

SHANNON RICCI

Interests: data analysis, data visualization, marine benthic ecology, conservation, passive acoustics, informal environmental science education



EDUCATION

- 2022
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2018
- **PhD Student, Geospatial Analytics**
North Carolina State University 📍 Raleigh, NC
 - Advancing the characterization and interpretation of marine soundscapes through development of automated data processing techniques and integration of satellite imagery
 - Advisor: Dr. DelWayne Bohnenstiehl
- 2015
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2013
- **M.S., Biological Oceanography**
North Carolina State University 📍 Raleigh, NC
 - Thesis: Spatiotemporal soundscape patterns and processes in an estuarine reserve
 - Advisor: Dr. David Eggleston
- 2012
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2008
- **B.S., Marine Science, Marine Biology concentration**
University of Maine 📍 Orono, ME
 - Thesis: Salinity tolerance of the oyster mudworm *Polydora websteri*



RESEARCH EXPERIENCE

- 2020
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2018
- **PhD Dissertation Research**
Geophysics & Acoustics Lab 📍 North Carolina State University
 - Develop automated acoustic data processing techniques
 - Characterize and interpret marine soundscapes
 - Develop method to detect small boats in Planet satellite imagery
- 2018
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2016
- **Research Technician**
Marine Ecology & Conservation Lab 📍 North Carolina State University
 - Processed, analyzed, synthesized, and published soundscape and other group research
 - Assisted with the design and analysis of a variety of lab group research projects
 - Mentored incoming students in soundscape data analysis techniques
- 2015
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2013
- **MS Thesis Research**
Marine Ecology & Conservation Lab 📍 North Carolina State University
 - North Carolina Sea Grant/NC Coastal Reserve Coastal Research Fellow
 - Field: Designed and performed soundscape characterization of NC Coastal Reserve
 - Lab: Designed and performed experiments investigating oyster settlement response to habitat associated sound



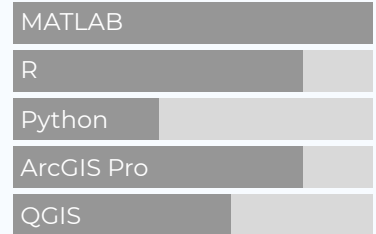
SELECTED PUBLICATIONS

- 2018
- **Investigating the utility of ecoacoustic metrics in marine soundscapes**
Journal of Ecoacoustics
 - Bohnenstiehl DR, Caretti O, Lyon RP, Ricci SW, Eggleston DB

CONTACT

✉ swbrown@ncsu.edu
🐦 [@swricci](https://twitter.com/swricci)
🌐 github.com/swricci
☎ (845) 803-2019

SKILLS



MORE INFO

To view my full CV and a more complete list of positions and publications, go to: swricci.github.io/cv/

- 2017 • **Oyster toadfish (*Opsanus tau*) boatwhistle call detection and patterns within a large-scale oyster restoration site**
PLoS ONE
· Ricci SW, Bohnenstiehl DR, Eggleston DB, Kellogg ML, Lyon RP
- 2017 • **Use of underwater soundscapes to characterize nocturnal fish behavior and habitat use within a complex mosaic of estuarine habitats.**
Bulletin of Marine Science
· Ricci SW, Eggleston DB, Bohnenstiehl DR
- 2016 • **Temporal soundscape patterns and processes in an estuarine reserve**
Marine Ecology Progress Series
· Ricci SW, Eggleston DB, Bohnenstiehl DR, Lillis A



SELECTED PRESENTATIONS

- 2020 • **Development of a call catalog to support automated acoustic data processing techniques for coral reef soundscapes**
Ocean Sciences Meeting 📍 San Diego, CA
- 2017 • **Application of a fish call detection tool to assess oyster reef restoration success**
Benthic Ecology Meeting 📍 Myrtle Beach, SC
- 2015 • **Use of underwater soundscapes to characterize nocturnal fish behavior and habitat use within an estuarine reserve**
Int'l Symposium on Fish at Night 📍 Miami, FL
- 2015 • **Spatiotemporal patterns in the soundscapes of a coastal marine reserve**
Benthic Ecology Meeting 📍 Quebec City, Quebec, Canada



TEACHING & OUTREACH EXPERIENCE

- 2015
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2013 • **Introduction to Oceanography (Lab)**
North Carolina State University 📍 Raleigh, NC
· Designed lesson plans on Ocean Acoustics and Marine Bioacoustics
· Revised lab lecture PowerPoints to improve student learning
- 2015
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2014 • **Engaging the Public in Science**
North Carolina Museum of Natural Sciences 📍 Raleigh, NC
· Program participant
· Learned to more effectively communicate scientific research to a variety of audiences through a series of classes and workshops
- 2013 • **Environmental Education Intern**
Smithsonian Environmental Research Center 📍 Edgewater, MD
· Led PreK - 8, scout groups, and public environmental education programs about estuaries and wetlands
· Created informational displays for the center highlighting SERC research and opportunities
· Maintained data collected by school groups for future use by students and teachers

Research-related press:

[Remote Sensing and the Science of Sound](#)

[Music in the Marsh: The Summer Soundscapes of the Rachel Carson Reserve](#)