

## **Emily Slesinger, Ph.D.**

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### **EDUCATION**

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- 2022 – Present National Research Council Associate Postdoc  
Alaska Fisheries Science Center, NMFS, NOAA  
Advisor: Dr. Thomas Hurst
- 2016 – 2022 Ph.D. in Oceanography, Rutgers University  
Dissertation Topic: “Black sea bass physiology and life history 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**

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Fish physiology, reproductive biology, ecology of fishes, environmental stressors

### **PROFESSIONAL EXPERIENCE**

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- 2022 – Present National Research Council Associate Postdoc, Alaska Fisheries Science Center, National Marine Fisheries Service, NOAA
- 2016 – 2022 Graduate Research Assistant, Rutgers University
- 2015 – 2016 Fishery Research Volunteer, Southwest Fisheries Science Center, National Marine Fisheries Service, NOAA
- 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

### **PEER-REVIEWED PUBLICATIONS**

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\*Indicates mentored undergraduate student

**Slesinger, E.,** Bates, K.\*, Wuenschel, M., and Saba, G.K. (2022). Regional differences in energy allocation of black sea bass (*Centropristis striata*) along the US Northeast Shelf (36°N-42°N) and throughout the spawning season. *Journal of Fish Biology*, 100, 918-934

Nazzaro, L., **Slesinger, E.,** Kohut, J., Saba, G.K., Saba, V. (2021). Sensitivity of marine fish thermal habitat models to fishery data sources. *Ecology and Evolution*, 11(19), 13001-13013.

**Slesinger, E.,** Jensen, O.P., and Saba, G. (2021). Spawning phenology of a rapidly shifting marine fish species throughout its range. *ICES Journal of Marine Science*, 78(3), 1010-1022.

**Slesinger, E.,** Langan, J.A., Sullivan, B.K., Borkman, D., and Smayda, T. (2020). Multi-decadal (1972-2019) *Mnemiopsis leidyi* (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., 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.

## **OTHER PUBLICATIONS**

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**Slesinger, E.** (2020). Using physiology to guide proactive fisheries management. Institute of Fisheries Management, FISH138(3), 10-11. (*available on request*)

## **PUBLICATIONS IN REVIEW OR PREPARATION**

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Andres, A., **Slesinger, E.,** Young, R., Saba, G., Saba, V., Phelan, B., Rosendale, J., Wieczorek, D., White, C., and Seibel, B. (*In review*). Temperature and oxygen sensitivity of metabolic performance in the spiny dogfish shark, *Squalus acanthias*. *Journal of Experimental Biology*.

**Slesinger, E.,** DuProvine, H., Seibel, B., Kohut, J., Saba, V., and Saba, G.K. (*Submitted*). Climate-induced reduction in metabolically available habitat for Northwest Atlantic marine species. *Global Change Biology*.

**Slesinger, E.,** Mundorff, S., Laurel, B., and Hurst, T. (*In prep*). The effects of combined stressors, ocean warming and ocean acidification, on Pacific cod (*Gadus macrocephalus*) early life stages. *Target: Marine Environmental Research*.

## **AWARDS & SCHOLARSHIPS**

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2022	Department of Fisheries and Oceans Canada-National Oceanic and Atmospheric Administration Ocean Acidification Collaborative Funding Initiative (\$19,289)
2022	Rutgers School of Graduate Studies Distinguished Scholarly Achievement Award ( <i>1 awarded across 75 graduate programs; highest award offered</i> )
2022	National Research Council Fellowship (\$58,000)
2021	John E. Skinner Memorial Award (\$800)
2021	University and Louis Bevier Fellowship (\$25,000)
2020	Best Student Oral Presentation Mid-Atlantic Chapter Meeting (\$150)
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

## INVITED TALKS

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- Slesinger, E.** (2022). *Climate change effects on important fisheries species: from individual physiology to population level changes in productivity*. Hatfield Marine Science Center Research Seminars, Oregon State University, virtual
- Slesinger, E.** (2022). *Black sea bass physiology and life history in the context of seasonal variability and long term climate change*. Introductory Fisheries Science for Stakeholders, Rutgers Cooperative Extension, virtual.
- Slesinger, E.** (2021). *Black sea bass physiology and life history in the context of seasonal variability and long term climate change*. Research Seminars, Graduate Women in Science, virtual.

## CONFERENCE PROCEEDINGS

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\*Indicates mentored undergraduate student

- Slesinger, E.,** Mundorff, S.\*, Laurel, B., and Hurst, T. (2022). *The effects of combined stressors, ocean warming and ocean acidification, on Pacific cod (Gadus macrocephalus) early life stages*. Larval Fish Conference, American Fisheries Society, San Diego, CA. Talk.
- Slesinger, E.,** Bates, K.\*, Wuenschel, M., and Saba, G.K. (2021). *Regional differences in energy allocation of black sea bass (Centropristis striata) along the US Northeast Shelf (36 °N-42 °N) and throughout the spawning season*. American Fisheries Society National Conference, Baltimore, MD. Talk.
- Slesinger, E.,** Jensen, O.P., and Saba, G. (2020) *Spawning phenology of a rapidly shifting marine species throughout its range*. Mid-Atlantic Chapter, American Fisheries Society, virtual. Talk
- Best student oral presentation**
- Slesinger, E.,** Jensen, O.P., and Saba, G. (2020) *Spawning phenology of a rapidly shifting marine species throughout its range*. Rutgers University Student Seminars, New Brunswick, New Jersey. Talk.
- 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 and talk.
- Bates, K.\*, **Slesinger, E.**, and Saba, G. (2020) *Sex-specific energetics of spawning black sea bass in New Jersey.* Mid-Atlantic Chapter, American Fisheries Society, virtual. Talk.
- Nazzaro, L.J., **Slesinger, E.**, Saba, G., 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. Poster.
- 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. Talk.
- 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. Talk.
- 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. Talk.
- 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 National Conference, Atlantic City, New Jersey. Talk.
- 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. Talk.
- 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. Poster.
- 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. Talk.
- 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. Talk.
- 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. Talk.
- 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. Poster.

- 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. Talk.
- 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. Poster.

## **FIELD EXPERIENCE**

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- 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 leidyi* 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

## **PROFESSIONAL ACTIVITIES & PUBLIC OUTREACH**

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### Academic Service

- 2020 – 2021 President, Rutgers University Student Subunit, American Fisheries Society
- 2020 – 2021 Distinguished Speaker Committee, Oceanography Graduate Student Association, Rutgers University
- 2019 – 2021 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
- 2018 – 2020 President, Oceanography Graduate Student Association, Rutgers University
- 2019 – 2020 Vice President, Rutgers University Student Subunit, American Fisheries Society

- 2018 – 2019 Secretary, Rutgers University Student Subunit, American Fisheries Society  
 2017 – 2018 Secretary, Oceanography Graduate Student Association, Rutgers University

Professional Service

- 2020 – 2021 Member, State of the Ecosystem Body Condition/Fish/Protected Species Indicators Subgroup, NOAA NEFSC  
 2019 – Present Social Media Director, Board of Directors, American Institute of Fishery Research Biologists

Manuscript Reviewer

Scientific Reports, PLoS ONE, Conservation Physiology, Environmental Biology of Fishes, Regional Studies of Marine Science, Journal of Thermal Biology

Professional Membership

- 2020 – Present Society for Women in Marine Science  
 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

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

- 2021 Intrepid Girls in Science and Engineering Day  
 -Planned a workshop on uses of STEM fields in oceanography for youth/teens  
 2020 – 2021 Community College Outreach  
 -Working with local community colleges to inform and excite students to pursue a degree in Marine Science  
 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 – 2021 Shore Bowl volunteer (science judge)  
 -Regional high school competition for National Ocean Science Bowl  
 2017 – 2019 Rutgers Day volunteer

- 2018 -Set-up and ran the Jersey Shore animal touch tank exhibit  
Rutgers Alumni Day
- 2016 -Spoke to alumni about my and other graduate student research at DMCS  
NOAA NMFS James J. Howard Open House
- 2015 -Spoke to the public about my graduate research conducted at the NOAA labs  
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**

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### 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

### Guest Lectures

- 2022 “How to Manage Fishery Species Under a Changing Climate: Lessons from Fish Biology, Physiology, and Reproductive Ecology”, Coastal Ecology and Resource Management (FW426/526), Oregon State University
- 2020 – 2021 “Behavioral and Chemical Ecology”, Biological Oceanography (11:628:461), Rutgers University
- 2020 – 2021 “Higher Trophic Levels and Fisheries”, Biological Oceanography (11:628:461), Rutgers University
- 2018 “Careers in Ocean Science”, Dynamics of Marine Ecosystems (11:628:320), Rutgers University
- 2018 “Animal Metabolism and Oxygen Consumption”, Ocean Methods and Data Analysis (11:628:363), Rutgers University

### Mentored Graduate Students (1 total)

- 2022- present Samantha Mundorff, M.S., Northeastern University

### Mentored Undergraduate Students (24 total)

- 2020 – 2021 Aviva Lerner, Rutgers University
- 2020 Anthony Renner, Rutgers University
- 2020 Sophia Berezin, Rutgers University
- 2020 Jillian Devita, Rutgers University
- 2020 Jacob Dale, Rutgers University
- 2020 Zakqary Roy, Rutgers University
- 2019 – 2021 Emma Huntzinger, 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, Rutgers University
- 2018 – 2021 Kiernan Bates, NOAA Work Study Student (2018-2019), 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 College 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

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**Dr. Thomas Hurst (Postdoc Advisor)**

Alaska Fisheries Science Center, NOAA, Program Manager,  
thomas.hurst@noaa.gov, 541-737-7022

**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**

University of Wisconsin Madison, Center for Limnology, Associate Professor,  
ojensen@wisc.edu