Robert N. Jarrett II

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EDUCATION

University of Maine, Orono, ME
Ph.D. Marine Biology, GPA: 3.926   Exp. May 2024
M.S. Marine Policy   2019 — 2022

Rutgers University, New Brunswick, NJ
B.S. Marine Sciences, Biological Oceanography Option, GPA: 3.651   2015 — 2018

Brookdale Community College, Lincroft, NJ
A.S. Mathematics/Science Program, Science Option, GPA: 3.99   2013 — 2015

RESEARCH EXPERIENCE

Graduate Assistant, University of Maine, Brady Lab
Scallop Aquaculture Rigid Tray Experiment   June 2022-Present
- Constructing and deploying Dark Sea™ trays, Max Flow™ trays, and lantern nets
- Tracking shell and growth of hatchery-reared scallop seed and labor metrics at both experimental and commercial scallop farms

Graduate Assistant, University of Maine, Steneck Lab
American Lobster Demography Study   May 2019-Present
- Sampling lobster abundance and habitat use along coastal Maine
- Leading dive team to conduct quadrat sampling
- Conducting remotely operated vehicle video transects of lobster habitat
- Classifying benthic substrate habitats using random forests and multibeam echosounder data
- Modelling lobster distribution using a generalized additive and individual based models

American Lobster Behavior Study
- Examining effect of low oxygen and algae species on adult lobster shelter selection
- Determining effects of chronic low oxygen on adult behavior and vitality reflexes
- Conducting experiment of benthic habitat effects on postlarval lobster sounding behavior

Field Researcher, University of Maine, Steneck Lab
Bonaire Coral Reef Survey   March-May 2023
- Conducted fish surveys via scuba transects at 11 sites on the western coast of Bonaire
- Assisted undergrad students in the coral reefs course in analyzing data and writing reports

Intern, Maine Department of Marine Resources   Mar-May 2021
Gillnet Fishery and North Atlantic Right Whale Project
- Created gear materials and configuration survey
- Conducted survey by email and phone with New England fisherman

Research Assistant, Haskin Shellfish Research Laboratory
Bivalve Larvae Swimming Study   Feb-May 2019
- Recorded video of oyster and scallop larvae swimming in a 3-dimensional environment
- Assisted in general maintenance of laboratory and other research projects

Student Research, Rutgers University Department of Marine & Coastal Sciences
Marine Protected Area GIS Study   Jan-May 2018

- Georeferenced MPA maps and regulatory zones in ArcGIS
- Determined the regulatory zones of data collected

Mongolian Taimen Tagging Study   Sept-Dec 2017
- Plotted paths of tagged taimen in R of multiyear dataset
- Determined home range size and seasonal migration of taimen

Maryland Sea Grant REU Fellow, University of Maryland Chesapeake Biological Lab

Chesapeake Bay Anoxic Volume Forecasting   May-Aug 2017
- Developed statistical model of anoxic volume of Chesapeake Bay
- Applied a residual bootstrap to improve forecasting performance
- Generated prediction of anoxic volume for 2017 NOAA press release

Research Assistant, Rutgers University Asphalt Pavement Lab

Albedo and Solar Radiation Flux of Asphalt Pavement Study   May-Aug 2016
- Set up data collection system of radiometers and thermocouples for asphalt and concrete slabs
- Analyzed and plotted data determining heat flux and radiative solar flux

TEACHING EXPERIENCE

Teaching Assistant, University of Maine School of Marine Science   Sept-Dec 2021

Marine Ecology, Semester-by-the-Sea
- Led students into field for sampling in the intertidal zone and aboard research vessel
- Maintained herbivory experiment over several weeks to collect data for students to analyze
- Assisted students processing field samples and analyzing data

Teaching Assistant, University of Maine School of Marine Science   Sept-Dec 2020

Marine Ecology, Online Semester-by-the-Sea
- Recorded videos in the field demonstrating sampling techniques or data collection
- Maintained classroom materials using Brightspace

Head Sailing Instructor, Monmouth Boat Club, Red Bank, NJ   May-Aug 2018

Summer Junior Sailing Program
- Developed new curriculum for the Optimist and 420 sailing courses
- Oversaw a team of six sailing instructors across beginner, intermediate, and advanced classes
- Assisted with beginner sailing course daily and coached intermediate sailors at regattas

PUBLICATIONS

Stoll, J., H. Albano, A. Clements, S. Coleman, M. Flye, J. Isherwood, R. Jarrett, C. Leeman, K. Liberman, C. Ober, N. Orminski, and S. Risley. 2020. 2020 Canada-US Lobster Town Meeting: Lobsters without boarders: forging our futures together. Pages 1–17. Proceedings Report, Lobster Institute, University of Maine, Orono.

Allen, M., & Clark, J. (Eds.). (2018). *Maryland Sea Grant Research Experiences for Undergraduates Final Student Papers Summer 2017* (UM-SG-TS-2017-01; pp. 61–75). Maryland Sea Grant College.

PRESENTATIONS

Jarrett, R., Steneck, R. (2023). *Mapping and modeling habitat to determine drivers of dramatic shifts in American lobster demography in the Gulf of Maine.* [Oral Presentation]. Benthic Ecology Meeting, Miami, Florida.

Jarrett, R., Steneck, R. (2022). *Difficulty Breathing: Assessing changes in behavior and measures of vitality of American lobster at reduced oxygen levels* [Oral presentation]. 46th Annual Meeting of the Atlantic International Chapter of the American Fisheries Society, Sunday River, ME.

Jarrett, R., Steneck, R. (2022). *No Easy Answers: Dramatic shifts in American lobster habitat and demography in the Gulf of Maine.* [Oral presentation]. Benthic Ecology Meeting, Portsmouth, NH.

Jarrett, R., Steneck, R. (2020). *Are lobster habitats changing as an indirect effect of climate change?* [Oral presentation]. Lobster Research Collaborative Meeting, Boothbay Harbor, ME.

Jarrett, R., Lyubchich, V. (2017). *Predicting anoxic volumes of Chesapeake Bay: Utilizing bootstrapping to improve forecasts.* [Poster]. Coastal and Estuarine Research Federation Biennial Conference, Providence, RI.

MENTORSHIP

Owen Hamel, *Intern*	2022	Katherine Gould, *Undergrad Intern*	2021
Emily Leonard, *Undergrad Intern*	2022	Lydia Harris, *Undergrad Intern*	2020, 2021
Ondine Morgan-Knapp, *HS Vol*	2021-2022	Beth Davis, *Undergrad Intern*	2019
Katherine Miller- Burnham, *Intern*	2021	Grace McDermott, *Undergrad Intern*	2019

RELEVANT COURSES

Fisheries Policy and Mgmt.	Principles of GIS	Biological Oceanography
Fisheries Pop. Dynamics	Spatial Analysis	Physical Oceanography
Marine Resource Mgmt.	Agent Based Modeling	Animal Phys. Ecology
Coral Reefs	Occupancy Modeling	Biophysical Interactions

AWARDS, GRANTS, & HONORS

UMaine Graduate Student Government Research Grants ($6,052 USD)	2019-2023
Atlantic International Chapter of the AFS Student Travel Award ($150 USD)	2022
Lobster Institute Graduate Fellowship ($15,627 USD)	2021
Maryland Sea Grant Research Experience for Undergraduates Fellowship	2017

RELATED EXPERIENCE

UMaine Graduate Student Government President	2022-2023
UMaine Graduate Board Member	2022-2023
UMaine University Research Council Member	2022-2023
School of Marine Sciences Professional Development Club Co-chair	2022-2023
Co-editor of AFS Northeastern Division Newsletter	2021-2023
UMaine Graduate Student Government Grants Officer	2021-2022
Maine DMR Lobster Research Collaborative Researcher	2019-2020
ICES Stock Assessment Advice Drafting Group Member	2020

SKILLS

- Proficiency in R Statistical Programming, NetLogo, QGIS, Microsoft Office
- Experience with Individual Based Models, Occupancy Models, Kriging, Machine Learning
- Experience in fish sampling methods using rod and reel, seining, and trawling
- Strong seamanship, NJ Boating Safety Certificate, U.S. Sailing Level 1 Small Boat Instructor
- PADI Rescue Diver, AAUS Scientific Diver, DAN CPR/First Aid