**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

MongolianTaimen 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

Emily Leonard, *Undergrad Intern* 2022

Ondine Morgan-Knapp, *HS Vol*  2021-2022

Katherine Miller- Burnham, *Intern* 2021

Katherine Gould, *Undergrad Intern* 2021

Lydia Harris, *Undergrad Intern* 2020, 2021

Beth Davis, *Undergrad Intern* 2019

Grace McDermott, *Undergrad Intern* 2019

**RELEVANT COURSES**

Fisheries Policy and Mgmt.

Fisheries Pop. Dynamics

Marine Resource Mgmt.

Coral Reefs

Principles of GIS

Spatial Analysis

Agent Based Modeling

Occupancy Modeling

Biological Oceanography

Physical Oceanography

Animal Phys. Ecology

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