BRIAN A. WHYTE, PHD

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EDUCATION:

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

B.S. **SUNY Plattsburgh**, (2012-2014) Ecology with Biology minor, Summa Cum Laude - *GPA: 3.96/4.00*

A.S. **Monroe Community College** (2010-2012), Liberal Arts, Graduate with Distinction - *GPA: 3.59/4.00*

PUBLICATIONS:

Whyte BA, Cash EI, Tsutsui ND. (*In review*). *International Journal of Parasitology*. Colony recognition and competitive asymmetry in a social trematode (*Himasthla rhigedana).*

Whyte BA, Sandidge R, Cash E, Buellesbach J, Gibson JD, Scheckel KJ, Tsutsui ND. (*In press). Journal of Experimental Biology*. Body mass matters more than cuticular hydrocarbon composition in the differential desiccation resistance of invasive Argentine ants (*Linepithema humile*).

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

RESEARCH EXPERIENCE:

2023 **Mojave wildlife monitoring**, California Fish & Wildlife & University of California, Berkeley, USA
Skills: Desert field work, mammal camera traps, bird and bat audio recording

2021 **Guest Scientist**, Max Planck Institute of Animal Behavior, Konstanz, Germany
Skills: Machine learning, animal posture tracking, *DeepLabCut, TRex*

2017-2019 **Graduate Student Researcher**, University of California Berkeley, Dept. of ESPM
Research Assistant to: Neil Tsutsui
Skills: Gas-Chromatography Mass-Spectrometry, regression models, chromatographic analysis

2017 **Caribbean Mangrove Dynamics Project**, Smithsonian Tropical Research Institute, Panama
Field Assistant to: Wayne Sousa
Skills: Tropical mangrove field work, Biodiversity surveys, Long-term ecological research

2015 **Primate Conservation Field Research,** Jama-Coaque Reserve, Manabi, Ecuador
Skills: Neo-tropical rainforest field work, Population density point-sampling, QGIS

2014 **National Institute of Mathematical and Biological Synthesis (NIMBioS)**, UT Knoxville
Skills: Agent-based modelling, Social evolutionary modelling, R

HONORS AND AWARDS:

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, Summer 2019
2018 **Edna & Yoshinori "Joe" Tanada Endowed Fellowship,** UC Berkeley, Summer 2018
2017 **Sigma Xi Grants in Aid of Research (GIAR)** Spring 2017
2016 **Animal Behavior Society Student Research Grant,** Spring 2016
2016 **NSF GRF 2015-16 Honorable Mention**, Spring 2016
2014 **Gerhard Gruendling Undergraduate Research Award**, SUNY Plattsburgh, Spring 2014
2013 **Applied Environmental Science Certificate,** William H. Miner Research Institute, Fall 2013
2013 **James A. Fitzpatrick Scholarship in Environmental Science**, SUNY Plattsburgh, Fall 2013

2012-2014 **SUNY Plattsburgh Dean's List**, All semesters
2010-2012 **Monroe Community College Dean's List**, All semesters

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

Student Mentoring | 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 and activity show colony-specific recognition in eusocial trematodes
2016-2018 Jessica Maccaro♦, Undergraduate research assistant
Project: The ant who cried wolf: Argentine ant olfactory habituation to conspecific alarm pheromone
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

Pre-Graduate Experience:

2015 **Naturalist,** Aspen Center of Environmental Studies, Aspen, CO
Tour guide and educator for adults and children in the Rocky Mountains of Colorado
2014 **Ecology Lab Teaching Assistant,** SUNY Plattsburgh
2013-2015 **Calculus I & Ecology Tutor**, SUNY Plattsburgh

PRESENTATIONS OF RESEARCH:

2023 **Across the Cline** (podcast), "*Social Maths*", Link: https://tinyurl.com/SocialMaths
2022 **IUSSI 2022**, Talk, San Diego, CA, USA (Talk)
Title: Body size and CHCs determine desiccation resistance in Argentine ants
2021 **Max Plank Institute of Animal Behavior**, Research seminar, Konstanz, Germany (Talk)
Title: Searching for collective behavior in eusocial trematodes
2018 ***Entomological Society of America Meeting,** Vancouver, Canada (Talk & Poster) **Awarded*
Title: The weird eusociality of polyembryonic things: What we can learn from parasite societies
2018 **Endless Forms: Non-model system symposium,** University of California Berkeley (Talk)
Title: Discovering the chemical cues of colony identity in eusocial trematodes
2018 **SMART program symposium,** University of California Berkeley, CA, USA (Poster)
Title: Friend or Foe: Discovering the colony recognition system of eusocial flatworms
2018 **YouTube video,** "*Worms inside of snails that behave like ants*", Link: https://youtu.be/swlaGcaRrLg
2017 **Essig Brunch Talk,** Essig Museum, University of California Berkeley, CA, USA (Talk)
Title: Comparative social evolution of ants, trematodes, and a surprising amount of other things
2017 **Bay Area Ant Group,** California Academy of Sciences, CA, USA (Talk)
Title: The weird eusociality of polyembryonic things
2016 **International Conference of Computer Science** (ICCS), San Diego, CA, USA (Talk)
Title: Why invasive Argentine ant supercolonies are a limited social transition
2015 **Bay Area Ant Group,** California Academy of Sciences, CA, USA (Talk)
Title: Could diminishing aggression in the invasive Argentine ant lead to supercolony collapse?
2014 **NIMBioS Undergraduate Research Conference,** University of Tennessee Knoxville, USA (Talk)
Title: Could diminishing aggression in the invasive Argentine ant lead to supercolony collapse?
2014 **WBIR Knoxville News** (TV), "Aggressive Ants" story, TV interview
2014 **Knoxville News Sentinel** (Newspaper), Link: https://youtu.be/nhk3HyLHXmk

POPULAR WRITING

(Quoted) Jake Buehler. "These ferns may be the first plants known to share work like ants." Science News, June 7, 2021.
Whyte BA. "A Conversation with E.O. Wilson". *E.O. Wilson Biodiversity Foundation*, Aug. 31, 2015.

COMMUNITY SERVICE & OUTREACH

2019 **Summer Explorations,** Academic Talent Development Program, University of California Berkeley
Lead a half-day of insect-themed classroom and field activities for a nearby elementary school.
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 observation.
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 the BASIS presentations and activities about ant pheromones for elementary school classes.