
TEACHING EXPERIENCE

2014	Graduate Student Instructor: ESPM 42: Natural History of Insects, UC Berkeley (Spring)
2013	Guest Lecturer on Insect Communication: ENVS 131: Insect Ecology, UC Santa Cruz (Spring and Fall quarters)
2013	Guest Presentations on Insects: 2 nd Grade Class, Malcolm X Elementary School, Oakland, CA
2011	Syllabus Design: ESPM 142: Insect Behavior Lab Section, UC Berkeley (Fall)
2010	Graduate Student Instructor: ESPM 50: Introduction to Culture and Natural Resource Management, UC Berkeley (Fall)
2008	Guest Lecturer on Insect Behavior: CS 216: Basic Animal Behavior Theory, Hampshire College (Spring)
2008	Guest Lecturer on Insect Behavior: NS 207: General Introduction to Ecology, Hampshire College (Spring)
2008	Lab Mentor: NS 314: Organic Chemistry II, Hampshire College (Spring)
2007	Organic Chemistry Tutor: Department of Natural Science, Hampshire College (Fall)
2007	Lab Mentor: CS 259: Research Lab in Animal Communication and Robotics, Hampshire College (Fall)
2007	Teaching Assistant: CS 225: The West of Ireland: Land and Landscape, Hampshire College (January Term)

COMMUNITY AND UNIVERSITY SERVICE

2014	Reviewer: Biological Invasions
2014	Reviewer: Biological Control
2014	Reviewer: Ecology – Ecological Society of America Journal
2014	Reviewer: Heller Agroecology Research Grant, UC Santa Cruz
2013	Reviewer: Journal of Insect Science
2012-2013	Volunteer: Cal Day, Entomological Student Organization
2012	Reviewer: ESPM 201C Starter Grant Panel
2011-2013	Artist in Residence: Entomological Student Organization

AWARDS & SCHOLARSHIPS

2014	ESPM Continuing Fellowship, UC Berkeley (\$9,162.50)
2014	ESPM Travel Grant, UC Berkeley (\$2,000)
2014	Travel Grant, International Union for the Study of Social Insects (\$2,500)
2013	Julius H. Freitag Memorial Award, UC Berkeley (\$1,000)
2012	Van den Bosch Research Award, UC Berkeley (\$10,000)

2012	Robert L. Usinger Memorial Award, UC Berkeley (\$1,000)
2011-2013	UC Mexus Dissertation Research Grant, University of California (\$11,852)
2011-2014	Graduate Research Fellowship, NSF (\$94,000)
2011	Edna and Yoshinori "Joe" Tanada Fellowship, UC Berkeley (\$1,000)
2010, 2012, 2014	Margaret C. Walker Fund Grant, UC Berkeley (\$1,000 per year)
2010, 2011	ESPM Summer Grant, UC Berkeley (\$3,000 per year)
2010	ESPM Travel Grant, UC Berkeley (\$1,000)
2007	Ray Coppinger Research Grant, Hampshire College (\$2,000)
2004-2008	Science Scholarship, Hampshire College (\$4,000 per year)

PUBLICATIONS

- Mathis, K. A.**, K. T. Eldredge (2014) "Descriptions of two new species of *Myrmedonota* Cameron (Staphylinidae: Aleocharinae) from Mexico with comments on the genus taxonomy and behavior." *Zootaxa*. 3768(1): 095-100.
- Mathis, K. A.**, S. M. Philpott (2012) "Current Understanding and Future Prospects of Host Selection, Acceptance, Discrimination and Regulation of Phorid Fly Parasitoids that attack Ants" *Psyche*. 2012: 1-9.
- Smith, C., E. Abouheif, R. Benton, E. Cash, V. Croset, C. Currie, E. Elhaik, C. Elsik, M. J. Favé, V. Fernandes, J. Gadau, J. Gibson, D. Graur, K. Grubbs, D. Hagen, M. Helmkampf, J. A. Holley, C. Holt, H. Hu, A. S. I. Viniegra, B. Johnson, R. Johnson, A. Khila, J. Kim, J. Laird, **K. Mathis**, J. Moeller, M. Munoz-Torres, M. Murphy, R. Nakamura, S. Nigam, R. Overson, J. Placek, R. Rajakumar, J. Reese, H. Robertson, C. Smith, A. Suarez, G. Suen, E. Suhr, S. Tao, C. Torres, E. van Wilgenburg, L. Viljakainen, K. Walden, A. Wild, M. Yandell, J. Yorke, A. Zimin, N. Tsutsui. (2011) "The Draft Genome of the Globally Widespread and Invasive Argentine ant (*Linepithema humile*)" *Proceedings of the National Academy of Sciences of the United States of America*. 108: 5673-5678.
- Smith, C., C. Smith, H. Robertson, M. Helmkampf, A. Zimin, M. Yandell, C. Holt, H. Hu, E. Abouheif, R. Benton, E. Cash, V. Croset, C. Currie, E. Elhaik, C. Elsik, M. J. Favé, V. Fernandes, J. Gibson, D. Graur, W. Gronenberg, K. Grubbs, D. Hagen, A. S. I. Viniegra, B. Johnson, R. Johnson, A. Khila, J. Kim, **K. Mathis**, M. Muñoz-Torres, M. Murphy, J. Mustard, R. Nakamura, O. Niehuis, S. Nigam, R. Overson, J. Placek, R. Rajakumar, J. Reese, G. Suen, S. Tao, C. Torres, N. Tsutsui, L. Viljakainen, F. Wolschin, J. Gadau. (2011) "A draft genome of the red harvester ant *Pogonomyrmex barbatus*" *Proceedings of the National Academy of Sciences of the United States of America*. 108: 5667-5672.
- Mathis, K. A.**, S. M. Philpott, and R. F. Moreira. (2011) "Parasite lost: Chemical and visual cues used by *Pseudacteon* in search of *Azteca instabilis*" *Journal of Insect Behavior*. 24: 186-199.

Manuscripts in Preparation/Submitted/In Review:

- Mathis, K. A.**, S. Ramirez, S. M. Philpott. (In Prep) "Colony boundaries and spatial variation in cuticular hydrocarbons of polydomous twig-nesting ants in coffee agroecosystems."

Mathis, K.A., N. Tsutsui. (In Prep) "Eavesdropping beetles protect ants from phorid parasitoids by preying on the parasitized."

Mathis, K.A., N. Tsutsui. (In Prep) "The role of *Azteca sericeasur* cuticular hydrocarbons in host discrimination for *Pseudacteon* spp. phorid flies".

INVITED PRESENTATIONS

- 2014 Mathis, K. A. "Defensive Strategies of *Azteca* Ants against Phorid Fly Parasitism" International Union for the Study of Social Insects Conference, Cairns, QLD, Australia
- 2014 Mathis, K. A. "Phorid fly parasitoid host preference in *Azteca* ants in coffee agroecosystems" Ecological Society of America Conference, Sacramento, CA.
- 2013 Mathis, K. A. "Predators for the Greater Good: The role of an ant associated beetle in *Azteca* ant-phorid fly interactions" Entomological Society of America Conference, Austin, TX.
- 2011 Mathis, K. A. "The Rules of Attraction: Host Location and Acceptance of the ant, *Azteca instabilis*, by their Phorid Fly Parasitoids" XX Simposio de Mirmecologia, Petropolis, Brazil.
- 2008 Mathis, K. A. "Searching for the Smell of Fear: Chemical and Visual cues used by a Dipteran Parasitoid (*Pseudacteon*) in location of the ant *Azteca instabilis*" Hampshire College Cognitive Science Division III Symposium, Amherst, MA.
- 2008 Mathis, K.A. "Parasite Lost: *Pseudacteon* flies in search of the aggressive arboreal ant *A. instabilis*" Hampshire College Natural Science Division III Symposium, Amherst, MA

AFFILIATIONS

Collaborators: Dr. Stacy M Philpott (University of California, Santa Cruz); Dr. John Vandermeer (University of Michigan); Dr. Ivette Perfecto (University of Michigan); Dr. Santiago Ramirez (University of California, Davis)

Graduate Advisor: Neil D. Tsutsui (University of California-Berkeley)

Undergraduate Advisors: Rayane F. Moreira (Hampshire College, MA); Brian Schultz (Hampshire College, MA); Mark Feinstein (Hampshire College, MA); Stacy M. Philpott (University of California, Santa Cruz)

MENTORING OF UNDERGRADUATES AT UC BERKELEY

- 2014-present Leila Ramanculova, Volunteer, Project: Floral volatile cue use in phorid fly-honey bee parasitism

2013-present Hiromi Murata, Volunteer, Project: Floral volatile cue use in phorid fly-honey bee parasitism

2013-present Savannah Carnes, Undergraduate Research Apprentice, Project: Floral volatile cue use in phorid fly-honey bee parasitism

2013-2014 Black Caracci, Undergraduate Research Apprentice, Project: Behavior and Chemical Ecology of Ant-Decapitating Phorid Fly Interactions in Coffee Agroecosystems (including a summer 2013 and 2014 internship)

2013-2014 Shelley Pneh, Undergraduate Research Apprentice, Project: Behavior and Chemical Ecology of Ant-Decapitating Phorid Fly Interactions in Coffee Agroecosystems (including a summer 2013 internship)

2012 Kimberley Chen, Undergraduate Research Apprentice, Project: Behavior and Chemical Ecology of Ant-Decapitating Phorid Fly Interactions in Coffee Agroecosystems

2012 Nicholas Sykora, Environmental Leadership Program, Project: the role of cuticular hydrocarbons in brood care in the Argentine ant, *Linepithema humile*