

Mariah C. Livernois

Texas A&M University at Galveston, Dept. of Marine Biology
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EDUCATION

2018 – present **Ph.D. student** Marine Biology, Texas A&M University at Galveston, Galveston, TX (anticipated 2022)
2016 – 2018 **M.S.** Marine Science, University of South Alabama, Mobile, AL
2010 – 2015 **B.S.** Environmental Science, Northeastern University, Boston, MA

PUBLICATIONS

Livernois, M.C., Fujiwara, M., Fisher, M., and Wells, R.J.D. *In review*. Seasonal patterns of habitat suitability and spatiotemporal overlap within an assemblage of estuarine predators and prey.

Gittman, R.K., Scyphers, S.B., Baillie, C.J., Brodmerkel, A., Grabowski, J.H., **Livernois, M.**, Poray, A.K., Smith, C.S., and Fodrie, F.J. *In review*. Reversing a tyranny of cascading shoreline-protection decisions driving coastal habitat loss.

Livernois, M.C., Powers, S.P., Albins, M.A., and Mareska, J.F. 2020. Habitat Associations and Co-Occurrence Patterns of Two Estuarine-Dependent Predatory Fishes. *Marine and Coastal Fisheries: Dynamics, Management, and Ecosystem Science* 12:64-77.

Fujiwara, M., Martinez-Andrade, F., Wells, D., Fisher, M., Pawluk, M., and **Livernois, M.** 2019. Climate-related factors cause changes in the diversity of fish and invertebrates in subtropical coast of the Gulf of Mexico. *Communications Biology* 2(403).

Livernois, M.C., Fodrie, F.J., Heck, Jr., K.L., and Powers, S.P. 2019. Emergent intraspecific multiple predator effects shape estuarine trophic dynamics across a gradient of habitat complexity. *Journal of Experimental Marine Biology and Ecology* 511:120-128.

Livernois, M.C., Grabowski, J.H., Poray, A.K., Gouhier, T.C., Hughes, A.R., O'Brien, K.F., Yeager, L.A., and Fodrie, F.J. 2017. Effects of habitat fragmentation on *Zostera marina* seed distribution. *Aquatic Botany* 142:1-9.

AWARDS AND FUNDING

- Texas Sea Grant Grants-in-Aid of Graduate Research Award (\$2500) – 2019
- Erma Lee and Luke Mooney Graduate Student Travel Grant (\$500) – 2019
- Texas Chapter of the American Fisheries Society Student Scholarship (\$1500) – 2019
- Texas A&M University at Galveston Marine Biology Travel Grant (\$500) – 2018
- Texas A&M University at Galveston Marine Biology Interdisciplinary Program Competitive Award – 1-year Graduate Research Assistantship – 2018
- Dauphin Island Sea Lab Graduate Student Research Support (\$1100) – 2017
- Honorable Mention, National Science Foundation Graduate Research Fellowship – 2016
- William J. Alcott Jr. Cooperative Education Award (Northeastern University) – 2015
- Sears B. Condit Academic Achievement Award (Northeastern University) – 2015

RESEARCH EXPERIENCE

Texas A&M University at Galveston, Galveston, TX 2018 - present

Graduate Researcher: Shark Biology and Fisheries Science Lab (Advisor: Dr. R.J. David Wells)

- *Proposed Dissertation:* Ecological dynamics and connectivity within an assemblage of predatory fishes in coastal Texas

University of South Alabama, Mobile, AL 2016 - 2018

Graduate Researcher: Dauphin Island Sea Lab (Advisor: Dr. Sean P. Powers)

- *Thesis:* Ecological interactions and resource partitioning of two estuarine predators, Red Drum (*Sciaenops ocellatus*) and Spotted Seatrout (*Cynoscion nebulosus*)

UNC-Chapel Hill, Institute of Marine Sciences, Morehead City, NC January-July 2016

Research Technician: Fodrie Lab, Fisheries Ecology and Oceanography

- Analyzed surveys of NC residents regarding ecological health and coastal hazards

Dauphin Island Sea Lab, Dauphin Island, AL May-December 2015

Internship: Powers Lab, Fisheries Ecology

- Participated in field and lab sampling of marine teleosts, elasmobranchs, and invertebrates

Northeastern University, Boston, MA 2010 - 2015

Undergraduate Researcher: Marine Science Center (Advisor: Dr. Jonathan Grabowski)

- *Honors Thesis:* Habitat fragmentation alters eelgrass seed abundance and distribution

UNC-Chapel Hill, Institute of Marine Sciences, Morehead City, NC February-July 2014

Research Technician: Fodrie Lab, Fisheries Ecology and Oceanography

- Planned and executed the building of an oyster reef and saltmarsh “living shoreline”

Research Technician: Rodriguez Lab, Coastal Geology

- Collected and processed sediment cores from marsh, oyster reef and beach shorelines

Woods Hole Oceanographic Institution, Woods Hole, MA January-June 2012

Research Technician: Anderson Lab, Biology Department

- Performed molecular laboratory work to examine the genetic variations of toxic algae

TEACHING EXPERIENCE

Texas A&M University at Galveston, Galveston, TX August 2019 - present

Teaching Assistant

- Fisheries Techniques, Fall 2019, Fall 2020
- Developed and coordinated field-based activities to teach undergraduate students methods for sampling fishes, experimental design, data analysis, and scientific writing

Texas A&M University at Galveston, Galveston, TX September 2018 - present

Guest Lecturer

- Created lectures to describe and discuss research with undergraduate students
- Fisheries Techniques, Fall 2018, 2020; Ichthyology, Spring 2019

Dauphin Island Sea Lab, Dauphin Island, AL July-August 2017

Teaching Assistant

- Led and developed field and laboratory lessons for a hands-on course: Marine Vertebrate Zoology

Northeastern University Marine Science Center, Nahant, MA

January-June 2013

Outreach Program Assistant

- Taught students grades pre-K through 12 topics in marine ecology and oceanography

PRESENTATIONS

- **Livernois, M.C.** and Wells, R.J.D. 2020. Ecological dynamics and connectivity of predatory fishes in coastal Texas. Texas A&M University Marine Biology Interdisciplinary Program Retreat, Galveston, TX.
- **Livernois, M.C.**, Rooker, J., Steffen, C., Stephens, S., TinHan, T., and Wells, R.J.D. 2020. Movements and habitat use patterns of coastal fishes in Galveston Bay, TX examined using acoustic telemetry. Galveston Bay Estuary Program State of the Bay Symposium, Galveston, TX.
- **Livernois, M.C.**, Fujiwara, M., Rooker, J., Fisher, M., and Wells, R.J.D. 2020. Influence of abiotic and biotic factors on the distribution and co-occurrence patterns of estuarine predators and prey. Texas Chapter of the American Fisheries Society Annual Meeting, Waco, TX.
- Fujiwara, M., Martinez-Andrade, F., Wells, R.J.D., Fisher, M., Pawluk, M., and **Livernois, M.C.** 2020. Climate change and diversity of fishes and invertebrates along the Texas coast. Texas Chapter of the American Fisheries Society Annual Meeting, Waco, TX.
- **Livernois, M.C.**, Fisher, M., Fujiwara, M., Rooker, J., and Wells, R.J.D. 2019. Habitat associations and spatiotemporal overlap of an assemblage of estuarine predators and prey. Coastal and Estuarine Research Federation Biennial Conference, Mobile, AL.
- **Livernois, M.C.**, Powers, S.P., and Albins, M.A. 2019. Habitat associations and co-occurrence patterns of two estuarine-dependent predatory fish species in coastal Alabama. Southern Division of the American Fisheries Society Annual Meeting, Galveston, TX.
- **Livernois, M.C.**, Powers, S.P., Fodrie, F.J., and Heck Jr., K.L. 2018. Habitat complexity and species assemblage shape predator-prey interactions in a model estuarine ecosystem. Benthic Ecology Meeting, Corpus Christi, TX.
- **Livernois, M.C.**, Powers, S.P., Fodrie, F.J., and Heck Jr., K.L. 2018. Habitat complexity and species assemblage shape predator-prey interactions in a model estuarine ecosystem. Gulf of Mexico Graduate Student Symposium, Dauphin Island, AL.
- **Livernois, M.C.** and Powers, S.P. 2018. Co-occurrence and habitat associations of two estuarine sportfish, Red Drum and Spotted Seatrout, in coastal Alabama. Alabama Chapter of the American Fisheries Society Annual Meeting, Fort Payne, AL.
- Gittman, R.K., Fodrie, F.J., Grabowski, J.H., **Livernois, M.C.**, Poray, A.K., Scyphers, S., and Smith, C.S. 2017. Preference for hardened shorelines outweighs environmental values and impedes conservation and restoration of coastal habitats. Coastal and Estuarine Research Federation Biennial Conference, Providence, RI.
- **Livernois, M.C.**, Powers, S.P., Fodrie, F.J., and Heck, K.L., 2017. Ecological Interactions and Resource Partitioning of Two Estuarine Predators, Red Drum (*Sciaenops ocellatus*) and Spotted Seatrout (*Cynoscion nebulosus*). Poster Presentation, American Fisheries Society Annual Meeting, Tampa, FL.
- **Livernois, M.C.**, Bosarge, G.S., and Powers, S.P. 2016. Utilization of a coastal estuary by a demersal finfish family (Sciaenidae): Implications for habitat associations and ecological

interactions. MS-AL Sea Grant Bays and Bayous Symposium, Biloxi, MS.

- **Livernois, M.C.**, Poray, A.K., Fodrie, F.J., Hughes, A.R., Grabowski, J.H. 2015. Effects of fragmentation on reproductive effort and short-distance seed dispersal in *Zostera marina* beds. Benthic Ecology Meeting, Quebec City, QC, Canada.

PROFESSIONAL SOCIETIES & SERVICE

- American Fisheries Society (AFS) Member – 2017-20
- Texas Chapter of the AFS Member – 2018-20
- Texas A&M University at Galveston Marine Biology Interdisciplinary Program Graduate Student Representative – 2020
- Texas A&M University at Galveston Strategic Planning, Reinvent Graduate and Professional Education Committee Member – 2020
- Galveston Graduate Student Association Secretary – 2019-2020
- Texas A&M University Marine Biology Journal Club Leader – 2019
- Texas A&M University at Galveston Undergraduate Research Scholars Program Mentor (2 undergraduate students) – 2019-2020
- Galveston Graduate Student Association Outreach Event Speaker and Organizer – November 2019
- Texas Coastal Brigades Youth Leadership Camp Presenter – 2019
- Dolphin Challenge Judge (Regional Ocean Sciences Bowl for high school students) – January 2019
- TAMUG TriBeta National Biological Honors Society Graduate Student Panelist – November 2018, 2019
- Manuscript referee: *Aquatic Botany* – 2018
- Alabama Chapter of the AFS Member – 2018
- Northeastern University Alumni Mentor (Informational Interviews) – 2017, 2018
- Dauphin Island Sea Lab Discovery Day Guide – April 2017, 2018
- Girls Exploring Math and Science Session Leader, Mobile AL – November 2017
- Alabama Coastal Cleanup Volunteer, Dauphin Island AL – September 2016, 2017
- National Ocean Sciences Bowl (high school student quiz bowl) Judge, Morehead City NC – April 2016
- Northeastern University College of Science Student Ambassador – 2013, 2014, 2015
- Northeastern University Marine Science Center Open House Guide – October 2013, 2014