

## Sophie J. McCoy, Ph.D.

University of North Carolina at Chapel Hill  
Department of Biology  
Wilson Hall 334, CB3280  
Chapel Hill, NC 27599  
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### Professional Appointments

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<b>Department of Biology</b> University of North Carolina, Chapel Hill, NC	<b>Assistant Professor</b> <i>2022 - present</i>
<b>Environment, Ecology, and Energy Program</b> University of North Carolina, Chapel Hill, NC	<b>Adjunct Assistant Professor</b> <i>2022 - present</i>
<b>Phycological Society of America</b>	<b>Norma J. Lang Early Career Fellow</b> <i>2019 - 2022</i>
<b>Department of Biological Science</b> Florida State University, Tallahassee, FL	<b>Assistant Professor</b> <i>2016 - 2021</i>
<b>Marine Ecology and Biodiversity Group</b> Plymouth Marine Laboratory, Plymouth, England	<b>Marie Curie Fellow</b> <i>2014 - 2016</i>

### Education

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<b>Ph.D. Ecology &amp; Evolution</b> The University of Chicago, Chicago, IL	2014
<b>Sc.B. Chemistry (Honors)</b> Brown University, Providence, RI	2008

### Awards, Honors, & Fellowships

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<b>HITS Case Fellowship</b> High-throughput Discovery Science & Inquiry-based Case Studies for Today's Students (HITS) National Science Foundation, Undergraduate Biology Education Research Coord. Network	2022
<b>Voices for Science Fellowship, Science Policy Track</b> American Geophysical Union	2020 - 2021
<b>Norma J. Lang Early Career Fellowship</b> Phycological Society of America	2019 - 2022
<b>First Year Assistant Professor Award</b> Florida State University	2017
<b>Postdoctoral and Early Career Researcher Exchange Fellowship</b> Marine Alliance for Science and Technology, Scotland	2016
<b>Marie Curie International Incoming Fellowship (IIF)</b> EU FP7 Programme	2014 - 2016

<b>Best Dissertation in the Biological Sciences</b> University of Chicago	2014
<b>Departmental Award, Ecology and Evolution</b> University of Chicago	2014
<b>Bold Award</b> Phycological Society of America	2013
<b>Outstanding Student Paper Award, Ocean Sciences Section</b> American Geophysical Union Meeting	2011
<b>Graduate Research Fellowship (GRFP)</b> National Science Foundation	2010 - 2014
<b>National Defense Science &amp; Engineering Graduate Fellowship (NDSEG)</b> US Department of Defense	2010 - 2013
<b>Planetary Biology Internship (PBI) Award</b> National Aeronautics and Space Administration	2009
<b>Karen T. Romer Undergraduate Research Assistantship</b> Brown University	2007

## Publications

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ORCID ID 0000-0003-1324-1578

(lab members, graduate student author, undergraduate student author)

34. **MacVicar, A, SJ Stoppelmann, TJ Broomes and SJ McCoy**. Gulf of Mexico rhodoliths are robust to sunscreen pollution. *Marine Pollution Bulletin*, 181: 113864. doi.org/10.1016/j.marpolbul.2022.113864
33. **Cissell, EC**, C Eckrich and **SJ McCoy** (2022). Cyanobacterial mats as benthic reservoirs and vectors for coral black band disease pathogens. *Ecological Applications*, in press. doi.org/10.1002/eap.2692
32. **Cissell, EC** and **SJ McCoy** (2022). Marine cyanobacteria in the Anthropocene: Are top-down paradigms robust to climate change? *Climate Change Ecology*, 3: 100057. doi.org/10.1016/j.ecochg.2022.100057
31. **Manning, JC** and **SJ McCoy** (2022). Coprophagy in Caribbean parrotfishes. *Ecology*, 103(4): e3657. doi.org/10.1002/ecy.3657
30. Page, HN, K Bahr, T Cyronak, E Jewett, M Johnson and **SJ McCoy** (2022). Responses of benthic calcifying algae to ocean acidification differ between laboratory and field settings. *ICES Journal of Marine Science*, fsab232. doi:10.1093/icesjms/fsab232
29. **Miranda, K, B Weigel and SJ McCoy**, and CA Pfister (2021). The ecosystem consequences of alternate primary producers. *Ecology*, 102(9): e03455. doi: 10.1002/ecy.3455
28. **Kolzenburg, R**, F D'Amore, **SJ McCoy**, and F Ragazzola (2021). Physiological adaptations in marginal populations of *Corallina officinalis* to future climatic changes. *Environmental and Experimental Botany*, 188: 104522. doi: 10.1016/j.envexpbot.2021.104522
27. **Cissell, EC**, SA Kranz, and **SJ McCoy** (2021). Rhodolith holobionts are not sources of fixed nitrogen in a northeastern Gulf of Mexico patch reef. *Bulletin of Marine Science*, 97(1). doi: 10.5343/bms.2020.0041
26. **Cissell, EC**, and **SJ McCoy** (2021). Shotgun metagenomic sequencing reveals the full taxonomic, trophic, and functional diversity of a coral reef benthic cyanobacterial mat from Bonaire, Caribbean Netherlands. *Science of the Total Environment*, 755: 142719. doi: 10.1016/j.scitotenv.2020.142719

25. Twist, BA, CE Cornwall, **SJ McCoy**, PW Gabrielson, PT Martone and WA Nelson (2020). The need to employ reliable and reproducible species identifications in coralline algal research. *Marine Ecology Progress Series*, 654: 225-231. doi: 10.3354/meps13506
24. **McCoy, SJ**, SA Krueger-Hadfield and N Mieszkowska (2020). Evolutionary phycology: Toward a macroalgal species conceptual framework. *Journal of Phycology*, 56(6): 1404-1413. doi: 10.1111/jpy.13059
23. Lester, SE, A Rassweiler, **SJ McCoy**, M Donovan, A Dubel, M Miller, S Miller, B Ruttenberg, J Samhuri and ME Hay (2020). Caribbean reefs of the Anthropocene: variance in ecosystem services and bright spots at coral depauperate reefs. *Global Change Biology*, 26(9): 4785-99. doi: 10.1111/gcb.15253
22. Cullen, CM, A Kawalpreet, S Beyhan, CE Cho, S Woloszynek, M Convertino, **SJ McCoy**, Y Zhang, M Anderson, D Alvarez-Ponce, E Smirnova, L Karstens, PC Dorrestein, H Li, AS Gupta, K Cheung, J Powers, Z Zhao and G Rosen (2020). Emerging priorities for microbiome research. *Frontiers in Microbiology*, 11: 72. doi: 10.3389/fmicb.2020.00136
21. **McCoy, SJ**, A Santillán-Sarmiento, MT Brown, S Widdicombe and GA Wheeler (2020). Photosynthetic responses of turf-forming red macroalgae to high-CO<sub>2</sub> conditions. 56(1): 85-96. *Journal of Phycology*. doi: 10.1111/jpy.12922
20. **McCoy, SJ**, and S Widdicombe (2019). Thermal tolerance is independent of environmental history in an intertidal seaweed. *Ecology and Evolution*, 9(23): 13402-13412. doi: 10.1002/ece3.5796
19. Cissell, EC, JC Manning and **SJ McCoy** (2019). Consumption of proliferating cyanobacterial mats on Caribbean reefs. *Scientific Reports* 9: 12693. doi: 10.1038/s41598-019-49126-9
18. Ravaglioli, C, F Bulleri, S Ruhl, **SJ McCoy**, H Findlay, S Widdicombe and AM Queirós (2019). Ocean acidification and hypoxia alter organic carbon fluxes in marine soft sediments. *Global Change Biology*, 25(12): 4165-4178. doi: 10.1111/gcb.14806
17. Kolzenburg, R, KR Nicaastro, **SJ McCoy**, A Ford, GI Zardi and F Ragazzola (2019). Understanding the margin squeeze: Differentiation in fitness-related traits between central and trailing edge populations of *Corallina officinalis*. *Ecology and Evolution*: 1-15. doi: 10.1002/ece3.5162
16. Queirós, AM, N Stephens, S Widdicombe, K Tait, **SJ McCoy**, J Ingels, S Ruhl, R Airs, A Beesley, G Carnovale, P Cazenave, S Dashfield, E Hua, M Jones, P Lindeque, CL McNeill, J Nunes, H Parry, C Pascoe, A Rees, C Widdicombe, T Smyth, A Atkinson, D Krause-Jensen and PJ Somerfield (2019). Connected macroalgal-sediment systems: blue carbon and foodwebs in the deep coastal ocean. *Ecological Monographs*: 89(3): e01366. doi: 10.1002/ecm.1366  
  - *F1000 Recommended Article*
15. Yuan, X, **SJ McCoy**, Y Du, S Widdicombe and JM Hall-Spencer (2018). Physiological and behavioral plasticity of the sea cucumber *Holothuria forskali* (Echinodermata, Holothuroidea) to acidified seawater. *Frontiers Physiology*, 9: 1339. doi: 10.3389/fphys.2018.01339
14. **McCoy, SJ**, and NA Kamenos (2018). Coralline algal skeletal mineralogy affects grazer impacts. *Global Change Biology*, 24(10): 4775-4783. doi: 10.1111/gcb.14370
13. **McCoy, SJ**, NA Kamenos, P Chung, JT Wootton and CA Pfister (2018). Altered crystal mineralogy in the California mussel on decadal and centennial scales in a changing ocean. *Global Change Biology*, 24(6): 2554-2562. doi: 10.1111/gcb.14013
12. Pfister, CA, K Roy, JT Wootton, **SJ McCoy**, RT Paine, TS Suchanek and ES Sanford (2016). Historical baselines and the future of shell calcification for a foundation species in a changing ocean, *Proceedings of the Royal Society, B*, 283: 20160392. doi 10.1098/rspb.2016.0392

11. **McCoy, SJ**, CA Pfister, G Olack and AS Colman (2016). Diurnal and tidal patterns of carbon uptake and calcification in geniculate intertidal coralline algae, *Marine Ecology*, 37(3): 553-564. doi 10.1111/maec.12295
10. **McCoy, SJ**, S Allesina and CA Pfister (2016). Ocean acidification affects competition for space: projections of community structure using cellular automata, *Proceedings of the Royal Society, B*, 283: 20152561. doi 10.1098/rspb.2015.2561
9. Nunes, J, **SJ McCoy**, HS Findlay, F Hopkins, V Kitidis, AM Queirós, L Rayner and S Widdicombe (2016). Two intertidal, non-calcifying macroalgae (*Palmaria palmata* and *Saccharina latissima*) show complex and variable responses to short-term CO<sub>2</sub> acidification, *ICES Journal of Marine Science*, 73(3): 887-896. doi 10.1093/icesjms/fsv081
8. **McCoy, SJ**, and NA Kamenos (2015). Coralline algae (Rhodophyta) in a changing world: integrating ecological, physiological, and geochemical responses to global change, *Journal of Phycology*, 51:6-24.
7. **McCoy, SJ**, and F Ragazzola (2014). Skeletal trade-offs in coralline algae in response to ocean acidification, *Nature Climate Change*, 4: 719-723.  
  - *Highlighted article in Nature Climate Change: News and Views*
6. **McCoy, SJ**, and CA Pfister (2014). Historical comparisons reveal altered competitive interactions in a guild of crustose coralline algae, *Ecology Letters*, 17: 475-483.
5. **McCoy, SJ** (2013). Morphology of the crustose coralline alga *Pseudolithophyllum muricatum* (Rhodophyta, Corallinaceae) responds to 30 years of ocean acidification in the northeast Pacific, *Journal of Phycology*, 49(5): 830-837.
4. Garrard, SL, R Hunter, A Frommel, AC Lane, JC Phillips, R Cooper, R Dineshram, U Cardini, **SJ McCoy**, M Arnberg, BG Rodrigues Alves, S Annane, MR de Orte, A Kumar, G Aguirre-Martínez, RH Maneja, MD Basallote Sánchez, F Ape, A Torstensson and MM Bjoerk (2013). Ocean acidification: the next generation - a postgraduate perspective on research priorities, *Marine Biology*, 160: 1789-1805.
3. Pfister, CA, **SJ McCoy**, JT Wootton, PA Martin, AS Colman and D Archer (2011). Rapid environmental change over the past decade revealed by isotopic analysis of the California mussel in the northeast Pacific, *PLoS One*, 6(10): e25766.
2. **McCoy, SJ**, LF Robinson, CA Pfister, JT Wootton and N Shimizu (2011). Exploring B/Ca as a pH-proxy in bivalves: relationships between *Mytilus californianus* B/Ca and environmental data from the northeast Pacific, *Biogeosciences*, 8: 2567-2579.
1. Russell, JM, **SJ McCoy**, D Verschuren, I Bessems and Y Huang (2009). Human impacts, climate change, and aquatic ecosystem response during the past 2000 yr at Lake Wandakara, Uganda, *Quaternary Research*, 72(3): 315-324.

### *Manuscripts*

35. Page, HN, **SJ McCoy**, K Burnham, RGM Spencer and C Hewett, M Johnson. Effects of ocean acidification on tropical macroalgal photo-physiology: implications for organic carbon cycling on coral reefs. In review at *PLoS One*.
36. **Cissell EC** and **SJ McCoy**. Niche plasticity and metabolic handoffs in coral reef benthic cyanobacterial mat communities. In review at *Molecular Ecology*.
37. **Manning, JC** and **SJ McCoy**. Territoriality drives patterns of fixed space use in Caribbean parrotfishes. In review at *Ecology and Evolution*.

### *Peer-Reviewed Educational Research*

Lamb, T, AE Beatty, EP Driessen, R Youngblood, A Esco, S Cotner, C Creech, AG Drake, S Fagbodun, J Harshman, K Hobbs, AK Lane, E Larson, **SJ McCoy**, R Robnett, S Thompson, and CJ Ballen. Equity and inclusion underlie instructor assessment choices amid COVID-19 pandemic. In review, *CBE - Life Sciences Education*.

Robnett, R, CJ Ballen, S Fagbodun, AK Lane, **SJ McCoy**, L Robinson, E Weems, and S Cotner (2022). Are synchronous chats a silver lining of emergency remote instruction? Text-based chatting is disproportionately favored by women in an introductory biology course. *PLoS One*, in press.

## Reports

AMAP (2013) AMAP Assessment 2013: Arctic Ocean Acidification. Arctic Monitoring and Assessment Programme (AMAP), Oslo, Norway. viii + 99 pp.

## Research Support

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### Funded

<b>Florida License Plate Fund, Protect Our Reefs</b> <b>PI: McCoy</b> <i>Top-down Controls of Benthic Cyanobacterial Mats</i>	05/21 - 05/22 \$29,845
<b>HHMI Inclusive Excellence (IE3)</b> <b>PIs: Underwood, Burgess, Dixon, McCoy, McNutt &amp; Winn</b> <i>Toward a Seamless and Inclusive Transition to FSU for Transfer Students in STEM</i>	02/21 - 01/22 \$30,000
<b>Tatelbaum Ocean Research Fund</b> <b>PI: McCoy</b> <i>Links between Biology, Environmental Conditions and Water Chemistry</i>	09/20 - 08/23 \$300,000
<b>FACE Foundation, Thomas Jefferson Fund</b> <b>PIs: McCoy &amp; Le Gall</b> <i>Exploring Ecophysiological Divergence Among Cryptic Macroalgae</i>	09/20 - 09/22 \$10,000
<b>Phycological Society of America, Norma J. Lang Early Career Fellowship</b> <b>PI: McCoy</b> <i>Determining Community-Level Interactions of Cryptic Macroalgae</i>	09/19 - 08/23 \$10,000
<b>NSF Research Coordination Network: Undergraduate Biology Education (UBE)</b> <b>PI: Cotner (McCoy as Senior Personnel)</b> <i>EDU-STEM: Equity and Diversity in Undergraduate STEM</i>	09/19 - 08/21 \$496,090
<b>Florida State University, Committee on Faculty Research Support Award</b> <b>PI: McCoy</b> <i>Comparison of Pre- and Post-Industrial Marine Environments in the Gulf of Mexico</i>	03/19 - 10/19 \$14,000
<b>EU FP7 Marie Curie International Incoming Fellowship (IIF)</b> 04/14 - 08/16      €221,606.40 <i>REAFCC - Response of Ecosystem Assembly and Function to Climate Change: A multidisciplinary approach to understand community response to climate change in coastal rocky ecosystems</i>	04/14 - 08/16 €221,606.40

<b>NSF Doctoral Dissertation Improvement Grant, DEB-1110412</b>	05/11 - 05/13
<b>PIs: Pfister &amp; McCoy</b>	\$14,968
<i>Effects of Ocean Acidification on the Physiology and Species Interactions of Crustose Coralline Red Algae</i>	
<b>Achievement Rewards for College Scientists (ARCS) Foundation</b>	10/11 - 10/13
<b>PI: McCoy</b>	\$20,000
<i>Effects of Ocean Acidification on Coralline Algal Ecology</i>	

## Teaching

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*Certificate in University Teaching*, The University of Chicago Center for Teaching & Learning, 2013

### ***Courses Developed and Taught, University of North Carolina at Chapel Hill***

Special Topics in Biology: Environmental Microbiology (Biol 290)  
Fall 2022 Undergraduate course.

Marine Ecology (Biol 462)  
Fall 2022 Undergraduate course.

### ***Courses Developed and Taught, Florida State University***

Experimental Biology Laboratory: Environmental and Ecological Physiology (Bio 3042L)  
Fall 2016, 2017, Summer 2019, Spring 2020 Undergraduate course.

Ecophysiology (Bio 4933/5933)  
Spring 2018, Fall 2019 Advanced undergraduate lecture course co-listed for graduate enrollment.

### ***Courses Developed, The University of Chicago***

Topics in Aquatic Ecology: Macroalgal Phototrophs (EceV 42700) with C. Stepien, C. Pfister  
Fall 2012 Graduate directed reading group.

Approaches to Teaching in the Darwinian Sciences (Evol 49401) with N. Block, M. LaBarbera, Fall 2011  
Advanced graduate course on teaching pedagogy - *developed with the University of Chicago Center for Teaching and Learning and faculty in the Dept. Ecology & Evolution and the Committee on Evolutionary Biology.*

### ***Guest Lectures***

Biogenic Calcites, University of California, Davis and Bodega Marine Lab, D. Gold, 2020  
Marine Biology Honors Seminar, Florida State University, J. Wulff, 2016, 2018, 2019, 2020  
Seminar in Biological Frontiers, Florida State University, T. Terebelski, 2017, 2019  
Marine Ecology, Plymouth University, M. Brown, 2015  
Teaching Assistant Training, University of Chicago, V. Prince, 2013  
Tropical Ecology: Biodiversity and Human Impacts, U. Chicago. E. Larsen, 2013  
Marine Ecology, University of Chicago, J.T. Wootton, 2011

### ***Graduate Teaching Assistant, The University of Chicago, 2009-2014***

Population Ecology (Evol 42800) C. Pfister  
Natural History of North American Deserts - Field School (Bios 13112) E. Larsen  
Biodiversity (Bios 20198) M. LaBarbera  
Tropical Ecology: Biodiversity and Human Impacts (Bios 13126) E. Larsen  
Natural History of North American Deserts (Bios 13111) E. Larsen  
Environmental Ecology (Bios 13107) T. Price  
Approaches to Teaching in the Darwinian Sciences (Evol 49401) M. LaBarbera

Marine Ecology (Bios 23289) J.T. Wootton  
Ecology and Evolution (Bios 20185) J. Coyne, G. Dwyer

***Undergraduate Teaching Assistant, Brown University, 2006-2008***

Introductory Chemistry (Chem 10) J. Lusk, S. Russo-Rodriguez  
Equilibrium, Rate, and Structure (Chem 33) J. Doll, C. Rose-Petruck, R. Stratt

## **Advising and Mentorship**

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### ***Mentorship Trainings***

*University of North Carolina at Chapel Hill, TEAM ADVANCE, 2022*  
*Florida State University, 'Entering Mentoring' Workshop for Biology Faculty, 2021*

### ***Postdoctoral Scholars Mentored***

*University of North Carolina (1)* Ethan Cissell ('22 - present)  
Kerri Dobson ('22 - present)

### ***Doctoral Students Advised***

*University of North Carolina (1)* Madelina Marquez ('28)  
*Florida State University (6)* Emily Fuqua ('26; co-advised with Sandra Brooke until Fall 2021)  
Randi Bowman ('25; co-advised with Sandra Brooke until Fall 2021)  
Joshua Manning ('22)  
Ethan Cissell ('22)  
Abigail Engleman ('20; co-advised with Sandra Brooke)

### ***Doctoral Students Mentored as a Dissertation Committee Member***

*University of North Carolina (1)* Maya Powell ('26; Advisor: Karl Castillo)  
*Florida State University (11)* Nathan Spindel ('25; Advisor: Dan Okamoto)  
Penelope Ales ('25; Advisors: Nora Underwood & Brian Inouye)  
Aaron Ridall ('25; Advisor: Jeroen Ingels)  
Christian Fender ('25; Advisor: Mike Stukel)  
Rachael Best ('24; Advisor: Don Levitan)  
Gabrielle Fisher ('23; Advisor: Kay Jones)  
Benjamin Plier ('23 ; Advisor: Joe Travis)  
Juan Reza ('23; Advisor: Hank Bass)  
Alexandra Hooks ('21 ; Advisor: Scott Burgess)  
Brendan Scherer ('21; Advisor: Austin Mast)  
Margaret Vogel ('20; Advisors: Tom Miller & Olivia Mason)

### ***External Doctoral Dissertation Committee Member/Examiner***

*Multiple institutions (4)* Erik Krieger, Victoria University of Wellington ('22; Advisor: Chris Cornwall)  
Anna Kluibenschedl, University of Otago ('20; Advisor: Chris Cornwall & Chris Hepburn)  
David Bélanger, Memorial University of Newfoundland ('20; Advisor: Patrick Gagnon)  
Regina Kolzenburg, University of Portsmouth ('19; Advisor: Federica Ragazzola)

**Visiting Doctoral Student Mentored**

*Plymouth Marine Laboratory (2)* Chiara Ravaglioli (University of Pisa, Italy)  
Visnu da Cunha Sarmento (Universidade Federal de Pernambuco, Brazil)

**Masters Students Advised**

*Florida State University (2)* Sean McCollum ('23; co-advised with Joel Trexler)  
Brandon Witmer ('22 - advised until fall 2021)  
*Plymouth Marine Laboratory (2)* Elizabeth Elliot, M.Sc. Environmental Consultancy Programme, Plymouth University ('15; co-advised with Murray Brown)  
Kirsten Seal, M.Sc. Applied Marine Science Programme, Plymouth University ('15; co-advised with Murray Brown)

**Masters Students Mentored as a Dissertation Committee Member**

*University of North Carolina (1)* Haley Capone ('24; Advisor: John Bruno)  
*Florida State University (3)* Dani Davis ('23; Advisor: Tom Miller)  
Anthony Sogluizzo ('21; Advisor: Sandra Brooke)  
Katherine Kaiser ('18; Advisor: Janie Wulff)

**Undergraduate Researchers Advised (\* laboratory research, ° field research)**

*University of North Carolina (1)* Rose Houck\* ('24)  
*Florida State University (12)* Lena Kury\* ('23)  
Alie MacVicar\* ('22; Lehigh University)  
Joseph Portillo\* ('20)  
Joh'Nyra Bryant\* ('20)  
Shelby Graziani\* ('20)  
Maxwell Gray\* ('22)  
Jessica Henson\* ('22)  
Braedon Koechle\* ('21)  
Alexis Rosa\* ('22)  
Isabelle Basden° ('19)  
Briana Clark° ('21; Texas A&M)  
Michelle Dziewit° ('21; Texas A&M)  
*FSU Directed Independent Study, Biological Science, Advisor (5)* Maria De Jesus\* ('21)  
Troy Broomes\* ('19)  
Sara Stoppelmann\* ('19)  
Max Pearl\* ('21)  
Penelope Ales\*° ('17)



*FSU Directed Independent Study,  
Environmental Science, Advisor (4)*

TyLeah Tebbenkamp\* ('20)  
Samina Fuller\* ('21)  
Abigail Baker\* ('21)  
Rebecca Morrow° ('17)

*FSU Honors in the Major, Committee  
Member (6)*

Chandler Wright (Marine Biology '21; Levitan)  
Kristie Dick (Marine Biology '20; Morton)  
Jane Wadhams (Geology '20; Owens)  
Valencia Beckwith (Biology '19; Fuentes)  
Isabelle Basden (Marine Biology '19; Wulff)  
Yuliya Danyuk (Environmental Science '17; Kranz)

*Plymouth Marine Laboratory (1)*

Faye Dixon\*° (Lancaster University '16)

*The University of Chicago (7)*

Lyda Harris° ('14)  
Samuel Betcher° ('12)  
Michaelyn Kanichy° (Stanford '14)  
Peter Zaykoski° ('11)  
Rachel Belangers\* ('11)  
Brendan Colson\*° ('10)  
Allison Barner\* ('09)

### ***High School Researchers Advised***

*University of North Carolina, NC  
School of Science and Math (1)*

Luke Aiello\* (NCSSM '24)

*Florida State University, Young  
Scholars Program (6)*

Mary Brady\* (North Nicholas High School '19)  
Caitlin Chen\* (Oviedo High School '19)  
Tran Le\* (Apopka High School '19)  
Racquelle Moxey\* (Apopka High School '19)  
Natalie Bailey\* (Oviedo High School '18)  
Carson Cole\* (Space Coast High School '18)

*Plymouth Marine Laboratory (2)*

Flora Christodoulou° (Eggbuckland '15)  
Jacob Massey\* (All Saints '16)

## **Professional Service**

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### ***Phycological Society of America***

Norma J. Lang Early Career Fellowship Committee	2021 - present
Inaugural Member, Equity, Diversity, and Inclusion Committee	2020 - 2021
Chair, Student Grants Committee	2019 - present
Student Grants Committee	2016 - present

### ***NOAA Gulf of Mexico Coastal Acidification Network (G-CAN)***

Policy Working Group	2020 - 2021
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Steering Committee 2016 - 2021

### **Grant Review**

Panelist, Delta Stewardship Council and California Sea Grant, Delta Science Fellowship 2022

Panelist, NSF Postdoctoral Research Fellowships in Biology (PRFB) 2022

Panelist, NSF Integrative Organismal Systems 2020

Panelist, NSF Graduate Research Fellowship Program (GRFP) 2019, 2020

Panelist, National Defense Science and Engineering Graduate (NDSEG) Fellowship, American Society for Engineering Education 2015 - 2017, 2019

Reviewer: NSF (Biological Oceanography, Graduate Research Fellowship Program), American Philosophical Society (Lewis and Clark Fund), ASEE NDSEG Fellowship (Biosciences), MIT Sea Grant, NOAA Domestic Coral Reef Conservation Grant Program, NOAA Ocean Acidification Program, Florida Aquaculture License Plate Fund, the National Geographic Society, and the Phycological Society of America.

### **Service to Academic Journals**

Editorial Board Member, *Journal of Phycology* (Wiley) 2023 - 2026

Handling Editor, *Oecologia* (Springer) 2022 - 2024

Special Issue Editor: *Algae in the Anthropocene, Climate Change Ecology* (Elsevier) 2020 - 2021

External Report Reviewer, *Arctic Monitoring and Assessment Programme (AMAP) Assessment on Ocean Acidification in the Arctic* 2018

Reviewer: *Acta Botanica Brasiliica, African Journal of Environmental Science and Technology, The Biological Bulletin, Continental Shelf Research, Coral Reefs, Ecology, Ecology Letters, Frontiers in Marine Science, Geology, Global Change Biology, ICES Journal of Marine Science, Journal of Experimental Marine Biology and Ecology, Journal of Ecology, Journal of Phycology, Marine and Freshwater Research, Marine Biology, Marine Ecology Progress Series, Marine Environmental Research, Nature Climate Change, Nature Ecology and Evolution, Oecologia, Palaeogeography, Palaeoclimatology, Palaeoecology (Palaeo3), PeerJ, PLoS One, Proceedings of the Royal Society, B, Royal Society of Chemistry Advances, Royal Society Open Science, Science, and Scientific Reports.*

### **University of North Carolina at Chapel Hill**

Faculty Mentor, Initiative for Maximizing Student Development, Biological and Biomedical Sciences Program 2022 - present

Interviewer, Chancellor's Science Scholars Program 2022 - present

### **Florida State University**

Executive Committee, Department of Biological Science 2020 - 2021

Executive Committee, Biological Science Imaging Resource Center (BSIR) 2020 - 2021

Committee on Faculty Research Support, Grant Reviewer, FSU Council on Research and Creativity	2019 - 2021
IDEA Grant Committee, FSU Center for Undergraduate Research and Academic Engagement	2019 - 2021
Margaret Menzel Award Committee, Department of Biological Science	2018 - 2021
NSF GRFP Workshop for Graduate Students, Co-organizer and presenter (with 3 faculty)	2017 - 2021
Mote Committee, Department of Biological Science	2016 - 2021
Research Faculty Search Committee, FSU Coastal and Marine Laboratory	2017, 2018
Coastal and Marine Conservation Student Research Award Committee, FSU Coastal and Marine Laboratory	2016 - 2018
Faculty Advisor, Seminole Scuba Club	2017 - 2018
Elections Committee, Department of Biological Science	2016 - 2017

#### ***Ongoing Service to Previous Institutions***

The University of Chicago, Lawrence A. Kimpton Fellows Program, Alumni Mentor	2022 - present
Phillips Academy Alumni Climate Group, co-founding member	2020 - present
Phillips Academy Alumni Interviewer	2020 - present
Brown University Alumni Interviewer	2009 - present

#### ***Educational Outreach (Youth & Community)***

Skype a Scientist, Asheville Science Museum, Ask a Scientist at Tallahassee's First Fridays, Oasis Center for Women and Girls, Bio for the Win Science Blog, Chicago's Shedd Aquarium, ARCS Foundation, the American Geophysical Union Climate Science Q&A Service, Nuffield Foundation Research Placements, UTC Plymouth Women in STEM, Chicago Museum of Science and Industry (Science Works: Cool Jobs, Hot Careers 2013), University of Chicago GeoUnion Undergraduate Club, Spark Chicago Career Mentor, Chicago's Shedd Aquarium (Shedd Explorers Summer Camp), Chicago Public Schools Perspectives Charter School, and the Boys' and Girls' Club of Greater Lawrence.

#### ***K-12 Curricular Materials***

International Microbiology Literacy Initiative, *Section 9 Our Water: Microbial mats*

#### ***Meeting Organization***

Session Organizer: 'Lang Symposium: Evolutionary ecology of cryptic species,' Joint Aquatic Sciences Meeting, Grand Rapids, MI	2022
Faculty Steering Committee: Southern Biogeochemistry Symposium at FSU	2018
Session Organizer: 'Scaling up individual processes to ecosystem levels in an era of global change,' Ocean Sciences Meeting, Honolulu, HI	2014

## Talks and Seminars

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### *Invited Research Seminars*

- 2022 Program in Ecology, Duke University, Durham, NC (planned)  
Department of Botany, University of British Columbia, Vancouver, Canada (planned)  
Institute of Marine Science, University of North Carolina Chapel Hill, Morehead City, NC (plan.)  
Protect Our Reefs Symposium, Mote Marine Laboratory, Sarasota, FL (virtual)  
Department of Biological Sciences, University of California, San Diego, CA
- 2021 Illinois Institute of Technology, Chicago, IL (virtual)  
Department of Biological Science, Florida State University, Tallahassee, FL (virtual)  
Department of Biology, University of North Carolina, Chapel Hill, NC (virtual)  
Bigelow Marine Laboratory, East Boothbay, ME (virtual)  
Department of Evolution and Ecology, University of California, Davis, CA (virtual)
- 2020 Department of Earth and Planetary Sciences, University of California, Davis, CA (virtual)  
NOAA/GCOOS Gulf of Mexico Coastal Acidification Network (GCAN) Webinar
- 2019 Biology Department Seminar, University of North Florida, Jacksonville, FL
- 2017 Biological Sciences Postdoctoral Association, Florida State University, Tallahassee, FL  
Tri-Beta Biological Honor Society, Florida State University, Tallahassee, FL
- 2016 Coastal & Marine Laboratory, Florida State University, St. Teresa, FL  
Department of Zoology, Oxford University, Oxford, England  
Marine Alliance for Science & Technology Scotland, Webinar  
Scottish Association for Marine Science, Oban, Scotland
- 2015 School of Marine Science & Engineering, Plymouth University, Plymouth, England  
GEOMAR Helmholtz Centre for Ocean Research, Kiel, Germany  
School of Geographical and Earth Sciences, Univ. Glasgow, Glasgow, Scotland  
Department of Biological Science, Florida State University, Tallahassee, FL
- 2014 Department of Integrative Biology, The University of Texas at Austin, Austin, TX  
Plymouth Marine Laboratory, Plymouth, England  
School of Biology, Georgia Institute of Technology, Atlanta, GA  
Climate Change Forum, The Field Museum, Chicago, IL  
Department of Ecology & Evolutionary Biology, University of Michigan, Ann Arbor, MI
- 2013 John G. Shedd Aquarium, Chicago, IL
- 2009 PaleoLunch Series, Woods Hole Oceanographic Institution, Woods Hole, MA

### *Conference Presentations (First Author only, # denotes Invited Speaker)*

- 2022 # Ecological Society of America Annual Meeting, Montreal, Canada (planned)  
# Phycological Society of America Annual Meeting, Grand Rapids, MI - *Invited Plenary*
- 2020 Ocean Sciences Meeting, San Diego, CA
- 2019 Phycological Society of America Annual Meeting, Hollywood Beach, FL
- 2018 Southeastern Phycological Colloquy, Jacksonville, FL

- # American Fisheries Society Annual Meeting, Special Symposium: 'Bad Acid: Past and future risk of acidification to aquatic ecosystems that support fisheries and aquaculture,' Atlantic City, NJ
- VI International Rhodolith Workshop, Roscoff, France
- 2016 # Gordon Research Conference, Classifying Biotic Responses to a Rapidly Changing Ocean: From Genes to Ecosystems, Waterville Valley, NH
- # Western Society of Naturalists, Monterey, CA
- The IXth International Symposium on Inorganic Carbon Utilization by Aquatic Photosynthetic Organisms, Cambridge, England
- 2015 Aquatic Biodiversity and Ecosystems, Liverpool, England
- Aquatic Sciences Meeting, Granada, Spain
- 2014 Ecological Society of America 99th Annual Meeting, Sacramento, CA
- # Early Career Scientist Symposium, University of Michigan, Ann Arbor, MI
- Ocean Sciences Meeting, Honolulu, HI
- 2013 International Phycological Congress / Phycological Society of America, Orlando, FL
- *Harold C. Bold Award for Best Student Presentation*
- 2012 Third Symposium on the Ocean in a High-CO<sub>2</sub> World, Monterey, CA
- Ecological Society of America 97th Annual Meeting, Portland, OR
- 2011 Fall Meeting of the American Geophysical Union, San Francisco, CA
- *Outstanding Student Paper Award, Ocean Sciences Section*
- Workshop on Acidification in Aquatic Environments, Tromsø, Norway
- 2010 Ocean Sciences Meeting, Portland, OR
- 2009 Fall Meeting of the American Geophysical Union, San Francisco, CA

### *Public & Outreach Talks*

- 2022 Blue Runs Deep, Industry Session: Climate Change, Phillips Academy, Andover, MA (virtual)
- 2021 Climate Cafe, Earth Day Speaker, Phillips Academy, Andover, MA (virtual)
- 2020 Asheville Museum of Science, Asheville, NC (virtual)
- South Florida Divers, Inc. (SFDI), Ft. Lauderdale, FL (virtual)
- Alumni Climate Cafe, Phillips Academy, Andover, MA (virtual)
- 2019 Thomasville University Science Cafe, Thomasville, GA
- 2018 Climate: Science and Society, Florida State University, Tallahassee, FL
- <https://youtu.be/SdmGij6WLgU>
- Our Ocean Economy: Algae, Florida State Capitol, Tallahassee, FL (02/12/18)
- 2013 Chicago Council on Science and Technology (C<sup>2</sup>ST), Chicago, IL