**Matthew Stephen Woodstock, Ph.D.**
Current as of 10/28/22
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## EDUCATION

2022 **Ph.D.** Biological Sciences, Florida International University (FIU; *GPA*: 3.92)
- *Dissertation*: "Ecological Modeling in the Oceanic Zone: A Gulf of Mexico Case Study"
- *Awards*: 2021 FIU Biosymposium Best Oral Presentation 2nd Place, 2019 Limnology and Oceanography Research Exchange (LOREX) Scholar

2018 **M.S.** Marine Biology, Nova Southeastern University (NSU; *GPA*: 3.78)
- *Thesis*: "Trophic Ecology and Parasitism of a Mesopelagic Fish Assemblage in the Gulf of Mexico"
- *Awards:* 2018 Halmos College Student of the Year

2015 **B.S.** Ecology, Evolution, and Behavioral Biology, Beloit College (BC; *GPA*: 3.13)
- *Thesis:* "Competing Hypotheses in the Sexual Segregation of the Atlantic Sharpnose Shark"
- *Awards:* Dean's List 2014–2015, 2015 Academic All-Conference Baseball Team

## RELEVANT PROFESSIONAL EXPERIENCE

2022–Pres **Research Fellow/Postdoctoral Researcher**, Morgan State University Patuxent Environmental and Aquatic Research Lab (PEARL), PI: Dr. Thomas Ihde
- *Main Responsibilities:* Developed and mentored the development of ecosystem-based models in Chesapeake Bay tributaries to estimate the effect that oyster reef restoration and submerged aquatic vegetation (SAV) die-off have on the economic viability of fisheries. Conducted interviews with local watermen. Coupled ecological (Ecopath with Ecosim) and economic (IMPLAN) models.

2018–Pres **Graduate Assistant**, Fisheries and Ecosystem Assessment Lab, FIU, PI: Dr. Yuying Zhang
- *Main Responsibilities:* Developed ecosystem-based models with management and restoration goals, taught undergraduate courses and developed new curricula, disseminated research to a broad audience

2017–2018 **STEM Educator**, Museum of Discovery and Science, Fort Lauderdale, FL
- *Main Responsibilities:* Developed and taught interactive science, technology, engineering, and mathematics lessons to students (age 5–14) to underpriveleged schools

2017 **Teaching Assistant**, Graduate Ichthyology course, NSU
- *Main Responsibilities:* Assisted in teaching a graduate-level ichthyology course taught by Dr. Tracey Sutton, curated the NSU fish collection

2016–2018 **Sea Turtle Specialist**, Broward County Sea Turtle Conservation Program
- *Main Responsibilities:* Monitored endangered sea turtle nests in Broward County, Florida through daily nesting surveys and public outreach events (e.g., hatchling releases, community events)

2015–2018 **Graduate Assistant**, Oceanic Ecology Lab, NSU, PI: Dr. Tracey Sutton
- *Main Responsibilities:* Completed a trophic ecology project on mesopelagic fishes, communicated research through conference talks and publication, participated in community outreach events

2015 **Nature Educator**, Barbara C. Harris Summer Camp, Greenfield, NH
- *Main Responsibilities:* Taught outdoor nature lessons to youth (ages 8–12) in the New Hampshire forests, led campers through weekly activities

2014 **Chief Scientist**, Coastal Marine Education and Research Academy, Clearwater, FL
- *Main Responsibilities:* Aided in a population dynamics study for sharks and stingrays on the Clearwater, Florida coast

## PEER-REVIEWED PUBLICATIONS

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
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
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
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
3. **Woodstock, M.S.**, C.A. Blanar, 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
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
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

## MANUSCRIPTS IN THE PIPELINE

4. Richards, T., T.T. Sutton, **M.S. Woodstock**, H. Judkins, D. Wells. (in review). Body size, depth of occurrence, and local oceanography shape trophic structure in a diverse deep-pelagic micronekton assemblage. Progress in Oceanography.
3. **Woodstock, M.S.**, J.J Kiszka, M.R. Ramírez-León, T.T. Sutton, K. Fennel, B. Wang, Y. Zhang. (in review.). Cetacean-mediated nitrogen transport in the oceanic Gulf of Mexico. Limnology and Oceanography.
2. **Woodstock, M.S.**, T.T. Sutton, T. Frank, K. Fennel, B. Wang, F. Hernandez, Y. Zhang. (in prep.). Mesopelagic micronekton mortality regimes and ecosystem functioning in the oceanic Gulf of Mexico following the 2010 *Deepwater Horizon* oil spill.
1. **Woodstock, M.S.**, J.J. Kiszka, P.G.H. Evans, J.J. Waggitt, Y. Zhang. (in prep.). Debunking misconceptions: rising marine mammal abundances have little impact on fisheries in the southern North Sea.

## ORAL PRESENTATIONS ("*" DENOTES ADVISED AND CO-ADVISED STUDENTS)

16. Bevans, 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. Quiquempois, 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. Blanar, 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. Blanar, 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. Blanar, 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 ("*" DENOTES ADVISED AND CO-ADVISED STUDENTS)**

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. Shepardstown, WV.
8. Sulyman, M.*, A.T. Bevans*, **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. Shepardstown, 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. 24th 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. 16th 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. Blanar, 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. Blanar. (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. Blanar, 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

## FUNDING (CUMULATIVE: $34,850)

2022 FIU Provost Employer Supported Tuition Fellowship ($3,000)
2021 FIU Coastlines and Oceans Division Travel Award ($500)
FIU Biosymposium 2nd Best Oral Presentation ($50)
2020 AFS Florida Chapter Student Subunit Travel Award ($100)
2019 FIU College of Arts and Sciences Travel Award ($300)
FIU Professional Development Grant ($300)
2017 NSU Professional Development Grant ($600)
2016 NSU Oceanographic Center Fishing Tournament Scholarship ($30,000)

## TEACHING EXPERIENCE

2022 Invited Guest Lecture – Undergraduate Marine Ecosystems – Nova Southeastern Unviersity
- *Main Instructor:* Rosanna Milligan, Ph.D.
- *Topic:* Parasites in the Deep Ocean

General Biology II Lab: Ecology, Systematics, and Evolution – Florida International University
- *Role*: Main Lab Instructor
- *Major Responsibilities:* Taught introductory information about 1) ecosystems, 2) the classification and diversity of bacteria, archea, and eukaryotes, and 3) field sampling designs. Taught lessons in R statistical analysis software. Led an on-water field sampling excursion. Mentored student-led field experiements with data analysis and presentation components.

2020 Invited Guest Lecture – Undergraduate Oceanography – University of South Carolina
- *Main Instructor:* Eilea Knotts, Ph.D.
- *Topic:* Life Aboard an Oceanographic Research Vessel

Human Biology Lab – Florida International University
- *Role*: Main Lab Instructor
- *Major Responsibilities:* Taught online (at home) lab exercises focused on the different systems in the human body.

2018–2019 General Biology I Lab: General Biological Processes – Florida International University
- *Role*: Teaching Assistant / Main Lab Instructor
- *Major Responsibilities:* Taught introductory information about 1) biochemical processes, 2) mitosis/meiosis, and 3) population genetics, among others.

2017 Graduate Ichthyology – Nova Southeastern University
- *Role*: Teaching Assistant
- *Major Responsibilities:* Set up for lab exercises and took a record of the current NSU fish collection.

## LEADERSHIP EXPERIENCE AND COMMUNITY SERVICE (* = CURRENT, (#) = YEARS OF SERVICE)

2021 Deep-Ocean Stewardship Initiative (DOSI) Open-Access Task Force*
FIU Graduate Student Mentor

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| | FIU Biosymposium Organizing Committee |
| | American Fisheries Society (AFS) Hutton Scholarship Application Committee* |
| 2020 | DOSI Fisheries Working Group Member* |
| | FIU Biology Graduate Student Committee Officer |
| | AFS Florida Student Subunit Chapter Officer |
| | BC Alumni Mentoring Network |
| 2019 | FIU Marine Science Seminar Series Organizing Committee |
| 2016 | NSU Graduate Student Mentor (2) |
| 2012 | Alpha Zeta Chapter of Sigma Chi (4) |
| | BC Varsity Baseball Team (4) |

**SERVICE AS A REVIEWER (# REVIEWS)**

Ecological Modelling (4); Journal of Fish Biology (2); Estuaries and Coasts (1); Journal of Zoology (1); Ocean Sustainability (1)

**SEAGOING EXPERIENCE (CUMULATIVE DAYS AT SEA: 37)**

2021 DEEPEND-RESTORE; PI: Tracey Sutton

- *Main Responsibilities:* Montiored acoustic equipment, led gear deployments

2019 Ichthyology Workshop; PI: Joel Trexler

- *Main Responsibilities:* Led gear deployments, identified mesopelagic fishes and crustaceans

2017 DEEPEND; PI: Tracey Sutton

- *Main Responsibilities:* Processed and organized samples for various projects (DNA, biochemistry, parasites, stable isotopes)

**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)