ocean acidification? BASIS Conference, February, 2022.

Smith, M. and **Gravinese, P.M.**, Assessing crustacean reproduction in variable pH habitats: a guided-inquiry lesson for students using data from the Tampa Bay watershed BASIS Conference, February, 2022.

Gravinese, P.M., Sensitivity of commercially important crustaceans in south Florida to ocean acidification. Louisiana State University Seminar Series, April 2021.

- Gravinese, P.M.**, Ocean acidification day of action: Shell Shocked, Earth Eco International, January 2021.
- Gravinese, P.M.**, Sensitivity of regionally specific commercially important taxa to ocean acidification. NOAA Ocean Acidification PI Meeting, January 2020.
- Gravinese, P.M.**, Let's talk about giving talks. Mote NSF REU professional development seminar. Annual workshop for the Mote NSF REU students from 2018–2020.
- Gravinese, P.M.**, The effects of red tide on larval stone crabs. Mote Science Café. 2019.
- Gravinese, P.M.**, Do red hot seas and shellfish on acid got you feeling crabby? St. Petersburg Nerd Nite. 2019.
- Gravinese, P.M.**, The impacts of red tide on larval stone crabs. Florida Stone crab advisory panel. 2019.
- Gravinese, P.M.**, Changes in regional hydrology could modify the swimming behavior of larval stone crabs. Greater Everglades Ecosystem Restoration Conference. 2019.
- Gravinese, P.M.**, Enochs, I., Manzello, D., van Woesik, R. Warming & $p\text{CO}_2$ effects on stone crab larvae. Gordon Research Conference on Global Change Biology. 2018.
- Gravinese, P.M.** Warming & $p\text{CO}_2$ effects on stone crab larvae. National Shellfisheries Meeting. 2018.
- Gravinese, P.M.** Effects of elevated $p\text{CO}_2$ and temperature on the Florida stone crab, *Menippe mercenaria*. National Marine Science Educator Association Meeting, 2017.
- Gravinese, P.M.** and R.A. Tankersley. Does decreased pH negatively impact the embryonic development, hatching success, and larval morphology of the Florida Stone crab, *Menippe mercenaria*? Florida Academy of Sciences, 2014.
- Gravinese, P.M.**, Foy, M., Lessard, E., and Murray, J.W. The effect of elevated $p\text{CO}_2$ on microzooplankton biomass, abundance, and community structure – A mesocosm study in the Salish Sea. Ocean Sciences Meeting, ASLO. 2014.
- Gravinese, P.M.** 2014. Feeling cornered: two stories about environmental changes occurring along U.S. coasts. Smithsonian Marine Station: Morning Lecture Series. Fort Pierce, FL.
- Gravinese, P.M.** 2013. Responding in a Pinch: Crustacean behavioral responses to environmental factors. Smithsonian Marine Station: Morning Lecture Series. Ft Pierce, FL.
- Toth, L.T. and **Gravinese, P.M.** 2013. Promoting marine science through film: the youth making ripples initiative. Learn Green Conference. West Palm Beach, FL 2013.
- Gravinese, P.M.**, and Tankersley, R.A. pH factors affecting the embryonic development, hatching success and larval morphology in the Florida stone crab. Benthic Ecology Meeting. 2013.
- Gravinese, P.M.**, and Tankersley, R.A. Effects of ocean acidification on embryonic development and larval morphology in the Florida Stone crab. Ocean Sciences Meeting, ASLO. 2013.
- Gravinese, P.M.** Boleman, C.L., Muse, E., and Marston, A. Corals on Acid: Inquiry-based Ocean Acidification Lesson Plans. Ocean Sciences Meeting, ASLO 2012.
- Gravinese, P.M.**, Kronstadt, S., Cohen, P., Ferro, M., Tankersley, R.A., and Windsor, J.W. Putting Science into Motion: Illustrating Science Concepts Using Animations. Florida Marine Science Educator Association and NSF–GK 12 Conference 2012.
- Gravinese, P.M.** and Tankersley, R.A. Feeling the Pressure: Depth Regulation by the larvae of the Stone Crab, *Menippe mercenaria*. Larval Biology Meeting September 2006, ASLO March 2006.
- Gravinese, P.M.** and Tankersley, R.A. Depth regulation in stone crab larvae: behavioral responses to

hydrostatic pressure. Benthic Ecology Meeting, January 2006.

Gravinese, P.M. and Tankersley, R.A. The cost of delayed metamorphosis in the blue crab, *Callinectes sapidus*. TriBeta Southeastern District Convention and Benthic Ecology Meeting, 2003.

Graduate Committees

- Michael Gigliotti: Ph.D student at Florida Institute of Technology (2019–*present*), funded by a Mote Graduate Student Fellowship to determine the tolerance and physiological response to temperature and hypoxia among juvenile stone crabs, *will be submitted to Journal of Experimental Biology*.
- Lauranne Alaerts, M.S. student (2020–2021), UC Louvain in Belgium, biophysical modeling of stone crabs in Florida under climate change scenarios.

Advising and Mentoring Undergraduates

Mentees at Florida Southern College (2020–2022)

- Abigail Smith, Morgan Jarrett, Chloe Potts, Nyssa Henderson, Esti Garcia, Gretchen Faraci, Lexi Trevillian, and Nicole Stone (summer interns), Do variable pH habitats affect stone crab reproductive success in Tampa Bay?

Mentees at Mote Marine Laboratory (2017–2020)

- Shelby Perry: B.S., currently a M.S. student at University of New Hampshire, Mote REU intern (2019–2020), determining the effects of elevated temperature and $p\text{CO}_2$ on the Caribbean King crab *in preparation for publication in Marine Biology*.
- Mary Kate Munley: B.S., currently a M.S. student at the University of New Hampshire, NSF REU intern at Mote Marine Laboratory (2019), determining the effects of moderate and severe hypoxia and red tide on sublegal stone crabs which was published in [Harmful Algae](#).
- Alex Douwes: B.S., currently a M.S. student at the University of Louisiana Lafayette; Mote REU intern (2019–2020), The tolerance of coastal corals to hypoxia and their ability to recover. *ongoing, in review in Coral Reefs*.
- Emma Saso: B.S. in Biology from Pitzer College, NSF REU intern at Mote Marine Laboratory (2018), **co-author** on published manuscript in [Harmful Algae](#).
- Sam Fisher, B.S., from St. Petersburg College, Mote Intern (2018–2019), determined the effects of ocean acidification on post-larval spiny lobster orientation to settlement cues, published in [Scientific Reports](#).
- Cody Cole: B.S., University of South Florida, served as my intern at Mote Marine Laboratory (2017–2018), assisted in experiments to determine the 1) impact of hypoxia and elevated temperature on stone crab foraging behavior (*ongoing*), and 2) **co-author** on manuscript that determined the impacts of red tide exposure on stone crab tolerance, published in [Marine and Environmental Research](#). Current technician for the Mote Marine Laboratory Phytoplankton Ecology Program.
- Talib Clemente, B.S., Life University, Mote Intern (2017–2018), **co-author** on manuscript that determined the impacts of red tide exposure on stone crab tolerance, published in [Marine and Environmental Research](#), current Animal Care Specialist, Six Flags Discovery Kingdom.
- Christopher Ng: undergraduate B.S. student, Brown University, Mote Marine Laboratory REU intern determining the effects of moderate and severe hypoxia and red tide on sublegal stone crabs.
- Tessa Parker, B.A. in Liberal Arts from Wyoming Catholic College, Mote Intern (2018–2019), conducted an experiment to determine the tolerance of sublegal stone crabs to natural variations in red tide, *in preparation for Harmful Algae*.
- Christina Pipkin, undergraduate B.S. student, at Duke University, Mote Intern (2018), conducted an experiment to compare the cost of delayed metamorphosis on post-larval blue and stone crabs, *in preparation for Marine Behavioral Physiology*.

- Harrison Mancke: undergraduate B.S. student, Florida International University, Mote Intern (2018), conducted an experiment on juvenile stone crab habitat selection, *in preparation for Journal of Crustacean Biology*.
- Brittney Thompson: B.S. in Environmental Studies from Cornell University, Nature Conservancy Leaders in Environmental Action for the Future Fellowship (2017), assisted in field collection of juvenile stone crabs for hypoxia tolerance experiments.

Mentees during graduate school (2013–2016)

- Tessa Gonzalez: B.S. from University of Miami, advised during her International Seakeepers Society internship (2016), current graduate student in Environmental Law at the University of Vermont
- Allie Folick: current Ph.D. student Texas A & M, served as an undergraduate intern during my Ph.D.
- Amanda Appelson: Studied Marine Affairs at University of Miami. Advised while an educator for Broadreach, Bermuda Institute of Ocean Sciences REU in 2014
- Kelly McCaffrey: Aquatic Toxicology Research Associate for the EPA, received her M.S., Florida Institute of Technology, served as my intern during my Ph.D., and I mentored her during her internship at Mote Marine Laboratory in 2013

Research Featured in Local Press

- Florida Southern College NSF Press Release: <https://www.flsouthern.edu/news/recent/2021/science/national-science-foundation-taps-florida-southern.aspx>
- The Ledger: <https://www.theledger.com/story/news/local/2021/05/13/florida-southern-students-faculty-study-stone-crabs-under-grant/5075367001/>
- New York Times: <https://www.nytimes.com/2018/12/16/us/stone-crabs-florida-algae-red-tide.html>
- Spectrum Bay News 9: <https://www.baynews9.com/fl/tampa/news/2018/10/16/red-tide-a--one-two--punch-as-stone-crab-season-opens#>
- Herald Tribune: <https://www.heraldtribune.com/news/20181025/red-tide-warm-water-slowing-stone-crab-harvest>
- The Islander: <https://www.islander.org/2018/10/cortez-stone-crabbers-face-uncertain-future/>
- Daytona Beach News: <https://www.news-journalonline.com/news/20180609/sarasota-lab-finds-red-tide-imperils-stone-crabs>
- Fox News TV: <http://www.fox13news.com/news/local-news/stone-crabs-elude-fishermen-driving-up-prices>
- Bradenton Herald: <http://www.bradenton.com/news/local/article202358589.html>
- Herald Tribune: <http://www.heraldtribune.com/news/20180227/love-your-stone-crabs-ocean-acidification-is-threatening-them>

Synergistic Activities and Outreach

Marine Science through Videography

1. Youth Making Ripples Film Festival and Competition, Co-founder (2012–present), Educational non-profit and national program that challenges K–12 students to create short marine conservation documentaries
2. Beneath the Waves™, Inc., Educational Outreach Associate (2012–2017)
 - engaging the public about marine science through film and research
 - Co-writer, director, and producer of educational film "[A Mucky Future for the Indian River Lagoon](#)", screened at the 2013 Beneath the Waves Film Festival in Savannah, Georgia and a Beneath the Waves mini-festival in Faro, Portugal

Other Outreach

Florida Southern College Be Curious Mini-Grant (\$500), to support Quality Enhancement Plan - Student learning outcomes for inquiry, originality, and dissemination (Spring 2021)

Mote Marine Laboratory High School Intern Mentor (2018–present)

Mote Marine Laboratory Science Café lecturer (2017–present)

Middle and high school science fair mentor, Brevard and Sarasota County Schools (2009–2012)

“Lunch with a Scientist” middle school program, Florida Institute of Technology, (2012–2013)

Scholarships

Florida Institute of Technology Teaching Assistantship – \$2,482 (Fall 2016)

Florida Institute of Technology Research Assistantship – \$5,445 (Summer 2016)

Florida Institute of Technology Doctoral Graduate Research Assistantship – \$10,458 (2014)

Florida Institute of Technology Ambassador Scholarship – \$1,000 (2013–2014)

University of Washington Friday Harbor Marine Science Scholarship – \$1,500 (2013)

Awards and Honors

Florida Marine Science Educator Association Award (2017)

Outstanding Graduate Student Marine Biology (2011–2012, 2013–2014)

Florida Tech ‘Open Access Essay’ Award (2013)

Florida Marine Science Educator Association Travel Award (2013)

Florida Marine Science Educator Association – John Beakley Educator of the Year Award (2011)

Presidential Award for Excellence in Mathematics and Science Teaching Nominee (2010)

Space Coast Science Education Alliance Exemplary Teacher (2009–2010)

Space Coast Science Education Alliance Exemplary Teacher Nominee (2006–2007)

Outstanding Graduate Student Marine Biology (2003–2004, 2005–2006)

Special Programs, Committee Participation and Professional Organizations

State of Florida Stone Crab Advisory Panel (2017–present)

International Coral Reef Society (2020–present)

Faculty advisor for Florida Southern College’s Biological Honor Society, Tri-Beta (2021–2022)

Advisory Committee, MacArthur Beach State Park Citizen Stewards Program (2017–2021)

Educational Advisory Board Council, ANGAGI Foundation, (2017–2019)

President, Biology Graduate Student Association, Florida Institute of Technology (2013–2016)

National Ocean Science Bowl Question Writer (2015)

Brevard County Science Fair Judge (2009–2015)

Blue Life Organization, Wonders of Water: Conservation Program Speaker (2012–2014)

Ocean Science Bowl Coach, West Melbourne School for the Sciences (2011–2012)

Vice-President, TriBeta Biological Honor Society, Florida Institute of Technology (2002–2003)

Rowing Coach, Sebastian River and Vero Beach High Schools (2010–2016)

Professional Development Training

Ocean Acidification Round Table Workshop, Mote Marine Laboratory (2012, 2015)

Consortium for Ocean Science Exploration and Engagement Presentation Bootcamp 2.0 (2015)

Consortium for Ocean Science Exploration and Engagement Video Story Telling Bootcamp (2015)

Ocean Acidification Research Apprenticeship, University of Washington (2013)

Computing for Data Analysis in R Programming, John Hopkins (2013)

NSF Broader Impact Workshop, University of South Florida (2012)

Consortium for Ocean Science Exploration and Engagement Presentation Bootcamp, Naples, FL (2012)

NSF Ethics Training, (2011)