# **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 <i>Mnemiopsis leidyi</i> 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**

**Slesinger**, E., Jensen, O., and Saba, G. (In Prep). Spawning phenology of black sea bass (*Centropristis striata*) throughout the range of the US Northeast Stock.

**Slesinger, E.,** Langan, J.A., Sullivan, B.K., Borkman, D., and Smayda, T. (In Press). Multidecadal (1972-2019) *Mnemiopsis leidyi* (Ctenophora) abundance patterns in Narragansett Bay, Rhode Island, USA. Journal of Plankton Research.

**Slesinger, E.,** Andres, A., Young, R.\*, Seibel, B., Saba, V., Phelan, B., Rosendale, J., Wieczorek, 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\*

<sup>\*</sup> Indicates mentored undergraduate student

**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 2020 2019	J. Frances Allan Scholarship, American Fisheries Society (Runner-up) George Burlew Scholarship (Manasquan River Marline and Tuan Club) (\$1000) 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 da Vinci 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	dents
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 Soci	eiety
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	

## <u>Manuscript Reviewer</u>

Scientific Reports

PLoS ONE

# <u>Membership</u>

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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

<u>Teaching Experience</u>	
	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
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students)	ergraduate Researchers (23 total, including 15 females, 6 underrepresented
,	Sophia Berezin, Rutgers University
	Jillian Devita, Rutgers University
	Aviva Lerner, Rutgers University
	Jacob Dale, Rutgers University
	Zakqary Roy, Rutgers University
	Emma Huntzinger, for School of Environmental and Biological Sciences
2019 – Pieseiii	Honors program, Rutgers University
2010 Present	Timothy Stolarz, Rutgers University
2019 – Flesent 2019	Catherine McTighe, Rutgers University
2019	Gil Osofsky, Virginia Institute of Marine Science
2019	Ailey Sheehan, Fisheries Practicum Project "Female size effects on
2019	gonadosomatic indices of black sea bass (Centropristis striata)", Rutgers
	University University
2019 Progent	Kiernan Bates, NOAA Work Study Student, Rutgers University
2018 – Present 2018 – 2019	Karolina Zbaski, Rutgers University
2018 – 2019	Mamadou Nbaye, Rutgers University
2018	Juan Osario, Rutgers University
2018	Kimberly Aldana, Rutgers University
2018	Shiyue Zhao, Rutgers University
2018	Maura Doscher, Rutgers University
2018 2017 – 2018	Kasey Walsh, Douglass Collage Project SUPER, Rutgers University
2017 – 2018	Meridian Mathes, Rutgers University
2017	
2017	Luis Rodriguez-Mendoza, Rutgers University
	Shawn Hazlett, Rutgers University
2017	Grace Chung, 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