ELIZA HEERY

University of Washington – Department of Biology
Box 351800 – Seattle, WA 98195
206.941.0212 – eheery@uw.edu

EDUCATION

2011 – present	**PhD candidate – Biology,** *University of Washington* GPA: 3.96	Seattle, WA
2004 – 2007	**MS – Fisheries Science,** *Virginia Tech* GPA: 3.93	Blacksburg, VA
2002 – 2004	**BS – Biology,** *Emory University* GPA: 3.62	Atlanta, GA
2001 – 2002	**East/West Marine Biology Program,** *Northeastern University* GPA: 3.81	Friday Harbor, WA Discovery Bay, Jamaica
2000 – 2001	**Major: Marine Science / Biology,** *University of Miami* GPA: 3.42	Miami, FL

COURSEWORK

Communicating Ocean Sciences
Oceanography
Ocean and Coastal Processes
Phycology
Marine Biology
Invertebrate Zoology
Reef Systems Through Time
Biology and Ecology of Corals
Grant Writing
Coupled Human and Natural Systems
Science Ethics

Cell Biology
Genetics
Conservation Genetics
Introductory Chemistry
Organic Chemistry
Introductory Physics
Population Dynamics of Infectious Disease
Ecological Modeling
Urban/Environmental Planning

Fish Population Dynamics
Biology and Ecology of Fishes
Fisheries Management
Simulation Modeling
Linear Algebra
Bayesian Statistics
Statistics in Research
Ecological Modeling
Analytical Methods for Community Ecology

RESEARCH EXPERIENCE

University of Washington Dec 2010 – present
Graduate Student, Department of Biology Seattle, WA

Developed graduate research project on urban marine ecosystems. Designed initial survey plan and identified key hypotheses based on survey results. Developed experiments to test hypotheses in the field. Compiled results in manuscripts for publication. Developed collaborative relationships with researchers from outside institutions in California and Italy. Wrote grant proposals and received funding from several sources (see Grants and Fellowships Awarded below). Developed a website and blog on urban marine ecology. Collaborated with education researchers to identify effective teaching tools for introductory biology classes.

Northwest Fisheries Science Center (NOAA) Jan 2008 – Nov 2010
Statistician, Pacific States Marine Fisheries Commission Seattle, WA

Analyzed bycatch and discard data from West Coast groundfish fisheries. Estimated total annual fishing mortality and evaluated trends in bycatch over time. Used generalized linear models, multidimensional scaling, and other quantitative techniques to identify bycatch trends in observational data. Produced annual reports and manuscripts for publication. Planned a quarterly seminar series for the NWFSC.

Friday Harbor Laboratories Oct 2007 – Dec 2007
Research Technician, Sebens Lab Friday Harbor, WA

Assisted with digital photography of quadrats along permanent subtidal transects, analyzed quadrat photographs, compiled data for analysis, drove university boats, tended other divers, and helped undergraduates with statistical analyses.

Virginia Tech Aug 2004 – May 2007
Graduate Research Assistant Blacksburg, VA

Examined impact of biased biological data on age-structured population models. Constructed simulations and population models in R, Visual Basic, and Excel. Published and presented findings at scientific conferences. Attended regional meetings for fishery managers.

Chulalongkorn University Jun 2002 – Jul 2002
Research Intern Bangkok, Thailand

Assisted in a study that evaluated the effect of sea cucumber density on chlorophyll concentrations in sediments in the Gulf of Thailand. Collected specimens along underwater transects and extracted and measured chlorophyll from sediment and gut samples. Also reviewed manuscripts.

East/West Marine Biology Program Aug 2001 – Mar 2002
Student Friday Harbor, WA; Discovery Bay, Jamaica

Performed diving research at Friday Harbor Labs and Discovery Bay Marine Lab. Used transects, quadrats, settlement plates, light traps, underwater cages, sediment coring, and CTDs.

TEACHING EXPERIENCE

University of Washington – Department of Biology Seattle, WA
Graduate Teaching Assistant: Introductory Biology, Introductory Physiology, Invertebrate Zoology, Ecology, Evolution and Systematics, Evolution and Human Behavior, Pelagic Ecosystem Functioning Jan 2011 – present

Led two to three lab sections of twenty to twenty-four students each. Facilitated activities and lab experiments to accompany lectures. Helped students complete in-class activities. Developed quizzes, held office hours, graded exams, and coordinated course schedules with professors and other teaching assistants. Designed lab activities and graded final research papers for upper level courses. Also helped train PEF apprentices in oceanographic, fish, seabird, and marine mammal sampling techniques, statistical analysis, and presentation skills.

Highline Community College – Biology Department — Des Moines, WA

Instructor: Marine Biology, Oceanography — Jun – Aug 2015

Wrote and delivered lectures, designed labs, and led class activities for 1 section of Marine Biology and 1 section of Oceanography. Organized course, distributed assignments, and completed grading using Canvas. Wrote and graded exams and quizzes. Graded weekly papers and homework assignments. Led student field trips for each course.

Roosevelt High School – UW/NSF GK-12 Program — Seattle, WA

Graduate Teaching Fellow: Introductory Biology, Precalculus (H) — Aug 2011 – Jun 2012

Developed curriculum and taught five classes per day, two days per week, as part of the National Science Foundation's GK-12 program, which is aimed at getting graduate students into high school classrooms. Received intensive training on curriculum development and the learning cycle from the GK-12 program. Worked closely with Roosevelt teachers to integrate new curriculum with learning standards and to develop and implement effective assessment techniques.

Wildlands Studies – California State University Monterey Bay — Washington and Belize

Instructor: Pacific Northwest Ecology Program — Sep 2009 – Oct 2009

Instructor: Belize Tropical Ecology Program — Jun 2007 – Aug 2007

Co-instructed undergraduate field courses in temperate and tropical ecology and ecological research techniques. Designed lectures, developed laboratory activities, selected reading assignments, and facilitated field exercises that familiarized students with marine ecology field research. Managed budget, planned travel logistics, and supervised 9-16 students.

Virginia Tech – Department of Fisheries and Wildlife — Blacksburg, VA

Graduate Teaching Assistant: Marine Conservation Biology Seminar — Aug 2005 – Dec 2005

Graduate Teaching Assistant: Marine Resource Population Dynamics — Jan 2005

Developed syllabus and compiled readings and discussion topics for graduate seminar discussions. Presented background life history information for species used as population modeling case studies. Assisted professors with logistical planning and supervised computer lab activities.

Kittredge School – Summer School Program — San Francisco, CA

Extended Day Instructor — May 2004 – Aug 2004

Supervised Extended Day activities for elementary and middle school students, including study hall, outdoor programs, field trips, and organized sports. Worked with summer school teachers to ensure that students were getting the attention and assistance they needed to complete homework assignments effectively and grasp new concepts.

PRISM Program – Emory University — Atlanta, GA

Undergraduate Teaching Fellow — Jan 2004 – May 2004

Participated in weekly trainings on problem-based learning (PBL) and its application in science and math classrooms at the middle-school, high-school, and college level. Facilitated PBL case studies in local middle schools.

California Academy of Sciences – Education Department — San Francisco, CA

Intern — May 1999 – Aug 2001

Conducted teaching and outreach activities on the museum floor and at local elementary and middle schools. Developed curriculum materials for interactive museum teaching stations, supervised summer camps, and participated in weekly teaching trainings hosted by the Education Department.

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HONORS

National Honors Society, Phi Kappa Phi, Dean's List (*Virginia Tech*), Dean's List (*Emory University*), International Scholars Grant (*Emory Institute for Comparative and International Studies*), Robert Jones Scholarship Finalist (*Emory University*), Ethics and Servant Leadership Fellow (*Emory Center for Ethics*), Academic Scholarship (*University of Miami*)

GRANTS AND FELLOWSHIPS AWARDED

R.T. Paine Experimental and Field Ecology Award (2013, 2014)
NSF Integrative Graduate Education and Research Traineeship (IGERT) Fellowship (2012)
NSF Graduate Teaching Fellowship in K-12 Education (2011)

PUBLICATIONS

Heery, E. and J. Cope. 2014. Co-occurrence of bycatch and target species in the groundfish demersal trawl fishery of the U.S. west coast; with special consideration of rebuilding stocks. Fishery Bulletin 112: 36-48.

Bellman, M. and E. Heery. 2013. Discarding and fishing mortality trends in the U.S. west coast groundfish demersal trawl fishery. Fisheries Research 147: 115-126.

Various reports for the West Coast Groundfish Observer Program. Available online at: http://www.nwfsc.noaa.gov/research/divisions/fram/observation/data_products/index.cfm

Heery, E. and J. Berkson. 2009. Systematic errors in length frequency data and their effect on age-structured stock assessment models and management. Transactions of the American Fisheries Society 138: 218-232.

PRESENTATIONS

Scientific Meetings:

Heery, E. and K. P. Sebens. 2015. Urban infauna: The effect of material fluxes from artificial structures on soft sediment species assemblages in urban, subtidal landscapes. Presented at the 55th annual meeting of the Estuarine Coastal Sciences Association, London, UK.

Heery, E. and K. P. Sebens. 2015. The effect of material fluxes from artificial structures on neighboring infaunal communities in an urban subtidal landscape. Aquatic Biodiversity and Ecosystems Conference, Liverpool, UK.

Heery, E. and K. P. Sebens. 2014. Material fluxes from subtidal man-made structures to adjacent soft sediment habitats in the urban subtidal. Presented at the 95th annual Meeting of the Western Society of Naturalists, Tacoma, WA, US.

Heery, E. and K. P. Sebens. 2014. Subtidal riprap in Puget Sound: Its ecological structure and function, and its impact on adjacent soft sediment environments. Presented at the 2014 Salish Sea Ecosystem Conference, Seattle, WA, US.

Heery, E. and J. Berkson. 2007. The impact of biased length frequency data on age-structured stock assessment models. Presented at the 137th annual meeting of the American Fisheries Society, San Francisco, CA, US.

Heery, E. and J. Berkson. 2006. The impact of biased length frequency data on marine population models. Presented at the 91st annual meeting of the Ecological Society of America, Memphis, TN, US.

Chavanich, S., V. Viyakam, E. Heery and C. Raksataub. 2003. Effect of densities of the sea cucumber, *Holothuria atra*, on chlorophyll concentrations in sediments. Presented at the 32nd annual Benthic Ecology Meeting, Groton, CT, US.

Community Presentations:

Benthic subtidal communities in an urbanized world – Seminar talk at the *Friday Harbor Labs*, Dec 2015.

"Equity" in urban marine ecosystems – Presented to the *AIA Seattle Urban Design Forum & Cascade Bicycle Club*, Sep 2015.

Benthic communities in an urbanized world – Seminar talk at *Plymouth Marine Lab*, June 2015.

SCUBA Research in the Urban Subtidal – Presented to the *Boeing SCUBA Club*, June 2014

Urban Marine Ecosystems – Presented at the *Seattle Arboretum*, April 2014

SKILLS, CERTIFICATIONS & ACTIVITIES

Computer Skills	R, Tinn-R, SAS, Visual Basic, Matlab, WinBUGS, Microsoft Excel, Word, PowerPoint, Adobe Photoshop, Illustrator, and Framemaker, ImageJ, Coral Point Count, CoralNet, Google SketchUp.
Field Sampling Techniques	Transect and quadrat sampling, photosurvey techniques on SCUBA, core sampling, suction sampling, CTD operation, beach seining, van veen grabs, tagging studies with invertebrates and fish, transect surveys for marine mammal and seabirds
Diving & Boating Certifications	WA State Boater Training (2015), Scientific diver (AAUS – 2001), Rescue (PADI – 2001), Advanced Open Water (PADI – 1999), Open Water (PADI – 1998)
Volunteer Experience	Perkins + Will, Research Advisor (2015-present: *Seattle, WA*) Brookwood Group, Associate (2014-present: *Seattle, WA*) YWCA, Volunteer (2013: *Seattle, WA*) Savannah Ocean Exchange, Delegate (2012: *Savannah, GA*) Youth Tutoring Program, Tutor (2008: *Seattle, WA*) Refugee Family Services, Tutor (2002-2004: *Atlanta, GA*) Hands On Atlanta, Intern (2003: *Atlanta, GA*) California Academy of Sciences, Intern (1998-2001: *San Francisco, CA*) Romberg Tiburon Center, Volunteer technician (1998-2000: *Tiburon, CA*)

Community Involvement

Seattle Design Festival Equitable Bike Ramble, Presenter (2015: *Seattle, WA*)
Biomimicry Puget Sound, Participant (2014: *Seattle, WA*)
Bainbridge High School ROV Competition, Diver (2013: *Bainbridge Island, WA*)
MaST Aquarium Outreach Day, Diver (2013*: Des Moines, WA*)
VamoLa! Community Samba Band, Percussionist (2008-present: *Seattle, WA*)
Delridge Day, Volunteer (2012: *Seattle, WA*)

References furnished upon request

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