

# Catherine M. Matassa

Curriculum Vitae

Marine Science Center, Northeastern University  
430 Nahant Road, Nahant, MA 01908  
[catherinematassa.weebly.com](http://catherinematassa.weebly.com)  
c.matassa@northeastern.edu  
office: 781-581-7370 ext.324

## EDUCATION

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PhD, Ecology, Evolution, and Marine Biology (2014)  
Department of Marine and Environmental Sciences  
Northeastern University, Boston, MA

MSc, Marine Biology (2006)  
Three Seas Marine Biology Program  
Department of Biology  
Northeastern University, Boston, MA

BSA, Biological Sciences and Architecture (2004)  
Bachelor of Science and Arts Interdisciplinary Degree Program  
Department of Biological Sciences and School of Architecture  
Carnegie Mellon University, Pittsburgh, PA

## EMPLOYMENT HISTORY

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Post-doctoral Research Associate (2014-present)  
Department of Marine and Environmental Sciences, Northeastern University

Lecturer/Instructor of Record (Fall 2008-2013, Spring 2016)  
Three Seas Marine Biology Program, Northeastern University

Graduate Research (Spring 2007-2012) and Teaching (Fall 2006, 2007) Assistant  
Department of Biology, Northeastern University

## PUBLICATIONS

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### PEER-REVIEWED JOURNAL ARTICLES ([Google Scholar](#))

Trussell, GC, CM Matassa, and PJ Ewanchuk 2017. Moving beyond linear food chains: trait-mediated indirect interactions in a rocky intertidal food web. *Proceedings of the Royal Society B-Biological Sciences* 284: 20162590

Matassa, CM, SC Donelan, B Luttbeg, and GC Trussell. 2016. Resource levels and prey state influence antipredator behavior and the strength of nonconsumptive predator effects. *Oikos* 125:1478-1488

Matassa, CM and GC Trussell. 2015. Effects of predation risk across a latitudinal temperature gradient. *Oecologia* 177:775-784

Matassa, CM and GC Trussell. 2014. Prey state shapes the effects of temporal variation in predation risk. *Proceedings of the Royal Society B-Biological Sciences* 281:20141952

Miller, LP, CM Matassa, and GC Trussell. 2014. Climate change enhances the negative effects of predation risk on an intermediate consumer. *Global Change Biology* 20:3834-3844

Matassa, CM and GC Trussell. 2011. Landscape of fear influences the relative importance of consumptive and nonconsumptive predator effects. *Ecology* 92:2258-2266

Trussell, GC, CM Matassa, and B Luttbeg. 2011. The effects of variable predation risk on foraging and growth: less risk is not necessarily better. *Ecology* 92:1799-1806

Matassa, CM. 2010. Purple sea urchins *Strongylocentrotus purpuratus* reduce grazing rates in response to risk cues from spiny lobsters *Panulirus interruptus*. *Marine Ecology Progress Series* 400:233-288

Trussell, GC, PJ Ewanchuk, and CM Matassa. 2008. Resource identity modifies the influence of predation risk on ecosystem function. *Ecology* 89:2798-2807

Trussell, GC, PJ Ewanchuk, and CM Matassa. 2006. Habitat effects on the relative importance of trait- and density-mediated indirect interactions. *Ecology Letters* 9:1245-1252

Trussell, GC, PJ Ewanchuk, and CM Matassa. 2006. The fear of being eaten reduces energy transfer in a simple food chain. *Ecology* 87:2979-29848

#### TECHNICAL REPORTS

Matassa, CM. 2009. Boston Harbor Islands Intertidal Bioblitz: Final Report. National Park Service All Taxa Biodiversity Inventory

#### PRESENTATIONS

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##### INVITED SEMINARS

Wellesley College Department of Biological Sciences, Wellesley, MA (2015)

Brown University Department of Ecology and Evolutionary Biology, Providence, RI (2014)

Adelphi University Department of Biology, Garden City, NY (2011)

##### CONFERENCE PAPERS

Matassa, CM, PJ Ewanchuk, and GC Trussell. 2017. Predation risk affects intraspecific competition at intermediate and basal trophic levels. Benthic Ecology Meeting, Myrtle Beach, SC

Matassa, CM. 2016. Effects of predation risk on an intertidal snail (*Nucella lapillus*) depend on predator identity and predator feeding activity. Ecological Society of America Meeting, Fort Lauderdale, FL

Matassa, CM and GC Trussell. 2013. Effects of temperature and predation risk on prey foraging, growth, and growth efficiency: evidence from a field experiment. Benthic Ecology Meeting, Savannah, GA

Matassa, CM and GC Trussell. 2012. A little risk goes a long way: a snail's conflict between the risk of starvation and the risk of predation. Benthic Ecology Meeting, Norfolk, VA

Luttbeg, B, GC Trussell, and CM Matassa. 2011. How do marine snails (*Nucella lapillus*) respond to the frequency of high predation risk and how should we expect them respond? Ecological Society of America Meeting, Austin, TX

Matassa, CM and GC Trussell. 2010. Prey state and resource levels influence the strength of nonconsumptive predator effects in a rocky intertidal food chain. Benthic Ecology Meeting, Wilmington, NC (***Best Graduate Student Oral Presentation, 1<sup>st</sup> place***)

Matassa, CM and GC Trussell. 2008. Too hot to eat? Effects of thermal stress on an intertidal predator-prey interaction. Benthic Ecology Meeting, Providence, RI

Matassa, CM, GC Trussell, and PJ Ewanchuk. 2007. Mapping fear: predator risk cues alter spatial patterns in the foraging behavior of *Nucella lapillus*. Benthic Ecology Meeting, Atlanta, GA

Matassa, CM. 2006. Predator-induced alteration of sea urchin grazing: evidence for trait-mediated effects in a kelp forest food chain. Benthic Ecology Meeting, Québec City, QC

## **FUNDING AND AWARDS**

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### EXTRAMURAL

National Science Foundation Doctoral Dissertation Improvement Grant, \$10,848 (2011)

Division of Integrative Organismal Systems, Animal Behavior Program (IOS-1110675)

Project Title: DISSERTATION RESEARCH: Ecological context shapes how consumers respond to predation risk

Benthic Ecology Society Best Graduate Student Oral Presentation (2010)

American Museum of Natural History Lerner-Gray Marine Research Grant, \$1,707 (2007)

### INTRAMURAL

Northeastern University

Dissertation Completion Fellowship, \$11,520 (2014)

Outstanding Graduate Student Award for Research in Life Sciences, Physical Sciences, and Engineering, \$1,000 (2013)

Outstanding Graduate Student Award for Teaching in Life Sciences, Physical Sciences, and Engineering, \$1,000 (2010)

Graduate Student Travel Awards, \$300 each (2008, 2010, 2012)

Graduate Student Assistantship Awards

Research (Spring 2007-2012, Summer 2007-2011)

Teaching (Fall 2006-2013)

Carnegie Mellon University

Andrew Carnegie Scholarship (2000-2004)

## TEACHING AND MENTORING

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### LECTURER OR INSTRUCTOR OF RECORD

Department of Marine and Environmental Sciences, Northeastern University

*Experimental Design in Marine Ecology* (Fall 2008\*-2013, Spring 2016)

Writing-intensive field course in experimental design and analysis for upper-level undergraduates and beginning MSc and PhD students

Foundational course in the Three Seas Marine Biology Program and part of the Marine Biology Major core curriculum; 149 students (~21 students per semester; \*co-taught Fall 2010)

### TEACHING ASSISTANT

Department of Biology, Northeastern University

*Experimental Marine Ecology* (Fall 2006, 2007)

Marine ecology course emphasizing field research techniques; 39 students

*Ecology* (Fall 2007)

Undergraduate laboratory section for general ecology course; 18 students

### MENTOR / ADVISOR

Graduate Student Mentor and Research Advisor, Three Seas Marine Biology Program (2008-current)

Mentor incoming graduate students; assist with the design and analysis of independent research projects, provide feedback on written communication of research findings

Primary supervision of thesis projects:

Stephen Ranson      MSc 2013 (currently: Coral Nursery Technician, University of Hawai'i)  
Project Title: Invasive impacts of *Sargassum horneri* on subtidal ecosystem dynamics in Southern California

Internship Coordinator and Research Manager, Trussell Laboratory (2008-current)

Train and mentor new lab members while managing research projects involving PI, graduate students, interns, technicians and post-docs

Interns and technicians supervised:

Emily Longman	research technician 2015-current (BS Brown University 2015)
Erin Sayre	intern, summer 2016 and spring 2017 (BS candidate Northeastern University)
Rachel Dowley	summer intern 2016 (BS candidate Northeastern University)
Sydney Stenquist	summer intern 2016 (BS candidate Northeastern University)
Stephanie June	intern, technician, teaching assistant 2011-2012 (BS Northeastern University 2012; MPH SUNY Albany 2015; currently: NY State Department of Health)

Elizabeth Forbes	summer intern 2010 (BS Vassar College 2012; currently: PhD Student, UC Santa Barbara)
Sarah Donelan	research technician 2009-2010 (BS Wesleyan University 2009; currently: PhD Candidate, Northeastern University)
Tania Lemos Eskin	summer intern 2009 (BFA Cornell University 2006; MSc Northeastern University 2011; currently: Lab Manager, Brandeis University)
Nels Carlson	summer intern 2009 (BS Boston University 2013; currently: MBA student, University of Victoria)
Renee Dolecal	summer intern 2008 (BS Northeastern University 2008; MSc San Diego State University 2012; currently: Lab Manager, SDSU Coastal & Marine Institute)

## **PUBLIC SERVICE AND CITIZEN SCIENCE**

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- Volunteer, North Shore High School Marine Science Symposium, Salem, MA (2017)  
Facilitated registration of 150+ high school students to participate in marine science workshops and lectures
- Online Naturalist, National Parks Centennial BioBlitz, Boston Harbor Islands, MA (2016)  
Connected with participants via iNaturalist to identify photographed species
- Contributor, Public Library Women's History Month, Southwest Harbor, ME (2016)  
Contributed to "Women & Acadia" presentation highlighting current and former research by female scientists in Acadia National Park
- Volunteer, Boys and Girls Club, Chelsea, MA (2015-present)  
Guide local ecological tours of the rocky intertidal for middle school and high school students interested in marine science
- Volunteer, Beach Sisters Program, Girls Inc., Lynn, MA (2014-present)  
Provide after-school workshops in marine science to local K-12 female students
- Science Coordinator, National Park Service Boston Harbor Islands Intertidal Bioblitz (2008)  
Designed and implemented survey methods for citizens and scientists to quantify intertidal biodiversity within the Boston Harbor Islands National Park Area  
Coordinated with Park Rangers to arrange event facilities, supplies, communications, transportation, and overnight accommodations for participants
- Volunteer, Annual Marine Science Center Open House, Nahant, MA (2006-present)  
Develop and implement interactive fieldwork demonstrations for children and families
- Participant, Marine Science Center Graduate Student-Outreach Partnership (2006-2013)  
Present short talks and hands-on workshops in marine science to local school groups

## **PROFESSIONAL SERVICE AND ORGANIZATIONS**

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Session Moderator, 46<sup>th</sup> Benthic Ecology Meeting, Community Ecology session (2017)

Science Advisor, Acadia National Park Intertidal Resource Management Plan (2016)

Classify threats to Acadia's intertidal resources and develop targeted conservation and management strategies

Grant Proposal Peer Review (2014-present)

National Science Foundation Division of Ocean Sciences (Biological Oceanography)

Journal Article Peer Review (2009-present)

*American Naturalist*

*Ecology Letters*

*Marine Ecology Progress Series*

*Animal Behaviour*

*Hydrobiologia*

*Oecologia*

*Behavioral Ecology*

*J. Animal Ecology*

*Oikos*

*Canadian J. Zoology*

*J. Experimental Marine*

*Oxford Bibliographies*

*Ecology*

*Biology and Ecology*

*Peer J*

*Ecology and Evolution*

*J. Sea Research*

*Proceedings of the Royal Society B*

Member, Ecological Society of America (2010-present)

Member, Benthic Ecology Society (2006-present)

Member, Carnegie Mellon University Admissions Council (2004-2016)