

Erin T. Spencer

etspencer14@gmail.com

www.erintspencer.com

Education

Ph.D. in Biology, Florida International University

Expected Graduation: May 2024

Dissertation research: Biomechanics of an evolutionary arms race in great hammerheads (*Sphyrna mokarran*) and associated prey

M.S. in Ecology, The University of North Carolina—Chapel Hill

August 2017 – May 2019

Thesis projects: Red snapper mislabeling in the Southeastern United States, Snapper/grouper fisher perceptions of electronic reporting in the South Atlantic
Advisor: Dr. John Bruno

B.S. with Honors in Ecology, Minor in Marine Science, The College of William & Mary, August 2010 – May 2014

Graduated Summa Cum Laude, James Monroe Scholar, Dean's List – All semesters
Honors Thesis – Association between invasive lionfish and native fish species in the Western Atlantic and Caribbean

Certifications and Skills

PADI Divemaster, CPR/First Aid, R Studio, ArcGIS, Adobe Photoshop, CMS, HTML

Publications

Harding L., Jackson A., Barnett A., Donohue I., Halsey L., Huvneers C., Meyer C., Papastamatiou Y., Semmens J., **Spencer E.**, Watanabe Y., Payne N. (2021). Endothermy in marine fishes: does it expand their thermal niche, make them faster, or both? *Functional Ecology*, 00, 1–9. <https://doi.org/10.1111/1365-2435.13869>

Neal W., Claussen J., Douglas M., **Spencer E.**, Tracy E., Blasius H., Hall C., Mackey T., Kusnierz P., Bonar S., Douglas M. (2021) Best practices for communicating climate science for fisheries professionals. *Fisheries*. <https://doi.org/10.1002/fsh.10635>

Spencer E.T., Richards E., Steinwand B., Clemons J., Dahringer J., Desai P., Fisher M., Fussell S., Gorman O., Jones D., Le A., Long K., McMahan C., Moscarito C., Pelay C., Price E., Smith A., VanSant A., Bruno J.F. 2020. A high proportion of red snapper sold in North Carolina is mislabeled. *PeerJ* 8:e9218 <https://doi.org/10.7717/peerj.9218>

Korzik, M. L., Austin, H. M., Cooper, B., Jasperse, C., Tan, G., Richards, E., **Spencer**, E.T., ... Bruno, J. F. (2020). Marketplace shrimp mislabeling in North Carolina. *PLoS One*, 15(3), 6–13. <https://doi.org/10.1371/journal.pone.0229512>

Spencer, E. T., & Bruno, J. F. (2019). Fishy Business : Red Snapper Mislabeling Along the Coastline of the Southeastern United States. *Frontiers in Marine Science*, 6(August), 1–7. <https://doi.org/10.3389/fmars.2019.00513>

Smith, W. O., Delizo, L. M., Herbolsheimer, C., & **Spencer, E. (2017).** Distribution and abundance of mesozooplankton in the Ross Sea, Antarctica. *Polar Biology*, 40(12), 2351–2361. <http://doi.org/10.1007/s00300-017-2149-5>

Conference Presentations

Spencer, E. (lead presenter), Hoopes, L., Papastamatiou, Y. P. (2020). 5 Minutes 5 Slides: Biomechanics of an evolutionary arms race in great hammerheads (*Sphyrna mokarran*) and associated prey. Oral presentation at the American Fisheries Society Virtual Annual Meeting.

Spencer, E. (lead presenter), Hoopes, L., Papastamatiou, Y. P. (2020). Biomechanics of an evolutionary arms race in great hammerheads (*Sphyrna mokarran*) and associated prey. Oral presentation at the Florida Universities Student Elasmobranch Symposium.

Spencer, E. (lead presenter), and Bruno, J. (2018). Fishy Business: Red Snapper Mislabeling in the Southeastern United States. Poster session presented at the meeting of the American Fisheries Society in Atlantic City, New Jersey.

Karp, P., Chapman, J., Fruitema, M., Curtis-Quick, J., Saul-Demers, N., **Spencer, E. (2015).** Incentivizing Lionfish Removals Through Development of Markets for Jewelry: Preliminary Experiences from Belize, the Bahamas and St. Vincent and the Grenadines. Paper session presented at the meeting of the Gulf and Caribbean Fisheries Institute in Panama City, Panama.

Research Experience

PhD Candidate, Florida International University, August 2019 – Present

Studying movement and behavior of great hammerhead sharks and associated prey. Currently using biologgers and muscle tissue analysis to learn more about movement of these top predators and their prey animals. Also assessing thermal tolerance to predict how these species might respond to changing climate conditions.

National Geographic Early Career Grantee, April 2018 – May 2019

Awarded a grant from the National Geographic Society to study collect “red snapper” fillets from vendors and use DNA barcoding to determine true species identity. Found over 70% of samples were mislabeled, and results were published in *Frontiers in Marine Science*. I gave a winning 3 Minute Thesis talk around this work, which can be seen at <https://erintspencer.com/speaking/>.

Masters Student, University of North Carolina—Chapel Hill, August 2017 – May 2019

Studied red snapper management and mislabeling in the Southeastern United States. Used DNA barcoding to track mislabeling (outlined above) and partnered with the South Atlantic Fisheries Management Council to survey recreational snapper/grouper anglers about their perceptions

and motivations of using self-reporting apps. Also assisted in fieldwork in the Galapagos, Ecuador, looking at thermal tolerance of marine invertebrates throughout the region.

National Geographic Young Explorer Grantee, February 2015 – February 2017

Awarded a grant from the National Geographic Society to study community-based invasive species management in Fiji. The research involved interviews and field studies with Fijian community members to assess the outcomes of goat and rat removal from two uninhabited islands to protect the critically endangered Fijian crested iguana. Articles, photos, and videos were documented on the Invasive Species Initiative website, www.invasivespeciesinitiative.com, as well as on Twitter, Facebook, and Instagram. A TEDx talk from this work can be seen at <https://erintspencer.com/speaking/>.

Open Possibilities Grantee, NBC Universal, August 2015

Awarded a grant from NBC Universal to produce the Invasive Innovators series following the completion of the Millennial Trains Project journey. Grant involved conducting interviews with a number of artists, designers, inventors, and educators who are applying their skills and talents to the problem of invasive species. Text and photographs were featured on the Invasive Species Initiative website and on NBC Universal social media channels.

National Geographic Young Explorer Grantee, February 2013 – February 2015

Awarded a grant from the National Geographic Society to study local reactions to invasive lionfish in the Florida Keys. The research involves a number of interviews with fishermen, divemasters, chefs, and more that are compiled into a comprehensive website and distributed in social media channels such as Youtube, Twitter, Instagram, Facebook, and Google+. The research has been featured on the National Geographic NewsWatch Blog, Bare Essentials Magazine, Lady Diver Magazine, Ideation Magazine, and National Geographic Weekend.

Lab Assistant, Virginia Institute of Marine Science, August 2012 – May 2014

Worked in the biological sciences department analyzing zooplankton samples from Antarctica. Sorted samples to extract and identify zooplankton. Emphasis was placed on establishing patterns in zooplankton distribution to understand the composition of the Antarctic tropic web.

James Monroe Scholar, Bonaire, May 2011 – July 2011

Awarded a grant based on academic merit to study coral reef conservation in Bonaire. Conducted interviews of local officials and scientists as well as collected data on biological reef processes to evaluate the effectiveness of conservation strategies. Worked closely with CIEE Research Station to enhance scientific diving skills and learn more about coral reef ecology.

Professional Experience

Author, Storey Publishing, July 2019 – Present

Under contract to write a children's book on coral reef biology, for publication spring 2022.

Science Writer, October 2017 – Present

Writer and editor for companies including Ocean Conservancy, National Geographic, and the Biomimicry Institute. Published over 150 articles, primarily around ocean education and conservation, as well as dozens of fundraising and advocacy copy.

President of the Board, Real Seafood, September 2019 – Present

Founding member and Board president of Real Seafood, with Dr. John Bruno, which aims to certify correctly-labeled seafood and educate the public about seafood mislabeling.

Digital Outreach Manager, Ocean Conservancy, October 2015 – July 2017

Worked directly with Ocean Acidification and Sustainable Fisheries programs to develop engaging digital content (including blogs, social posts, videos, and infographics) to communicate research initiatives. Managed multiple digital outreach outlets, including the website, the Ocean Conservancy email account, and the Facebook page. Contributed original content to the Ocean Currents blog and assist in production of additional original content from other program areas within the organization. Wrote copy for fundraising emails and Action Alerts that were sent to Ocean Conservancy's expansive member database.

Travel Digital Production Assistant, National Geographic, October 2014 – July 2015

Assisted Travel Digital team in web production, Intelligent Travel production, and social media. Developed 12+ tweets a day and managed the @NatGeoTravel Twitter handle including monthly Twitter chats, and contributed daily to National Geographic Facebook page. Helped in production of large web packages, including Florida by Land and Water, Adventurers of the Year, and Best of the World. Tracked edit and social promotions for destination clients and produced quarterly reports. Assisted in other tasks as needed.

Fellow, Global Island Partnership, June 2014 – June 2015

Created content for the GLISPA Facebook, Twitter, and website. Assisted in web redesign and research for future content.

Digital Media Intern, National Geographic, May 2012 – August 2012

Developed Travel content for the National Geographic website. Tasks included researching and fact-checking articles, using WPF to create and edit web pages, and writing tri-weekly posts for the Intelligent Travel blog.

Honors & Awards

FIU Institute of the Environment Research Grant, \$4,000
Kappa Kappa Gamma Graduate Scholarship Winner, \$3,000
National Geographic Early Career Grantee (2018), \$2,500
Southeast Regional 3 Minute Thesis Competition Finalist
UNC – Chapel Hill 3 Minute Thesis Competition Winner
Women Diver's Hall of Fame Marine Conservation Scholarship Winner, \$2,000
National Geographic Young Explorer Grantee (2015), \$5,000
National Geographic-Fulbright Digital Storytelling Fellowship Semifinalist
NBC Universal Open Possibilities Grantee, \$3,000
Alongside Wildlife Foundation Grantee, \$500
UNC Impact Award Winner
UNC Graduate School Travel Award, \$400
National Geographic Young Explorer Grantee (2013), \$3,000
Student Member of the Explorers Club
DC Summer Institutes New Media Fellow
Student Representative to the W&M Board of Visitors

William and Mary James Monroe Scholar, \$6,000

Selected Public Speaking

National Geographic

- “Science and Suds: A Night With National Geographic Explorers”, Tulsa Aquarium, Tulsa, O.K., 2019.
- “Explorers in the Classroom: Erin Spencer”. Keynote Speaker, National Geographic Education, Raleigh, N.C., 2019.
- “Fighting Against Invaders.” Keynote Speaker, National Geographic Development, Washington, D.C., 2016.
- “Today I Learned: Lionfish Jewelry Can Help Save the Ocean” (video). 2016.
<https://www.youtube.com/watch?v=twOZ8bmlRGA>
- “Why Lionfish Should Be Your Favorite Fish to Eat” (video). 2016.
<https://www.youtube.com/watch?v=3wrqQJdDBXw>
- “Local Responses to Invasive Lionfish.” Keynote Speaker, National Geographic Educators’ Night, Washington, D.C., 2016.
- “Community-Based Invasive Species Management.” National Geographic International Council of Advisors Retreat. Merida, Mexico, 2015.
- “The Lionfish King.” BYT presents National Geographic After Hours. Washington, D.C., 2015.
- “On the Hunt for Invasive Lionfish.” National Geographic Grant Advisory Board. Washington, D.C., 2014.

Conferences and Government Institutions

- “Recreational Snapper Grouper Fisher Perceptions of Electronic Reporting.” South Atlantic Fisheries Management Council Information and Education Advisory Panel Meeting, Charleston, S.C., 2019.
- “Introduction to Lionfish.” Aquatic Invasive Species Day. World Bank, Washington, D.C., 2016.
- “Fighting Against Invaders.” TEDx. College of William and Mary, Williamsburg, Virginia, 2016.
- “Women in Exploration featuring Sylvia Earle and Erin Spencer.” MCON Millennial Conference. National Geographic, Washington, D.C., 2016.
- “Pet Owner Education Through the Don’t Release Me Program.” Meeting of Gulf & South Atlantic Regional Panel on Aquatic Invasive Species. Ft. Lauderdale, Florida, 2015.

Women in STEM Outreach

- “What are Invasive Species?” Women in STEM workshop hosted by the Department of Energy. National Geographic, Washington, D.C., 2016.
- “Meet Erin Spencer, Science Communicator.” Rosie Riveters (Empowering young women in STEM). Washington, D.C., 2016.

College of William and Mary

- “On the Hunt for Invasive Lionfish.” Keynote Speaker, Monroe Scholar Admitted Students Weekend. 2014.
- “Association of Lionfish and Native Fish Species in the Atlantic.” Honors Colloquium. 2014.
- “Why W&M.” Keynote Speaker, Admitted Students Weekend. 2014.

Teaching Experience

Ecology TA (1 semester) – Florida International University
 Genetics Lab TA (3 semesters) – Florida International University
 Intro Biology Lab TA (1 semester) – Florida International University
 Oceanography Teaching Fellow (1 semester) – UNC – Chapel Hill
 Marine Ecology Teaching Fellow (1 semester) – UNC – Chapel Hill
 Animal Behavior Lab TA (1 semester) – UNC – Chapel Hill
 Introduction to Environment and Society TA) – UNC – Chapel Hill
 Issues in New Media TA (1 semester) – College of William and Mary

Service

Science Communication Section Executive Board (Secretary) – American Fisheries Society
 Climate Change Communication Committee – American Fisheries Society
 Science Education and Outreach Presentations – Skype a Scientist and Exploring By the Seat of Your Pants