BRIAN A. WHYTE, PHD

Lecturer, University of Massachusetts Amherst
bawhyte@umass.edu | +1 (585) 415-8957 | Google Scholar
300 Massachusetts Ave, Amherst, MA 01003, USA

EDUCATION:

2015-2022 Ph.D. in Environmental Science, Policy, and Management
University of California Berkeley, Berkeley, CA, USA
Dissertation Committee: Neil Tsutsui (chair), Eileen Lacey, Damian Elias
Title: Social recognition in ants and trematodes

2012-2014 B.S. in Ecology with Biology minor, *summa cum laude*
State University of New York (SUNY) at Plattsburgh, Plattsburgh, NY, USA

2010-2012 A.S. in Liberal Arts, Graduate with Distinction
Monroe Community College, Rochester, NY, USA

2023 Non-degree Chinese Language Program
Zhejiang University, Hangzhou, Zhejiang, China

JOBS & INTERNSHIPS:

2026 **Lecturer**
Department of Biology, University of Massachusetts Amherst, MA, USA
Animal Behavior, Intro Biology 2

2024 **Postdoctoral Fellow**
Research Center on Animal Cognition (CRCA), University of Toulouse, CNRS, Toulouse, France
The role of status and identity in the maintenance of ant dominance hierarchies

2021 **Guest Scientist**
Max Planck Institute of Animal Behavior, Konstanz, Germany
Collective defense of soldier trematodes

2017 **Research assistant**
Caribbean Mangrove Dynamics Project, Smithsonian Tropical Research Institute, Panama
Tropical mangrove biodiversity survey

2015 **Research assistant**
Primate Conservation Field Research**,** Jama-Coaque Reserve, Manabi, Ecuador
Estimating population density and habitat usage of howler monkeys

2014 **Research assistant**
National Institute of Mathematical and Biological Synthesis (NIMBioS), Knoxville, Tennessee, USA
Can diminishing aggression lead to supercolony collapse

PUBLICATIONS:

Whyte BA, Rodriguez-Rada V, Guiard BP, Bernadou A, & Gotti G. (2026). Optimization of single-quadrupole mass spectrometry for neurometabolomics: Neurotransmitter and metabolite detection with proof-of-concept in an ant model. *International Journal of Mass Spectrometry, 525*, 117625.

Maccaro JJ, **Whyte BA**. (2025). Sociality and the necrobiome. In: *Carrion ecology, evolution, and their applications*. CRC Press, Boca Raton, pp 518-546

Whyte BA, Cash EI, Tsutsui ND. (2024, *Preprint*). Colony recognition and competitive asymmetry in the eusocial trematode, *Himasthla rhigedana*.

Whyte BA, Sandidge R, Cash E, Buellesbach J, Gibson JD, Scheckel KJ, Tsutsui ND. (2023). The role of body size and cuticular hydrocarbons in the desiccation resistance of invasive Argentine ants (*Linepithema humile*). Journal of Experimental Biology 226 (16):jeb245578.

Whyte BA. (2021). The Weird Eusociality of Polyembryonic Parasites. Biology Letters 17 (4).

*♦Maccaro JJ, ***Whyte BA**, Tsutsui ND. 2020. The ant who cried wolf? Short-term repeated exposure to alarm pheromone reduces behavioral response in Argentine ants. Insects 11 (12) 871.

Buellesbach, J, **Whyte BA**, Cash E, Gibson JD, Scheckel KJ, Sandidge R, & Tsutsui ND. 2018. Desiccation resistance and micro-climate adaptation: Cuticular hydrocarbon signatures of different Argentine ant supercolonies across California. Journal of Chemical Ecology 44:1101-1114.

* = co-first author, ♦ = undergraduate mentee authorship

HONORS AND AWARDS:

2023	Fyssen Foundation Postdoctoral Fellowship
2021	DAAD Short-Term Research Grant, German Academic Exchange Service
2020	Lerner-Grey Marine Research Grant, American Museum of Natural History
2019	Second Place Student Presentation, Social Insects, Entomology Society of America Meeting
2018	Student Mentoring and Research Teams (SMART) Program Award, UC Berkeley
2019	Julius H Freitag Memorial Award, UC Berkeley
2018	Edna & Yoshinori "Joe" Tanada Endowed Fellowship, UC Berkeley
2017	Sigma Xi Grants in Aid of Research (GIAR)
2016	Animal Behavior Society Student Research Grant
2016	NSF GRFP 2015-16 Honorable Mention
2014	Gerhard Gruendling Undergraduate Research Award, SUNY Plattsburgh
2013	Applied Environmental Science Certificate, William H. Miner Research Institute
2013	James A. Fitzpatrick Scholarship in Environmental Science, SUNY Plattsburgh
2012-2014	SUNY Plattsburgh Dean's List, All semesters
2010-2012	Monroe Community College Dean's List, All semesters

PREVIOUS TEACHING EXPERIENCE:

Graduate Student Instructor | University of California Berkeley

2021	*General Biology* (Bio 1B), Dept. of Integrative Biology
2020	*Insects & Human Society* (ESPM 40), Dept. of Environmental Science, Policy, & Management
2019	*Global Change Biology* (ESPM 152), Dept. of Environmental Science, Policy, & Management
2018	*Insects & Human Society* (ESPM 40), Dept. of Environmental Science, Policy, & Management
2017	*Global Change Biology* (ESPM 152), Dept. of Environmental Science, Policy, & Management
2016	*Ecosystem Ecology* (ESPM 111), Dept. of Environmental Science, Policy, & Management

Pre-Graduate Teaching Experience:

2015	Naturalist tour guide**,** Aspen Center of Environmental Studies, Aspen, CO, USA
2014	Ecology Lab Teaching Assistant, SUNY Plattsburgh, NY, USA

2013-2015 Calculus I & Ecology Tutor, SUNY Plattsburgh, NY, USA
2009-2012 Swimming instructor, Webster Aquatic Center, NY, USA

MENTORING:

University of Massachusetts Amherst

2026 PROPEL undergraduate research assistants (Prachi Merchant, Aribeth Gu, Madelyn Law)

University of Toulouse

2025 Lea Teste, Masters student (rotation)
Project; The role of biogenic amines in dominant vs subordinate clones
2025 Maxime Ponce, Undergraduate research assistant, Tasks: Video behavioral analysis
2025 Emile Lestrade, Undergraduate research assistant, Tasks: Video behavioral analysis
2024 Lucile Chazottier, Masters student (rotation)
Project; The role of biogenic amines in dominant vs subordinate clones

University of California Berkeley

2018-2020 Casey Kwok – Undergraduate research assistant
Project: *Testing the fluidity of supercolony identity in invasive Argentine ants*
2019 Benjamin Malit♦ – SMART Program Mentee, Research assistant
Project: *Levels of aggression show colony-specific recognition in eusocial trematodes*
2016-2018 Jessica Maccaro♦, Undergraduate research assistant
Project: *The ant who cried wolf: Argentine ant habituation to conspecific alarm*
2018 Crystal Chan, Undergraduate lab assistant, *Tasks*: Dissecting snails, ID trematode species
2018 Viraj Sharma, Undergraduate lab assistant, *Tasks*: Dissecting snails, ID trematode species
2017 Joie Lin, Undergraduate lab assistant, *Tasks*: Dissecting snails, ID trematode species
2016 Miranda Theonen*, Undergraduate honor's thesis
2015 Gwyneth Teft, High school student, Peddie School research experience program

* = successfully completed honors thesis, ♦ = continued onto graduate school or research position

INVITED TALKS:

2023 Xi'an Jiaotong-Liverpool University, Suzhou, Zhejiang, China (Talk)
Title: Can parasites recognize colonies, and can clones recognize individuals?
2023 Across the Cline (podcast), Guest

CONFERENCE PRESENTATIONS:

2026 **International Union for the Study of Social Insects,** Frieburg, Germany
Title: Reproductive hierarchies of clones with and without status signals
2022 **International Union for the Study of Social Insects,** San Diego, CA, USA
Title: Body size and CHCs determine desiccation resistance in Argentine ants
2021 **Max Planck Institute of Animal Behavior**, Konstanz, Germany
Title: Searching for collective behavior in eusocial trematodes
2018 **Entomological Society of America Meeting,** Vancouver, Canada *(Awarded)*
Title: The weird eusociality of polyembryonic things
2018 Endless Forms: Non-model system symposium, University of California Berkeley

Title: Discovering the chemical cues of colony identity in eusocial trematodes

2018 SMART program symposium, University of California Berkeley, CA, USA
Title: Friend or Foe: Discovering the colony recognition system of eusocial flatworms

2017 Essig Brunch, Essig Museum, University of California Berkeley, CA, USA
Title: Comparative social evolution of ants, worms, and a surprising amount of other things

2017 Bay Area Ant Group, California Academy of Sciences, CA, USA
Title: The weird eusociality of polyembryonic things

2016 **International Conference of Computer Science** (ICCS), San Diego, CA, USA
Title: Why invasive Argentine ant supercolonies are a limited social transition

2015 Bay Area Ant Group, California Academy of Sciences, CA, USA
Title: Could diminishing aggression in the invasive Argentine ant lead to supercolony collapse?

2014 NIMBioS Undergraduate Research Conference, University of Tennessee Knoxville, USA

COMMUNITY SERVICE & OUTREACH

2021 (Interviewed) "These ferns may be the first plants known to share work like ants." Jake Buehler, Science News.

2019 **Summer Explorations,** Academic Talent Development Program, University of California Berkeley (Lead a half-day of insect-themed classroom and field activities for a local elementary school)

2018 **Research video**, "*Worms inside of snails that behave like ants*"
Link: https://youtu.be/swlaGcaRrLg

2018 **Cal Day Entomology Table,** University of California Berkeley
Berkeley's annual public festival. Hosted table showing ant colonies for observation.

2017 **Social Chair,** Dept. of Env. Sci., Policy, & Management, University of California Berkeley
Organized departmental social events, managed budget, created new community events.

2016-2018 **Night Life @ Cal Academy,** California Academy of Sciences
Regularly hosted "ant tables" where I discussed ant facts centered around a weekly theme.

2016-2018 **Bay Area Science Festival,** San Francisco AT&T Park
Family-oriented interactive science festival. Hosted table showing ant colonies for fun.

2016-2018 **Bay Area Science in Schools (BASIS),** University of California Berkeley
Mentored a group of middle school students through a one-month-long science project.
Also lead presentations and activities about ant pheromones for elementary school classes.

2015 **Whyte BA**. "A Conversation with E.O. Wilson". *E.O. Wilson Biodiversity Foundation*.

2014 **WBIR Knoxville News (TV)**, "Aggressive Ants" story, TV interview

2014 **Knoxville News Sentinel (Newspaper)**, Link: https://youtu.be/nhk3HyLHXmk