

# Natalie R. Cohen

Assistant Professor

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## Academic History

- April 2021 – present      Courtesy Faculty Appointment, Institute of Bioinformatics, University of Georgia
- Dec. 2020 – present      Assistant Professor, Department of Marine Sciences and Skidaway Institute of Oceanography, University of Georgia
- 2017-2020                  Postdoctoral Fellow, Laboratory of Mak Saito, Marine Chemistry & Geochemistry, Woods Hole Oceanographic Institution

## Education

- University of North Carolina at Chapel Hill, Marine Sciences, Ph. D. 2017
- Pennsylvania State University, Biology, B.S., Minor in Marine Sciences. 2010

## Federal & Regional Research Grants

- National Science Foundation, Office of Polar Programs: “Collaborative Research: Mixotrophic grazing as a strategy to meet nutritional requirements in the iron and manganese deficient Southern Ocean” Lead PI. 2023-2026
- National Science Foundation, Office of Polar Programs: “Collaborative Research: Adaptations of Southern Ocean diatoms to manganese scarcity: Can physiological ingenuity overcome unfavorable chemistry?” Co-PI. 2023-2026
- Southeast Coastal Ocean Observing Regional Association (SECOORA): “Monitoring & identifying environmental drivers of periodic harmful algal blooms in a model estuary of coastal GA” Lead PI. 2023-2025

## Fellowships, Awards & Honors

- 2024                  Alfred P. Sloan Research Fellow in Earth System Science
- 2024                  Simons Early Career Investigator in Aquatic Microbial Ecology & Evolution
- 2023                  UGA Office of Research Internal Research Support Co-funding Program Award
- 2022                  UGA Covid Research Recovery Impact Funding Award (\$15,300)
- 2017-2020          Simons Postdoctoral Fellowship in Marine Microbial Ecology
- 2019                  ASLO Early Career Travel Grant
- 2018                  J. Charles Morrow Award for Graduate Research Excellence, UNC Chapel Hill
- 2018                  COACh Career Launch & Acceleration Travel Award, Boston MA
- 2018                  NSF OCB Early Career Registration Award, Woods Hole MA
- 2017                  Sigma Xi Full Member
- 2017                  Initiative for Minority Excellence Travel Award, UNC Chapel Hill
- 2017                  J. Charles Morrow Travel Grant, UNC Chapel Hill
- 2016-2017          Dissertation Completion Fellowship, UNC Chapel Hill (\$20,000)
- 2016                  NSF ECOGEO Travel Award, University of Hawaii at Manoa
- 2013-2016          Graduate & Professional Student Senator, UNC Chapel Hill
- 2015-2016          Graduate Action Group President, UNC Chapel Hill
- 2015                  C-MORE Summer Program, University of Hawaii at Manoa (*declined*)
- 2015                  Marine Technology Society Scholarship, UNC Chapel Hill
- 2014                  NSF OCB Travel Award, Bigelow Laboratory for Ocean Science
- 2013                  J. Charles Morrow Travel Grant, UNC Chapel Hill
- 2013                  University Research Day Best Poster, UNC Chapel Hill
- 2010                  PA Commonwealth Education Abroad Scholarship, Pennsylvania State University

## Publications – Submitted & Preprints

- **Cohen, N.R.**, Krinos, A.I., Kell, R.M., Chmiel, R. J., Moran, D.M., McIlvin, M.R., Lopez, P.Z., Barth, A., Stone, J., Alanis, B.A., Chan, E.W., Breier, J.A., Jakuba, M.V., Johnson, R., Alexander, H., Saito, M.A. (2023) Microeukaryote metabolism across the western North Atlantic Ocean revealed through autonomous underwater profiling. *Preprint: biorxiv.org/content/10.1101/2023.11.20.567900v1.full*
- Krinos, A.I., Brisbin, M.M., Hu, S.K., **Cohen, N.R.**, Rynearson, T.A., Follows, M.J., Schulz, F., Alexander, H. (2023b) Missing microbial eukaryotes and misleading meta-omic conclusions. *Preprint: biorxiv.org/content/10.1101/2023.07.30.551153v1.full*
- Oliver, Z., Xie, H., Kieber, D., Wang, W. Song, G., **Cohen, N.** Cyanohydrin Equilibria Implicate Non-Aromatic Aldehydes in Photochemical Production of Oceanic Carbon Monoxide, Generating Mechanistic Prototypes.
- Millette, N., Leles, S., Johnson, M.D., Maloney, A.E., Brownlee, E.F., Cohen, N.R., Duhamel, S., Poulton, N.P., Princiotta, S.D., Stamieszkin, K., Wilken, S. and Moeller, H.V. Recommendations for Advancing Mixoplankton Research through Empirical-Model Integration.

## Publications – Peer-reviewed

1. Moreno, C.M., Bernish, M., Meyer, M.G., Li, Z., Waite, N., **Cohen, N.R.**, Schofield, O., Marchetti, A. (2024) Molecular physiology of Antarctic diatom natural assemblages reveals multiple strategies contributing to their ecological success. *mSystems* 0:e013306-23
2. Millette, N.C., Gast, R.J., Luo, J.Y., Moeller, H.V., Stamieszkin, K., Andersen, K.H., Brownlee, E.F., **Cohen, N.R.**, et al. (2023) Mixoplankton and mixotrophy: future research priorities. *Journal of Plankton Research* 45: 576–596.
3. Krinos, A. I., **Cohen, N.R.**, Follows, M. J., and Alexander, H. (2023a). Reverse engineering environmental metatranscriptomes clarifies best practices for eukaryotic assembly. *BMC Bioinformatics* 24: 74.
4. Maniscalco, M.A., Brzezinski, M.A., Lampe, R.H., **Cohen, N.R.**, McNair, H.M., Ellis, K.A., et al. (2022) Diminished carbon and nitrate assimilation drive changes in diatom elemental stoichiometry independent of silicification in an iron-limited assemblage. *ISME Communications* 2: 1–10.
5. **Cohen, N.R.**, Alexander, H., Krinos, A.I., Hu, S.K., and Lampe, R.H. (2022) Marine Microeukaryote Metatranscriptomics: Sample Processing and Bioinformatic Workflow Recommendations for Ecological Applications. *Frontiers in Marine Science* 9.
6. Kellogg, R.M., Moosburner, M.A., **Cohen, N.R.**, Hawco, N.J., McIlvin, M.R., Moran, D.M., et al. (2022) Adaptive responses of marine diatoms to zinc scarcity and ecological implications. *Nature Communications* 13: 1995.
7. **Cohen, N.R.**, Noble, A.E., Moran, D.M., McIlvin, M.R., Goepfert, T.J., Hawco, N.J., et al. (2021) Hydrothermal trace metal release and microbial metabolism in the Northeast Lau Basin of the south Pacific Ocean. *Biogeosciences* 18, 5397–5422.
8. Held, N.A., Sutherland, K.M., Webb, E.A., McIlvin, M.R., **Cohen, N.R.**, Devaux, A.J., et al. (2021) Mechanisms and heterogeneity of in situ mineral processing by the marine nitrogen fixer *Trichodesmium* revealed by single-colony metaproteomics. *ISME Communications* 1: 35.
9. Kranzler, C.F., Brzezinski, M.A., **Cohen, N.R.**, Lampe, R.H., Maniscalco, M., Till, C.P., et al. (2021) Impaired viral infection and reduced mortality of diatoms in iron-limited oceanic regions. *Nature Geoscience* 14: 231–237.
10. Krinos, A. I., Hu, S.K., **Cohen, N.R.**, Alexander, H. (2021) EUKulele: Taxonomic annotation of the unsung eukaryotic microbes. 2021. *Journal of Open Source Software* 6(57).
11. **Cohen, N.R.**, McIlvin, M.R., Moran, D.M., Held, N.A., Saunders, J.K., Hawco, N.J., et al. (2021) Dinoflagellates alter their carbon and nutrient metabolic strategies across environmental gradients

in the central Pacific Ocean. *Nature Microbiology* 6:173–186 [Cover article and News & Views highlight](#)

12. Twining, B.S., Antipova, O., Chappell, P.D., **Cohen, N.R.**, Jacquot, J.E., Mann, E.L., et al. (2021) Taxonomic and nutrient controls on phytoplankton iron quotas in the ocean. *Limnology & Oceanography Letters* 6: 96–106.
13. Held, N.A., Webb, E.A., McIlvin, M.M., Hutchins, D.A., **Cohen, N.R.**, Moran, D.M., et al. (2020) Co-occurrence of Fe and P stress in natural populations of the marine diazotroph *Trichodesmium*. *Biogeosciences* 17: 2537–2551.
14. Moreno, C.M., Gong, W., **Cohen, N.R.**, DeLong, K., and Marchetti, A. (2020) Interactive effects of iron and light limitation on the molecular physiology of the Southern Ocean diatom *Fragilariopsis kerguelensis*. *Limnology & Oceanography* 65: 1511–1531.
15. Gorsky, G., Bourdin, G., Lombard, F., Pedrotti, M.L., Audrain, S., Bin, N., et al. (2019) Expanding Tara Oceans Protocols for Underway, Ecosystemic Sampling of the Ocean-Atmosphere Interface During Tara Pacific Expedition (2016–2018). *Frontiers in Marine Science* 6:750
16. Lampe, R.H., Mann, E.L., **Cohen, N.R.**, Till, C.P., Thamtrakoln, K., Brzezinski, M.A., et al. (2018) Different iron storage strategies among bloom-forming diatoms. *Proceedings of the National Academy of Sciences USA* 115: E12275–E12284.
17. Till, C.P., Solomon, J.R., **Cohen, N.R.**, Lampe, R.H., Marchetti, A., Coale, T.H. and Bruland, K.W. (2019) The iron limitation mosaic in the California Current System: Factors governing Fe availability in the shelf/near-shelf region. *Limnology & Oceanography*, 64: 109-123.
18. **Cohen, N.R.**, Gong, W., Moran, D.M., McIlvin, M.R., Saito, M.A., and Marchetti, A. (2018) Transcriptomic and proteomic responses of the oceanic diatom *Pseudo-nitzschia granii* to iron limitation. *Environmental Microbiology* 20: 3109–3126.
19. Lampe, R.H., **Cohen, N.R.**, Ellis, K.A., Bruland, K.W., Maldonado, M.T., Peterson, T.D., et al. (2018) Divergent gene expression among phytoplankton taxa in response to upwelling. *Environmental Microbiology* 20: 3069–3082.
20. **Cohen, N.R.**, Mann, E., Stemple, B., Moreno, C.M., Rauschenberg, S., Jacquot, J.E., et al. (2018) Iron storage capacities and associated ferritin gene expression among marine diatoms. *Limnology & Oceanography* 63: 1677–1691.
21. **Cohen, N.R.**, Ellis, K.A., Lampe, R.H., McNair, H., Twining, B.S., Maldonado, M.T., et al.. (2017) Diatom transcriptional and physiological responses to changes in iron bioavailability across ocean provinces. *Frontiers in Marine Science* 4:360.
22. **Cohen, N.R.**, A. Ellis, K., Burns, W.G., Lampe, R.H., Schuback, N., Johnson, Z., et al. (2017) Iron and vitamin interactions in marine diatom isolates and natural assemblages of the Northeast Pacific Ocean. *Limnology & Oceanography* 62: 2076–2096.
23. Marchetti, A., Moreno, C.M., **Cohen, N.R.**, Oleinikov, I., deLong, K., Twining, B.S., Armbrust, E.V. and Lampe, R.H. (2017). Development of a molecular-based index for assessing iron status in bloom-forming pennate diatoms. *Journal of Phycology* 53: 820-832.
24. Ellis, K.A., **Cohen, N.R.**, Moreno, C., and Marchetti, A. (2017) Cobalamin-independent Methionine Synthase Distribution and Influence on Vitamin B12 Growth Requirements in Marine Diatoms. *Protist* 168: 32–47.
25. Chen, Y., Patel, V., Bang, S., **Cohen, N.**, Millar, J., and Kim, S.F. (2012) Maturation and Activity of Sterol Regulatory Element Binding Protein 1 Is Inhibited by Acyl-CoA Binding Domain Containing 3. *PLoS One* 7: e49906.

### Publications – Perspectives

26. **Cohen, N.R.** (2022) Mixotrophic plankton foraging behaviour linked to carbon export. *Nature Communications* 13: 1302. ([Invited News & Views highlight](#))

## Other Scientific Products

- Kelly RL, John SG, **Cohen NR**, Hawco NJ, Pinedo-Gonzalez P, Lombard F, Bourdin G, Pesant S, Gorsky G, Tara Pacific Consortium (2022): Metal data collected during the Tara Pacific Expedition 2016-2018. PANGAEA, <https://doi.org/10.1594/PANGAEA.944395>
- **Cohen NR**, McIlvin MR, Saito MA. Geotraces Intermediate Data Product (IDP) 2021 – Dissolved trace metals from the Metzyme expedition <https://www.bco-dmo.org/dataset/836347>
- GitHub code repository: [github.com/cnatalie](https://github.com/cnatalie) and [github.com/CohenLabUGA](https://github.com/CohenLabUGA)

## Invited Talks

- 2023 Shifts in microeukaryote taxonomy and metabolism across geochemical gradients. *BioGeoSCAPES Planning Meeting. Woods Hole Oceanographic Institution, Woods Hole MA (plenary talk)*
- 2023 Funded mixotroph research overview. *Mixotrophs & Mixotrophy OCB working group. Bigelow Laboratory for Ocean Science. East Boothbay, ME.*
- 2023 Establishing a monitoring program and identifying environmental drivers of HABs in a model estuary of coastal Georgia. *SECOORA Annual Meeting. Jacksonville, FL.*
- 2023 Microeukaryote metabolism across the western North Atlantic Ocean revealed through autonomous underwater profiling. Department of Biological Sciences, *University of New Hampshire. Durham, NH*
- 2022 Using omics to identify mixotrophs & mixotrophy. *Mixotrophs & Mixotrophy OCB working group. Virtual*
- 2021 Protistan metabolic profiles and ecological roles across biogeochemical gradients. *Interdisciplinary Marine Science Seminar, Virginia Institute of Marine Science. Virtual*
- 2021 Protistan metabolic profiles and ecological roles across biogeochemical gradients. *Marine Environmental Biology, University of Southern California. Virtual*
- 2021 Linking microbial metabolism and micronutrient availability across ocean gradients. *Institute of Bioinformatics, University of Georgia. Virtual*
- 2020 Hydrothermal vent metal transport and microbial metabolism in the Northeast Lau Basin. *Marine Chemistry and Geochemistry, Woods Hole Oceanographic Institution. Woods Hole MA*
- 2020 Molecular and physiological adaptations of marine protists to trace metal availability. *Marine Science Institute, University of Texas at Austin. Virtual*
- 2020 Molecular and physiological adaptations of marine protists to trace metal availability. *Skidaway Institute of Oceanography and University of Georgia. Virtual*
- 2020 Molecular and physiological adaptations of marine protists to trace metal availability. *Biology & Marine Biology Department, University of North Carolina Wilmington. Wilmington, NC*
- 2019 Molecular and physiological adaptations of marine protists to trace metal availability. *Moss Landing Marine Laboratories Moss Landing, CA*
- 2019 Dinoflagellates alter functional metabolism along geochemical gradients in the central Pacific Ocean. *Biology Department, Woods Hole Oceanographic Institution. Woods Hole, MA*
- 2019 Contrasting functional metabolic signatures in marine dinoflagellates across a geochemical gradient in the central Pacific Ocean. *Paleo/Environmental Seminar, University of Southern California. Los Angeles, CA*
- 2018 Connecting dinoflagellate metabolism and biogeochemistry across the Pacific Ocean. *Annual Meeting of the Center for Marine Robotics. Woods Hole, MA*
- 2018 Iron-related molecular physiology of marine protists: Individual genes to community transcriptomes and proteomes. *Marine Chemistry and Geochemistry, Woods Hole Oceanographic Institution. Woods Hole, MA*

## Conference Presentations

- Shared peptides among diverse lineages of marine microeukaryotes. *American Society for Mass Spectrometry (ASMS)* Anaheim, CA. June 2024. *Accepted poster presentation*
- Comparing microeukaryote metatranscriptomes and metaproteomes captured using an autonomous underwater vehicle. *Aquatic Sciences Meeting (ASLO)* Mallorca, Spain. June 2023. Oral presentation
- Metabolic profiles and ecological roles of diverse protists across a coastal-offshore biogeochemical gradient. *Ocean Science Meeting (OSM)* Virtual. March 2022. Oral presentation
- Metabolic profiles and ecological roles of diverse protists across a coastal-offshore biogeochemical gradient. *OCB Scoping Workshop: BioGeoSCAPES*. Virtual. November 2021. Poster presentation
- Assessing microeukaryote taxonomy and metabolic traits across ocean gradients. *Bioinformatics Virtual Coordination Network Conference*. Virtual. June 2021. Poster presentation,
- The influence of hydrothermal metal inputs on protistan and particle-associated bacterial metabolism in the Lau Basin of the tropical South Pacific Ocean. *Ocean Sciences Meeting (OSM)* San Diego, CA. February 2020. Poster presentation
- Linking trace metal distributions and metal metabolism in microbial eukaryotes. *First Annual Meeting of the Early Career Investigators in Marine Microbial Ecology and Evolution and Fellows in Marine Microbial Ecology* New York City, New York. October 2019. Poster presentation.
- Investigating hydrothermal metal inputs and metaproteomes on the Tongan Ridge of the South Pacific Ocean. *Gordon Research Conference in Chemical Oceanography* Holderness, NH. July 2019. Poster presentation.
- Dinoflagellates alter functional metabolism along geochemical gradients in the central Pacific Ocean. *Aquatic Sciences Meeting (ASLO)* San Juan, PR. February 2019. Oral presentation
- Nitrate, iron and B<sub>12</sub> stress in eukaryotic phytoplankton of the central Pacific Ocean. *Ocean Carbon & Biogeochemistry Workshop* Woods Hole, MA. June 2018. Poster presentation.
- Variations in diatom transcriptional response to changes in iron availability across ocean provinces. *Aquatic Sciences Meeting (ASLO)* Honolulu, HI. February 2017. Oral presentation
- Ferritin gene response to iron stress suggests distinct functional roles in marine diatoms. *Ocean Sciences Meeting (OSM)* New Orleans, LA. February 2016. Poster presentation
- Influences of iron and biotin on biotin metabolism in a marine organism. *Ocean Sciences Meeting (OSM)* Honolulu HI. February 2014. Poster presentation

## Teaching Experience

### Courses taught at University of Georgia

**MARS 4500 (Fall 2022, Fall 2023) 3-4 credits:** *Field Study in Oceanography and Marine Methods:* developed a new course to introduce undergraduate students to common oceanographic field methods and laboratory sampling techniques. Students receive background information in sampling approaches during lectures, and hands-on training during guided lab activities. This course is a component of the UGA Ocean Science Major (B.S.) and the Semester of Skidaway field study program.

**BINF 7960/8960 (Spring 2024) 1 credit:** *Software Carpentries for Scientific Programming:* A 2-day bootcamp over spring break introducing Unix, Git, and R. This course is an introduction to foundational programming techniques, data organization, and computational analysis approaches commonly used across the biomedical and informational sciences fields. We use open-source lessons and curricula developed by *The Carpentries* organization (<https://carpentries.org/>).

### Workshops led at University of Georgia

2023 **UGA Software Carpentries:** Programming with Python. Two-day virtual coding workshop with 14 participants. March 6-7



2022 **UGA Software Carpentries:** Programming with Python. One-day virtual coding workshop with 30 participants. March 10

Teaching Prior to University of Georgia

- 2018 **Partnership Education Program (PEP) Co-Instructor:** introduced biological oceanography (biological carbon pump, coastal eutrophication, plankton identification and phytoplankton ecology) to undergraduate students through lectures, microscopy, graphing and statistics with R, coastal field work and a weekend research cruise onboard a sailing research vessel. The summer PEP program seeks to promote diversity in Woods Hole science by recruiting students with backgrounds traditionally underrepresented in STEM – Sea Education Association, Falmouth MA
- 2017 **Duke TIP Instructor:** taught core coastal biological and oceanographic concepts to rising 9th graders through interactive classroom activities and field expeditions in the course “Marine Biology: Near Shores and Oceans” – Duke University Marine Laboratory, Beaufort NC
- 2016 **Guest instructor:** designed and led five classes (1 module) within the undergraduate course “Marine Phytoplankton” – UNC Chapel Hill
- 2013-16 **Graduate Research Consultant** for the graduate course Biological Oceanography, instructed undergraduate and graduate students with field work design and execution in exploring the physical, chemical and biological parameters of the dynamic Neuse River Estuary in North Carolina – UNC Chapel Hill
- 2013 **Assistant Grader** for the graduate course “Chemical Oceanography” – UNC Chapel Hill
- 2011-12 **Teaching Assistant** for the undergraduate courses “Oceanography” and “Intro to the Marine Environment” – UNC Chapel Hill

**Research Supervision**

*MS students:*

Mallory Mintz (*UGA Department of Marine Sciences*) January 2023-present  
Lucy Quirk (*UGA Department of Marine Sciences*) August 2021-May 2024

*Ph.D students:*

Claire Cook (*UGA Department of Marine Sciences*) August 2022-present  
Zhihan Zhang (*UGA Institute of Bioinformatics*) August 2024-present

*Technical Staff:*

Karrie Bulski (*Skidaway Institute of Oceanography*) February 2021-May 2022

Graduate student thesis committee member

Emily Speciale, University of North Carolina at Chapel Hill 2023-present  
Hunter Powell, UGA Department of Marine Sciences 2022-present  
Patrick Duffy, UGA Department of Marine Sciences 2022-present  
Meredith Meyer, University of North Carolina at Chapel Hill 2021-present  
Mirayana Barros, UGA Department of Marine Sciences 2021-present  
McKenzie Powers, UGA Department of Marine Sciences 2021-present  
Hannah Choi, UGA Department of Marine Sciences 2020-present  
Mariah Ricci, UGA Department of Marine Sciences 2021-2023  
Rachael Karns, UGA Department of Marine Sciences 2021-2022  
Devon Umstead, UGA Department of Marine Sciences 2021-2022  
Andrea Reynolds, UGA Department of Marine Sciences 2020-2021

Undergraduate supervision

Felipe Quintana, Skidaway Undergraduate Internship Summer 2024  
Erin Murphy, GA Sea Grant & Marine Extension Winter 2023-24  
Neha Shah, Skidaway Undergraduate Internship Summer 2023

Lavon Young, Savannah State University REU	Summer 2023
Elizabeth Szink, Skidaway Undergraduate Internship	Summer 2022
Charlotte Greene, Skidaway Undergraduate Internship	Summer 2021

Undergraduate research (MARS 4970R)

John Googe, UGA Ocean Sciences Major	Fall 2023
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Student Mentoring

Benjamin Lowin, UGA Department of Marine Sciences	2022-present
Rose Palermo, United States Geological Survey	2020-present
Emilie Skoog, Massachusetts Institute of Technology	2020-present
Mallory Hunt, UGA Department of Marine Sciences	2022-2024
Abby McCormick, UGA Department of Marine Sciences	2021-2022
Brooke Stemple, UNC Chapel Hill	2014-2015
Wilton Burns, UNC Chapel Hill	2013-2014

**Scientific Leadership**

- **Conference Session Co-convener**, ME006 Mixotrophs & Mixotrophy – Ocean Sciences Meeting 2024. New Orleans LA. February 2024
- **Conference Session Co-convener**, SS057 Drivers and Impacts of Changing Microbial Ecology in Vulnerable Coastal Systems – ASLO Aquatic Sciences Meeting 2023. Palma de Mallorca, Spain. June 2023
- **Chief Scientist of Research Cruise with SkIO Summer Interns**: organized one-day cruises across a coastal salinity gradient with SkIO undergraduate interns in which ocean instrumentation and sampling approaches were introduced. Summer 2022 and 2023
- **Conference Session Co-convener**, OB04 Small bugs with a big impact: linking plankton ecology with ecosystem processes – Ocean Sciences Meeting. Virtual. February-March 2022
- **Conference Session Co-convener**, ME11 Impacts of ecological interactions on marine ecosystem dynamics and biodiversity: New insights from theory, models, and field measurements – Ocean Sciences Meeting. Virtual. February-March 2022
- **Everyday Ethics Workshop Co-organizer**, facilitated discussions and a Q&A panel regarding best practices in publishing, authorship, data sharing and reproducibility in the ocean science community – Woods Hole Oceanographic, Woods Hole MA. August 2020

**Workshops & Technical Training**

- *OCB Biogeoscapes*, international science planning meeting. Woods Hole, MA. November 2023.
- *Mapping the future of 'omics applications in Antarctic research*. NSF workshop to identify ecology & evolution-based research priorities in Antarctica. Virtual. October 18-19 2022
- *Machine Learning Bootcamp*, training in machine learning approaches (supervised, unsupervised, reinforcement) implemented in Python. Woods Hole Oceanographic Institution, Woods Hole MA. October 2019
- *May Institute's Targeted Proteomics with Skyline Workshop*, technical course on targeted proteomic approaches achieved through selected reaction monitoring (SRM), parallel reaction monitoring (PRM) and data dependent acquisition (DDA)-based mass spectrometry. Northeastern University, Boston MA. April 2019.
- *Biogeoscapes Workshop*, planning meeting for launching an international, intercalibrated new program linking bioactive elements with ocean metabolism. Woods Hole, MA. November 2018.
- *Tara Pacific Science Meeting*, presented updates on trace metal analyses (Pb, Fe, Zn, Mn, Cu, Ni, Cd, Co) along the Tara Pacific cruise track conducted in the laboratory of Seth John (USC) while discussing synergies and data sharing plans. Lorient, France. October 2018.
- *OCB Summer Workshop*, discussions centered on experimental evolution using marine microbes,

incorporating stoichiometry and physiology into biogeochemical models, the influence of microzooplankton on carbon export, polar response to global change, and coastal/offshore long-term ecological research program insights. Woods Hole MA. June 2018.

- *EGOGEO Workshop*, amplicon sequencing and metagenomics training. University of Hawai'i at Monoa. July 2016.

## Professional Service

### Ocean Carbon & Biogeochemistry (OCB)

2024-present **Intercomparison of metatranscriptomic methods for characterizing microbial eukaryotes.** Organizing a series of workshops within the domestic scientific community to standardize marine sequencing processing and bioinformatic analyses. (*Working Group co-Lead & Steering Committee*)

2021-2023 **Mixotrophs & Mixotrophy** (*Working Group Participant*)

### Ad hoc manuscript reviewer (Number reviewed in parentheses)

Biogeosciences (2), BMC Molecular Biology (1), Coral Reefs (1), Ecology Letters (1), Environmental Microbiology (1), Environmental Science & Technology (1), Frontiers in Marine Science (1), Global Biogeochemical Cycles (1), Harmful Algae (1), Journal of Phycology (1), Journal of Plankton Research (1), Journal of Proteome Research (1), Limnology & Oceanography (2), Marine Chemistry (1), Marine Genomics (1), mBio (1), mSystems (1), Nature Communications (2), Open Biology (1), Science Advances (1), Science of the Total Environment (1), Scientific Data (1)

### Grant review panel member (Number attended in parentheses)

2024 National Science Foundation (virtual) (1)

2022 National Science Foundation (virtual) (1)

### Ad hoc grant review (Number reviewed in parentheses)

U.S National Science Foundation

2023 Long-term Ecological Research (1)

2019 Biological Oceanography (1)

### Departmental service

2022-present Dept. Marine Sciences Semester at Skidaway Planning Committee Member

2021-present Institute of Bioinformatics Carpentries@UGA

2020-2023 UGA Society for Women in Marine Science (SWMS) Faculty Mentor

2022 Dept. Marine Sciences Faculty Search Committee Member

2021 Unlearning Racism in Geoscience (URGE) UGA Pod Member

2021 UGA Software Carpentries Helper with Carpentries@UGA

2020-2021 Dept. Marine Sciences Diversity, Equity, and Inclusion Committee Member

2020 Dept. Marine Sciences Student Life Subcommittee Member

## Science communication

SECOORA: Monitoring harmful algal blooms (HABs) in coastal Georgia (launched December 2023):

<https://secoora.org/georgia-harmful-algal-blooms/>

HABs media coverage with graduate student Mallory Mintz (2023):

<https://gacoast.uga.edu/education/college-students/research-trainee-program/>

<https://gacoast.uga.edu/student-researchers-address-coastal-issues/>

<https://gacoast.uga.edu/georgia-researchers-and-residents-work-together-to-monitor-harmful-algal-blooms>

<https://www.savannahnow.com/story/news/environment/2023/07/25/university-of-georgia-researcher-monitors-savannah-waterways-for-harmful-algal-blooms/70456678007/>

<https://thecurrentga.org/2023/07/18/tracking-algal-blooms-on-the-georgia-coast/>

<https://www.gpb.org/news/2023/07/19/tracking-algal-blooms-on-the-georgia-coast>



Evening @ Skidaway Seminar Series (August 2023): Monitoring for harmful algal blooms on Skidaway Island:

<https://www.youtube.com/watch?v=EmBVWIPno4k>

Featured FlowCam User: Skidaway Institute of Oceanography (October 2022):

<https://blog.fluidimaging.com/blog/featured-flowcam-user-skidaway-institute-of-oceanography/>

Evening @ Skidaway Seminar Series (March 2021): What's so hot about hydrothermal vents:

<https://www.youtube.com/watch?v=haxNbgz56LM/>

Women in Ocean Science Publication Spotlight by Ally Hughes (2021):

[www.womeninoceanscience.com/blog/](http://www.womeninoceanscience.com/blog/)

Behind-the-paper blog post - Metzyme: the oceanographic expedition that was full of surprises (2021)

<https://go.nature.com/35380bK>

Clio Autonomous Underwater Vehicle (AUV) media coverage during 2019 BATS-WHOI cruise:

<https://www.instagram.com/explore/tags/ClioAUV/>

Coordinator of the Marchetti Lab Facebook blog (2016-2017):

[facebook.com/Marchetti-Lab-The-University-of-North-Carolina-at-Chapel-Hill-1662111674006291](https://facebook.com/Marchetti-Lab-The-University-of-North-Carolina-at-Chapel-Hill-1662111674006291)

Guest blogger on the El Nino Research Cruise News Blog: [galapagossscience.wordpress.com](http://galapagossscience.wordpress.com)

Personal blog with teaching resources and coding/graphics tutorials:

<https://cohenlabuga.com/blog-2>

## Public Outreach

- **Interviewee**, upper-division Marine Ecology undergraduate course for science majors – University of Texas at Austin. Virtual. October 2023.
- **Exhibitor**, Open house laboratory tour, Evening @ Skidaway series – Skidaway Island, Savannah GA. July 2023
- **Exhibitor**, Marine Science Day tour on the R/V *Savannah* and importance of phytoplankton – Skidaway Island, Savannah GA. October 2022
- **Guest Judge**, evaluated undergraduate sophomore and junior project presentations carried out over the summer NSF REU program – Savannah State University, Savannah GA. July 2021
- **Guest**, ocean science Q&A with 5th and 6th graders – Tybee Island Maritime Academy, Savannah GA. Virtual March 2021
- **Panelist**, Q&A with Summer Student Fellows and Partnership Education Program undergraduates navigating the graduate school admission process – Woods Hole Oceanographic, Woods Hole MA. July 2019

## Oceanographic Research Cruise Participation

2023 R/V *Pelagia*, North Atlantic – August 17th - September 2nd (Ph. D student Claire Cook)  
2023 R/V *Savannah*, South Atlantic Bight – July 25th (**Chief Scientist**)  
2023 R/V *Sally Ride*, PUPCYCLE 2 – May 28th - June 12th (Ph. D student Claire Cook)  
2022 R/V *Endeavor*, NES-LTER transect – June 13th - July 18th  
2022 R/V *Savannah*, South Atlantic Bight – June 11th (**Chief Scientist**)  
2022 R/V *Savannah*, South Atlantic Bight – March 22nd - March 23rd (**Chief Scientist**)  
2021 R/V *Savannah*, South Atlantic Bight – September 24th - September 25th (**Chief Scientist**)  
2021 R/V *Savannah*, South Atlantic Bight – April 20th - April 21st  
2019 R/V *Atlantic Explorer*, BATS to WHOI – June 16th - June 28th  
2018 SSV *Corwith Cramer*, Vineyard Sound & Buzzard's Bay – June 8th – June 11th  
2018 R/V *Atlantis*, tropical & equatorial Atlantic – February 8th – March 14th  
2015 CCGS *John P. Tully*, Coastal Ocean & Ocean Station Papa – June 7th –23rd  
2014 *Guadalupe River* (Galapagos National Park), Galapagos Islands – October 9th–24th  
2014 R/V *Melville*, California Current System – July 3rd–26th  
2013 CCGS *John P. Tully*, Line P transect & Ocean Station Papa – June 7th–25th

### **Professional Organizations**

American Association for the Advancement of Science (AAAS) · American Geophysical Union (AGU) · Association for the Sciences of Limnology and Oceanography (ASLO) · Marine Technology Society (MTS) · Psychological Society of America (PSA) · Sigma Xi, UNC Chapel Hill Chapter · Society for Women in Marine Science (SWMS) · The Carpentries · The Oceanography Society (TOS)