

Education

Oregon State University | Corvallis, OR | Sept. 2019-Present

Master's in Marine Resource Management

University of North Carolina Wilmington | Wilmington, NC | Aug. 2013-May 2017

Bachelor of Science with University Honors and Honors in Marine Biology

GPA: 3.8 Magna Cum Laude

James Cook University | Townsville, Australia | July 2015-Dec. 2015

Marine Research Experience

Marine Experiential Educator | Catalina Isle Marine Institute | Catalina Island, CA | Aug. 2017-June 2019

- * Facilitated a youth (K-12) program focused on acquisition of knowledge, fostering environmental stewardship, and developing life skills for 350 students
- * Educated program participants in marine and terrestrial ecosystems surrounding Catalina Island
- * Taught hands-on learning in specialized labs and classroom environments such as invertebrate and ichthyology studies and Remotely Operated Vehicle (ROV) design
- * Identified plant, animal, and algal species from the local Catalina Island area and larger Southern California region
- * Lead outdoor education and rock climbing excursions, trained students in water-based activities such as snorkeling and kayaking

Hatchery Aide | University of North Carolina | Shellfish Research Hatchery | May 2017-July 2017

- * Aided resident scientists in shellfish research on topics including DNA analysis, disease impact, and farming techniques
- * Maintained stable environments for shellfish and microalgae culturing
- * Assessed growth and survival of free swimming larval and benthic oysters
- * Maintained hatchery by performing laboratory water quality and flow assessments, field oyster cage assessments, and other tasks

NOAA Hollings Scholar | National Ocean and Atmospheric Admin. | Newport, OR | Apr. 2015-May 2017

- * Interned under Dr. Moe Haringer, Research Ecologist and Dr. Maria Brodeu, Research Fishery Biologist
- * Analyzed diet of forage fishes comparing feeding conditions between warm and cold periods in the Northern California Current
- * Processed fish: removing stomachs, intestines, tissue samples, otoliths, and parasites for independent and resident scientist research projects
- * Participated as research aide in the NOAA NWFSC Pre-Recruit Survey aboard the NOAA Ship *Bell M. Shimada*
- * Identified fish prey items via microscopy protocols
- * Conducted data analysis on R software, wrote papers, and published findings

Undergraduate Research Mentor | University of North Carolina Wilmington | Jan. 2016-May 2017

- * Provided insight to peers about the research process, how to work effectively with faculty, and how to approach their methods
- * Presented at the UNCW Honors College and Center for the Support of Undergraduate Research and Fellowships (CSURF) seminars and workshops about available resources
- * Consulted with students about mission statements and essays
- * Solidified UNCW as the top producer of NOAA Hollings Scholars in 2016

Independent Honors Thesis | University of North Carolina Wilmington | Sept. 2014-May 2017

* Worked independently to develop skills in Matlab software and marine population dynamics under the instruction of instructor, Dr. J.R. Tolkein

* Developed and analyzed models to assess the effectiveness of artificial reefs as a tool in balancing production and fisher attraction

NOAA Intern | National Oceanographic and Atmospheric Admin. | Sandy Hook, NJ | Jan. 2012-June 2013

Worked under Dr. Sue Choi, Research Fishery Biologist

* Assisted resident scientists with individual studies on northeastern fishes

* Performed daily regulatory tasks such as water management, feeding of laboratory organisms, and tank inspection

* Evaluated the effects of various salinities on the early life history of Atlantic tomcod, Black sea bass, and Summer flounder

Additional Professional Experience

Seasonal Park Naturalist | Monmouth County Park System, NJ | May 2014-July 2015

* Designed and executed robust environmental education programs for children and adults

* Led and facilitated educational programs for groups from 5-30 on a daily basis.

* Gained experience communicating with diverse audiences and ages about Monmouth County Parks

Docent | Jenkinson's Aquarium | Pt. Pleasant, NJ | June 2008- Sept. 2010

* Educated public, cared for various aquatic species, and maintained exhibits and tanks

Technical Skills

Statistical Software and Computer Tools: MATLAB | R | S+ | STATISTICA | Imagetool | ImageJ | MS Excel | MS Word | MS PowerPoint | Esri ArcGIS programs

Laboratory Techniques: Dissecting and compound microscopes | PCR and gel electrophoresis | Flurometer readings | Water quality measurement and management (pH, salinity, temperature, etc) | Fiberoptode system | Gravity filtration of water | Chlorophyll extraction | Fish maturation examination and gamete collection | Animal husbandry | Diet analysis | shellfish strip spawning

Field Techniques: Varying oblique and vertical tows | Seining | Flowmeter | CTD | ROV | Terrestrial and underwater transect lines | Plot and quadrat sampling | In situ water quality measurement | in situ organism measurements and identification | GPS software

Certifications: PADI Open Water SCUBA certification | NAUI Advanced SCUBA Certification | NAUI Rescue Diver SCUBA Certification | NAUI Nitrox Certification | NJ boating license | CA boating safety certificate | American Red Cross Waterfront Lifeguarding/CPR/First Aid/AED/Emergency Oxygen Administration | S-190 Introduction to Wildland Fire Behavior | IS-100B Introduction to the Incident Command System | IS-700A National Incident Management System an Introduction | Catalina Island Conservancy Naturalist Training Level 1

Languages: Intermediate Spanish (speaking and writing)

Notable Achievements and Awards

OSU Provost's Distinguished Graduate Fellowship 2019-2020

UNCW Distinguished Undergraduate Research Scholar 2017

UNCW Honors Global Citizen 2017

UNCW Distinguished Engagement Award 2017

NMFS Marine Resources Population Dynamics Workshop Recipient 2016

NOAA Hollings Scholarship Recipient 2015

UNCW Dean's List Fall 2013-Spring 2017

1st Place NJ Junior Academy of Science 2013

Publications

Brodeu MD, Haringer ML, **Hall A**, Gonzales TW. (2019) Effects of warming ocean conditions on feeding ecology of small pelagic fishes in a coastal upwelling ecosystem: a shift to gelatinous food sources. *Marine Ecology Progress Series*, 617, 149-163.

Papers Presented at Scientific Meetings

A Hall, et al. 2017. Balancing production and fisher attraction on artificial reefs: model analysis. Benthic Ecology Meeting. (poster).

A Hall, et al. 2016. Little fish, big picture: comparisons of forage fish feeding conditions between cold and warm periods in the Northern California Current. NOAA Science and Education Symposium. (published abstract and talk).

A Hall, et al. 2016. Little fish, big picture: comparisons of forage fish feeding conditions between cold and warm periods in the Northern California Current. Western Society of Naturalists. (published abstract and talk).

A Hall, et al. 2013. Evaluating the effects of varying salinities on the early life history of Atlantic tomcod (*Microgadus tomcod*), Summer flounder, (*Paralichthys dentatus*), and Black sea bass (*Centropristis striata*). Intel New Jersey Shore Science Fair. (poster).

A Hall, et al. 2013. Evaluating the effects of varying salinities on the early life history of Atlantic tomcod (*Microgadus tomcod*), Summer flounder, (*Paralichthys dentatus*), and Black sea bass (*Centropristis striata*). New Jersey Junior Academy of Science (published abstract and talk).