

Abbey Hotard

Curriculum Vitae

Postdoctoral Research Fellow
Disaster Research Center
University of Delaware

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RESEARCH INTERESTS

coastal hazard mitigation & climate adaptation; determinants and tradeoffs of household relocation/coastal retreat; environmental justice & equity; public policy for hazard risk reduction

PROFESSIONAL APPOINTMENTS

2023 – present **University of Delaware**
Postdoctoral Research Fellow, Coastal Hazards, Equity, Economic Prosperity & Resilience (CHEER) Hub, Disaster Research Center

EDUCATION

Ph.D., Coastal Management & Science, Texas A&M University **Dec 2023**

Dissertation: *Rethinking Relocation and Resilience: A Comparative Analysis of Household Hazard Adaptation in the Greater Houston and New Orleans Regions*

Committee: Ashley D. Ross (chair), Meri Davlasheridze, Wesley E. Highfield, and Michelle A. Meyer

Master of Marine Resource Management, Texas A&M University **2019**

Thesis: *Relocation Considerations of Gulf Coast Residents Following the 2017 Hurricane Season for Hazard Risk Reduction*

Committee: Ashley D. Ross (chair), Meri Davlasheridze, David P. Retchless, and Wesley E. Highfield

B.S., Coastal Environmental Science, Louisiana State University **2017**

Minor: Political Science

Thesis: *Effects of Increased Sedimentation on Carbon Accumulation of Salt Marsh Benthic Biofilms*

Committee: Giulio Mariotti (chair), Tracy Quirk, and Carol Wilson

RESEARCH PUBLICATIONS & PRESENTATIONS

Peer-Reviewed Publications

- 1) **Hotard, A.**, Ross, A.D., (2023). Home Buyout without Relocation: An Examination of Dissonant Hazard Mitigation Perceptions among Gulf Coast Residents. *Risks, Hazards, Crisis in Public Policy*.
- 2) Stanley, M. **Hotard, A.**, Pilgreen, D., Meyer, M.A. (2023). Critical Review of National Flood Policy Outcomes. *Journal of Homeland Security and Emergency Management*.
<https://doi.org/10.1515/jhsem-2021-0059>
- 3) Valentine, K., **Hotard, A.**, Quirk, T., Mariotti, G. (2022). Biofilms are important contributors to organic carbon in salt marsh sediments. *Wetlands*, 42(1). DOI:10.1007/s13157-021-01528-0

- 4) Ross, A. D., **Hotard, A.**, Kamalanathan, M., Nolen, R., Hala, D., Clay, L. A., Kaiser, K., et al. (2020). Awareness Is Not Enough: Frequent Use of Water Pollution Information and Changes to Risky Behavior. *Sustainability*, 12(20), 8695. MDPI AG. <http://dx.doi.org/10.3390/su12208695>

Papers in Progress

- 1) **Hotard, A.** Rethinking Relocation and Resilience: Understanding How the Pushes and Pulls of Place Shape Relocation Decisions in the Greater Houston and New Orleans Regions.
- 2) Ross, A.D., **Hotard, A.**, Retchless, D., Davlasheridze, M. Are Disasters Red & Blue? Exploration of partisan influences on household choices in disaster response, recovery, and mitigation

Oral Presentations

- 1) **Hotard, A.** “Rethinking Relocation and Resilience: Understanding How the Pushes and Pulls of Place Shape Relocation Decisions,” State of the Coast, New Orleans, LA, 2023
- 2) **Hotard, A.** “Household Adaptations to Coastal Hazards,” Texas A&M University System Pathways Student Research Symposium Lightning Talks, College Station, TX, 2022 (2nd place doctoral presentation)
- 3) **Hotard, A.** “Household Adaptations to Coastal Hazards,” Texas A&M University at Galveston Student Research Symposium Lightning Talks, Galveston, TX, 2022
- 4) **Hotard, A.** “Factors Influencing Relocation Consideration by Gulf Coast Residents for Hazard Risk Reduction,” Gulf of Mexico Oil Spill and Ecosystem Science Conference, New Orleans, LA, 2019
- 5) Ross, A. D., A. Abelman, and **A. Hotard.** “The Role of Disaster Experience on Climate Change Belief and Concern,” Southern Political Science Association Meeting, Austin, TX, 2019
- 6) **Hotard, A.**, Valentine, K., and G. Mariotti, “Carbon Storage by Salt Marsh Biofilm,” LSU Discover Day, Baton Rouge, LA, 2017
- 7) Carruthers, T. and **A. Hotard.** “Developing an Approach to Water Quality Trading Potential in Watersheds of Southern Louisiana,” The Water Institute of the Gulf Research Presentation, Baton Rouge, LA, 2016

Poster Presentations

- 1) **Hotard, A.** “Rethinking Relocation and Resilience: Understanding How the Pushes and Pulls of Place Shape Relocation Decisions,” Natural Hazards Workshop, Broomfield, CO, 2023
- 2) **Hotard, A.** “Rethinking Relocation and Resilience: Understanding How the Pushes and Pulls of Place Shape Relocation Decisions,” Managed Retreat, New York, NY, 2023
- 3) **Hotard, A.** “Factors Influencing Willingness to Relocate of Gulf Coast Residents for Hazard Risk Reduction,” Natural Hazards Workshop, Broomfield, CO, 2018
- 4) **Hotard, A.** “An Analysis of Governance Arrangements of Flood Risk Management in the Netherlands and the United States,” NSF PIRE Coastal Flood Risk Reduction Research Program, Galveston, TX, 2018
- 5) **Hotard, A.** “The Certainty of Storm Surge,” Coastal Environmental Sciences Capstone Exposition, Louisiana State University, Baton Rouge, LA

- 6) **Hotard, A.**, Valentine, K., and G. Mariotti, “Carbon Storage by Salt Marsh Biofilm,” LSU Discover Day, Baton Rouge, LA, 2016 (Tiger’s Choice Award for Best Poster in Major Division)

Invited Talks

- 1) **Hotard, A.** “Coastal Resettlement,” Introduction to Louisiana Service and Leadership Scholars Field Trip, Louisiana State University, LUMCON (Cocodrie, LA), Summer 2017

RESEARCH & PROFESSIONAL EXPERIENCE

- 2020 –2023 **Doctoral Graduate Research Assistant** | *Department of Marine & Coastal Environmental Science, Texas A&M University at Galveston*
Activities: Conducted quantitative analysis of original survey data and qualitative analysis of original interviews of coastal residents impacted by Hurricane Ida; curated spatial socioeconomic and hazard risk (i.e., wind) data for quantitative analysis of wind insurance market; conducted qualitative analysis of interviews with insurance representatives; collaborated on report to Texas State Legislature; assessed the use of nature based solutions in mitigation projects funded by the Federal Emergency Management Agency
- 2019 – 2020 **Science Policy Fellow with the Environmental Protection Agency, Gulf of Mexico Program** | *National Academies of Sciences, Engineering, & Medicine Gulf Research Program*
Activities: Reviewed project proposals related to trash reduction and community resilience; developed GIS story map communicating programmatic impact across Gulf of Mexico Watershed
- 2019 (Summer) **Intern** | *Federal Emergency Management Agency - Response Geospatial Office*
Activities: Developed storm surge loss estimation tool in ArcPy for use in ArcGIS during disaster response decision making
- 2017 – 2019 **Master’s Graduate Research Assistant** | *Department of Marine Sciences, Texas A&M University at Galveston*
Activities: Conducted household interviews in rural Texas communities affected by Hurricane Harvey
- 2018 (Sept.) **Disaster Field Researcher** | *Health Services Administration Department, D’Youville College*
Activities: Conducted individual interviews in North Carolina communities affected by Hurricane Florence; collected disaster related field observations

- 2018 (Fall) **Student Geographic Analyst** | *Texas Target Communities - Hitchcock Partnership*
Activities: Identified overlap of social inequities and physical vulnerabilities to hurricane storm surge and sea level rise in the city of Hitchcock, TX to make recommendations for future growth and development
- 2018 (Summer) **Graduate Student Researcher** | *National Science Foundation Partnerships for International Research and Education (PIRE), Coastal Flood Risk Reduction Program*
Activities: Conducted independent, field-based research in Amsterdam to compare governance structures for flood risk mitigation between the Netherlands and the United States; participated in interdisciplinary design workshops with U.S. and Dutch students
- 2015-2017 **Undergraduate Researcher** | *Department of Oceanography & Coastal Sciences, Louisiana State University*
Activities: Constructed laboratory experiments to quantify carbon accumulation of salt marsh benthic biofilms; participated in field sampling in Cocodrie, LA
- 2016 (Jan.-Jul.) **Research Intern** | *The Water Institute of the Gulf, Baton Rouge, LA*
Activities: Investigated literature and data sources for coastal Louisiana watershed nutrient trading; created nutrient trading potential maps for US Business Council for Sustainable Development

TEACHING

Course Instruction

- Fall 2021 **Assistant Lecturer** | *Department of Marine Sciences, Texas A&M University at Galveston*
Activities: Instructor of record for 3-hour undergraduate course on Coastal Wetlands Management (MARS 425; 21 students); developed course syllabus and lesson plans, including assignments and assessments; coordinated activities and field trips for corequisite 1-hour Coastal Wetlands Lab (MARS 426; 19 students)
Evaluation: MARS 425: 4.73/5.00 (57% response rate) and MARS 426: 4.82/5.00 (42% response rate), compared to 4.10 department average
Selected Student Feedback:
- “Abbey understood that I was a conversational learner and engaged with me in discussions over the topic to reinforce the material.”
 - “I found the activities and discussions during lecture to be extremely effective.”
- Fall 2018 **Teaching Assistant** | *Department of Marine Sciences, Texas A&M University at Galveston*
Activities: Assisted with graduate and undergraduate laboratory activities for GIS courses (MARS 325 & MARS 625); served as substitute lecturer

Guest Lectures

“The Transition from Undergraduate Life,” What’s Next Symposium, Center for Academic Learning Support, Texas A&M University at Galveston, Spring 2022

“Lessons from Louisiana Service and Leadership Scholars,” HNRS 2013: The State of Louisiana, Louisiana State University, Baton Rouge, Spring 2020

Mentorship

Summer 2018 **Graduate Mentor** | *National Science Foundation Ocean and Coastal Research Experiences for Undergraduates (REU: OCEANUS), Texas A&M University at Galveston*

Activities: Instructed undergraduate student in quantitative and GIS analysis for project focused on climate change policy

Fall 2017 **Fieldwork Training** | *Community Resilience in Rural Communities affected by Hurricane Harvey, Texas A&M University at Galveston*

Activities: Prepared and conducted training for undergraduate students in recruiting and conducting household interviews in rural communities affected by Hurricane Harvey in Texas; mentored students during fieldwork

SERVICE

University Service

Graduate Student Ambassador | *Research and Graduate Studies, Texas A&M University at Galveston*

Duration: August 2021 – May 2023

Activities: Recruited graduate students to Texas A&M University at Galveston through tours, participating in career fairs, and addressing prospective student emails; advocated for peers to the Research and Graduate Studies Office; collaborated on mentorship materials recommended to faculty; promoted peer engagement by planning social and service activities for graduate students

Senator | *Graduate & Professional Student Government, Texas A&M University, College Station, TX*

Duration: March 2022 – May 2023

Activities: Served on the Scholarship Committee to award Research Presentation and Travel Awards to Texas A&M University graduate students; advocated for improved communication with and resources for graduate students based on the Galveston Campus

Community Service

Interpretive Guide Volunteer | *Galveston Island State Park*

Duration: November 2022 – September 2023

Activities: Assisted with public outreach and communication of coastal habitats and resources to park visitors and school groups; participated in restoration activities

Team Lead | *St. Matthew the Apostle's Labor of Love Service Project*

Duration: 2014 - 2017

Activities: Led team of high school students in summer community service for shut-ins and elderly; developed and facilitated social justice learning programs each year for 60-70 participants

Event Volunteer | *Texas A&M University at Galveston and Louisiana State University*

The Big Event (2022, 2023)

Geaux Big Baton Rouge (2016, 2017)

Together Baton Rouge Gut Check Saturday (2016)

LSU Community Bound (2013, 2015)

HONORS & AWARDS

Scholarships

- 1) Bernice E. Powell Maritime Education Scholarship, Texas A&M University at Galveston (2023)
- 2) William Paul Ricker Memorial Leadership Scholarship, Texas A&M University at Galveston (2022)
- 3) Association of Former Students Graduate Scholarship, Texas A&M University at Galveston (2022)
- 4) Association of Former Students Graduate Scholarship, Texas A&M University at Galveston (2021)
- 5) 1-Year MCMS PhD Scholarship, Texas A&M University at Galveston (2020)
- 6) SeaSpace Endowed Graduate Student Scholarship, Texas A&M University at Galveston (2018)
- 7) Honors College Outstanding Senior, Roger Hadfield Ogden Honors College (2017)
- 8) Honorable Mention, Morris K. Udall and Stewart L. Udall Foundation (2016)

Fellowships & Grants

- 1) Erma Lee and Luke Mooney Travel Award, Texas A&M University at Galveston (2023)
- 2) Graduate Student Research and Presentation Travel Award, Texas A&M University (2023)
- 3) 1-Year Graduate Student “Boost” Funding, Texas A&M University at Galveston (2022-2023)
- 4) Erma Lee and Luke Mooney Travel Award, Texas A&M University at Galveston (2021)
- 5) National Academy of Sciences Gulf Research Program Science Policy Fellowship (2019-2020)
- 6) 2-Year Competitive Graduate Fellowship, Texas A&M University at Galveston (2017-2019)

CERTIFICATIONS & TRAINING

CIRTL Associate - Fellow of the Academy for Future Faculty, Texas A&M University (2022)

Certified Floodplain Manager (CFM), Texas Floodplain Managers Association (2020-present)

POWER Writing Studio Basic Training, Texas A&M University (2022)

Florida Fish and Wildlife Conservation Commission Adapting to A Changing Gulf Region (2020)

Graduate Certificate in Geographic Information Sciences, Texas A&M University (2019)

Sustainable Adaptive Gradients in the Coastal Environment Interdisciplinary Short Course, Northeastern University (2018)

PROFESSIONAL ASSOCIATIONS

Association of State Floodplain Managers – Member (2020-present)

Texas Floodplain Management Association – Member (2020-present)