

MADELYN WOODS

Phone: (904) 910-1151 Email: madelyn.woods@maine.edu

EDUCATION

Jacksonville University, Jacksonville, FL	M.S. in Marine Science	2012 – 2015
Boston University, Boston, MA	B.A. in Political Science	2006 – 2010
Douglas Anderson School of the Arts, Jacksonville, FL	Cert. of Vocal Music	2001 – 2005

RESEARCH EXPERIENCE

Marine Research Coordinator, Shaw Institute, ME **2016 – present**

- Plan and implement research projects from design to publication, field/lab work, budgets and analysis
- Conduct research on HABs, microplastics, bacteria, water quality, marine mammals and invertebrates
- Manage research laboratories and oversee maintenance and repair of all lab and field equipment
- Hire, manage, and train 2-4 interns yearly in field and laboratory assays, safety, and data management
- Skipper 13 to 30 ft. research vessels to open water and shore sites throughout Blue Hill Bay, ME
- Lecture and present research findings locally and at regional and international conferences
- Build collaborations with other research institutes, environmental groups, and community members
- Create and distribute educational brochures, flyers, and reports for the public and town managers

Wildlife Biologist I, Cape Romain National Wildlife Refuge, SC **2016**

- Conducted shorebird identification and foraging surveys following daily high tide cycles
- Monitored nighttime horseshoe crab spawning events and conducted new and full moon egg counts
- Daily trailered, maintained, and skippered a 16ft Whaler to and around barrier islands in Bulls Bay, SC

Environmental Consultant, St. Johns Riverkeeper, Jacksonville, FL **2015 – 2016**

- Evaluated analysis and interpretation of estuarine and river biological monitoring data in multiple reports
- Developed a strategic, follow-up monitoring study to an inconclusive marsh effluent discharge study
- Representative in discussions with DEP for future management of oligohaline area in St. Johns River, FL

Graduate Researcher, Jacksonville University, FL **2012 – 2015**

- Monitored and analyzed spatiotemporal populations of planktonic organisms in the lower St. Johns River
- Organized and led a team of 12 volunteers and 4 small boats for bi-weekly biological river sampling
- Microscopically identified, organized, and kept accurate records of over 800,000 organisms for analysis
- Examined harmful *Microcystis* blooms and their impacts on estuarine and freshwater trophic dynamics
- Developed, deployed, and maintained buoyancy structures for continuous, in-situ water quality sondes

Teaching Assistant, Invertebrate Zoology, Jacksonville University, FL **2013**

- Assisted professor with lab preparation, grading papers and exams, and worked one-on-one with students
- Led lab sessions and conducted class lessons and discussions while professor was at conferences

Student Researcher, Tall Ship SSV Corwith Cramer, Sea Education Association (SEA), MA **2011**

- Crewed a 150ft research vessel for two months in the Sargasso Sea with 6-hour rotating watches
- Developed and implemented population dynamics study on pteropods, planktonic pelagic snails
- Deployed and operated at-sea research equipment including spectrophotometers, CTDs, and neuston nets
- Assisted in collection and laboratory processing of invertebrates, algae, fish, and at-depth water samples

Volunteer

- Scallop Population Assessment Surveys, The Florida Sea Grant, Pine Island Sound, FL **2015**
- Plankton Ecology Educator for 5th graders, The St. Johns Riverkeeper, Jacksonville FL **2013 – 2015**
- Representative of the Marine Science Research Institute for academic/community events **2012 – 2015**
- NOAA's Phytoplankton Monitoring Network at the GMT National Estuarine Research Reserve **2012**

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LEADERSHIP AND TEAMWORK EXPERIENCE

Executive Director and Facilities Manager, The Museum and Gardens, FL **2012 – 2015**

- Effectively negotiated contracts, led tours, managed sales, and aided in design and flow of events
- Implemented standard operating procedures that expanded company earnings 3-fold over three years
- Lead delegator in problem resolutions and 24hr first-responder to on-site maintenance issues

Co-Founder and Secretary, Graduate Student Alliance, Jacksonville University, FL **2013-2015**

- Acted as the graduate student representative in meetings with the university's dean of students
- Organized, scheduled, and planned graduate student events for all graduate programs across campus

Deckhand, Tall Ship Schooner Liberty Clipper, Bahamas and Boston, MA **2011**

- Handled sails and ship maintenance, stood rotating watch, operated ship's tender, and assisted passengers

Volunteer Work

- City Commissioner and Mayoral Elections, Atlantic Beach, Florida **2007, 2011, 2013, and 2015**
- 'Get Out the Vote' Voter Registration Drive, FL and SC **2005 – 2007**
- Florida School Board Election, Indian River County, FL **2004**

SKILLS

- Proficient in Microsoft Office Suite and knowledgeable in PRIMER, SPSS, STATA and Minitab 17
- MOCC and FL Boater Safety certified with nine years experience driving and trailering boats (13-30 ft.)
- Advanced Open Water, Boat and Nitrox Diver Certified with over 30 hours of logged dives
- Wilderness First Aid Afloat, CPR AED, and Adult and Pediatric Basic First Aid certified
- Languages: Conversational in Italian

SCHOLARSHIPS AND AWARDS

NSF Graduate Research Fellowship Program (GRFP) Award	2019
Upcoming Environmental Leader of Our Community, Public Trust, Jacksonville, FL	2016
Marine Science Trustee Scholarship, Jacksonville University, Jacksonville, FL (\$1,500)	2014
Captain's Club Scholarship, Jacksonville Captain's Club, FL (\$500)	2013
Sea Education Association Scholarship, Woods Hole, MA (\$8,000)	2010

PUBLICATIONS AND SELECTED PRESENTATIONS

Woods, M. N., Stack, M.E., Fields, D.M., Shaw, S.D., and P.A. Matrai. 2018. Microplastic fiber uptake, ingestion, and egestion rates in the blue mussel (*Mytilus edulis*). *Marine Pollution Bulletin*. 137; 638-645

Keynote Speaker: Microplastics in the Gulf of Maine, University of Maine, Earth Week, April 18 2018

Invited Lecturer: Environmental Pollution, Maine Maritime Academy, 2018; Coastal Ecosystem Health, Penobscot Bay Stewards, 2017 and 2018; Belfast and Ellsworth Single-Use Bag Ban Forums, 2016 and 2018

Woods, M. N. McCarthy, D.A., and A.Q. White. Development of a Baseline for Spatiotemporal Variability in Planktonic Communities of the Lower St. Johns River Estuary. Association of Southeastern Biologists, April 2015, Chattanooga, TN