

# Mayra A. Román Rivera

PhD

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## AREAS OF INTEREST

Coastal Geomorphology, Coastal Management and Governance, Remote Sensing and GIS Applications of Coastal Environments, Community Engaged Learning, Community Outreach (i.e. citizen science projects, science education)

## EDUCATION

Ph.D. University of South Carolina (Geography, 2019)  
M.A. East Carolina University (Geography, 2014)  
B.A. University of Puerto Rico, Río Piedras Campus (Geography and Anthropology, 2012)

## ACADEMIC POSITIONS

Lecturer University of Tennessee, Department of Geography and Sustainability, August 2021-  
Research Assistant University of South Carolina, Department of Geography, April 2020-August 2020  
Carolinas Integrated Science and Assessments  
Adjunct Faculty University of South Carolina, Department of Geography, August 2019- May 2020

## OTHER SIGNIFICANT PROFESSIONAL POSITIONS AND LEADERSHIP

2024- *Chair*, Latin American and Caribbean Studies Interdisciplinary Program, University of Tennessee-Knoxville.  
2024- *Faculty Senator*, University of Tennessee-Knoxville.  
2024 *Faculty Fellow*, Supportive Teaching for Academic Resilience (STAR), University of Tennessee-Knoxville.  
2024- *Member*, Commission for the Latin American Volunteer Experience, University of Tennessee-Knoxville.  
2023- *Council Member*, Arts and Sciences Dean's Lecturer Council, University of Tennessee-Knoxville.

2023- Social Media Coordinator, Caribbean Geography Specialty Group of the American Association of Geographers (CGSG:AAG).

## PUBLICATIONS

(\*indicates undergraduate student author)

### *Peer-Reviewed*

Alderman, D., **Román-Rivera, M.A.**, Camponovo, M., and Kesler, R. (2024). *Mapping as Black Memory Work: Toward a Restorative Cartography of Urban Renewal/Removal in Knoxville, Tennessee*. Geographical Review: doi.org/10.1080/00167428.2024.2376147.

Ellis, J.T., **Román-Rivera, M.A.**, Harris, M., and Tereszkievicz, P. (2020). *Two Years and Two Hurricanes Later: Did the Dunes Recover?* Shore and Beach, 88(4).

**Román-Rivera, M.A.**, Ellis, J.T., and Wang, C., (2020). *Applying a Rule-Based OBIA Approach for Nearshore Bar Identification*. Journal of Remote Sensing, 14(4): doi: 10.1117/1.JRS.14.044502

Ellis, J.T., Harris, M., **Román-Rivera, M.A.**, Ferguson, J.B., Tereszkievicz, P. and McGill, S. (2020) *Application of the Saffir-Simpson Hurricane Wind Scale for Estimating Sand Dune Response to Tropical Storms*. Special Issue Journal of Marine Science and Engineering, 8 (9): <https://doi.org/10.3390/jmse8090670>.

Ellis, J.T., and **Román-Rivera, M.A.** (2019). *Assessing Natural and Mechanical Dune Performance in a Post-Hurricane Environment*. Special Issue Journal of Marine Science and Engineering, 7 (126): doi:10.3390/jmse7050126.

**Román-Rivera, M.A.**, and Ellis, J.T. (2019). *A Synthetic Review of Remote Sensing Applications to Detect Nearshore Bars*. Marine Geology, 408: pp. 144-153.

**Román-Rivera, M.A.**, and Ellis, J.T. (2018). *LETTERS TO THE EDITOR: The King Tide Conundrum*. Journal of Coastal Research. 34 (4): pp. 769-771.

### *Other*

**Román-Rivera, M.A.** (2018) *Review of Spatial Analysis of Coastal Environments by Sarah Hamylton*. AAG Review of Books, 6(4).

**Román-Rivera, M.A.**, and Ellis, J.T. (2018). *Dunes: The Coasts' First Line of Defense*. Southeastern Geographer. 58 (2): pp. 141-142.

### *In-preparation*

**Román-Rivera, M.A.**, Bell, J.\* *Changing Coastal Management Perspectives: Comparing Transverse Sand Bars to Hardened Structures*. To be submitted to the Journal of Coastal Research by December 2024.

## RESEARCH EXPERIENCE

2016-2020 Hurricane Recovery at Isle of Palms, SC  
Research Co-Lead

2015 Woods Hole Oceanographic Institute Research Experience  
Guest Student

2012-2014 Blowout Dynamics at Cape Cod, MA  
Research Assistant  
2013 Stream Channel Adjustments in a North Carolina Watershed  
GIS Analyst  
2010-2012 Beach Monitoring Project  
Field Assistant  
2009-2012 Citizen Scientist Volunteer  
Field Assistant

## **TEACHING EXPERIENCE**

### ***University of Tennessee***

#### *Lecturer*

Geography 131: Weather, Climate, and Climate Change  
Geography 132: Landscapes and Environmental Change  
Geography 200: Environmental Issues in National Parks  
Geography 331: Natural Hazards  
Geography 333: Climate Change and the Human Response  
Geography 420: GIS in the Community

### ***University of South Carolina***

#### *Instructor of Record and Adjunct Faculty*

Geography 104: Introduction to Physical Geography  
Geography 105: The Digital Earth  
Geography 363: Introduction to Geographic Information Systems

#### *Graduate Teaching Assistant*

Geography 201: Landform Geography Lab  
Marine Science/Geology 215: Coastal Environments of the Southeastern U.S. Lab

## **CERTIFICATIONS**

2022 Online Teaching and Learning Certificate, University of Tennessee-Knoxville  
2021 Certified Interpretive Guide, National Association for Interpretation  
2020 Online Teaching Certificate, Center for Teaching Excellence, University of South Carolina  
2018 Preparing Future Faculty, Center for Teaching Excellence, University of South Carolina  
2014 Geographic Information Science and Technology Certificate, The Graduate School of East Carolina University

## INVITED TALKS

*Mapping with Meaning: Significance Beyond Georeferencing* at Flo Analytics team meeting: July 11, 2024.

*Relating nearshore bar morphology and wave events to the beach-dunes system* at International Association of Geomorphologists, International Geomorphology Week Webinar for North America: March 1<sup>st</sup>, 2022.

*Coastal Management Practices Gone Wrong* at University of Tennessee-Knoxville – Department of Geography Colloquium Series: October 28, 2021.

## PRESENTATIONS

(**Presenting author**; \*undergraduate student author; included most recent presentations)

**Román-Rivera, M.**, Buskirk, A. and Patel, S. *Caribbean Winter: Coastal Damages Caused by Cold Front Remnants*. Paper presentation at the Conference of Latin American Geographers, San Juan, PR. (April 2024)

**Buskirk, A.\*** and Román-Rivera, M. *Unveiling Winter Surges: Wave Energy and Beach Dynamics in the Caribbean*. Poster presentation at the Exhibition of Undergraduate Research and Creative Achievement (EURēCA), University of Tennessee, Knoxville, TN. (April 2024)

**Román-Rivera, M.**, and Alderman, D. *Mapping with Meaning: Significance Beyond Georeferencing*. Presentation at the Tennessee Geographic Information Council Annual Meeting, Burns, TN. (April 2024)

**Román-Rivera, M.** *GIS in the Community: Giving students practical experience while making meaningful community connections*. Presentation at the Education Summit at the Esri User Annual Conference, San Diego, CA. (July 2023)

**Román-Rivera, M.** *GIS in the Community: Giving students practical experience while making meaningful community connections*. Presentation at the Tennessee Geographic Information Council Annual Meeting, Memphis, TN. (April 2023)

**Bell, J.\***, and Román-Rivera, M. *Understanding Devastating Summer Flooding of Hazard, Kentucky*. Exhibition of Undergraduate Research and Creative Achievement (EURēCA), University of Tennessee, Knoxville, TN. (April 2023)

**Bell, J.\***, and Román-Rivera, M. *Understanding Devastating Summer Flooding of Hazard, Kentucky*. Poster GeoSym, University of Tennessee, Knoxville, TN. (February 2023)

**Bell, J.\***, and Román-Rivera, M. *Changing Coastal Management Perspectives: Comparing transverse sand bars to hardened structures*. Poster Discovery Day University of Tennessee, Knoxville, TN. (September 2022)

**Bell, J.\***, and Román-Rivera, M. *Changing Coastal Management Perspectives: Comparing transverse sand bars to hardened structures*. Presentation at the Tennessee Geographic Information Council Annual Meeting, Nashville, TN. (April 2022)

Ferguson, J., Ellis, J., Harris, M., **Román-Rivera, M.**, and Tereszkievicz, P. *Geomorphic Response of the Beach-Dune System to the 2017 and 2018 Hurricane Seasons at the Isle of Palms, SC*. Annual Meeting of the American Shore and Beach Preservation Association, Session 1C: Coastal Response to Storms. Myrtle Beach, SC. (October 2019)

**Román-Rivera, M.** and Ellis, J.T. *Using Multispectral Imagery to Detect Nearshore Bars and Elucidate Beach-Dune System Dynamics*. Paper presentation at the American Association of Geographers Annual Meeting, Washington D.C. (April 2019)

**Román-Rivera, M.** and Ellis, J.T. *The King Tide Conundrum*. Paper presentation at the American Association of Geographers Annual Meeting, New Orleans, LA. (April 2018)

McGill, S., Ellis, J.T., and **Román-Rivera, M.** *Investigating Post-Hurricane Damage Mitigation Techniques on Dune System Recovery*. Paper presentation at the American Association of Geographers Annual Meeting, New Orleans, LA. (April 2018)

McGill, S., Ellis, J.T., and **Román-Rivera, M.** *Comparing Dune Recovery Management Techniques Post-Hurricane*. Poster presentation at the Southeastern Division of the American Association of Geographers, Starkville, MS. (November 2017)

**Román-Rivera, M.**, and Ellis, J.T. *Beach-dune Recovery Along the South Carolina Coast Post Hurricane Matthew*. Paper presentation at the American Association of Geographers Annual Meeting, Boston, MA. (April 2017)

## PANEL PARTICIPATION

Panelist, **Conference of Latin American Geographers**, San Juan, PR, 2024: *Mentoring Panel*. Discussion on mentoring in the context of geographical research in Latin America.

Organizer, **American Association of Geographers**, Hawaii, 2024: *Resilience In/Beyond Climate Colonialism: Conversations across the Caribbean*. This panel delved into the intersections of disaster capitalism, island coloniality, and environmental justice in the Caribbean.

## **PROFESSIONAL DEVELOPMENT**

- 2024 BRIGHTE workshop, Exploring Coastal Flooding Risk Through Geospatial Storytelling, National Center for Atmospheric Research in Boulder Colorado. August 12-13, 2024.
- 2024 GeoCamp Iceland, National Council for Geographic Education, Iceland, June 28-July 7, 2024.

## **FELLOWSHIPS AND AWARDS**

- 2023 Faculty Research Assistant Funding, Office of Undergraduate Research, University of Tennessee-Knoxville (Spring 2023 and Fall 2023)
- 2022 Faculty Research Assistant Funding, Office of Undergraduate Research, University of Tennessee-Knoxville (Summer 2022 and Fall 2022)
- 2022 Departmental Research Assistant Award, Office of Undergraduate Research, University of Tennessee-Knoxville. (Spring 2022)
- 2018 Southern Regional Education Board Dissertation Award Recipient
- 2018 American Association of Geographers Dissertation Research Grant
- 2016-2017 Department of Geography Graduate Instructor Award Recipient, University of South Carolina
- 2016-2017 Department of Geography Bennett S. Masaschi Field Experience Graduate Award Recipient, University of South Carolina
- 2012 Magna Cum Laude, University of Puerto Rico, Río Piedras Campus
- 2011-2012 Scholars in Residence: Initiative of Undergraduate Research and Creative Activity, University of Puerto Rico, Río Piedras Campus

## **PROFESSIONAL AFFILIATIONS**

- 2023-present National Council of Geographic Education
- 2020-present National Association for Interpretation
- 2019-present American Association of Hispanics in Higher Education
- 2015-present American Shore and Beach Preservation Association
- 2014-present Gamma Theta Upsilon International Geographic Honor Society
- 2013-present Geographic Society of Puerto Rico
- 2013-present Southeastern Division of the American Association of Geographers
- 2010-present American Association of Geographers

## PROFESSIONAL SERVICE

### **Undergraduate Advising and Graduate Committee Membership**

#### *Undergraduate Level*

- Alexa Buskirk, Undergraduate student in Department of Geography and Sustainability, University of Tennessee, Knoxville (Fall 2023- Spring 2024).
- Sophia Jodoin, Undergraduate student in Department of Geography and Sustainability, University of Tennessee, Knoxville (Fall 2023- Spring 2024).
- Jonathan Bell, Undergraduate student in Department of Geography and Sustainability, University of Tennessee, Knoxville (Spring 2022-Spring 2023).

#### *Graduate Level*

- Jack Spinning, Master in Geography, University of Tennessee, Knoxville (Graduated Fall 2023; Committee Member)
- Abel Traslaviña Arias, PhD student in Geography, University of Tennessee, Knoxville (in progress; Committee Member)
- Bergit Uhran, PhD student in Geography, University of Tennessee, Knoxville (in progress; Committee Member)

### **University Service**

#### *Departmental-level Service*

Member, Sustainability Lecturer Search Committee, Department of Geography and Sustainability, University of Tennessee – Knoxville (April 2024)

Faculty advisor, GeoSym, a graduate student organized conference sponsored by the Department of Geography and Sustainability at University of Tennessee - Knoxville (October 2022 – February 2023)

#### *College-level Service*

Judge, Exhibition of Undergraduate Research and Creative Achievement (EURECA), University of Tennessee - Knoxville (April 2022, April 2023, April 2024)

### **Disciplinary Service**

Member, Education Committee of the Tennessee Geographic Information Council (April 2024- )  
Summary Reviewer, U.S. Coastal Research Program Human & Ecosystem Health Workshop (October 2021)

Conference session organizer, Coastal and Marine Specialty Group of the American Association of Geographers (October 2018-April 2020)

Spanish translation reviewer for portions of the National Climate Assessment (NCA4) (October 2018)

Member, Organizing Committee of the Caribbean Specialty Group of the American Association of Geographers (April 2018-April 2019)

Doctoral Student Board Member, Coastal and Marine Specialty Group of the American Association of Geographers (April 2015-April 2016)

Manuscript Reviewer (in alphabetical order)

*Climate Risk Management*

*Frontiers in Remote Sensing*

*Geomorphology*

*Journal of Coastal Research*

*Journal of Marine Science and Engineering*

*ISPRS International Journal of Geo-Information*

*Marine Geology*

*Physical Geography*

*Remote Sensing*

*Southeastern Geographer*

### **External Service**

2023- Letters to a Pre-scientist Mentor

2023-2024 National Science Foundation Mentorship Program Full Steam Ahead Mentor

2021- Reviewer for applications of the Bob Belle Service Grant Award from the Southern Regional Educational Board.

2020 - Reviewer for applications of the Southern Regional Educational Board Dissertation and Doctoral Fellowships.

2018 Community service-learning project: Ballooning for the Scientific Method, White Knoll Elementary, Lexington South Carolina

2017 Outreach activity during the Total Solar Eclipse, Indian Waters Council Boy Scouts of America, Camp Barstow Columbia, South Carolina

2009-2011 Volunteer research assistant, Para La Naturaleza, Conservation Trust of Puerto Rico