Megan A. Sporre

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EDUCATIONAL BACKGROUND

PhD Texas A&M University at Galveston, Marine Biology August 2024

Dissertation: Uncovering evolutionary drivers of biodiversity in a group of reef fishes

with a rapid mitochondrial evolution rate

Advisors: Jessica M. Labonté & Ron I. Eytan

MS College of Charleston, Marine Biology May 2019

Thesis: Detection of multiple paternity in diamondback terrapin (Malaclemys terrapin) egg clutches from Charleston, SC through the use of novel molecular techniques

Advisor: Allan E. Strand

BS Coastal Carolina University, Marine Science May 2015
BS Coastal Carolina University Biology May 2015

Magna Cum Laude

Thesis: Species identification and prevalence of the endemic glochidia of Lake

Waccamaw Advisor: Erin J. Burge

PUBLICATIONS

- **Sporre MA**, Carter JE, Eytan RI., (2024). Species delimitation in the sailfin blenny (*Emblemaria pandionis*) reveals cryptic endemic species diversity in the Greater Caribbean and Gulf of Mexico. *Coral Reefs*.
- Carter, J.E., **Sporre, M.A**. and Eytan, R.I., (2023). Phylogenetic review of comb- tooth blenny genus *Hypleurochilus* in the northwest Atlantic and Gulf of Mexico. *Molecular Phylogenetics* and Evolution. 107933
- **Sporre, M.A.** and Eytan, R.I., (2022). The complete mitogenomes of the spinyhead blenny, *Acanthemblemaria spinosa* (Chaenopsidae) and the lofty triplefin, *Enneanectes altivelis* (Tripterygiidae). *Mitochondrial DNA Part B: Resources.* 7 (2), 353-355.
- Carter, J.E., **Sporre, M.A**. and Eytan, R.I., (2022) Larviculture and allometric growth patterns of the Florida blenny (*Chasmodes saburrae*). *Aquaculture*. 554, 738153.

In prep

- **Sporre MA**, Carter JE, Eytan RI. Genetic validation of invasive *Hypleurochilus aequipinnis* to the Gulf of Mexico. *In prep*
- Eytan RI, Kersch-Hammar K, Carter JE, **Sporre MA**. New cryptic species of *Ecsenius* reported from the Gulf of Iman and Red Sea. *In prep*
- **Sporre MA,** Weber MD, Eytan RI. Extreme differences in mito-nuclear substitution rates provide a mechanism for speciation in a cryptic species complex. *In prep*
- Muffett KM, **Sporre MA**, Eytan RI, Miglietta MP. Jelly belly: Recovery of fish eDNA from *Cassiopea* medusae gastrovascular cavities across the Florida Keys. *In prep*

COMPETITIVE AWARDS AND FUNDING

Research Funding

- \$500, Galveston Graduate Student Association Mini Grant February 2024
- \$150, Departmental Research Grant, Texas A&M University at Galveston October 2023
- \$500, Galveston Graduate Student Association Mini Grant April 2023
- \$2,969, Society of Systematic Biologists (SSB) Graduate Student Research Award May 2022
- \$500, Departmental Research Grant, Texas A&M University at Galveston January 2022
- \$450, Student Travel Grant, Diamondback Terrapin Working Group October 2019
- \$521, Graduate Program in Marine Biology Research Grants, College of Charleston January 2018
- \$592, Research Grant, Slocum-Lunz Foundation April 2018
- \$950, Graduate School Research Award, College of Charleston May 2017
- \$273, Graduate Program in Marine Biology Research Grants, College of Charleston January 2017

Awards & Honors

- \$27,000, Texas A&M University at Galveston Boost Scholarship April 2023
- Best Poster Award, Southeast Texas Evolutionary Genetics & Genomics Symposium June 2023
- Best Student Presentation, Diamondback Terrapin Working Group October 2019
- \$27,612, Marine Biology IDP Competitive Award, Texas A&M University at Galveston August 2019
- \$44,000, Fellowship in Applied Marine Genomics, College of Charleston August 2016
- Summer Institute in Statistical Genetics Scholarship, University of Washington July 2017 (\$1,200)

TEACHING EXPERIENCE

Teaching Assistant

September 2020 to May 2023

MARB 303: Biostatistics, Texas A&M University at Galveston

Lecturer: Dr. Phillip Matich

 Supervision of lab courses, Implemented switching lab curriculum from SPSS software to R software

MARB 360; Conservation Biology, Texas A&M University at Galveston

Lecturer: Dr. Jamie Alvarado-Bremer

• Supervision of Lab Courses, Led Field Excursions

Teaching Assistant

January 2019 to May 2019

BIOL 305: Genetics, College of Charleston

Lecturer: Dr. Allan E. Strand

• Lecture supervision, grading of student exams and assignments, led weekly review sessions

Teaching Assistant

August 2018 to Dec. 2018

BIOL 611/ENV 624: Biometry, College of Charleston

Lecturer: Dr. Allan E. Strand

• Supervision of laboratory assignments, graduate level course

BIOL 211: Biodiversity, Ecology and Conservation, College of Charleston

Lecturer: Dr. Onja H. Razafindratsima

• Supervision of laboratory assignments, led special lectures on introductory statistics in R

MENTORING EXPERIENCE

Undergraduate Level

Kelee Hersch-Kammar

January 2023 – May 2023

Delimitation within the combtooth blenny genus, Ecsenius, reveals cryptic species from the Indian Ocean. Presented at Southeast Texas Evolutionary Genetics & Genomics Symposium. Houston, Texas. June 9, 2023

Danielle N. Young

August 2022 – May 2023

Increased sampling reveals stark contrast in population structuring between two closely related cryptobenthic reef fishes. Presented at Southeast Texas Evolutionary Genetics & Genomics Symposium. Houston, Texas. June 9, 2023

Lauren I. Kinzy

August 2022 – May 2023

Demographic history of the oyster toadfish (Opsanus tau) reveals post-glacial northern expansion and modern barriers to gene-flow. Presented at Southeast Texas Evolutionary Genetics & Genomics Symposium. Houston, Texas. June 9, 2023

Eliza Perez

January 2021 – May 2022

Age and growth dynamics of Chasmodes saburrae and Hypleurochilus multifilis

Brady Samuelson

August 2019 – August 2021

Biodiversity of cryptobenthic fish in Galveston. TAMUG REU OCEANUS. 6 August 2021 Recipient of \$500 REU Summer Research Funding

Oral Presentations

- **Sporre MA**, Labonté JM, Weber MD, Eytan RI. Extreme mito-nuclear discordance drives delimitation in a cryptobenthic reef fish species complex 52nd Annual Benthic Ecology Meeting. Charleston, SC. April 10-13, 2024
- **Sporre MA,** Weber MD, Eytan RI. One fish, two fish: Mito-nuclear discordance drives delimitation in a cryptobenthic reef fish species complex. Evolution. Albuquerque, NM. June 21-25, 2023.
- **Sporre MA,** Weber MD, Eytan RI. One fish, two fish: Mito-nuclear discordance drives delimitation in a cryptobenthic reef fish species complex. 18th Annual TAMUS Pathways Student Research Symposium. Galveston, TX. March 2-3, 2023.
- **Sporre MA,** Weber MD, Eytan RI. Mitonuclear discordance drives species delimitation in a cryptobenthic Caribbean reef fish species complex. Southeast Texas Evolutionary Genetics & Genomics Symposium. Houston, TX. June 3, 2022
- **Sporre MA,** Weber MD, Eytan RI. Rapid mitochondrial evolution and mitonuclear discordance drive speciation in a cryptobenthic Caribbean reef fish. Texas A&M University at Galveston Research Symposium. Galveston, TX. April 18-20, 2022.
- **Sporre MA**, Strand AE. Increased frequency of multiple paternity in diamondback terrapins from a male dominated population. 8th Symposium on the Ecology, Status, and Conservation of the Diamondback Terrapin. Wilmington, North Carolina. October 12, 2019. *Best Student Presentation
- **Sporre MA.** Frequency of multiple paternity in diamondback terrapin egg clutches deduced through the use of novel molecular techniques. Annual Meeting of the South Carolina Chapter of the American Fisheries Society. Clemson, South Carolina. February 21, 2019
- **Sporre MA**. Determination of multiple paternity in diamondback terrapin clutches using a microsatellite panel. College of Charleston Student Research Colloquium. Charleston, South Carolina. October 13, 2018.

Poster Presentations

- **Sporre MA**, Carter JE, and RI Eytan. On a reef far, far away: Population structure in the sailfin blenny (*Emblemaria pandionis*) driven by isolation and geographic barriers in the Caribbean. Southeast Texas Evolutionary Genetics & Genomics Symposium. Houston, Texas. June 9, 2023 *Best Poster Award
- Young DN, **Sporre MA**, Weber MD, Carter JE, and RI Eytan. Increased sampling reveals stark contrast in population structuring between two closely related cryptobenthic reef fishes. Southeast Texas Evolutionary Genetics & Genomics Symposium. Houston, Texas. June 9, 2023. **Undergraduate Presentation*

Kinzy LI, **Sporre MA**, Carter JE, and RI Eytan. Demographic history of the oyster toadfish (*Opsanus tau*) reveals post-glacial northern expansion and modern barriers to gene-flow. Southeast Texas Evolutionary Genetics & Genomics Symposium. Houston, Texas. June 9, 2023. **Undergraduate Presentation*

Kersch-Hamar K, **Sporre MA**, Carter JE, Baldwin CC, Springer VC, and RI Eytan. Delimitation within the combtooth blenny genus, *Ecsenius*, reveals cryptic species from the Indian Ocean. Southeast Texas Evolutionary Genetics & Genomics Symposium. Houston, Texas. June 9, 2023. **Undergraduate Presentation*

Sporre MA. Detection of multiple paternity in diamondback terrapin (*Malaclemys terrapin*) egg clutches using novel molecular techniques. College of Charleston Student Research Colloquium. Charleston, South Carolina. October 2017.

Harrison BE, Burge EJ, and **MA Sporre**. Testing a molecular identification assay for glochidia parasitic on fish from Lake Waccamaw, North Carolina. Benthic Ecology Meeting. Myrtle Beach, South Carolina. April 14, 2017.

PUBLIC OUTREACH AND ENGAGEMENT

President May 2021 to May 2022 May 2023 to May 2024

Galveston Graduate Student Association, Texas A&M University at Galveston

- Aimed to increase graduate student relations with faculty, the scientific community, and the public through social events, outreach events, and professional development workshops.
- Organized the most successful fundraising event in GGSA history.
- Created graduate student directory.

Founder and President

December 2017 to May 2019

GWIS Charleston Chapter, Graduate Women in Science

• Creation of a local chapter of the Graduate Women in Science organization that connects and empowers female scientists in the Charleston area through social and networking events, professional development, and fundraising.

Social Chair May 2017 to May 2018

Marine Biology Graduate Student Association, College of Charleston

• Planned and executed multiple social, outreach, and fundraising events for graduate students and faculty of the Marine Biology Graduate Program at the College of Charleston.

RESEARCH EXPERIENCE

Coastal Carolina University

September 2013 to May 2015

- Describing species, prevalence, and host fish of endemic glochidia from Lake Waccamaw, NC using Restriction Fragment Length Polymorphism
- Investigation on the distribution, length-weight relationship, burrowing rates, size frequency, and coloration frequency of the beach clam, *Donax denticulatus* in Discovery Bay, Jamaica
- Assessing the effects of predator exclusion on fouling communities

• Assessing the effects of temperature on the release of cercariae by *Ilyanassa obsoleta*

PROFESSIONAL TRAINING

Scientific Diver, AAUS, 2020 Nitrox Certification, SDI, 2020 Advanced SCUBA Diver, NAUI, 2019 Open Water SCUBA Diver, NAUI, 2013

O₂ Administration, DAN, 2020 First Aid/CPR, Red Cross, 2020

Summer Institute in Statistical Genomics

University of Washington, Seattle, WA, July 2017

PROFESSIONAL AFFILIATIONS

Society of Systematic Biologists, 2021-Present American Society of Ichthyologists and Herpetologists, 2017-Present Society for Molecular Biology and Evolution, 2017-Present Genetics Society of America, 2017-Present American Genetic Association, 2017-Present Diamondback Terrapin Working Group, 2017-Present

OTHER

Citizenship: American Pronouns: She/Her/Hers