

## Curriculum Vitae

### Yvette L. Garner, Ph.D.

Department of Biology  
University of West Georgia  
1601 Maple Street  
Carrollton, Georgia 30118 USA  
ygarner@westga.edu  
(678) 839-4027

#### EDUCATION

Ph.D., September 2013, University of New Hampshire, Natural Resources and Environmental Studies

Dissertation title: The effects of biotic and abiotic factors on byssogenesis, growth and movement patterns of the blue mussel, *Mytilus edulis*  
Advisors: Drs. Marian Litvaitis and Jessica Bolker

B.S., May 2008, University of Scranton, Biology, Philosophy minor

Independent study title: Production of byssal threads by the California mussel, *Mytilus californianus*  
Advisor: Dr. Janice Voltzow

Study away programs attended: Middlesex University, London, England (Fall Semester 2006); Tropical Biology Field Course in Costa Rica and Panama, University of Scranton (January Term 2007); Oregon Institute of Marine Biology, University of Oregon (Summers 2006 and 2007); Hopkins Marine Station, Stanford University (Summer 2009).

#### PROFESSIONAL APPOINTMENTS

2019 – present

Associate Professor (with Tenure), University of West Georgia, Department of Biology

August 2016 – present

Biology in Belize Study Abroad Program Director, University of West Georgia, Department of Biology

Responsibilities: develop itinerary with in-country provider in Belize, recruit students, coordinate travel logistics, serve as program administrator, maintain program budget, conduct student orientation, teach upper level Tropical Biology course in Belize

2014 – 2019

Assistant Professor (Tenure-Track), University of West Georgia, Department of Biology

2013 – 2014

Visiting Assistant Professor, University of West Georgia, Department of Biology

#### COURSES TAUGHT

##### University of West Georgia

Marine Biology (S18, S19)

Tropical Biology: Belize Study Abroad Field Course (Su17, Su18)

Animal Behavior (F13, F16, F17, F18, F19)

Human Anatomy and Physiology I Lecture and Laboratory (F14, F15, F16, F17, F18, F19)

Human Anatomy and Physiology II Lecture and Laboratory (S15, S16, S17, S18)

Special Topics in Biology: Marine Biology Research (F14, F16; S16)

Special Topics in Biology: Marine Biology (S15, S17)

Independent Study: Marine Invertebrate Zoology (F14, S17)  
 Principles of Biology I Lecture (F13, S14)  
 Ecology Lecture (S14)

### RESEARCH INTERESTS

My research focuses on marine invertebrate ecology, with an overarching theme of understanding natural processes that influence biodiversity observed in nature. Three projects are currently underway in my lab: the first utilizes ecological surveys to assess native and non-native mussel species on the Southeastern U.S. coast, the second evaluates invertebrate fouling community biodiversity on mangrove roots in Bocas del Toro, Panama, and the third determines gene flow and biogeographical patterns of the hooked mussel, *Ischadium recurvum*, along the North American coastline. An additional area of research aims to understand how students best learn while taking part in a short term faculty led study abroad program to Belize.

### PUBLICATIONS

**Peer-Reviewed (\* denotes undergraduate collaborator; \*\* denotes graduate student collaborator)**

- Holt\*\* WA, and **Garner YL**. 2018. Tracking biological invasions: An assessment of mussel species in the St. Johns River, Jacksonville, FL. *Southeastern Naturalist*. 17(4), 583-596.
- Fontanella FM, **Garner YL**, Starnes\* J, and Whitaker\* M. 2018. Evidence for panmixia despite barriers to gene flow in the hooked mussel, *Ischadium recurvum* (Mytilidae; Brachidontinae) along the North American coastline. *Mitochondrial DNA Part A*. doi: 10.1080/24701394.2018.1455191
- Garner YL**, and Litvaitis MK. 2016. Effects of artificial epibionts on byssogenesis, attachment strength and movement in two size classes of the blue mussel, *Mytilus edulis*. *Invertebrate Biology*. doi:10.1111/ivb.12144
- Garner YL**, and Litvaitis MK. 2013a. Effects of injured conspecifics and predators on byssogenesis, attachment strength and movement in the blue mussel, *Mytilus edulis*. *Journal of Experimental Marine Biology and Ecology*. 448, 136-140.
- Garner YL**, and Litvaitis MK. 2013b. Effects of wave exposure, temperature and epibiont fouling on byssal thread production and growth in the blue mussel, *Mytilus edulis*, in the Gulf of Maine. *Journal of Experimental Marine Biology and Ecology*. 446, 52-56.

### Technical Report

McIntyre CM, Pappal AL, Bryant J, Carlton JT, Cute K, Dijkstra J, Erickson R, **Garner YL**, Gittenberger A, Grady SP, Haram L, Harris L, Hobbs NV, Lambert CC, Lambert G, Lambert WJ, Marques AC, Mathieson AC, McCuller M, Mickiewicz M, Pederson J, Rock-Blake R, Smith JP, Sorte C, Stefaniak L, and Wagstaff M. 2013. Report on the 2010 Rapid Assessment Survey of Marine Species at New England Floating Docks and Rocky Shores. Commonwealth of Massachusetts, Executive Office of Energy and Environmental Affairs, Office of Coastal Zone Management, Boston, Massachusetts. 35 pp.

### CONFERENCE ACTIVITY/PARTICIPATION

**Presentations (\* Denotes undergraduate collaborator; \*\* Denotes graduate student collaborator; # Awarded best student presentation)**

- 2019: *UWG Annual Biology Spring Fling Event*, Carrollton, GA, Conference Posters, April 9  
 Barney\* R, Ligeon\* J, and **Garner YL**. Impacts of a Field-based, Interdisciplinary Study Abroad Program in Belize on Student Learning at the University of West Georgia: Year 2  
 Harding\*\* E, and **Garner YL**. Investigating the effects of predator, non-predator, and injured conspecific effluent on byssal thread production in the hooked mussel, *Ischadium recurvum*, in Jacksonville, Florida  
 Sparks\*\* JT Jr., and **Garner YL**. Survey of mangrove root epibiont community structure in Bocas del Toro, Panama.

- UWG Undergraduate Research Conference*, Carrollton, GA, Conference Poster, April 2  
 Barney\* R, Ligeon\* J, and **Garner YL**. Impacts of a Field-based, Interdisciplinary Study  
 Abroad Program in Belize on Student Learning at the University of West Georgia: Year 2  
*Georgia Academy of Science Annual Meeting*, Gainesville, GA, Conference Posters, March  
 15  
 Harding\*\* E, and **Garner YL**. Investigating the effects of predator, non-predator, and  
 injured conspecific effluent on byssal thread production in the hooked mussel, *Ischadium*  
*recurvum*, in Jacksonville, Florida  
 Sparks\*\* JT Jr., and **Garner YL**. Survey of mangrove root epibiont community structure  
 in Bocas del Toro, Panama.
- 2018: *University of West Georgia, Annual Biology Expo*, Carrollton, GA, Conference Poster,  
 October 1  
**Garner YL**. Studying abroad as a Biology major: Tropical Biology in Belize  
 Harding \*\* E, and **Garner YL**. Byssal thread production in the hooked mussel,  
*Ischadium recurvum*, in response to simulated predator presence  
 Sparks\*\* JT Jr., and **Garner YL**. An ecological survey of mangrove root fouling  
 communities in Bocas del Toro, Panama  
*University of West Georgia Innovations in Pedagogy Conference*, Carrollton, GA,  
 Conference Oral Sessions, May 15  
**Garner YL**, and Renard J. Fitting Study Abroad into Your Academic Plan  
 Gordon S, Gaquere A, Carmack C, Sterling N, Genz J, **Garner Y**, and Duckett E.  
 Pedagogical innovations in STEM education  
*Georgia Academy of Science Annual Meeting*, Carrollton, GA, Conference Posters, April  
 13  
 Barney\* R, **Garner YL**, and Stuesser NF. Impacts of a field-based, interdisciplinary  
 study abroad program in Belize on student learning at the University of West Georgia  
 Sparks\*\* JT Jr., and **Garner YL**. An ecological survey of mangrove root fouling  
 communities in Bocas del Toro, Panama  
*Georgia Association of International Educators Conference*, St. Simon's, GA, Conference  
 Oral Session, February 1  
**Garner YL**, Stuesser NF, and Renard J. Programs from a Different Perspective: Study  
 Abroad Program Director Insights and Solving Problems in Advance  
*Cruising for Conservation Symposium*, Conference Poster, January 7  
 #Whitaker\* M, Starnes\* J, **Garner YL**, and Fontanella FM. Evidence for panmixia  
 despite barriers to gene flow in the hooked mussel, *Ischadium recurvum* (Mytilidae;  
 Brachidontinae) along the North American coastline.
- 2017: *NAFSA Region VII International Education Conference*, Spartanburg, SC, Conference  
 Poster, October 23  
**Garner YL**, Stuesser NF, and Renard J. Building a Study Abroad Program: Program  
 Director's Cut  
*Southeastern Population Ecology & Evolutionary Genetics Meeting*, Laurel Hill, NC,  
 Conference Poster, October 21  
 Whitaker\* M, Starnes\* J, **Garner YL**, and Fontanella FM. Preliminary analyses of  
 genetic variation in the hooked mussel *Ischadium recurvum* along the Florida coast  
*American Malacological Society 83<sup>rd</sup> Annual Meeting*, Newark, Delaware, Conference  
 Poster, July 19  
 Whitaker\* M, Starnes\* J, **Garner YL**, and Fontanella FM. Preliminary analyses of  
 genetic variation in the hooked mussel *Ischadium recurvum* along the Florida coast  
*Georgia-Alabama Louis Stokes Alliance for Minority Participation 2017 Annual Spring  
 Symposium*, Atlanta, GA, Conference Poster, April 22  
 Whitaker\* M, Starnes\* J, **Garner YL**, and Fontanella FM. Biodiversity and  
 conservational status of the hooked mussel *Ischadium recurvum* (Rafinesque, 1820)  
 along the Florida coastline  
*Benthic Ecology Meeting*, Myrtle Beach, SC, Conference Oral Session, April 12-15

- Holt\*\* WA, and **Garner YL**. Tracking biological invasions: An assessment of mussel species in the St. Johns River, Jacksonville, FL, USA  
*UWG Undergraduate Research Conference*, Carrollton, GA, Conference Poster, April 4  
 Whitaker\* M, Starnes\* J, **Garner YL**, and Fontanella FM. Biodiversity and conservational status of the hooked mussel *Ischadium recurvum* (Rafinesque, 1820) along the Florida coastline  
*Association for the Sciences of Limnology and Oceanography Aquatic Sciences Meeting*, Honolulu, Hawaii, Conference Poster, February 26-March 3  
 Holt \*\* WA, and **Garner YL**. Distribution and abundance of native and non-native mussels in the St. Johns River, Jacksonville, Florida, USA  
 2016: *Benthic Ecology Meeting*, Portland, Maine, Conference Poster, March 16-19  
 Holt\*\* WA, and **Garner YL**. Survey of native and non-native mussel species in the St. Johns River, Jacksonville, Florida, USA  
 2015: *Benthic Ecology Meeting*, Quebec City, Canada, Conference Posters, March 4-7  
**Garner YL**, and Gann\* AW. Byssogenesis and movement in two size classes of the blue mussel, *Mytilus edulis*, in response to herbivorous and predatory gastropods  
 Holt\*\* WA, and **Garner YL**. Introduction of the green mussel (*Perna viridis*) and its impacts on the eastern oyster (*Crassostrea virginica*) in Georgia, USA  
 2014: *Benthic Ecology Meeting*, Jacksonville, FL, Conference Poster, March 19-22  
**Garner YL**, and Litvaitis MK. Effects of artificial epibionts on byssogenesis, attachment strength and movement in two size classes of the blue mussel, *Mytilus edulis*  
 2013: *Benthic Ecology Meeting*, Savannah, GA, Conference Poster, March 20-23  
**Garner YL**, and Litvaitis MK. Effects of injured conspecifics and predators on byssogenesis, attachment strength and movement in the blue mussel, *Mytilus edulis*  
 2012: *Benthic Ecology Meeting*, Norfolk, VA, Conference Talk, March 21-24  
**Garner YL**, and Litvaitis MK. The effects of epibionts and seasonality on byssal thread production in the blue mussel, *Mytilus edulis*.  
 2011: *Society for Integrative and Comparative Biology, Northeast Regional Meeting*, Kingston, RI, Conference Talk, November 5  
**Garner YL**, and Litvaitis MK. The effects of biotic and abiotic factors on byssogenesis and growth of the blue mussel, *Mytilus edulis*.  
*Society for Integrative and Comparative Biology Meeting*, Salt Lake City, UT, Conference Poster, January 3-7  
**Garner YL**, and Litvaitis MK. The effects of artificial epibionts and wave exposure on byssal thread production in the blue mussel, *Mytilus edulis*.  
 2010: *Benthic Ecology Meeting*, Wilmington, NC, Conference Poster, March 10-13  
**Garner YL**, and Litvaitis MK. The effects of biotic and abiotic factors on byssal thread production in the blue mussel, *Mytilus edulis*.  
 2008: *Lehigh Valley Ecology and Evolution Society Meeting*, Easton, Pennsylvania, Meeting Poster.  
**Garner YL**, and Voltzow J. Hanging by a thread: The effects of flow on byssal thread production by the California mussel.

### Professional Development

- 2019: The Forum on Education Abroad Annual Conference. March 28.  
 2018: University of West Georgia's Innovations in Pedagogy Conference. May 15  
 Georgia Association of International Educators Conference. January 31-February 2  
 2017: NAFSA Region VII International Education Conference. October 22-25  
 University of West Georgia's Innovations in Pedagogy Conference. May 16.  
 Association for the Sciences of Limnology and Oceanography  
 Scientific Communication Workshop. February 26.  
 Improvisation Course Participant. February 26.  
 Interdisciplinary Presentations Workshop Participant. February 28.

American Association for the Advancement of Science: The Outlook for Science in the New Administration and Congress. Webinar Attendee. January 26  
 2016: University of West Georgia's Innovations in Pedagogy Conference. May 3

### Invited Seminars

- Garner YL.** *Studying abroad as a science major: Planning, challenges, experiences.* XIDS 2002: Being a World Traveler. University of West Georgia. Carrollton, GA. October 2017.
- Garner YL.** *Understanding the impacts of invertebrate non-native species.* University of West Georgia. Carrollton, GA. April 2017.
- Garner YL.** *What do we know about invertebrate marine invasions? Examples from the western Atlantic.* Kennesaw State University. Kennesaw, GA. March 2017
- Garner YL.** *Survey of native and non-native mussel species in the St. John's River, Jacksonville, Florida, USA.* UWG Marine Biology Club Seminar. Carrollton, GA. April 2016.

### MENTORING

- 2015-2019: Science Educator/Mentor, Atlanta Science Festival's Imagining the Future Program;  
 Lead a series of seminars with live marine animal demonstrations and discussed careers in the sciences with students mainly from underrepresented groups.  
 2019: Midway Elementary School (1<sup>st</sup> grade); Forsyth County, Georgia. 2018: Sycamore Elementary (5<sup>th</sup> grade); Gwinnett County, Georgia. 2017: Kennesaw Charter Science and Math Academy (3<sup>rd</sup> grade); Cobb County, Georgia. Wilson Creek Elementary (2<sup>nd</sup> grade); Fulton County, Georgia.  
 2016: Pleasant Grove Elementary (4<sup>th</sup> grade); Henry County, Georgia.  
 2015: Jonesboro High School (9-11 grade); Clayton County, Georgia.
- 2017-2019: STEM Education Improvement Plan Mini-Grant Mentor, UWG  
 Direct supervisor of undergraduate researcher conducting research on student learning in Belize study abroad program
- 2015-2018: Student Research Assistant Program Grant Mentor, UWG  
 Direct supervisor of teaching assistant in designing and implementing Human Anatomy and Physiology Labs at the newly opened UWG Newnan Campus;  
 Supervisor of tutors at Human Anatomy and Physiology Tutoring Center
- 2017: African-American Male Initiative (AAMI) Professional Mentoring Program,  
 UWG Faculty mentor for underrepresented minority students  
 Association for the Sciences of Limnology and Oceanography (ASLO)  
 ASLO Multicultural Program: Meeting mentor for three undergraduate students at the ASLO Aquatic Sciences Meeting  
 ASLO Meeting Mentorship Program: Meeting mentor for one graduate student at the ASLO Aquatic Sciences Meeting
- 2016-2017: NSF Louis Stokes Alliance for Minority Participation Grant Mentor, UWG  
 Direct supervisor of undergraduate researcher conducting marine mussel surveys
- 2015: NSF Noyce Intern Supervisor, UWG  
 Direct supervisor of STEM teaching intern as a part of the university's UTeach program
- 2014- present: Research Mentor, UWG  
 Supervise undergraduate and graduate students engaging in marine ecological research
- 2008-2013: Research Mentor, University of New Hampshire  
 Mentor for undergraduate students who completed Independent Studies and presented their findings at the UNH Undergraduate Research Conference
- 2008-2013: Science Educator/Mentor, Dover Middle School & Dover High School, NH.  
 Provide middle and high school students with exposure to marine ecological research and discussed career opportunities in the STEM fields.

**Graduate Theses Supervised**

Ellery Harding (M.S. degree in progress; Thesis director): Influences of Predators, Non-Predators and Injured Conspecifics on Byssal Thread Production and Movement in the Hooked Mussel, *Ischadium recurvum*

John T. Sparks (M.S. degree in progress; Thesis director): Survey of Mangrove Root Epibiont Community Structure in Bocas del Toro, Panama.

Brianna Baggett (M.S. degree in progress; Thesis co-advisor. Major advisor: Frank Fontanella): Phylogeography and population demography of the eastern worm snake *Carpophis amoenus*

Adam Holt '17 (M.S. degree; Thesis director): Tracking Biological Invasions: An Assessment of Mussel Species in the St. Johns River, Jacksonville, FL, USA

**Graduate Committees Served**

Jaeda Miles '19 (M.S. degree, non-thesis track)

Justin Smith '18 (M.S. degree, non-thesis track)

Eleanor Daniels '16 (M.S. degree; major advisor: Marian Litvaitis, University of New Hampshire): Climate change, byssal thread production and heterozygosity in the blue mussel, *Mytilus edulis*

**Undergraduate Researchers**University of West Georgia (12 total)

Austin Gann '15, John T. Sparks '16, Gretchen Harrison '16, Marty Sims '17, Ben Drummond '17, Megan Whitaker '17, Jasmine Starnes '17, Tatiana Raphael '17, Melchizedek Adobah '18, Gillian Barber '19, Janet Ligeon '19, Randi Barney '20.

**Undergraduate Honors Thesis Supervised:**

Gillian Barber '19: Survey of Phytoplankton diversity in the Gulf of Mexico

University of New Hampshire (4 total)

Brianna Perl, Danielle D'Amore, Bridgette Beagen, Robert Eaton

**Undergraduate Employees**University of West Georgia

2017-2019

STEM Education Improvement Plan Research Assistant

Randi Barney

2017-2018:

Student Research Assistant Program Teaching Assistants

Elizabeth Youdell, Amber Griffith, Jessica Ricks

2016-2017:

NSF Louis Stokes Alliance for Minority Participation (LSAMP) Scholar

Megan Whitaker

2015-2017:

Student Research Assistant Program Teaching Assistant

Valerie Pettigrew

2014-2015:

NSF Noyce STEM Teaching Intern

Theresa Daugherty

**GRANTS**

2016-2020: UWG College of Science and Mathematics Faculty Research Grant

Project: Influences of Predators, Non-Predators and Injured Conspecifics on Byssal Thread Production and Movement in the Hooked Mussel, *Ischadium recurvum* (2019-2020; \$1,950)

- Project: An ecological survey of mangrove root fouling communities in Bocas del Toro, Panama (2018-2019; \$1,000)
- Project: Utilizing ecological sampling methods to assess invasive mussel species in the Florida Keys, USA (2017-2018; \$1,450)
- Project: Survey of native and non-native mussels in the St. John's River, Jacksonville, Florida (2016-2017; \$1,100)
- 2019: UWG COSM Fellowship for Graduate Student Research
- Project: Influences of Predators, Non-Predators and Injured Conspecifics on Byssal Thread Production and Movement in the Hooked Mussel, *Ischadium recurvum*. Provides support for Ellery Harding's MS Thesis (2019; \$5,000)
- Project: An assessment of mangrove root fouling communities in Bocas del Toro, Panama. Provides support for JT Sparks' MS Thesis (2019; \$5,000)
- 2017-2019: UWG STEM Education Improvement Plan Mini-Grant
- Project: Impacts of a field-based, interdisciplinary study abroad program in Belize on student learning at the University of West Georgia: Year 2 (2018-2019; \$4,446.00)
- Project: Impacts of a field-based, interdisciplinary study abroad program in Belize on student learning at the University of West Georgia (2017-2018; \$4,465.50)
- 2015-2018: UWG, Student Research Assistant Program Grant
- Project: Development of Human Anatomy and Physiology Tutoring Center and Teaching Assistant Program (2017-2018: \$1,650)
- Project: Develop and Teach Human Anatomy and Physiology Lecture and Laboratory courses at the newly opened UWG Newnan Campus with the assistance of an undergraduate teaching assistant (2015-2017: \$2,875)
- 2016-2017: NSF Louis Stokes Alliance for Minority Participation (LSAMP) Grant to support undergraduate research from underrepresented minority groups.
- Project: Field surveys of the hooked mussel, *Ischadium recurvum*, in Florida, USA (\$2,000)
- 2014-2015: University of West Georgia, President's Development Award Grant
- Project: Incorporation of plastids in kleptoplastic sea slugs: sources and absorption mechanisms of functional chloroplasts, Co-PIs: Janet Genz & Barbara Merk (\$2,650)

### **PROFESSIONAL SERVICE**

- 2015-present: Proposal reviewer: The National Science Foundation, Division of Ocean Sciences; Georgia's Improving Teacher Quality Grants Program; University System of Georgia International Education Grant Competition
- 2015: Royal Recruiter: Alumni volunteer/recruiter at college fairs on behalf of the University of Scranton
- 2014-present: Manuscript reviewer: *Invertebrate Biology, Journal of the Marine Biological Association of the United Kingdom, Scientific Reports*
- 2014-present: Student oral and poster presentation reviewer; Benthic Ecology Meeting, Jacksonville, FL (2014); Quebec City, Canada (2015); Myrtle Beach, SC (2017).
- 2013-2014: Educator, Re-Clam the Bay (non-profit environmental organization), Barnegat Bay, NJ. Teach children and adults about estuarine species found in the Barnegat Bay ecosystem via hands-on activities, demonstrations and seining.

### **DEPARTMENTAL/UNIVERSITY SERVICE**

- 2018-present: Department of Biology, Seminar and Special Events Committee
- 2017: UWG Study Abroad Fair Volunteer, Tropical Biology in Belize Representative
- 2017: UWG Summer Orientation Advisor, Biology Department Representative
- 2016-present: Office of Education Abroad Advisory Committee, College of Science and Mathematics Representative
- 2016-present: Department of Biology, Director of Belize Study Abroad Program
- 2016-present: UWG Preview Day, Biology Department Representative
- 2016: Judge, Office of Education Abroad Photography Contest

2016: Moderator and Panelist, Department of Biology Career Panel  
2015-present: Department of Biology Undergraduate Academic Advisor  
2015-present: UWG Marine Biology Club Faculty Advisor and Founding Member  
2015-2018: Department of Biology, Finance Committee  
2015: Judge, Animal Sciences Division; West Georgia Regional Science and Engineering Fair  
2014: Student poster presentation reviewer; University of West Georgia "Big Night"  
Undergraduate Research Poster Session  
2014-present: Department of Biology Social Media Coordinator  
2013-present: Safe Zone Ally UWG  
Advocate to support equal rights for students on campus

#### **MEDIA APPEARANCES**

"Water as Habitat. Episode 14: Mussels Matter," The Centers for Ocean Sciences Education  
Excellence Florida (COSEE), August 2016.

#### **PROFESSIONAL MEMBERSHIPS/ASSOCIATIONS**

American Institute of Biological Sciences  
American Malacological Society  
Association for the Sciences of Limnology and Oceanography  
Benthic Ecology Meeting Society  
Beta Beta Beta Biological Honor Society, Alpha Tau Chapter  
Georgia Association of International Educators  
NAFSA: Association of International Educators  
Phi Sigma Biological Sciences Honor Society, Phi Chapter  
Society for Integrative and Comparative Biology

#### **CERTIFICATIONS**

NAUI research and advanced SCUBA diver (certified 12/15/2011)  
American Heart Association CPR and First Aid (certified 7/2015)  
United States Lifesaving Association, Open Water Rescue (certified 7/2015)  
United States Coast Guard Auxiliary, Boating Safety Course (2000)