

## Matthew Stephen Woodstock, Ph.D.

Marine Ecologist | Ecosystem Modeler

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### Appointments

Assistant Scientist, <b>Cooperative Institute for Marine &amp; Atmospheric Studies</b>	2024-Present
Affiliate, <b>NOAA Southeast Fisheries Science Center</b>	2024-Present
<b>Woods Hole Oceanographic Institution</b> Postdoctoral Scholar, advised by Gregory Britten (2023-2024) Guest Investigator (2024-Present)	2023-Present
Associate Editor, <i>Food Webs</i>	2024-Present
Postdoctoral Fellow, <b>Morgan State University</b> Advised by Thomas Ihde	2022-2023

### Education

<b>Florida International University</b> Biological Sciences, Ph.D. advised by Yuying Zhang “Ecological Modeling of the Oceanic Zone: A Gulf of Mexico Case Study”	2018-2022
<b>Nova Southeastern University</b> Marine Science, M.Sc. advised by Tracey Sutton “Trophic Ecology and Parasitism of a Mesopelagic Fish Assemblage in the Gulf of Mexico”	2015-2018
<b>Beloit College</b> Ecology, Evolution, and Behavior Biology, B.Sc. “Competing Hypotheses in the Sexual Segregation of the Atlantic Sharpnose Shark”	2012-2015

### Other Relevant Professional Experience

<b>STEM Educator</b> , Museum of Discovery and Science, Fort Lauderdale, FL	2017-2018
<ul style="list-style-type: none"><li>Created the curriculum for 50+ interactive science, technology, engineering, and mathematics lessons for students aged 5–14.</li><li>Integrated experiential learning into a grant-funded school program for students underrepresented in STEM fields.</li><li>Performed daily science demonstrations to public audiences of 100+ people of all ages.</li></ul>	
<b>Sea Turtle Specialist</b> , Broward County Sea Turtle Conservation Program	2016-2018
<ul style="list-style-type: none"><li>Monitored up to 5,000 endangered sea turtle nests in Broward County, Florida through daily nesting surveys.</li><li>Conducted weekly public outreach events (e.g., hatchling releases, community events) to teach of Sea Turtle Conservation</li></ul>	
<b>Nature Educator</b> , Barbara C. Harris Summer Camp, Greenfield, NH	2015
<ul style="list-style-type: none"><li>Developed and taught curriculum for daily outdoor nature lessons to youth (ages 8–12) in the New Hampshire forests</li><li>Led campers through weekly activities</li></ul>	
<b>Marine Ecologist</b> , Coastal Marine Education and Research Academy, Clearwater, FL	2014
<ul style="list-style-type: none"><li>Aided in a population dynamics study for sharks and stingrays on the Clearwater, Florida coast.</li></ul>	

- Learned proper identification and handling techniques.

## **Publications**

12. Ferone, G., **M.S. Woodstock**, A. Hearn. (in review). Random Swims: An evaluation of acoustic telemetry thresholds for reef-shark behavior and residency. *Animal Biotelemetry*.
11. **Woodstock, M.S.**, A.T. Bevans, M. Sulyman, J. Maples, S. Knoche, T.F. Ihde. (2024). The economic impacts of living habitat change in the Virginia Middle Peninsula, Chesapeake Bay. *Ecological Modelling*. 498:110914. doi:[10.1016/j.ecolmodel.2024.110914](https://doi.org/10.1016/j.ecolmodel.2024.110914)
10. Martin, A., A.B. Dominguez, C. Baker, C. Baumas, K. Bisson, E. Cavan, M. Freilich, E. Galbraith, M. Gali, S. Henson, K. Kvale, C. Lemmen, J. Luo, H. McMonagle, F. de Melo Virissimo, K. Ove Moller, C. Richon, I. Suresh, J. Wilson, **M.S. Woodstock**, A. Yool. (2024). When to add a new process to a model – and when not: a marine biogeochemical perspective. *Ecological Modelling*. 498:110870. doi:[10.1016/j.ecolmodel.2024.110870](https://doi.org/10.1016/j.ecolmodel.2024.110870)
9. **Woodstock, M.S.**, J.J. Kiszka, M.R. Ramírez-León, T.T. Sutton, K. Fennel, B. Wang, Y. Zhang. (2023). Cetacean-mediated nitrogen transport in the oceanic Gulf of Mexico. *Limnology and Oceanography*. 68:2445–2460. doi:[10.1002/lno.12433](https://doi.org/10.1002/lno.12433)
  - *L&O Papers Attracting Attention*: doi:[10.1002/lob.10639](https://doi.org/10.1002/lob.10639)
8. Richards, T., T.T. Sutton, **M.S. Woodstock**, H. Judkins, D. Wells. (2023). Body size, depth of occurrence, and local oceanography shape trophic structure in a diverse deep-pelagic micronekton assemblage. 213:102998. *Progress in Oceanography*. doi:[10.1016/j.pocean.2023.102998](https://doi.org/10.1016/j.pocean.2023.102998)
7. **Woodstock, M.S.**, Y. Zhang. (2022). Towards ecosystem modeling in the deep sea: A review of past efforts and primer for the future. *Deep-Sea Research Part I: Oceanographic Research Papers*. 188:103851. doi:[10.1016/j.dsr.2022.103851](https://doi.org/10.1016/j.dsr.2022.103851)
6. **Woodstock, M.S.**, T.T. Sutton, Y. Zhang. (2022). A trait-based carbon export model for mesopelagic fishes in the Gulf of Mexico with consideration of asynchronous vertical migration, flux boundaries, and feeding guilds. *Limnology and Oceanography*. 67:1443–1455. doi:[10.1002/lno.12093](https://doi.org/10.1002/lno.12093)
5. Kiszka, J.J., **M.S. Woodstock**, M. Heithaus. (2022). Functional roles and ecological importance of small cetaceans in aquatic ecosystems. *Frontiers in Marine Science*. doi:[10.3389/fmars.2022.803173](https://doi.org/10.3389/fmars.2022.803173)
4. **Woodstock, M.S.**, T.T. Sutton, T. Frank, Y. Zhang. (2021). An early warning sign: trophic structure changes in the oceanic Gulf of Mexico from 2011–2018. *Ecological Modelling*. 445:109509. doi:[10.1016/j.ecolmodel.2021.109509](https://doi.org/10.1016/j.ecolmodel.2021.109509)
3. **Woodstock, M.S.**, C.A. Blonar, T.T. Sutton. (2020). Diet and parasites of a mesopelagic fish assemblage in the Gulf of Mexico. *Marine Biology*. 167:184. doi:[10.1007/s00227-020-03796-6](https://doi.org/10.1007/s00227-020-03796-6)
2. Beck, H.N., A. Cohen, T. McKenzie, R. Weisend, K.W. Wikins, **M.S. Woodstock**. (2019). Broadening Horizons: Graduate Students Participating in International Collaborations Through the Limnology and Oceanography Research Exchange (LOREX) Program. *Limnology and Oceanography Bulletin*. 28: 85–89. doi:[10.1002/lob.10339](https://doi.org/10.1002/lob.10339)
1. **Woodstock, M.S.**, C. Golightly, D. Fenolio, J.A. Moore. (2019). *Larsonia pterophylla* (Cnidaria, Pandeidae) parasitic on two Anguilliformes: *Paraconger* sp. (Congridae) and *Callenchelyini* sp. (Ophichthidae) in the Gulf of Mexico. *Gulf and Caribbean Research*. 30:SC7–10. doi:[10.18785/gcr.3001.05](https://doi.org/10.18785/gcr.3001.05)

## **Invited Talks and Guest Lectures**

- 2024 **Oregon State University Ocean Ecology and Biogeochemistry Seminar Series**, Corvallis, OR  
*Title*: Insights into deep-pelagic energetics and disturbance ecology with mechanistic models
- 2023 **Chesapeake Bay Fisheries Goal Implementation Team Bi-annual Meeting**, Annapolis, MD  
*Title*: The economic impacts of living habitat changes in the Virginia Middle Peninsula.  
**Biodiversity, Ecology, and Biological Carbon Pump in the Twilight Zone**. Woods Hole, MA  
*Title*: Food-web modeling in the mesopelagic zone: Lessons learned in the Gulf of Mexico

**Morgan State University Summer Internship Program.** Saint Leonard, MD.

*Title:* Ecological modeling: discovering the world through computers.

2022 **Nova Southeastern University Undergraduate Marine Ecosystems Course**, Dania Beach, FL

*Title:* Parasites in the deep ocean

2020 **University of South Carolina Undergraduate Oceanography Course**, Remote.

*Title:* Life aboard an oceanographic research vessel

### **Oral Presentations (\*Advised and Co-Advised Students)**

26. Bevens, A.T.\*, M. Sulyman\*, **M.S. Woodstock**, S. Knoche, T. Ihde. (2024). The ecological and economic effects of habitat change in the Chesapeake Bay. American Fisheries Society National Meeting. Honolulu, HI.
25. **M.S. Woodstock**, J.P. Mattern, Z. Wu, G.L. Britten. (2024). Climate change impacts the individual energy budgets of oceanic fishes. American Fisheries Society National Meeting, Honolulu, HI.
24. Bevens, A.T.\*, M. Sulyman\*, **M.S. Woodstock**, S. Knoche, T. Ihde. (2024). Modeling the effects of the habitat change in the York and Piankatank Rivers. Chesapeake Community Research Symposium. Annapolis, MD.
23. Bevens, A.T.\*, M. Sulyman\*, **M.S. Woodstock**, S. Knoche, T. Ihde. (2024). Understanding foundational habitat changes in the Chesapeake Bay with a York River ecosystem model. Atlantic Estuarine Research Society. Gloucester Point, VA.
22. Hoyt, E. \*, **M.S. Woodstock**, P. Piavis, D. Sanderson-Kilchenstein, T.F. Ihde. (2023). The effects of spatial bias on the management of fished populations. Chesapeake Watershed Forum. Sheperdstown, WV.
21. Sulyman, M. \*, A.T. Bevens\*, **M.S. Woodstock**, S. Knoche, T. Ihde. (2023). The ecological impacts of oyster reef restoration in Virginia's Middle Peninsula. Chesapeake Oyster Science Symposium, Cambridge, MD.
20. **Woodstock, M.S.**, A.T. Bevens\*, M. Sulyman\*, Y. Zhang, J.J. Kiszka, T. Ihde. (2023). Predicting causality in ecosystem models using empirical dynamic modeling. American Fisheries Society National Meeting. Grand Rapids, MI.
19. Bevens, A.T.\*, M. Sulyman\*, **M.S. Woodstock**, S. Knoche, T. Ihde. (2023). Modeling habitat change effects in the York River ecosystem, Chesapeake Bay. American Fisheries Society National Meeting. Grand Rapids, MI.
18. **Woodstock, M.S.**, A.T. Bevens\*, M. Sulyman\*, S. Knoche, T. Ihde. (2023). The ecosystem-scale impacts of living habitat change in Virginia's Middle Peninsula. American Fisheries Society National Meeting. Grand Rapids, MI.
17. Bevens, A.T.\*, M. Sulyman\*, **M.S. Woodstock**, S. Knoche, T. Ihde. (2023). Improving our understanding of habitat changes in the Chesapeake Bay with a York River ecosystem model. Morgan State University Spring Into Research Graduate Symposium. Baltimore, MD.
16. Bevens, A.T.\*, M. Sulyman\*, **M.S. Woodstock**, S. Knoche, T. Ihde. (2022). Estimating the Commercial Fishing Effects of Habitat Restoration in Virginia's Middle Peninsula. Chesapeake Oyster Alliance Meeting.
15. Sutton, T., Z. Milligan, K. Boswell, H. Bracken-Grissom, A. Cook, T. Frank, D. Hahn, M. Johnston, H. Judkins, J. Moore, J. Moore, J. Quinlan, P. Peres, I. Romero, M. Vecchione, M. Shivji, A. Bernard, M. D'Elia, **M. Woodstock**, Y. Zhang, K. Benson, M. Karnauskas, F. Parker. (2022). The state of the pelagic Gulf of Mexico: the continuing mission of the DEEPEND research consortium. The Gulf of Mexico Conference.
14. **Woodstock, M.S.**, T.T. Sutton, Y. Zhang. (2022). A trait-based carbon export model for mesopelagic fishes in the Gulf of Mexico with consideration of asynchronous vertical migration, flux boundaries, and feeding guilds. ASLO Ocean Sciences Meeting. Online Presentation.
13. **Woodstock, M.S.** (2021). SciComm beyond LOREX: How an international research program inspired future science communication efforts. ASLO Aquatic Sciences Meeting. Online Presentation.

12. **Woodstock, M.S.**, T.T. Sutton, T. Frank, Y. Zhang. (2021). Assessing trophic structure dynamics in ecosystem models using the offshore Gulf of Mexico as an example. ASLO Aquatic Sciences Meeting. Online Presentation.
11. **Woodstock, M.S.**, J.J. Kiszka, P.G.H. Evans, J.J. Waggitt, Y. Zhang. (2021). Debunking Misconceptions: Marine mammals and seabirds have limited impacts on fisheries catches in the North Sea. Florida International University Biosymposium. Online Presentation.
10. **Woodstock, M.S.**, T.T. Sutton, T. Frank, Y. Zhang. (2020). Assessing trophic structure dynamics in ecosystem models using the offshore Gulf of Mexico as an example. American Fisheries Society Annual Meeting. Online Presentation.
9. **Woodstock, M.S.**, T.T. Sutton, T. Frank, Y. Zhang. (2020). An early warning sign: trophic structure changes in the oceanic Gulf of Mexico from 2011–2018. Deep Sea Biology Society Meeting. Online Presentation.
8. Chua, E., E. Knotts, K. Wilkins, **M.S. Woodstock**, A.R. Marín. (2020). Limnology and Oceanography Research Exchange (LOREX). European Geosciences Union Meeting. Online Presentation.
7. **Woodstock, M.S.** (2020). Take a hike: creating a positive work-life balance through excursions. Ocean Sciences Meeting. San Diego, CA.
6. **Woodstock, M.S.**, B. Wang, K. Fennel, T.T. Sutton, Y. Zhang. (2020). Ecological importance of mesopelagic fishes in the oceanic Gulf of Mexico. Florida International University Biosymposium. North Miami, FL.
5. Quinquempois, V., **M.S. Woodstock**, Y. Zhang, M. Heithaus, J. Kiszka. (2019). The top-down effects of cetaceans in the Gulf of Mexico: Who are the key players? World Marine Mammal Conference. Barcelona, Spain.
4. **Woodstock, M.S.** (2019). Food web model of the oceanic Gulf of Mexico. Florida International University Biosymposium. North Miami, FL.
3. **Woodstock, M.S.**, C.A. Blamar, T.T. Sutton. (2018). Trophic ecology and parasitism of a mesopelagic fish assemblage. Nova Southeastern University Biosymposium. Dania Beach, FL.
2. **Woodstock, M.S.**, C.A. Blamar, T.T. Sutton. (2017). An examination of the parasites and trophic ecology of mesopelagic fishes. American Fisheries Society Annual Meeting. Tampa, FL.
1. **Woodstock, M.S.**, C.A. Blamar, T.T. Sutton (2017). An examination of the parasites and trophic ecology of mesopelagic fishes. American Society of Ichthyologists and Herpetologists Annual Meeting. Austin, TX.

#### **Poster Presentations (\*Advised and Co-Advised Students)**

21. **Woodstock, M.S.**, G.L. Britten. (2024). An individual-based model for an energetic cost-benefit analysis of diel vertical migration. CLIVAR Pathways Connecting Climate Changes to the Deep Ocean Workshop. Lewes, DE.
20. **Woodstock, M.S.**, J.J. Kiszka, M. Rafael Ramirez-Leon, T.T. Sutton, K. Fennel, B. Wang, Y. Zhang. (2024). Cetacean-mediated vertical nitrogen transport in the oceanic Gulf of Mexico. Gulf of Mexico Conference. Tampa, FL.
19. **Woodstock, M.S.**, G.L. Britten. (2023). A novel, individual-based ecosystem model for fine-scale food-web processes. WHOI Ocean Twilight Zone Symposium. Woods Hole, MA.
18. Sulyman, M.\*, A.T. Bevans\*, **M.S. Woodstock**, S. Knoche, T.F. Ihde. Modeling changes to foundational habitats in the Piankatank River, Chesapeake Bay. Atlantic Estuarine Research Society. Gloucester Point, VA.
17. Bevans, A.T.\*, M. Sulyman\*, **M.S. Woodstock**, S. Knoche, T. Ihde. (2023). Modeling the effects of habitat changes in the York River ecosystem, Chesapeake Bay. Shepardstown, WV.
16. Hoyt, E.E.\*, **M.S. Woodstock**, P. Piavis, D. Sanderson-Kilchenstein, T. Ihde. (2023). An exploration of natural mortality and maximum age for Chesapeake Bay fishes. American Fisheries Society National Meeting. Grand Rapids, MI.
15. Bevans, A.T.\*, M. Sulyman\*, **M.S. Woodstock**, S. Knoche, T. Ihde. (2023). Improving Our Understanding of Habitat Changes in the Chesapeake Bay with a York River Ecosystem Model. York River Science Symposium. Gloucester, VA.

14. Sulyman, M.\*, A.T. Bevens\*, **M.S. Woodstock**, S. Knoche, T. Ihde. (2023). Virginia's Middle Peninsula Habitat Focus Area: The Economic Impacts of Resource Restoration and Habitat Change. Morgan State University Spring Into Research Graduate Symposium. Baltimore, MD.
13. Hoyt, E.E.\*, **M.S. Woodstock**, T.F. Ihde. (2023). An exploration of age and growth estimates for fishes in the Chesapeake Bay. American Fisheries Society Tidewater Chapter Meeting. Solomon's Island, MD.
12. Bevens, A.T.\*, M. Sulyman\*, **M.S. Woodstock**, S. Knoche, T.F. Ihde. Improving our understanding of habitat changes in the Chesapeake Bay with a York River ecosystem model. American Fisheries Society Tidewater Chapter Meeting. Solomon's Island, MD.
11. Hoyt, E.E.\*, **M.S. Woodstock**, T.F. Ihde. (2022). A case for tributary-specific age/growth estimates for fishes in the Chesapeake Bay. Southern Maryland Marine Science Symposium. St. Mary's, MD.
10. Bevens, A.T.\*, Sulyman, M.\*, **M.S. Woodstock**, S. Knoche, T.F. Ihde. (2022). Virginia's Middle Peninsula Habitat Focus Area: the Economic Impacts of Resource Restoration and Habitat Change. Southern Maryland Marine Science Symposium. St. Mary's, MD.
9. Hoyt, E.E.\*, **M.S. Woodstock**, T.F. Ihde. (2022). A case for tributary-specific age/growth estimates for fishes in the Chesapeake Bay. Chesapeake Watershed Forum. Shepherdstown, WV.
8. Sulyman, M.\*, A.T. Bevens\*, **M.S. Woodstock**, S. Knoche, T.F. Ihde. (2022). Virginia's Middle Peninsula Habitat Focus Area: the Economic Impacts of Resource Restoration and Habitat Change. Chesapeake Watershed Forum. Shepherdstown, WV.
7. **Woodstock, M.S.**, J.J. Kizka, P.G.H. Evans, J.J. Waggitt, Y. Zhang. (2022). Debunking misconceptions: rising marine mammal abundances have little impact on fisheries in the southern North Sea. 24<sup>th</sup> Biennial Conference on the Biology of Marine Mammals. Palm Beach, FL.
6. Sutton, T.T., A.B. Cook, K.M. Boswell, H.D. Bracken-Grissom, R. Eytan, D. Fenolio, T. Frank, D. Hahn, M.W. Johnston, H. Judkins, R.J. Milligan, J. Moore, J. Quinlan, T. Richards, I.C. Romero, M. Shivji, A. Bernard, M. Vecchione, **M.S. Woodstock**, Y. Zhang. (2022). Sustained observation of the deep-pelagic Gulf of Mexico: the DEEPEND|RESTORE program. ASLO Ocean Sciences Meeting. Online Presentation.
5. **Woodstock, M.S.**, T.T. Sutton, T. Frank, Y. Zhang. (2021). Ecosystem modeling in the oceanic zone: A Gulf of Mexico case study. 16<sup>th</sup> Deep Sea Biology Symposium. Brest, France.
4. **Woodstock, M.S.**, B. Wang, K. Fennel, T.T. Sutton, Y. Zhang (2020). A comparison of two ecosystem models of the oceanic Gulf of Mexico. Ocean Sciences Meeting. San Diego, CA.
3. **Woodstock, M.S.**, C.A. Blonar, T.T. Sutton. (2018). On parasitism in mesopelagic fishes as a function of trophic ecology and vertical distribution. Deep Sea Biological Society Meeting. Monterey Bay, CA.
2. **Woodstock, M.S.**, T.T. Sutton, C.A. Blonar. (2018). Trophic ecology and parasitism of a deep-pelagic fish assemblage. American Society of Parasitologists Annual Meeting. Cancun, Mexico.
1. **Woodstock, M.S.**, C.A. Blonar, T.T. Sutton. (2017). Variations in the parasite fauna and gut contents of vertically migrating and non-migrating mesopelagic fishes of the northern Gulf of Mexico. Gulf of Mexico Oil Spill and Ecosystem Science Conference. New Orleans, LA

#### **Awards and Funding (Cumulative: \$164,850)**

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|------|---|
| 2024 | OCB-CLIVAR Pathways Conference Early Career Travel Award (\$500)          |
| 2023 | Woods Hole Oceanographic Institution Postdoctoral Scholarship (\$125,000) |
| 2023 | Ocean Twilight Zone-Jetzon Symposium Early Career Travel Award (\$500)    |
| 2022 | FIU Provost Employer Supported Tuition Fellowship (\$3,000)               |
| 2021 | FIU Coastlines and Oceans Division Travel Award (\$500)                   |
| 2021 | FIU Biosymposium 2 <sup>nd</sup> Best Oral Presentation (\$50)            |
| 2020 | AFS Florida Chapter Student Subunit Travel Award (\$100)                  |

2019 FIU College of Arts and Sciences Travel Award (\$300)  
 2019 FIU Professional Development Grant (\$300)  
 2019 Limnology and Oceanography Research Exchange (LOREX) Scholar (\$4,000)  
 2018 NSU Halmos College of Natural Sciences and Oceanography Student of the Year  
 2017 NSU Professional Development Grant (\$600)  
 2016 NSU Oceanographic Center Fishing Tournament Scholarship (\$30,000)  
 2015 Academic All-Midwest Conference Baseball Team  
 2015 BC Dean's List  
 2014 BC Dean's List

### **Funded Collaborations (Awarded Only)**

T.T. Sutton. "Deep-Sea Benefits - Outcomes of Mesophotic and Deep Benthic Community Restoration" (Awarded November 2023) *Deepwater Horizon* Trustee Council - \$5.4M. (**Woodstock** as a named project partner).

### **Submitted Proposals**

Florida RESTORE RFP V – PI: J.J. Kiszka – “*Influence of prey dynamics on the movements and energy landscape of small cetaceans in the De Soto Canyon and adjacent West Florida Shelf waters*” - \$1.0M. (**Woodstock** as a co-PI)

NOAA RESTORE – PI: Y. Zhang – “*Developing climate-integrated assessment models and improving the management of Snapper-Grouper Fisheries in the changing Gulf of Mexico*” – \$2.0M. (**Woodstock** as a co-PI)

### **Leadership Experience and Community Service (\*Ongoing)**

2025 Deep-Sea Biology Society Meeting Session Organizer  
 2024 Ocean Exploration Cooperative Institute Facilitation Training\*  
 2024 WHOI VP/Dean of Academic Programs Search Committee\*  
 2023 JETZON Biological Carbon Pump Working Group Member\*  
 2023 JETZON Early Career Researcher Working Group Member\*  
 2023 American Fisheries Society National Meeting Session Organizer  
 2021 Deep-Ocean Stewardship Initiative (DOSI) Open-Access Task Force  
 2021 FIU Graduate Student Mentor  
 2021 FIU Biosymposium Organizing Committee  
 2021 American Fisheries Society (AFS) Hutton Scholarship Application Committee\*  
 2020 DOSI Fisheries Working Group Member\*  
 2020 FIU Biology Graduate Student Committee Officer  
 2020 American Fisheries Society Florida Student Subunit Chapter Officer  
 2020 BC Alumni Mentoring Network  
 2019 FIU Marine Science Seminar Series Organizing Committee  
 2016 NSU Graduate Student Mentor  
 2012 Alpha Zeta Chapter of Sigma Chi  
 2012 BC Varsity Baseball Team

### **Teaching Experience**

#### **General Biology II Lab: Ecology, Systematics, and Evolution – Florida International University 2022**

- Instructor of record for 2 sections of a lab-style course about 1) ecosystem science, 2) the classification and diversity of bacteria, archaea, and eukaryotes, and 3) field sampling designs.
- Taught lessons in R statistical analysis software.
- Led an on-water field sampling excursion.
- Mentored 8 student-led field experiments with data analysis and presentation components.

- Developed weekly quizzes and hands-on exams.

**Human Biology Lab – Florida International University** 2020

- Instructor of record for 12 online (at home) lab exercises for a class of ~200 students focused on the each system of the human body.

**General Biology I Lab: General Biological Processes – Florida International University** 2018

- Instructor of record for 2 sections of a lab-style course about 1) biochemical processes, 2) mitosis/meiosis, and 3) population genetics, among others.
- Assigned and provided feedback on two laboratory reports throughout the semester.
- Developed weekly quizzes and hands-on exams.

**Graduate Ichthyology – Nova Southeastern University** 2017

- Assisted for 12 interactive lab exercises focused on the diversity and systematics of fishes.
- Curated the NSU fish collection, which included taking record of available specimens (~300 species) and replacing chemicals when necessary.

**Cruise Experience**

2021 R/V *Point Sur*, **Gulf of Mexico** (10 days at sea)

- Coordinated and twice-daily CTD operations resulting in the collection of localized physical, biogeochemical, and biological data, as well as the collection of water for petrochemical and eDNA analyses
- Led the deployment and data collection for broadband and wideband acoustic transmitter for the collection of bioacoustics data at coarse and individual scales
- Coordinated with the MOCNESS net operator and ship captain about acoustic-derived depths for last-minute adjustments to sampling regimes
- Mentored a graduate student in CTD operations

2019 R/V *Weatherbird*, **Florida Straits** (3 days at sea)

- Coordinated Tucker trawl midwater net deployments
- Instructed other cruise participants on the identification of oceanic fishes, crustaceans, and cephalopods

2017 R/V *Point Sur*, **Gulf of Mexico** (14 days at sea)

- Gathered biological data from MOCNESS trawl catches and assisted in database management
- Preserved specimens in appropriate fixation materials for subsequent stable isotope, metabarcoding, parasite, gut content, age/growth, and reproduction studies

**Formal Mentorship and Advising**

**Muhammad Sulyman** (Present)

*Role:* Ph.D. Committee Member

*Thesis Title:* The Ecological and Regional Economic Impacts of Oyster Restoration and Eelgrass Die-off in the Piankatank River, Virginia

**Amanda Bevans** (Present)

*Role:* Ph.D. Committee Member

*Thesis Title:* The Effects of Habitat Change on the Ecological Impacts of Oyster Restoration and Climate Change in the Chesapeake Bay

**Service as a Reviewer**

Deep-Sea Research, Ecological Modelling (x3), Estuaries and Coasts, Functional Ecology, ICES Journal of Marine Science, Journal of Fish Biology, Journal of Plankton Research, Journal of Zoology, Marine Biology, Ocean Sustainability, One Earth

### **Professional Societies (Past and Present)**

Association for the Sciences of Limnology and Oceanography (ASLO), American Fisheries Society (AFS), American Institute for Fisheries and Research Biologists (AIFRB), American Society of Ichthyologists and Herpetologists (ASIH), Deep Sea Biological Society (DSBS), Society for Marine Mammalogy (SMM)