

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

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### **EDUCATION**

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- 2023 – Present Oregon State University Postdoctoral Scholar  
Alaska Fisheries Science Center, NMFS, NOAA  
Advisors: Drs. Francis Chan & Thomas Hurst
- 2022 – 2023 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 Postdoctoral Scholar, 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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**Slesinger, E.**, Mundorff, S., Laurel, B., and Hurst, T. (*Submitted*). The effects of combined stressors, ocean warming and ocean acidification, on Pacific cod (*Gadus macrocephalus*) early life stages. Target: *Frontiers in Marine Science*.

**Slesinger, E.**, DuProvine, H., Seibel, B., Kohut, J., Saba, V., and Saba, G.K. (*In prep*). Climate-induced reduction in metabolically available habitat for Northwest Atlantic marine species. Target: *PLoS Climate*.

Spencer, L., **Slesinger, E.**, Spies, I., Laurel, B., and Hurst, T.P. (*In prep*). Molecular response of Pacific cod larvae to multiple climate stressors.

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

## 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.,** DuProvince, H., Seibel, B., Kohut, J., Saba, V., and Saba, G.K. (2023) *Climate-induced reduction in metabolically available habitat for Northwest Atlantic marine species*. US Northeast Climate-Fisheries Seminar Series, NEFSC, NOAA, virtual.
- 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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Presenter only; \*Indicates mentored undergraduate student

- Slesinger, E.,** Bates, K.\*, Wuenschel, M., Jensen, O.P., and Saba, G. (2023). *Spatial differences in the Northern stock of black sea bass energetics and reproduction*. MARVLS-NSAW Joint Workshop, Providence, RI. Talk.
- Slesinger, E.,** Mundorff, S.\*, Laurel, B., and Hurst, T. (2023). *The effects of combined stressors,*

*ocean warming and ocean acidification, on Pacific cod (Gadus macrocephalus) early life stages.* Alaska Marine Science Symposium, Anchorage, AK. Poster.

**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.

**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**

**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.

**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.

**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

- 2023 – present Co-founder of Early Career Support Group, Oregon State University  
-Providing a supportive space to talk about, prepare for, and succeed in scientific careers
- 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

Transactions of the American Fisheries Society, Global Change Biology, Scientific Reports, PLoS ONE, Conservation Physiology, Environmental Biology of Fishes, Regional Studies of Marine Science, Journal of Thermal Biology, Frontiers in Marine Science

#### Grant Reviewer

Connecticut SeaGrant

#### 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

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

- 2023 NOAA OAP Community Meeting
- 2022 DFO-NOAA OA Collaborative Framework Annual Meeting
- 2019 **How to Improve Your Curriculum Vitae**
- 2019 Black Sea Bass Researcher Meeting
- 2017 Changing Ocean Conditions Workshop

#### Community Outreach

- 2023 Hatfield Marine Science Day  
-Set-up and ran a booth on ocean acidification impacts on Alaskan fish species
- 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  
-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**

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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 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