

Emily T. Slesinger

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EDUCATION

- 2016 – present Ph.D. Candidate in Oceanography, Rutgers University
Dissertation Topic: “Black sea bass physiology in the context of seasonal variability and long-term climate change”.
GPA: 4.00
Advisor: Dr. Grace Saba.
- 2011 – 2015 B.S. in Marine Biology (Highest Honors) and B.A. in Environmental Studies (Honors), University of California Santa Cruz. Graduated Summa Cum Laude.
Senior Thesis: “Counting your krill before they hatch: a multiplex-PCR approach to distinguish species of *Thysanoessa spinifera* and *Euphausia pacifica* eggs (Euphausiacea) in Monterey Bay”
GPA: 3.94
Advisor: Dr. Baldo Marinovic

RESEARCH INTERESTS

Climate change, environmental physiology, ecology of fishes, fish physiology

RESEARCH EXPERIENCE

- 2018 – Present Body condition dissection studies on black sea bass to assess energy allocation and reproductive potential throughout spawning season (led by myself), Rutgers University
- 2016 – 2018 Laboratory physiology studies on thermal optima and hypoxia tolerance for black sea bass (experiments led by myself) and spiny dogfish, NOAA J.J. Howard Marine Laboratory
- 2015 – 2016 Fishery Research Volunteer, NOAA National Marine Fisheries Service (Southwest Fisheries Science Center)
- 2014 Research Experiences for Undergraduates NSF Fellow, Graduate School of Oceanography, University of Rhode Island
- 2013 International Research Student, University of Queensland, Australia (through the University of California Education Abroad Program: Terrestrial Ecology and Marine Biology)
- 2012 – 2015 Undergraduate Research Assistant, University of California Santa Cruz

FIELD EXPERIENCE

- 2019 *R/V Rudee Angler*, Recreational Fishing Vessel
Black sea bass sampling for body condition project
- 2019 *R/V Laurence M. Gould* National Science Foundation
CTD deployments and processing in Long-term Ecological Research
project in Antarctica
- 2018 *R/V Bounty Hunter*, *R/V/ Free Spirit*, Recreational Fishing Vessel
Black sea bass sampling for body condition project
- 2017 *R/V The Tagged Fish*, Recreational Fishing Vessel
Black sea bass collections for laboratory physiology project
- 2016 – 2018 *R/V Roccus*, Rutgers University
Black sea bass trap survey (during summer and fall months)
- 2016 *R/V Reuben Lasker*, NOAA Rockfish Recruitment and Ecosystem Assessment
Sorted mid-water trawl catch by species (fish and invertebrates), CTD
deployment, chlorophyll sampling
- 2016 *R/V Huli Cat*, NOAA Early Life History
Chilipepper rockfish collections for fecundity studies
- 2014 *R/V Cap'n Bert*, University of Rhode Island, Fish and Plankton Trawl Surveys
Sorted trawl samples by species (fish and invertebrates), deployed vertical net
tows for *Mnemiopsis leidy* sampling
- 2014 *R/V Ocean Starr*, NOAA Rockfish Recruitment and Ecosystem Assessment
Sorted mid-water trawl catch by species (fish and invertebrates), krill
identification and collections, bongo net deployment
- 2013 *R/V Ocean Starr*, NOAA Rockfish Recruitment and Ecosystem Assessment
Sorted mid-water trawl catch by species (fish and invertebrates), krill
identification and collections

PUBLICATIONS

* Indicates mentored undergraduate student

Slesinger, E., Jensen, O., and Saba, G. (In Review). Spawning phenology of a rapidly shifting marine fish species throughout its range. *ICES Journal of Marine Science*.

Slesinger, E., Langan, J.A., Sullivan, B.K., Borkman, D., and Smayda, T. (2020). Multi-decadal (1972-2019) *Mnemiopsis leidy* (Ctenophora) abundance patterns in Narragansett Bay, Rhode Island, USA. *Journal of Plankton Research* 42(5), 539-552.

Slesinger, E., Andres, A., Young, R.*, Seibel, B., Saba, V., Phelan, B., Rosendale, J., Wiczorek, D., and Saba, G. (2019). Effects of ocean warming on black sea bass (*Centropristis striata*) aerobic scope and hypoxia tolerance. *PLoS ONE* 14(6), e0218390.

PRESENTATIONS

Slesinger, E. and Saba, G. (2020) *The Interaction between Ocean Warming and Spawning Latitude on U.S. Northeast Shelf Black Sea Bass Energetics and Reproductive Potential Throughout the Spawning Season*. Association for the Sciences of Oceanography and Limnology (Ocean Sciences), San Diego, CA. *E-lightning presentation*

Slesinger, E. and Saba, G. (2019) *The Interaction between Ocean Warming and Spawning Latitude on U.S. Northeast Shelf Black Sea Bass Energetics and Reproductive Potential Throughout the Spawning Season*. Mid-Atlantic Chapter, American Fisheries Society, Lewes, DE.

***Best student oral presentation**

Andres, A.M., Seibel, B., **Slesinger, E.**, Saba, G., Saba, V., Morris, J (2019). *How Low Can Predators Go?; Hypoxia Tolerance of Coastal Shark Species of Varying Lifestyle*. Society for Integrative and Comparative Biology, National Meeting, Tampa, FL.

Andres, A., Seibel B.A., **Slesinger, E.**, Saba, G.E., Saba, V., Phelan, B., Young, R., Wieczorek, D., Rosendale, J. (2018) *Hypoxia tolerance and aerobic scope in spiny dogfish, *Squalus acanthias*, as a function of temperature*. Association for the Sciences of Oceanography and Limnology Conference (Ocean Sciences), Portland OR.

Slesinger, E. and Saba, G. (2018). *Spawning latitude and temperature impact black sea bass body condition and fecundity throughout the spawning season*. Rutgers University Student Seminars, New Brunswick, New Jersey.

Slesinger, E., Young, R., Andres, A., Seibel, B., Saba, V., Phelan, B., Rosendale, J., Wieczorek, D., and Saba, G. (2018). *Effects of ocean warming on black sea bass (*Centropristis striata*) aerobic scope and hypoxia tolerance*. American Fisheries Society Conference, Atlantic City, New Jersey.

Andres, A.M., **Slesinger, E.**, Saba, G., Saba, V., Phelan, B., Rosendale, J., Wieczorek, D., and Seibel, B. (2018). *An investigation of the effects of rising temperature on metabolic scope in the spiny dogfish (*Squalus acanthias*)*. American Fisheries Society Conference, Atlantic City, New Jersey.

Andres, A.M., Seibel, B., **Slesinger, E.**, Saba, G., Saba, V., Phelan, B., and Young, R. (2018). *An investigation of the effects on rising temperature on metabolic scope in the spiny dogfish (*Squalus acanthias*)*. Association for the Sciences of Oceanography and Limnology Conference (Ocean Sciences), Portland, Oregon.

Phelan, B., **Slesinger, E.**, Andres, A., Rosendale J., Wieczorek, D., Young, R., Seibel, B., Saba, V., and Saba, G. (2017). *Using controlled laboratory experiments to improve fisheries management in response to climate change*. Mid-Atlantic Chapter, American Fisheries Society, Dover, Delaware.

Slesinger, E., Young, R., Saba, G., Andres, A., Seibel, B., Phelan, B., Saba, V., Wieczorek, D., Rosendale, J. (2017). *Effects of temperature on black sea bass (*Centropristis striata*) metabolic rate and aerobic scope*. ICES Annual Science Meeting, Fort Lauderdale, Florida.

Slesinger, E., Young, R., Andres, A., Seibel, B., Phelan, B., Saba, V., Wieczorek, D., Rosendale, J., and Saba, G. (2017). *Effects of temperature on black sea bass (*Centropristis striata*)*

metabolic rate and aerobic scope. Rutgers University Student Seminars, New Brunswick, New Jersey.

Slesinger, E., Smayda, T., and Borkman, D. (2015). *Multi-decadal variability of Mnemiopsis leidyi abundance in Narragansett Bay: climate change or prey mediated?* Association for the Sciences of Oceanography and Limnology Conference (Ocean Sciences), Granada, Spain.

POSTERS

Nazzaro, L.J., **Slesinger, E.**, Kohut, J.T. (2020). *Comparison of thermal niche model development methods for black sea bass*. Association for the Sciences of Oceanography and Limnology (Ocean Sciences), San Diego, CA.

Slesinger, E., Young, R., Andres, A., Seibel, B., Saba, V., Phelan, B., Wieczorek, D., Rosendale, J., Saba, G. (2018). *The effect of ocean warming on black sea bass aerobic scope and hypoxia tolerance*. Rutgers Climate Symposium, New Brunswick, New Jersey.

Slesinger, E., Young, R., Saba, G., Andres, A., Seibel, B., Phelan, B., Saba, V., Wieczorek, D., Rosendale, J. (2016). *Effects of temperature on black sea bass (Centropristis striata) metabolic rate and aerobic scope*. Rutgers Climate Symposium, New Brunswick, New Jersey.

Slesinger, E., Carrion, C.N., and Marinovic, B. (2015). *Counting your krill before they hatch: a multiplex PCR approach to distinguish between species of Thysanoessa spinifera and Euphausia pacifica eggs (Euphausiacea) in Monterey Bay*. Undergraduate Research in the Sciences Awards Symposium, Santa Cruz, California.

AWARDS & SCHOLARSHIPS

2020	Graduate Women in Science National Fellowship (Honorable Mention)
2020	J. Frances Allan Scholarship, American Fisheries Society (Runner-up)
2020	George Burlew Scholarship (Manasquan River Marlin and Tuna Club) (\$1000)
2019	Best Student Oral Presentation Mid-Atlantic Chapter Meeting (\$150)
2019	Center for Fisheries and Ocean Sustainability Student Conference Travel Award (\$320)
2019	George Burlew Scholarship (Manasquan River Marlin and Tuna Club) (\$1500)
2018	Center for Fisheries and Ocean Sustainability Student Conference Travel Award (\$580)
2018	John E. Skinner Memorial Award Honorable Mention (\$250)
2018	Rutgers Off-Campus Dissertation Development Award (\$2,000)
2018	George Burlew Scholarship (Manasquan River Marlin and Tuna Club) (\$500)
2018	Rutgers TA/GA Professional Development Fund Award (\$936)
2015	Myers Trust Award for Outstanding Student Research in Monterey Bay (\$500)
2015	Leonardo daVinci Scholar Award for Cross-Disciplinary Education (\$100)
2014	UCSC Undergraduate Research in the Sciences Awards (\$2,000)
2014	Student Research and Education Award (\$850)
2014	Global Oceans Student Award

PROFESSIONAL ACTIVITIES & PUBLIC OUTREACH

Academic and Professional Service

- 2020 – Present President, Rutgers University Student Subunit, American Fisheries Society
 2019 – Present Social Media Director, Board of Directors, American Institute of Fishery Research Biologists
 2019 – Present Co-founder of Beyond Academia Lecture Series, Rutgers University
 -Inviting science professionals for a day at Rutgers to talk with graduate students and post docs about careers outside of academia
 2019 – 2020 President, Oceanography Graduate Student Association, Rutgers University
 2019 – 2020 Vice President, Rutgers University Student Subunit, American Fisheries Society
 2018 – 2019 President, Oceanography Graduate Student Association, Rutgers University
 2018 – 2019 Secretary, Rutgers University Student Subunit, American Fisheries Society
 2017 – 2018 Secretary, Oceanography Graduate Student Association, Rutgers University

Manuscript Reviewer

- Scientific Reports
 PLoS ONE
 Conservation Physiology

Membership

- 2020 – Present American Society of Ichthyologists and Herpetologists
 2019 – Present Association for the Sciences of Oceanography and Limnology
 2019 – Present Graduate Women in Science
 2018 – Present American Institute of Fishery Research Biologists
 2017 – Present American Fisheries Society
 -Mid-Atlantic Chapter
 -Rutgers University Student Subunit

Invited Workshops (invited workshops led by myself in **bold**)

- 2019 **How to Improve Your Curriculum Vitae**
 -Workshop focused on professional development for undergraduate and graduate students to create and improve CVs
 -Rutgers University Student Subunit, American Fisheries Society
 2019 Black Sea Bass Researcher Meeting
 -Regional workshop from scientists in academia, state and federal governments to discuss current state of black sea bass research and outline plans for future collaborative research
 2017 Changing Ocean Conditions Workshop
 -Workshop focused on gathering input on the existing resources and future direction for considering changing ocean conditions in fisheries management

Community Outreach

- 2020 Girl Scouts of Missouri speaker

- Spoke to a Girl Scout troop from Missouri about marine biology research and careers, and different ecosystems found throughout the ocean
- 2017 – 2020 Shore Bowl volunteer (science judge)
-Regional high school competition for National Ocean Science Bowl
- 2017 – 2019 Rutgers Day volunteer
-Set-up and ran the Jersey Shore animal touch tank exhibit
- 2018 Rutgers Alumni Day
-Spoke to alumni about my and other graduate student research at DMCS
- 2016 NOAA NMFS James J. Howard Open House
-Spoke to the public about my graduate research conducted at the NOAA labs
- 2015 UCSC Women in Science and Engineering volunteer
-Facilitated hands-on science experiments in science classrooms at low-income high schools in the Monterey Bay region.

TEACHING EXPERIENCE AND MENTORING

Teaching Experience

- 2020 Instructor for undergraduate course The Water Planet (11:628:204), Rutgers University
- 2018 Teaching Assistant for undergraduate course Dynamics of Marine Ecosystems (11:628:320), Rutgers University

Mentored Undergraduate Researchers (23 total, including 15 females, 6 underrepresented students)

- 2020 – Present Aviva Lerner, Rutgers University
- 2020 Sophia Berezin, Rutgers University
- 2020 Jillian Devita, Rutgers University
- 2020 Jacob Dale, Rutgers University
- 2020 Zakqary Roy, Rutgers University
- 2019 – 2020 Emma Huntzinger, for School of Environmental and Biological Sciences Honors program, Rutgers University
- 2019 – 2020 Timothy Stolarz, Rutgers University
- 2019 Catherine McTighe, Rutgers University
- 2019 Gil Osofsky, Virginia Institute of Marine Science
- 2019 Ailey Sheehan, Fisheries Practicum Project “*Female size effects on gonadosomatic indices of black sea bass (Centropristis striata)*”, Rutgers University
- 2018 – Present Kiernan Bates, NOAA Work Study Student, Rutgers University
- 2018 – 2019 Karolina Zbaski, Rutgers University
- 2018 Mamadou Nbaye, Rutgers University
- 2018 Juan Osario, Rutgers University
- 2018 Kimberly Aldana, Rutgers University
- 2018 Shiyue Zhao, Rutgers University
- 2018 Maura Doscher, Rutgers University
- 2017 – 2018 Kasey Walsh, Douglass Collage Project SUPER, Rutgers University
- 2017 Meridian Mathes, Rutgers University

2017 Luis Rodriguez-Mendoza, Rutgers University
2017 Shawn Hazlett, Rutgers University
2017 Grace Chung, Rutgers University
2016 – 2018 Rachael Young, Rutgers University

REFERENCES

Dr. Grace Saba (PhD Advisor)

Rutgers University, Department of Marine and Coastal Sciences, Assistant Professor,
saba@marine.rutgers.edu, 848-932-3466.

Dr. Brad Seibel

University of South Florida, College of Marine Science, Professor,
seibel@usf.edu, 727-553-3403

Dr. Olaf Jensen

Rutgers University, Department of Marine and Coastal Sciences, Associate Professor,
ojensen@marine.rutgers.edu, 410-812-4842

Dr. Beth Phelan

NOAA NMFS NEFSC, Chief Scientist, James J. Howard Laboratory, beth.phelan@noaa.gov,
732-872-3179

Dr. Baldo Marinovic (Undergraduate Advisor)

University of California Santa Cruz, Ecology and Evolutionary Biology Department, Associate
Research Biologist, bbmarino@ucsc.edu, 831-459-2471