
Allison Lynn White

Post-doctoral Research Associate

Department of Marine Biology | Texas A&M University at Galveston

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Research Interests

I am interested in the quantitative ecology of fishes. My current research focuses on changes in the spatial dynamics of fishes and invertebrates in response to tropicalization of Texas coastal habitats. I am also interested in the application of active acoustic methods and spatial analyses to provide population size and distribution information of reef fishes. I utilize R to automate the processing of large datasets from multiple sources and to perform all analyses for this research. Moving forward, I aim to improve the effectiveness of management and conservation efforts for coastal ecosystems by integrating modelling approaches and the use of advanced technologies in fisheries-independent surveys.

Education

PhD in Biology	2023
Florida International University, Biscayne Bay Campus, North Miami, FL <i>Dissertation title</i> - Spatial distribution of reef-associated fish in the northeastern Gulf of Mexico: an active acoustics approach	
MSc in Biology	2022
Florida International University, Biscayne Bay Campus, North Miami, FL	
MSc in Fish and Wildlife Conservation	2016
Virginia Polytechnic Institute and State University, Blacksburg, VA <i>Thesis title</i> - Spatial and temporal heterogeneity in life history and productivity trends of Atlantic Weakfish (<i>Cynoscion regalis</i>) and implications for fisheries management	
BS in Marine Fisheries	2014
Texas A&M University at Galveston, Galveston, TX Graduated Cum Laude	
BS in Marine Biology	2014
Texas A&M University at Galveston, Galveston, TX Graduated Cum Laude	

Professional Appointments

Postdoctoral Research Associate	2023-present
Texas A&M University at Galveston, Department of Marine Biology; <i>Advisor: Dr. R. J. David Wells</i>	

Postdoctoral Research Associate 2023
Florida International University, Marine Science Program, Department of Biological Sciences; *Advisor: Dr. Kevin Boswell*

Graduate Research Assistant 2017-2023
Florida International University, Marine Science Program, Department of Biological Sciences; *Advisor: Dr. Kevin Boswell*

Graduate Research Assistant 2014-2016
Virginia Polytechnic Institute and State University, Department of Fish and Wildlife Conservation; *Advisor: Dr. Yan Jiao*

Publications

1. **White, A.**, Sullivan, P. J., Binder, B., and Boswell, K. M. 2023. An evaluation of survey designs and model-based inferences of fish aggregations using active acoustics. *Frontiers in Marine Science* 10: 1176696.
2. **White, A.**, Patterson, W. F. III, and Boswell, K. M. 2022. Distribution of acoustic fish backscatter associated with natural and artificial reefs in the northeastern Gulf of Mexico. *Fisheries Research* 248: 106199.

Works in Progress

1. **White, A.** and Jiao, Y. Spatial and temporal heterogeneity in growth and maturity of Atlantic Weakfish (*Cynoscion regalis*). *Anticipated submission to American Fisheries Society in 2023.*
2. **White, A.**, Roa, C., Grasty-Prueitt, S., and Boswell, K. M. Unsupervised machine learning for classification of fishery important species at the Florida Middle Grounds. *Anticipated submission to Fisheries Research in 2023.*
3. **White, A.**, D'Elia, M., Tarnecki, J., Patterson, W. F. III, and Boswell, K. M. A consolidated acoustic and visual approach to monitoring reef fish: modelling the red snapper (*Lutjanus campechanus*) distribution across the West Florida Shelf. *Anticipated submission to Fisheries Research in 2023.*

Conference Presentations

1. **White, A.**, Sullivan, P. J., Binder, B., and Boswell, K. M. Mobile acoustic surveys of localized fish aggregations: design-based approaches. 7th Southeast Area Acoustics Consortium Conference, St. Petersburg, FL. 11 October 2022.
2. **White, A.**, Patterson, W. and Boswell, K. Distribution of acoustic fish backscatter associated with natural and artificial reefs in the northeastern Gulf of Mexico. 7th Southeast Area Acoustics Consortium Conference, St. Petersburg, FL. 11 October 2022.

3. **White, A.**, Patterson, W. and Boswell, K. Distribution of acoustic fish backscatter associated with natural and artificial reefs in the northeastern Gulf of Mexico. Florida International University Biosymposium, North Miami, FL. 5 February 2022.
4. **White, A.**, Sullivan, P. J., Binder, B., and Boswell, K. M. Practical and statistical considerations for designing acoustic surveys of fish aggregations. 6th Southeast Area Acoustics Consortium Conference, St. Petersburg, FL. 2 March 2020.
5. **White, A.**, Sullivan, P. J., Binder, B., and Boswell, K. M. Practical and statistical sampling considerations of parallel line and star survey designs for acoustically-derived density estimates of Goliath Grouper (*Epinephalus itajara*) spawning aggregations. 72nd Gulf and Caribbean Fisheries Institute Conference, Punta Cana, Dominican Republic. 5 November 2019.
6. **White, A.**, Patterson, W. and Boswell, K. M. Informing fishery-independent reef fish surveys through advanced survey techniques. 147th American Fisheries Society Annual Meeting, Tampa, FL. 24 August 2017.
7. **White, A.**, Jiao, Y., Hallerman, E. and Orth, D. Spatial and temporal heterogeneity in life history and productivity traits of Atlantic Weakfish (*Cynoscion regalis*) and implications for fisheries management. 147th National American Fisheries Society Conference, Tampa, FL. 24 August 2017.
8. **White, A.** and Jiao, Y. Spatial and temporal heterogeneity in life history trends of Atlantic Weakfish (*Cynoscion regalis*) and implications to fisheries management. American Fisheries Society Joint Virginia/North Carolina Chapter Meeting, Danville, VA. 15 March 2016.

Invited Talks and Workshops

1. **White, A.** Acoustic data collection workshop. Texas A&M University at Galveston, Greater Amberjack Count. April 25-28, 2023.
2. Binder, B. and **White, A.** Application of active acoustics to survey reef fishes. Florida Fish and Wildlife Commission, Marine Research Institute. March 3-4, 2022.
3. **White, A.** Distribution of acoustic fish backscatter associated with natural and artificial reefs in the Northeastern Gulf of Mexico. Florida Fish and Wildlife Commission, Fisheries Acoustics Team. February 23, 2022.
4. **White, A.** Acoustic data processing workshop. Florida International University, Great Red Snapper Count. March 4-8, 2019.

Funding Awarded

Florida International University

- CREST Center for Aquatic Chemistry & Environment Publication (\$1,000) 2023
- CREST Center for Aquatic Chemistry & Environment Travel (\$833) 2022

- Dissertation Year Fellowship (\$18,750) 2022
 - Division of Coastlines and Oceans Travel Award (\$450) 2020
 - Florida Institute of Oceanography Subsidized Shiptime (\$33,500) 2019
- Louisiana Universities Marine Consortium*
- NSF Research Experience for Undergraduates Grant (\$10,000) 2012

Proposals Submitted but not Funded

- FIU Tropics Graduate Student Research Grant (\$5,000) 2018
- Doctoral Dissertation Improvement Grant (\$10,000) 2017

Teaching Appointments (Sp=Spring; F=Fall; Su=Summer)

Teaching Assistant

Florida International University

- Introduction to Marine Biology & Oceanography Lab F2021-Su2022
- Fish Biology Sp2021
- General Biology II Lab Su2019-F2020; Su2021

Guest Lecturer

Florida International University

- Marine Field Ecology F2017; F2019

Teaching Assistant

Virginia Polytechnic Institute and State University

- Population Dynamics and Estimation F2016
- Marine Ecology Sp2016

Tutor

Texas A&M University at Galveston

- Introductory Physics I and II F2011-Sp2014
- Engineering Calculus I and II F2011-Sp2014

AVID Tutor (Middle/High School)

Galveston Independent School District

- Math and Science F2010-F2011

University and Community Service

- Rock the Ocean Conservation Village 2019 and 2022
 - Limestone Creek Elementary Science Day 2019
 - Volunteer for Texas Parks and Wildlife 2013-2014
 - Volunteer Patroller for Sea Turtle Inc. 2012-2014
- Texas A&M University at Galveston*
- Research consultant for undergraduates 2013-2014
 - Writing consultant for undergraduates 2013-2014
 - Ichthyology lab volunteer 2013-2014

Honors and Awards

Florida International University

- Dissertation Year Fellowship 2022
 - 1st Place Poster Presentation at Biosymposium 2022
- Texas A&M University at Galveston*
- Lambda Kappa Alpha Honors Organization 2010-2014
 - Distinguished Student Award 2010-2014
 - Academic Scholarship 2010-2014

Professional Memberships

- NSF CREST Center for Aquatic Chemistry & Environment at FIU 2022-present
- Southeast Acoustics Consortium 2020-present
- American Fisheries Society 2015-present

Journal Reviewer

- Fisheries Research (1) 2022-present