

SARAH S. ABOUD

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EDUCATION

- 2008-2009 Professional M.S. in Marine Biology, Three Seas Program, **Northeastern University**, MA
The effect of predation and flow exposure on growth and morphology of Spirobranchus gaymardi polychaete worms
 Thesis advisors: Dr. Randi Rotjan and Dr. Brian Helmuth
- 2003-2007 Bachelors of Science in Biology, **University of Richmond**, VA
- 2003-2007 Minors: Environmental Studies and Studio Art, **University of Richmond**, VA
- 2003-2007 Teacher Licensure program certificate for Biology in Secondary Education,
University of Richmond, VA

PROFESSIONAL EXPERIENCE

- 2009 Research Intern for Dr. Randi Rotjan and Dr. John Mandelman, **New England Aquarium**, MA
- Helped to conduct a lab-based study on the synergistic effects of structure and acoustic stress on winter flounder, *Pseudopleuronectes americanus*, cortisol response.
- 2008 Research Assistant/Technician for Dr. Roni Kingsley, **University of Richmond**, VA
- Developed and implemented experimental design for a microbial symbiont study of the common sea whip, *Leptogorgia virgulata*.
 - Advised undergraduate lab members.

AWARDS, HONORS & FELLOWSHIPS

- 2006-07 **Deans List**, University of Richmond, VA (3 semesters)
- 2006 **Summer Research Fellowship**, University of Richmond, Advisor Dr. Malcolm Hill
- Received Summer Fellowship Grant, stipend

PRESENTATIONS:

- 2009 **New England Aquarium**. Invited brownbag seminar, MA.
- 2009 Guest Lecturer at **Northeastern University**
- Invited by professor Dr. Heidi Pearson
 - Lecture for Ecology on “Phenotypic variability in *Spirobranchus giganteus*”
- 2009 Kingsley, R., Spicer, L., and **Abboud, S.** *Bacterial Symbionts for Octocoral Leptogorgia virgulata*. Presented at **Society for Integrative and Comparative Biology** in Boston, MA
- 2007 Guest Lecturer at **Virginia Commonwealth University**; *Aquatic Ecology*
- Invited by professor Dr. Leigh McCallister
 - Lecture for Aquatic Ecology on *Anoxia and Hypoxia in the Chesapeake Bay*
- 2007 **Abboud, S.**, Funaro, C., LeClare, A., Hill, M., Hill, A. *Use of ISSRs in population genetics and to isolate microsatellite markers in basal metazoans: a potentially inexpensive method.* **Benthic Ecology Meetings**, GA.
- 2007 **Abboud, S.**, Hill, M., and Kingsley, R. *Analysis of population subdivision in color morphs of the common sea whip, Leptogorgia virgulata*. Annual Arts & Sciences Symposium at the **University of Richmond**, VA.

ADDITIONAL RESEARCH EXPERIENCE

- 2007 **Undergraduate Research:** *Leptogorgia virgulata* subspeciation analysis of polymorphisms using the ISSR technique. In addition, created a GIS project to gather and create maps of distribution for *Leptogorgia virgulata*.
University of Richmond
Advisors Dr. Malcolm Hill and Dr. Roni Kingsley
- 2006-2007 **BioBlitz Scientist:** Arachnid team with the Nature Conservancy. Collected Arachnids in the Potomac Gorge area. Day and Night collecting with on site identification and fixing.
Potomac Gorge, MD
Advisors: Dr. Barbara Abraham and Dr. Carolyn Marks
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SKILLS

- Lab work:** DNA extraction, gel electrophoresis, DNA sequencing, Bacteria Colony Cultures, Cloning and plasmid insertion in *E. coli*, PCR, SEM and familiarity with DGGE, fluorescence tagging, TEM, Solid Phase Extraction, EIA Assays, fish husbandry, and phlebotomy
- Fieldwork:** Collecting saltwater sponges/arachnids/praying mantis, hermit crabs, NAUI open-water SCUBA, AAUS Scientific Diver, PADI advanced open-water, GIS, marine (benthic) and terrestrial surveying transects and other survey techniques, and water quality measurements
- Computer:** MS Office, Photoshop, GarageBand, ArcGIS, JMP, PAUP, Tree view, Model Test, Sequencher, TCS, GenalEx, Gene Tool, and SpectraPlus software
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RELATED COURSEWORK

Molecular Evolution and Ecology, Northeastern University Marine Science Center, MA
Dr. Steve Vollmer

- Learn and apply complex molecular concepts
 - As phylogenetics and phylogeography through various molecular markers and writing analyses.

Experimental Methods and Design, Northeastern University Marine Science Center, MA
Catherine Matassa, Ph.D. candidate

- Gained understanding of concepts ranging from ANOVA to MANOVA with various experiment design interpretation.

Molecular Methods and Design, Wrigley Marine Science Center, CA
Dr. Sean Place and Dr. Mackenzie Zippay

- Gained understanding of concepts ranging from PCR to complex cDNA techniques with experiment design and interpretation.
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ACADEMIC OUTREACH

- 2009 **Teacher Assistant** for Ecology Lab at Northeastern University, under Elizabeth Clarke
- 2008 **Undergraduate Mentor;** Zack Lake and Anne Spicer, University of Richmond
- 2008 **High School Mentor;** University of Richmond Shadow Program, advisor Dr. Paula Lessem
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PROFESSIONAL MEMBERSHIPS

- 2009 Microscopy and Microanalysis
- 2009 Society of Integrative Comparative Biology