

SARA EDQUIST
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EDUCATION

Boston University, B.A. **Boston, MA** **May 2008**

Distinction in Biology with a specialization in marine science, *Summa Cum Laude*

Thesis Title: Regeneration provides evidence of temperature adaptation in populations of the estuarine sea anemone *Nematostella vectensis*. *Thesis Advisor*: John Finnerty

RESEARCH EXPERIENCE

August 2008 – Present **New England Aquarium**

Research Intern in Edgerton Research Lab

- Managed research project on vacancy chain dynamics in two populations of the marine hermit crab *Pagurus longicarpus*
- Coordinated intertidal field work and directed interns assisting with the project
- Created ethograms diagramming vacancy chain propagation and hermit crab behaviors
- Assisted with equipment set up on acoustic surveys at sea
- Conducted with Dr. Randi Rotjan

January 2007 – May 2008 **Boston University**

Undergraduate Research Assistant

- Designed and conducted independent research projects focused on temperature stress and adaptation of the estuarine sea anemone *Nematostella vectensis*
- Utilized molecular genotyping techniques: DNA and RNA extractions, PCR, gel electrophoresis
- Conducted growth assays
- Conducted with Dr. John Finnerty and Dr. Adam Reitzel

November 2007 **Boston University Marine Program**

Undergraduate researcher in “Marine GIS” course

- Utilized ArcGIS to explain spatial distributions of fish species at Stellwagen Bank
- Derived a sediment classification scheme using backscatter data
- Conducted with Dr. Kerry Lageaux and Dr. Les Kaufman

Undergraduate researcher in “Sensory Biology” course

- Designed and conducted experiments on schooling behaviors in the sheepshead minnow *Cyprinodon variegatus variegatus*
- Conducted with Dr. Jelle Atema

September 2006 **Boston University Marine Program**

Undergraduate researcher in “Marine Invertebrates” course

- Conducted experiments to assess the relationship between the parasitic sea anemone *Edwardsiella lineata* and two ctenophore hosts.
- Collected field data on population dynamics of *Edwardsiella lineata* and its hosts
- Conducted with Dr. John Finnerty

PUBLICATIONS

Reitzel AM, SullivanJC, BrownBK, ChinDW, CiraEK, **EdquistSK**, GencoBM, Joseph OC, Kaufman CA, Kovitvongsa K, Muñoz MM, Negri TL, Taffel JR, Zuehlke RT, Finnerty JR. *Ecological and developmental dynamics of a host-parasite system involving a sea anemone and two ctenophores*. Journal of Parasitology **93**:1392-1402, 2007.

TEACHING EXPERIENCE

September 2005 – December 2005 **Boston University** **Boston, MA**
Undergraduate Teaching Assistant

- Assistant to the teaching fellow for the laboratory portion of the introductory biology course.
- Answered students' questions regarding lab procedures, equipment operation, and homework.

EMPLOYMENT

May 2008 – September 2008 **Boston University** **Boston, MA**
Animal Care Technician

- Husbandry care for several species of fishes, corals, lobsters, and ctenophores
- Maintained aquarium systems: filter, protein skimmer, water quality.

GRANTS

January 2008 – May 2008 **Undergraduate Research Opportunities Program**
Funded Research Opportunities Grant
Total award amount: \$450

June 2007 – August 2007 **Undergraduate Research Opportunities Program**
Student Research Award
Total award amount: \$3500

HONORS AND AWARDS

3rd Place Presentation, Northeast Undergraduate Research & Development Symposium, 2009
Senior Book Award in Biology, Boston University, 2008
Summa Cum Laude, Boston University, 2008
Work for Distinction, Boston University, 2008
Phi Beta Kappa Society, Epsilon of Massachusetts, 2007
Lara Vincent Award, Boston University Marine Program, 2007
Lara Vincent Award honorable mention, Boston University Marine Program, 2006
National Society for Collegiate Scholars, Boston University Chapter, 2005
Dean's List, Boston University, 2004-2008

PRESENTATIONS AND ABSTRACTS

Edquist, SK and RD Rotjan, "Moving on up: vacancy chain dynamics in the marine hermit crab, *Pagurus longicarpus*" Benthic Ecology Meeting, Wilmington, NC, March 2010.

Edquist, SK, "Moving on up: vacancy chain dynamics in the marine hermit crab, *Pagurus longicarpus*" Northeast Undergraduate Research and Development Symposium, March 2009. 3rd place; best talk.

Edquist, SK, "Regeneration provides evidence of temperature adaptation in populations of the estuarine sea anemone *Nematostella vectensis*", Department of Biology Work for Distinction Undergraduate Symposium, May 2008.

Edquist, SK, "Temperature adaptation in an estuarine sea anemone, *Nematostella vectensis*", Undergraduate Research Opportunities Program Symposium, Boston, MA, October 2007.

Reitzel AM, **EdquistSK**, and CiraEK, "Ecological and developmental dynamics of a host-parasite system involving a sea anemone and two ctenophores", Boston University Science and Engineering Day Symposium, Boston, MA, April 2007.

PROFESSIONAL MEMBERSHIPS

Phi Beta Kappa, Epsilon Chapter of Massachusetts

REFERENCES

Dr. Randi Rotjan, Research Department
New England Aquarium
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Dr. John Finnerty, Department of Biology
Boston University
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Dr. Les Kaufman, Department of Biology
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Dr. Jelle Atema, Department of Biology
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