Willa Rose Brooks

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EDUCATION

Duke University, Nicholas School of the Environment, Durham, NC
Master of Environmental Management; Geospatial Analysis Certificate, May 2019
Research: Identifying how aquaculture is situated within broader literature on sustainable food systems. Advised by Dr. X. Basurto and Dr. J. Virdin; Identifying trends in temporal resolution of fisheries management measures. Advised by Dr. D. Dunn; Applying GIS techniques to Gulf of Menhaden fisheries data. Advised by R. Mroch.

Emory University, Atlanta, GA
Bachelor of Science in Environmental Science; Minor in Mathematics, May 2014
Research: Project lead of fisheries management data project; team member of project evaluating 'failure' of wreckfish ITQ program. Advised by Dr. T. Yandle.

PROFESSIONAL EXPERIENCE

Research Assistant, Duke University Marine Lab, Beaufort, NC (Jan 2019-present)
- Provides feedback on data being submitted by international consultants in support of a collaboration between Duke and FAO seeking to estimate environmental and social contributions of small-scale fisheries to economies and food security. Assists in development and maintenance of relational database.
- Developer of interactive map in leaflet JavaScript library being built to visualize global distribution of civil society organizations linked to small scale fishing.

Project Manager, Duke University Marine Lab, Beaufort, NC (May 2018-May 2019)
- Coordinated regular logistics and meeting schedules to support collaborative partnership between Duke and WWF.
- Led development of peer reviewed systematic map protocol following Environmental Evidence guidelines (in review)
- Co-led development and implementation of Project Kick-off Workshop in September of 2018.
- Assisted in maintenance and analysis of project outputs.

Mangrove Policy Intern, Conservation International, Remote (Sept 2018-Feb 2019)
- Investigated international forest commitments within country Nationally Determined Contribution's (NDCs), to identify mechanisms to support mangrove conservation. Advised by Dr. J. Virdin, Dr. M. Comstock, and Dr. J. Ramos.

Ichthyology Research Intern, North Carolina Museum of Natural Sciences, Raleigh, NC (Aug 2015-May 2019)
- Designed and led a study using computed tomography (CT-scan) to test for rapid evolution of lionfish brains.
- Contributor on technical reports and manuscripts, editing scientific content and contributing to data analysis.
- Co-author on two publications (1 accepted/1 in review); Recipient of one grant (Lerner Gray Marine Research 2016)

Field Specialist, Love the Oceans, Guinjata Bay, Mozambique (Summer 2017)
- Supervised university volunteers in accurate data collection, species id, and logging of marine field data.
- Co-led daily program planning, logistics and volunteer management.

Reef Fish and Shrimp Fishery Observer, IAP Solutions, US East Coast & Gulf of Mexico (June 2016-Apr 2017)
Pelagic Fishery Observer, Riverside Technology, US East Coast & Gulf of Mexico (Nov 2015-June 2016)
- Collected data on vessel operations, incidental catch of protected species, and species composition of the catch.
- Lived and worked at sea for up to a month with internationally diverse crews.

Academic Program Assistant, Duke Talent Identification Program, Beaufort, NC (June 2014; June 2015)
- Provided site wide logistical assistance, maintaining schedules, contact lists, and academic inventory, for 5 sections of marine science courses, supporting 70+ students, ages 13-16.

Sustainable Fisheries Intern, Cape Eleuthera Institute, Eleuthera, The Bahamas (Aug 2014-Dec 2014)
- Studied the effect of invasive lionfish on reef fish biodiversity by conducting fish surveys on patch reefs with and without seasonal lionfish removal plans. Studied lionfish prey preference in controlled wet lab experiments.
- Led hands-on educational programs, on queen conch and lionfish ecology, with visiting school groups and locals.

TECHNICAL SKILLS

Geospatial Analysis: ArcGIS Pro, ArcGIS Desktop, ArcPad
Data Science: R, Python, Javascript (basic), Microsoft Excel, NVivo
Collaborative Platforms: Github, Slack, Trello
Citation Management: Endnote, Mendeley, Paperpile
Other Software: Adobe Illustrator and Photoshop, Colandr (machine learning for systematic review)