**Curriculum Vitae**

**Yvette L. Garner, Ph.D.**

Department of Biology

University of West Georgia

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**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**

August 2014- present

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

August 2013- May 2014

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

**COURSES TAUGHT**

**University of West Georgia (UWG)**

Marine Biology (spring 2018)

Tropical Biology: Belize Study Abroad Field Course (summer 2017, 2018)

Animal Behavior (fall 2013, 2016, 2017, 2018)

Human Anatomy and Physiology I Lecture and Laboratory (fall 2014, 2015, 2016, 2017, 2018)

Human Anatomy and Physiology II Lecture and Laboratory (spring 2015, 2016, 2017, 2018)

Special Topics in Biology: Marine Biology Research (fall 2014, 2016; spring 2016)

Special Topics in Biology: Marine Biology (spring 2015, 2017)

Independent Study: Marine Invertebrate Zoology (fall 2014; spring 2017)

Principles of Biology I Lecture (fall 2013, spring 2014)

Ecology Lecture (spring 2014)

**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, USA. 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)**

2018: *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

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 83rd 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**

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**

2017-2018: STEM Education Improvement Plan Mini-Grant Mentor, UWG

Direct supervisor of undergraduate researcher conducting research on student learning in Belize study abroad program

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

2015-2018: 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

2015-2018: 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.

2018: Sycamore Elementary (5th grade); Gwinnett County, Georgia. 2017: Kennesaw Charter Science and Math Academy (3rd grade); Cobb County, Georgia. Wilson Creek Elementary (2nd grade); Fulton County, Georgia.

2016: Pleasant Grove Elementary (4th grade); Henry County, Georgia.

2015: Jonesboro High School (9-11 grade); Clayton County, Georgia.

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)

John T. Sparks (M.S. degree in progress; Thesis director)

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

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

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, Randi Barney ‘20.

University of New Hampshire

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

University of Pittsburgh

Douglas Leclair ‘16

**Undergraduate Employees**

University of West Georgia

2017-2018:

Student Research Assistant Program Teaching Assistants

Elizabeth Youdell, Amber Griffith, Jessica Ricks

STEM Education Improvement Plan Research Assistant

Randi Barney

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**

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)

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)

2016-2019: UWG College of Science and Mathematics Faculty Research Grant

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)

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)

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-present: 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)