

# LAURA BHATTI CATANO, PH.D.

Assistant Professor of Teaching  
The University of California, Riverside  
Department of Evolution, Ecology, and Organismal Biology  
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## PROFESSIONAL APPOINTMENTS

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- 2024 – **Assistant Professor of Teaching**, The University of California, Riverside  
*Develop curriculum and teach large majors and non-majors introductory biology and upper division Human Anatomy (each course with ~280-440 students)*
- 2022 – 2024 **Associate Teaching Professor**, Emory University  
*Developed curriculum and taught introductory biology courses and upper division Anatomy and Physiology lecture and lab; advised Biology majors; served on honors thesis committees*
- 2020 – 2022 **Assistant Professor & Curriculum Coordinator**, Michigan State University (MSU)  
*Developed course-based undergraduate learning experiences (CUREs) and taught large (~560 students) Organismal Biology Lab courses; managed team of instructors and graduate teaching assistants*
- 2016 – 2019 **Assistant Teaching Professor**, University of Missouri – St. Louis (UMSL)  
*Developed and taught upper and lower division Biology courses; managed team of graduate teaching assistants; advised Biology majors*
- 2016 – 2017 **Post-doctoral Researcher**, University of Missouri – St. Louis; Advisor: Dr. Robert Marquis  
*Investigated the impact of the invasive Asiatic Oak Weevil in Missouri forests; recruited and managed team of undergraduate student researchers*
- 2015 – 2016 **Adjunct Assistant Professor**, University of Missouri – St. Louis  
*Developed and taught upper division Conservation Biology lecture and lab*
- 2015 – 2016 **Post-doctoral Researcher**, St. Louis University; Advisor: Dr. Jason Knouft  
*Investigated the influence of urbanization and changes in hydrology on the trophic ecology of stream fishes*
- 2014 – 2015 **Post-doctoral Researcher**, Florida International University; Advisor: Dr. Kevin Boswell  
*Investigated risk/reward tradeoffs of herbivorous fishes and the impacts on coral reef communities*
- 2010 – 2014 **Marine Biology Program Undergraduate Advisor**, Florida International University  
*Academic advisor for over 200 undergraduate students, developed & gave educational seminars*
- 2009 – 2010 **Animal and Education Department Manager**, Sarasota Jungle Gardens, FL  
*Managed education program and animal care staff*
- 2005 – 2008 **Director**, Croc Encounters Wildlife Center, FL  
*Director & Founder of 501(c)(3) non-profit wildlife sanctuary; operations manager; fundraising; employee training; designed education programs*
- 2006 – 2008 **Education Instructor**, Tampa's Lowry Park Zoo, FL  
*Created & led professional development courses for middle & high school teachers; Instructor for elementary & high school student educational programs*

## EDUCATION

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- 2014 **Ph.D. Biology, Florida International University (FIU), Miami, FL**  
Dissertation: *Non-consumptive effects of predators in coral reef communities and the indirect consequences of Marine Protected Areas*  
Advisor: Dr. Deron E. Burkepille
- 2000 **B.S. Biology, (cum laude), Psychology minor, Canisius College, Buffalo, NY**  
Thesis: *Differences in age and sex distribution of migration in the Red-eyed Vireo (Vireo olivaceus) based on 29 years of television tower mortality*  
Advisor: Dr. Sara R. Morris

## TEACHING AND MENTORSHIP

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### Courses Developed and Taught

- 2024 – **Introduction to Organismal Biology** (BIOL 005b): The University of California, Riverside  
**Human Anatomy** (BIOL 171a): The University of California, Riverside  
**Organisms in their Environment** (BIOL 003): The University of California, Riverside
- 2022 – 2024 **Foundations of Modern Biology I & II**: Emory University  
**Organismal Form and Function**: Emory University  
**Comparative Vertebrate Anatomy Lecture and Laboratory**: Emory University  
**Marine Biology**: Emory University
- 2020 – 2022 **Introduction to Organismal Biology Lab**: Michigan State University  
2020 **Environmental Biology**: Univ. Missouri – St. Louis
- 2015 – 2019 **Conservation Biology & Lab**: Univ. Missouri – St. Louis  
**Vertebrate Anatomy, Evolution, and Ecology & Lab**: Univ. Missouri – St. Louis  
**Ornithology & Lab**: Univ. Missouri - St. Louis  
**Introductory Biology: Organisms and the Environment & Lab**: Univ. Missouri – St. Louis
- 2015 – 2016 **Advanced Ecology** (Co-lecturer): Saint Louis University
- 2013 – 2014 **Marine Biology & Oceanography**: (Guest-lecturer): Florida International University
- 2009 – 2010 **General Biology I & II Laboratories** (Teaching Assistant): Florida International University

### Undergraduate Researchers Mentored (25 students)

Amy Peng (2023), Nicole Wolff (2019), Nicholas Terzich (2018), Andrea Trigueros (2017), Kate Duncan (2017), Angie Quiroga Torres (2017), Kelsey Guy (2013), Joseph Peters (2013), Mellissa Lowenhaupt (2014), Erika Valle (2014), Ryan Malossi (2013), Maria Rojas (2013), Tatiana Torres (2013), Robin McQueen (2012), Theodora Vaughn (2012), Malvis Campbell (2012), William Sturup (2012), Gabriel Romero (2012), Marilyn Hernandez (2011), Bijjan Shirvani (2011), Bridgette Gunn (2011), Robert Jamie (2011), Hans Gonzembach (2011), Erika Valle (2011), Lisandra Torres Ochoa (2011)

### Undergraduate Teaching Assistants Mentored (13 students)

Claire Gong (2023), Andrew Wang (2023), Rahil Mahmood (2023), Krisha Dave (2023), Mirielle Ma (2022), Shriya Iyer (2022), Esther Jung (2022), Alexander Leon (2022), Nicole Bakal (2021), Basim Warra (2021), Ryan Wakley (2021), Colt Brown (2020), Michelle Kim (2020)

## CONTRIBUTIONS TO PEDAGOGY ADVANCEMENT

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2024– **POGIL Introductory Biology Working Group**

*Worked collaboratively with biology educators from around the country to create, modify and publish an introductory biology POGIL endorsed collection. We created a template for construction of activities, gathered and evaluated existing, unpublished activities in the context of national standards, moved selected activities through the PAC publication process, and wrote new activities to achieve national learning objectives for introductory biology.*

2022 **HHMI LINC (Learning through Inclusive Collaboration) Course Development**

*Forged interdisciplinary collaboration between Biology and Classics departments at Emory University. Developed curricula to promote social inclusivity by facilitating and attracting the participation of people from a wide range of identities, perspectives, and approaches.*

2022 **Environmental Physiology Field Study Abroad, La Paz, Mexico**

*Collaborator with Boise State University in developing environmental physiology course using SCUBA to teach physiologic control mechanisms, culminating in a dive experience abroad.*

2022 **Marine Conservation Field Study Abroad, Mozambique, Africa**

*Collaborator with MSU in developing a field, inquiry-based lab course focused on coastal ecosystem change in the Anthropocene.*

2022– **POGIL (Process Oriented Guided Inquiry Learning) Collaborative Writing Group**

*Collaborated with POGIL practitioners in a writing group to give and receive feedback on POGIL activities we developed for college-level Introductory Biology courses.*

2020–22 **Biology CUREs (Course-based Undergraduate Research Experiences) Development**

*Re-designed MSU's undergraduate organismal biology laboratory to a CUREs model. Engaged students in a high-enrollment course (~560 students) in semester-long research experiences.*

2021 **BIOME (Biology and Mathematics Educators) Institute Working Group**

*Collaborated with a community of peers to address the educational challenge of revising social and environmental justice open educational resources (OERs) through Universal Design for Learning (UDL) and accessibility lenses with the goal of improving student outcomes.*

2016–19 **Curriculum Alignment Process (CAP) for Biology**

*Worked with colleagues at UMSL to establish program level outcomes (PLOs) focusing on competency and skills. Created assessment tools to identify gaps and areas of improvement.*

## PUBLICATIONS (\*Maiden name is Bhatti, † Undergraduate Student mentee)

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Basham T, **Catano LB**, Gardner SM, Godwin AE, Groh D, Hutto R, Marsteller P, Mulcahy M, Orndorf H, Phillips M, Villar B (2021) Revising Social & Environmental Justice Open Educational Resources through UDL and Accessibility Lenses. *Biology and Mathematics Educators (BIOME) Institute, QUBES Educational Resources.*

**Catano LB**, Barton MB, Boswell KM, and Burkepile DE (2017) Predator identity and time of day interact to shape the risk–reward trade-off for herbivorous coral reef fishes. *Oecologia* 183: 763-773.

**Catano LB**, †Rojas MC, †Malossi RJ, †Peters JR, Heithaus MR, Fourqurean JW, and Burkepile DE (2016) Reefscapes of fear: predation risk and reef heterogeneity interact to shape herbivore foraging behaviour. *Journal of Animal Ecology* 85: 146-156.

- Catano LB**, †Gunn BK, †Kelley MC, and Burkepile DE (2015) Predation risk, resource quality, and reef structural complexity shape territoriality in a coral reef herbivore. *PLOS One*, 10: 1-12.
- Catano LB**, Shantz A and Burkepile DE (2014) Predation risk, competition, and territorial damselfishes as drivers of herbivore foraging on Caribbean coral reefs. *Marine Ecology Progress Series* 511: 193-207.
- Burkepile DE, Allgeier JE, Shantz A, †Pritchard CE, Lemoine NP, \***Bhatti L**, Layman C (2013) Nutrient supply from fishes facilitates macroalgae and suppresses corals in a Caribbean coral reef ecosystem. *Scientific Reports* 3:1493, 1-9.
- Morris SR, Clark A, \***Bhatti L** & Glasgow J (2003) Television tower mortality of migrant birds in Western New York and Youngstown, Ohio. *Northeastern Naturalist* 10: 67-76.

## GRANTS & AWARDS

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2025	POGIL Game Changer Fund Grant
2023	HHMI LINC Award (\$2,000)
2022	Emory Teaching Enhancement Fellowship
2018	UMSL Research Award (\$12,500)
2014	FIU Biscayne Bay Campus Excellence Award (\$1,500)
2013	Florida Sea Grant Scholar Award (\$2,000)
2013	FIU University Graduate School Travel Award (\$600)
2013	FIU College of Arts and Sciences Travel Award (\$300)
2012	FIU University Graduate School Travel Award (\$600)
2012	FIU College of Arts and Sciences Travel Award (\$300)
2011	PADI Foundation Research Award (\$4,500)
1997 – 2000	Howard Hughes Research Grant Recipient (\$12,000)
1997 – 2000	Canisius College Dean's Scholarship

## PROFESSIONAL & DEPARTMENTAL SERVICE

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- Founding member of the SABER teaching-focused faculty special interest group (SIG)
- Judge for The Riverside Unified School District (RUSD)'s 2025 Science & Engineering Fair
- Ad hoc committee for the merit review of Assistant Professor
- Honors Committee Member (student: Amy Peng), Investigating the impact of SOAT1 knock-out on VAT Treg accumulation in mice model – Emory University
- Academic Advisor, 10 biology majors – Emory University
- Reviewer, PAC (POGIL Activity Clearinghouse)
- Curriculum, Assessment and Educational Policy Committee, College of Arts & Sciences Faculty Senate – Emory University
- Race and Ethnicity General Education Requirement Committee, College of Arts & Sciences Faculty Senate – Emory University
- Curriculum Committee Member, Biological Sciences Program – Michigan State
- Awards Committee Member, Biological Sciences Program – Michigan State
- Resource Optimization Committee Member, Biological Sciences Program – Michigan State
- Academic Advisor, Biology Department, University of Missouri – St. Louis
- Curriculum Committee Member, University of Missouri – St. Louis

- Biology Faculty Search Committee, University of Missouri – St. Louis
- Panel member for Shaw Institute for Field Training (SIFT) high school student career day
- Reviewer for Professional Journals: *Ecology*, *Global Change Biology*, *Oecologia*, *Proceedings of the Royal Society: Biology*
- Reviewer for National Granting Agency, NOAA Center for Sponsored Coastal Ocean Research
- Host for seminar speakers (3 speakers), FIU Marine Science Program
- Organizer for FIU undergraduate marine biology seminar series
- Tour leader for FIU Marine Science Program open houses
- Panel member for FIU careers in science colloquium

## SEMINARS AND PRESENTATIONS

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### Invited Seminars

- 2023 Emory University, Atlanta, GA: *Our POGIL Journey: Creating and implementing active learning activities for the undergraduate classroom*
- 2017 University of La Verne, La Verne, CA: *Natural enemies and their consequences for species invasions and community assembly*
- 2016 St. Louis Ecology, Evolution and Conservation Conference, Elsau, IL: *Reefscapes of fear: predation risk and habitat structure alter reef fish foraging behavior*
- 2016 Washington University – Tyson Research Center, Eureka, MO: *Coral reefs and the ecology of fear*
- 2012 Gumbo Limbo Nature Center, Boca Raton, FL: *Marine Protected Areas and their effect on the health of coral reefs*

### Presentations at Local, National and International Meetings

- 2023 Abreu E, Cafferty P, **Catano LB**, Comstra S, O'Toole K, Reyes M. *Collaborative POGIL Activity Development in an Online Writing Group*. The National Conference to Advance POGIL Practice, Salt Lake City, UT.
- 2017 Marquis R, O'Brien D, Lill J, Forkner R, Le Corf J, **Catano LB**. *Ecology of the Invasive Asiatic Oak Weevil (*Cyrtopistomus castaneus*) in Missouri*, N Central Forest Pest Workshop, Rolla, MO.
- 2014 **Catano LB** & Burkepile D. *Reefscapes of fear: evaluating the effect of predation risk on reef herbivore foraging behavior*. 43<sup>rd</sup> Benthic Ecology Meeting, Jacksonville, Florida.
- 2013 **\*Bhatti L** & Burkepile D. *The trophic ecology of coral reef fishes in protected and unprotected areas of the Florida Keys National Marine Sanctuary*. 98th Ecological Society of America Meeting, Minneapolis, Minnesota.
- 2013 **\*Bhatti L** & Burkepile D. *Variation in the trophic ecology of reef herbivores in the Florida Keys National Marine Sanctuary*. 42nd Benthic Ecology Meeting, Savannah, Georgia.
- 2012 **\*Bhatti L** & Burkepile D. *Indirect consequences of Marine Protected Areas (MPAs) as revealed through Stable Isotope Analysis of coral reef fishes*. 97th Ecological Society of America Meeting, Portland, Oregon.
- 2012 Burkepile D, Allgeier J, Shantz A, Pritchard C, Lemoine N, **\*Bhatti L**, Layman C. *Nutrient supply from fishes impacts phase shifts in a Caribbean coral reef ecosystem*. 97th Ecological Society of America Meeting, Portland, Oregon.
- 2012 Burkepile D, Allgeier J, Shantz A, Pritchard C, Lemoine N, **\*Bhatti L**, Layman C. *Mesocarnivorous fishes facilitate macroalgae and suppress corals in a Caribbean reef ecosystem*. 12th International Coral Reef Symposium, Cairns, Queensland, Australia.
- 2012 **\*Bhatti L** & Burkepile D. *Indirect consequences of Marine Protected Areas as revealed through Stable Isotope Analysis of coral reef fishes*. 41st Benthic Ecology Meeting, Norfolk, VA.

## **EDUCATION TRAINING & WORKSHOPS**

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- 2025 Reflecting on Metacognition: An Expert Panel Discussion – Dr. Jenny Knight (University of C Colorado, Boulder) and Dr. Jaime Sabel (The Ohio State University)
- 2025 ARA The Art of Saying Now Workshop – Dr. Linda Walling (UC Riverside)
- 2025 Generative AI in Teaching – Dr. Karthikeyan Chandrasegaran (UC Riverside)
- 2025 ARA Self-Advocacy Workshop – Dr. Linda Walling (UC Riverside)
- 2025 CourseSource Writing Studio Workshop – SABER West Annual Meeting
- 2025 Getting Started in Conducting Discipline-Based Education Research – Dr. Melinda Owens (UC San Diego)
- 2024 Faculty Teaching Workshop Series – Active Learning Strategies that Promote Higher Order Learning in Large Enrollment Introductory Courses – Dr. Jack Eichler (UC Riverside)
- 2022 The POGIL Collaborative Feedback Training – The POGIL Project
- 2022 The Fundamentals of POGIL Workshop – The POGIL Project
- 2021 BIOME Institute: From Pieces to Patterns: Building a Scientific Worldview – QUBES/BioQUEST
- 2021 Integrating three-dimensional learning in high enrollment biology courses – Dr. Jon Stoltzfus
- 2021 The National Conference on Race & Ethnicity’s Summit, “When They See Us: Experiences of Black Males Navigating Historically White Institutions” – Dr. Jabbar Bennett
- 2020 Active Lens Digital Evolution Faculty Development Workshop – Dr. Robert T. Pennock
- 2020 Engaging Students in Authentic Scientific Practices Online – David T. Brookes
- 2020 Summer Online Instruction Readiness for Educational Excellence (SOIREE) – Jeremy Van Hof
- 2019 Incorporating Active Learning into the Online Environment – Dasha Kochuk
- 2019 Risk Management in Experiential Learning Contexts – Christopher Lavan
- 2019 Process Oriented Guided Inquiry Learning (POGIL) – Dr. Andy Goodman
- 2018 Teaching for Critical Thinking – Dr. Stephen D. Brookfield
- 2017 Teaching Outside Your Comfort Zone – Dr. Therese Huston
- 2014 Flipping & Wrapping: Easy Tech for Better Prep and Rethinking Class Time – José Antonio Bowen
- 2014 The Fundamentals of Working with Diverse Students – Bryan Dewsbury
- 2014 Learner-Centered Lesson Design – Leslie Richardson
- 2014 Information, Likelihood, Formal Evidence and Multi-model inference – David Anderson
- 2013 Teaching with Writing – Leslie Richardson
- 2013 Classroom Assessment – Leslie Richardson
- 2013 Discussion in the Classroom – Leslie Richardson
- 2013 Data Visualization Using R – Karthik Ram & Naupaka Zimmerman

## **MEMBERSHIPS**

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- 2024 – Present Women's Faculty Association – The University of California, Riverside
- 2024 – Present Human Anatomy and Physiology Society (HAPS)
- 2024 – Present Society for the Advancement of Biology Education Research (SABER)
- 2024 – Present The ARA (Advancement & Retention in Academe) Faculty Mentoring Program