

Curriculum Vitae- Sarah E. Bengston

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Academic Appointments

- Huxley Faculty Fellow 2017 - current
Rice University
Department of BioSciences
- National Science Foundation Postdoctoral Fellowship in Biology 2015 - 2017
University of Rochester
Department of Biology
Mentor: Christian Rabeling

Education

- University of Arizona **Ph D.**
Department of Ecology and Evolutionary Biology 2010 - 2015
Mentor: Anna Dornhaus
- University of Tennessee **Bachelor of Science**
Honors Ecology and Evolutionary Biology 2007 - 2010
Mentor: Susan Riechert

Publications

- 1) **Bengston SE**, Dahan RA, Donaldson Z, Phelps S, Sih A, Bell A. (*in revision*). Genomic tools for behavioral ecologists: advancing the understanding of repeatable behavioral variation. *Nature Ecology and Evolution*.
- 2) **Bengston SE**. (*in revision*) Pace of life at the colony level: a test of between population variation in *Temnothorax* ants. *Behavioral Ecology and Sociobiology*.
- 3) **Bengston SE**, Dornhaus A, Rabeling C. (*submitted*). Facultative social parasitism in *Temnothorax* ants supports the territoriality hypothesis of slave-making ant evolution. *Proceedings of the Royal Society B*.
- 4) **Bengston SE**, Shin M, Dornhaus A. 2017. Life-history strategy and behavioral type: Risk-tolerance variation reflects differing growth rates and energy allocation in *Temnothorax* ant colonies. *Oikos*. 126: 556-564
- 5) **Bengston SE**, Dornhaus A. 2015. Latitudinal variation in risk-tolerance is driven by competition and spatial distribution in *Temnothorax* ants. *Behavioral Ecology & Sociobiology*. 69:1265-1274.
- 6) **Bengston SE**, Jandt J. 2014. The development of collective personality: the ontogenetic drivers of behavioral variation across groups. Invited review, *Frontiers in Ecology and Evolutionary Biology*. Published online. doi: 10.3389/fevo.2014.00081
- 7) **Bengston SE**, Dornhaus A. 2014. Be meek or be bold? A colony-level behavioral syndrome in ants. *Proceedings of the Royal Society B*. doi:10.1098/rspb.2014.0518
- 8) **Bengston SE**, Pruitt JN, Riechert SE. 2014. Natal environment induces the formation of correlated behavioral traits in *Brachypelma smithi* tarantulas. *Animal Behaviour*. 93: 105-110.

- 9) Jandt J, **Bengston SE**, Pinter-Wolman N, Pruitt J, Raine N, Dornhaus A, Sih A. 2014. Behavioral syndromes and social insects: personality at multiple levels. *Biology Review*. 89: 48-67.
- 10) Westling J*, Harrington K*, **Bengston S**, Dornhaus A. 2014. Morphological differences between foragers and non-foragers in the ant *Temnothorax rugatulus*, but no effect of body size on foraging distance. *Insectes Sociaux*. 1-3.
- 11) Bibbs CS, **Bengston SE**, Gouge DH. 2014. Exploration of refuge preference in the Arizona bark scorpion, *Centruroides sculpturatus* (Scorpiones: Buthidae). *Environmental Entomology*. 43: 1345-1353.
- 12) Bibbs CS, **Bengston SE**, Gouge DH. 2014. Activity trends and movement distances in the Arizona bark scorpion, *Centruroides sculpturatus* (Scorpiones: Buthidae). *Journal of Environmental Entomology*. 43: 1613-1620
- 13) **Bengston SE**, Dornhaus A. 2013. Colony size does not predict foraging distance in the ant *Temnothorax rugatulus*: a puzzle for standard scaling models. *Insectes Sociaux* 60: 93-96.
- 14) Dornhaus A, Powell S, **Bengston SE**. 2012. Group size and its effects on collective organization. *Annual Review of Entomology* 57: 123-141

*Indicates mentored undergraduate student

Manuscripts in Preparation

Bengston SE, Rabeling C. The evolutionary bifurcation of socially parasitic strategy.

Bengston SE, Fischer N, Jandt J. Colony considerations: Lab vs field strengths and limitations in the study of social insects.

Bengston SE, Binder C, Papaj D. Multimodal cues and collective navigation during next emigration in *Temnothorax* ants.

Lanan M, **Bengston SE**, McGlynn T. Competition is not the hallmark of ant ecology.

Awards and Fellowships

2015

NSF Postdoctoral Fellowship	\$138,000
Warder Clyde Allee Award, Animal Behavior Society	\$1500
Galileo Scholar	\$500
Center for Insect Science Travel Award	\$600

2014

Darwin/Wallace Biodiversity Scholar Award	\$200
Center for Insect Science Travel Award	\$600
International Society of Behavioral Ecology Travel Grant	\$500

2013

College of Science Graduate Teaching Award	\$1000
Chapman Graduate Student Prize for Research in Insect Science	\$1000
Animal Behavior Society Travel Grant	\$500
Graduate & Professional Student Council Travel Award	\$500

2012

Center for Insect Science Travel Award	\$500
International Society of Behavioral Ecology Travel Grant	\$500
Graduate & Professional Student Council Travel Award	\$500
Animal Behavior Society Travel Grant	\$500
Honorable Mention for NSF Graduate Research Fellowship Program	

2009

U Tenn. Undergraduate Summer Internship Scholarship	\$2000
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University Teaching _____**2017****Instructor of Record**

Intro to Ecology and Evolutionary Ecology- 3-unit lecture course, Rice University
 Lab Module in Animal Behavior – 1-unit lab course, Rice University

2016

Guest Lecture- University of Rochester; Introduction to Organismal Evolution
 Topic – Cooperation and Conflict
 Topic – Kin selection
 Topic – Eusociality

2015

Guest Lecture – University of Rochester; Animal Behavior course.
 Topic - Personality and Behavioral Syndromes in Animals
 Topic - The Evolution of Altruism
 Guest Lecture – SUNY Geneseo, Departmental Seminar
 Topic – Collective Animal Personality, Risk-taking at the colony level
 Teaching Assistant – University of Arizona, Evolution course
 Head TA for lecture and discussion

2014

Guest Lecturer – University of Arizona Animal Behavior course
 Topic – Personality and Behavioral Syndromes in Animals
 Teaching Assistant – University of Arizona, Evolution course
 Head TA for lecture and discussion
 Teaching Assistant – Sociobiology
 Lecturer, grader

2013

Teaching Assistant – University of Arizona, Evolution course
 Head TA for lecture and discussion
 Teaching Assistant – Sociobiology
 Lecturer, grader

2012

Teaching Assistant – University of Arizona, Evolution course
 Head TA for lecture and discussion
 Teaching Assistant – Animal Behavior
 Lab designer and organizer, Grader, Lecturer

2011

Teaching Assistant – University of Arizona, Evolution course
Head TA for lecture and discussion

Teaching Assistant – Sociobiology
Lecturer, grader

2010

Teaching Assistant – Sociobiology
Lecturer, grader

Undergraduate Assistant – Introductory Biology, University of Tennessee
Lab assistant

Conference Presentations

Bengston SE. 2017. Insights from the invisible cities.

Invited symposium speaker: Behavioral Biodiversity
Animal Behavior Society, Toronto, CA

Bengston SE, Dahan RA, Rabeling C. Pace - of - life variation in ant colonies.
Conferences Talk, Animal Behavior Society

Bengston SE, Rabeling C. 2016. A new case of social parasitism in ants and the effects
on between species interactions.

Conference Talk- Animal Behavior Society, Columbia, MO

Bengston SE, Dornhaus A. 2015. Life history strategy and behavioral type: Risk-
tolerance reflects growth rate and energy allocation.

Conference talk- Animal Behavior Society, Anchorage, AK.

Warder Clyde Allee Student Paper competition- Winning Entry.

Bengston SE, Dornhaus A. 2014. Be meek or be bold? A colony-level behavioral
syndrome in ants.

Poster presentation- International Society of Behavioral Ecology, New York, NY.

Bengston SE. 2014. Collective behavior and personality. Behavioral variation across
multiple scales.

Conference talk- Life in the aggregate conference, Howard Hughes Medical

Bengston SE, Dornhaus A. 2014. Competition and crowding affects group level risk
taking behavior.

Poster presentation- Mind, Brain and Behavior, Tucson, AZ.

Bengston SE, Dornhaus A. 2013. Colony level behavioral syndromes: Personality across
multiple scales.

Conference talk- Animal Behavior Society, Boulder, CO.

Bengston SE, Dornhaus A. 2012. Environment, not colony size, affects foraging distance
in the ant *Temnothorax rugatulus*.

Conference talk- Animal Behavior Society, Albuquerque, NM

Bengston SE, Dornhaus A. 2012. Colony Personalities: Behavioral syndromes in social
insects.

Conference talk- International Society for the Study of Social Insects,
Greensboro, NC.

Bengston SE, Dornhaus A. 2012. Ecological context, not colony size, affects foraging
behavior in the ant *Temnothorax rugatulus*.

Poster presentation, International Society for Behavioral Ecology, Lund, Sweden

Outreach

Rice To Rural Community Connection (R2C2)	2017- current
Co-founder and organizer of a rural outreach program to provide STEM teachers in rural Texas with resources, access to teaching pedagogy and training opportunities.	
Arizona Desert Museum	2015, 2014
Volunteered as a handler for the arthropod exhibits during outreach events	
Arizona Insect Festival	2014, 2013, 2012, 2011
Designed exhibits and volunteered at the social insects booth	
Sonoran Arthropods Studies Institute	Nov. 25, 2012
Guest Lecturer: "Personalities in Arthropods"	
Biology in a Box –University of Tennessee	2009-2010
Lesson development, construction, K-12 teacher instruction	

Service

Animal Behavior Society- Strategic Planning Committee	2015- Current
Develop a mission statement and plan to execute these goals over the next 5-10 years.	
Peer review for:	2011- Current
Animal Behaviour, Frontiers in Ecology and Evolution, Behavioral Ecology and Sociobiology, Behavioral Ecology, Ethology, Insect Ecology, Insectes Sociax, The Science of Life	
Insect Behavior Journal Club	2011- 2013
Founder and organizer, ~25 members	
EEB Rep. to Associated Graduate Council for the College of Science	2011- 2012
Attended monthly meetings with the Dean to provide feedback to the CoS on graduate affairs in the EEB department.	
Graduate Student Rep. to Department of EEB	2012
Attended faculty meetings, solicited graduate student feedback on faculty hires and P & T decisions, organized student lunches with guest lecturers, organized recruitment events	
Graduate Recruitment Coordinator	2011
Worked with the graduate representatives to organize graduate student recruitment, with a recruiting class of 45 students.	

Students Mentored

Cara Brand- Graduating 2017, applying to medical school
Aaron Scott- Graduating 2017, applying to medical school
Romain Dahan- Ph.D Student, Arizona State University
Colby Behrens- Graduating 2018, University of Iowa
Teva Mayer- Graduating 2017, University of Washington
Hunter Guerin- High school student, SARSEF (state-wide science fair) finalist
Eric Vornholt- Graduated 2015, attending graduate school in Psychology
Jeffrey Westling- Graduated 2014, attending law school
Chantal Binder- Graduated 2012, currently nurse practitioner
Dakota Manness- Graduated 2012, attending graduate school in Biology

Kevin Harrington- Undergraduate senior, graduated winter 2015

Kory O'Hara-Hanley- 2012

Angela Kristof- 2011, funded by Minority Health Disparities Summer Research program

Collaborators

Anna Dornhaus - University of Arizona

Susan Reichert – University of Tennessee

Jennifer Jandt – University of Otago

Noa Pinter-Wollman – UC, San Diego

Denis Reale – University of Quebec

Scott Powell – George Washington University

Christopher Bibbs - University of Arizona

Daniel Papaj – University of Arizona

Amy Toth- University of Iowa

Christian Rabeling- U of Rochester

Jonathan Pruitt – UC Santa Barbara

Andy Sih – UC, Davis

Nigel Raine – Guelph University

Minsul Shin – UNC, Charlotte

Michele Lanan – Deep Springs College

Dawn Gouge - University of Arizona

Terry McGlynn – Cal. State University