

Kaitlin M. Baudier, PhD

Assistant Professor

University of Southern Mississippi

School of Biological, Environmental and Earth Sciences

Kaitlin.Baudier@usm.edu | (601) 266-4660 | www.usmsocialinsectlab.com

Research Interests

Social Insect Biology
Physiological ecology
Behavioral ecology

Education

2017 **Doctor of Philosophy - Biological Sciences**
Drexel University, Philadelphia, PA

2008 **Bachelor of Science, *cum laude* - Biological Sciences**
Louisiana State University, Baton Rouge, LA

Academic Positions

2021- **Assistant Professor**, School of Biological, Environmental and Earth Sciences, University of Southern Mississippi, Hattiesburg, MS

2017-2020 **Postdoctoral Research Associate**, Social Insect Research Group, School of Life Sciences, Arizona State University, Tempe, AZ

2012-2017 **PhD Student/Candidate**, Department of Biodiversity, Earth & Environmental Sciences, Drexel University, Philadelphia, PA

2010-2012 **Entomologist**, Department of Entomology, Audubon Insectarium, Audubon Nature Institute, New Orleans, LA

2009 **Research Associate**, Department of Entomology, Louisiana State University, Baton Rouge, LA

Additional Training

2019-2020 Weaving the Future of Animal Behavior Workshops, Animal Behavior Society

2009 Neotropical Social Insects Course, Organization for Tropical Studies, Costa Rica

Professional Affiliations

International Union for the Study of Social Insects
Entomological Society of America
Animal Behavior Society
Association for Tropical Biology and Conservation

Honors & Awards

2024 USM College of Arts & Sciences – Faculty Advisor and Mentor Award Nominee

2024 USM Drapeau Center for Undergraduate Research – Mentor of the Year Nominee

2017 Organization for Tropical Studies, Outstanding student paper – honorable mention

2016 XXV International Congress of Entomology, 2nd place grad student oral presentation

2015 Drexel Research Day, 1st place poster in Biology & Biomedical Research

2013 & 2015 Drexel University Teaching Excellence Award Nominee

2013 Drexel Students Tackling Advanced Research (STAR) Outstanding Mentor Award

2012-2014 Drexel College of Arts & Sciences Dean's Fellowship

Google scholar metrics: citations = 550, h-index = 12, i10-index = 13

Peer-Reviewed Journal Articles

- Robinson KM*, Baudier KM (2024) Stingless bee foragers experience more thermally stressful microclimates but have wider thermal tolerance breadths than other worker subcastes. *Frontiers in Ecology and Evolution*. In press.
- Rowe E, Robles López KY*, Robinson KM*, Baudier KM, Barrett M (2024). Farmed Cricket (*Acheta domesticus*, *Gryllus assimilis*, and *Grylloides sigillatus*; Orthoptera) Welfare Considerations: Recommendations for Improving Global Practice. *Journal of Insects as Food and Feed*. In press.
- Johnson A*, Ziemke CH*, Yee DA, Baudier KM (2024) Notes on the natural history and climatic specializations of an endemic Caribbean paper wasp (Hymenoptera: Vespidae: *Mischocyttarus phthisicus*). *Caribbean Naturalist*. 96: 1-8.
- Robles López KY*, Sosa Calvo J, Zoppas de Albuquerque E, Calixto JM*, Baudier KM (2024) One ant's trash is another ant's treasure: Neotropical army ant middens are transient resources for a diverse assemblage of ants. *Biotropica*. 56(1): 58-70.
- O'Donnell S, Baudier KM (2023) Significant colony differences in thermal tolerances and decoupling of high and low critical temperatures in the army ant *Eciton burchellii parvispinum*. *Ecological Entomology*. 48(5): 622-626.
- Navas Zuloaga MG, Baudier KM, Fewell JH, Ben-Asher N, Pavlic TP, Kang Y (2023) A Modeling Framework for Adaptive Collective Defense: Crisis Response in Social-Insect Colonies. *Journal of Mathematical Biology*. 87.
- Ostwald MM*, Tretter S, Buellesbach J, Calixto JM*, Fewell JH, Gadau J, Baudier KM (2023) Body mass and cuticular hydrocarbon profiles, but not queen number, underlie worker desiccation resistance in a facultatively polygynous harvester ant (*Pogonomyrmex californicus*). *Journal of Comparative Physiology B*. 193: 261–269.
- Baudier KM & Pavlic TP (2022) Multi-level instrumentation of bivouac thermoregulation: current methods and future directions. *Artificial Life and Robotics*. 27: 308-315.
- Baudier KM§, Ostwald MM§*, Haney BR, Calixto JM*, Cossio FJ*, Fewell JH (2022) Social factors in heat survival: Multi-queen desert ant colonies have higher and more uniform heat tolerance. *Physiological and biochemical zoology*. 95(5): 379-389.
- Baudier KM, Bennett MM, Barrett M, Cossio FJ*, Wu RD*, O'Donnell S, Pavlic TP, Fewell JH (2022) Soldier neural architecture is temporarily modality specialized but poorly predicted by repertoire size in the stingless bee *Tetragonisca angustula*. *Journal of Comparative Neurology*. 530(4): 672-682.
- Bennett MM & Baudier KM (2021) The night shift: nest closure and guarding behaviors in the stingless bee, *Tetragonisca angustula*. *Journal of Insect Behavior*, 34(4): 162-172.
- Baudier KM§, Bennett MM§, Ostwald MM*, Hart S*, Pavlic TP, Fewell JH (2020) Age-based changes in kairomone response mediate task partitioning in stingless bee soldiers (*Tetragonisca angustula*). *Behavioral Ecology and Sociobiology*. 74:1-9.
- Baudier KM & Pavlic TP (2020) Incidental interactions among Neotropical army-ant colonies are met with self-organized walls of ants (Hymenoptera: Formicidae). *Myrmecological News*, 30.
- Welch L*, Baudier KM, Harrison J (2020) Warmer mid-day temperatures increase leaf intake by increasing forager speed and success in *Atta colombica* during the rainy season. *Insectes Sociaux*. 67:213–219.
- Baudier KM, O'Donnell S. (2020) Rain shadow effects predict population differences in thermal tolerance of leaf-cutting ant workers (*Atta cephalotes*). *Biotropica*, 52(1):113-119.
- Baudier KM, Ostwald MM*, Grüter C, Segers FH, Roubik DW, Pavlic TP, Pratt SC, Fewell JH (2019) Changing of the guard: mixed specialization and flexibility in nest defense (*Tetragonisca angustula*). *Behavioral Ecology*, 30:1041-1049.
- Baudier KM, D'Amelio CL*, Sulger E*, O'Connor MP O'Donnell S (2019) Plastic collective endothermy in a complex animal society (army ant bivouacs: *Eciton burchellii parvispinum*). *Ecography*. 42:730-739.
- Baudier KM, S O'Donnell (2018) Complex body size differences in thermal tolerance among army ant workers (*Eciton burchellii parvispinum*). *Journal of Thermal Biology*. 78:277-280.
- Ostwald MM*, Ruzi SA, Baudier KM (2018) Ambush predation of stingless bees (*Tetragonisca angustula*) by the solitary-foraging ant *Ectatomma tuberculatum*. *Journal of Insect Behavior*. 31:503–509.

- Baudier KM, D'Amelio CL*, Malhotra R*, O'Connor MP, O'Donnell S (2018) Extreme insolation: climatic variation shapes the evolution of thermal tolerance at multiple scales. *The American Naturalist*. 192:347–359.
- O'Donnell S, Baudier KM, Fioca K, Marendra DR (2018) Erythritol ingestion impairs adult reproduction and causes larval mortality in *Drosophila melanogaster* fruit flies (Diptera: Drosophilidae). *Journal of applied entomology*. 142:37-42.
- Baudier KM, O'Donnell S (2017) Weak links: How colonies counter the social costs of individual variation in thermal physiology. *Current Opinion in Insect Science*. 22:85-91.
- Baudier KM, O'Donnell S (2016) Structure and thermal biology of subterranean army ant bivouacs in a tropical montane forest. *Insectes Sociaux*. 63(3):467-476.
- O'Donnell S, Baudier KM, Marendra DR (2016) Non-nutritive polyol sweeteners differ in insecticidal activity when ingested by adult *Drosophila melanogaster*. *Journal of Insect Science*. 16:1-3.
- Baudier KM, Mudd AE*, Erickson SC*, O'Donnell S (2015) Microhabitat and body size effects on heat tolerance: implications for responses to climate change (army ants: Formicidae, Ecitoninae). *Journal of Animal Ecology*. 84:1322-1330.
- Baudier KM, Kaschock-Marendra SD, Patel N*, Diangelus KL*, O'Donnell S, Marendra DR (2014) Erythritol, a non-nutritive sugar alcohol sweetener and the main component of Truvia®, is a palatable ingested insecticide. *PLoS ONE*. 9(6):e98949.

Peer-reviewed Conference Proceedings

- Strickland LG, Baudier KM, Bowers KP, Pavlic TP, Pippin CP (2019) Bio-inspired role allocation of heterogeneous teams in a site defense task, *Distributed Autonomous Robotic Systems*, 9:139-151.

Book Chapters

- Baudier KM (2019). Brood Stimulation Hypothesis. In *Encyclopedia of Social Insects*, ed. Starr CK. Cham, Switzerland: Springer International.

Manuscripts in Review

- Prendergast CT*, Harrison JF, Baudier KM (*Submitted*) Variation in reflective flow and forager navigation explain speed of obstruction circumnavigation on *Atta colombica* foraging trails. *Neotropical Naturalist*.
- Robinson KM*, Mabry ZC*, Schonekas H*, Robles López KY*, Johnson AN*, Cipriani G*, Nguyen A*, Ziemke CH*, Baudier KM (*Submitted*) Is disturbance stridulation in the passalid beetle *Odontotaenius disjunctus* a form of social communication? *Behavioral Ecology and Sociobiology*.

Received Research Support

External Funding:

- 2024-2027 **National Science Foundation REU SITE – CO-PI – \$422,391**
REU Site: Gulf Coastal Plain Ecology
 National Science Foundation, Alexandria, VA
- 2022-2023 **Rethink Priorities Invertebrate Research Award – CO-PI – \$29,607**
Investigation of Cricket Welfare
 Rethink Priorities, San Francisco, CA
- 2018-2021 **DARPA W31P4Q-18-C-0054 (Phase I & II) – Senior Personnel / CO-PI – \$990,792**
Autonomous System Control via Social Insect Models (ASC-SIM)
 United States Defense Advanced Research Projects Agency, Arlington, VA
- 2017-2018 **US Air Force/Eglin AFB/FL A8651-17-F-1013 – Senior Personnel – \$368,079**
Bio-Inspired Swarming (BioSwarm) Seedling project
 United States Defense Advanced Research Projects Agency, Arlington, VA
- 2014 **Christiane and Christopher Tyson Research Fellowship – PI – \$3,482**
Ecological and physiological factors in Neotropical army ant thermal tolerance
 Organization for Tropical Studies, San Jose, Costa Rica

Internal funding:

- 2024 **College of Arts & Sciences Faculty Research Award – PI – \$2000**
*Documenting and developing monitoring methodology for a new pest ant species (the two-spined trap-jaw ant, *Odontomachus haematodus*) in the Hattiesburg area*
 College of Arts & Sciences, University of Southern Mississippi, Hattiesburg, MS

- 2018-2019 **Innovative Post-Doctoral Research Award – PI – \$5,790**
*Modalities of task specialization in the stingless bee *Tetragonisca angustula**
 School of Life Sciences, Arizona State University, Tempe, AZ
- 2016-2017 **Claudio Elia Environmental Science & Engineering Fellowship – PI – \$7,500**
Using ants to model thermal physiology along tropical temperature gradients
 Drexel University, Philadelphia, PA
- 2016 **McLean Fellowship for Environmental Science & Ornithology – PI – \$12,500**
Multilevel thermal adaptation in Neotropical army ants
 Academy of Natural Sciences of Drexel University, Philadelphia, PA

Travel awards:

- 2019 Weaving the Future of Animal Behavior (WFAB) Travel Award
 2018 International Union for the Study of Social Insects NAS Travel Award

Teaching experience

Instructor (traditional coursework)

- 2024- *Senior Practicum, BSC 497*
 School of BEES, The University of Southern Mississippi
- 2023- *Animal Behavior, BSC 455/L (BSC 555/L)*
 School of BEES, The University of Southern Mississippi
- 2022- *Comparative Animal Physiology, BSC 450 (550)*
 School of BEES, The University of Southern Mississippi
- 2021- *General Zoology, BSC 201/L*
 School of BEES, The University of Southern Mississippi

Instructor (advised research hours)

- 2022- *Special Problems I, II, III (Undergraduate Honors Research), BSC 492H*
 School of BEES, The University of Southern Mississippi
- 2021- *Special Problems I, II, III (Undergraduate Research), BSC 492*
 School of BEES, The University of Southern Mississippi
- 2021- *Research (Graduate), BSC 691*
 School of BEES, The University of Southern Mississippi

Co-Instructor

- 2018-2019 *Tropical Biology (Study Abroad - Panama), BIO 494*
 School of Life Sciences, Arizona State University

Teaching Assistant

- 2016 *General Ecology, ENVS 230*
 Department of Biodiversity, Earth & Environmental Sciences, Drexel University
- 2013&2015 *Evolution and Organismal Diversity Lab, BIO 124*
 Department of Biology, Drexel University
- 2014 *Drosophila Methods, BIO 480*
 Department of Biology, Drexel University
- 2014 *Function and Evolution of Vertebrates, BIO 224*
 Department of Biology, Drexel University
- 2013 *Discoveries in Animal Behavior, ENVS 226*
 Department of Biodiversity, Earth & Environmental Sciences, Drexel University
- 2013 *Watershed Approach, ENVS 203*
 Department of Biodiversity, Earth & Environmental Sciences, Drexel University
- 2013 *Physiology & Ecology Lab, BIO 126*
 Department of Biology, Drexel University
- 2012 *Community Ecology Lab, ENVS 287*
 Department of Biodiversity, Earth & Environmental Sciences, Drexel University

Service

University-level

- 2024 Faculty Judge, Graduate Student Research Symposium 2024

2023 Faculty Judge, Undergraduate Symposium on Research and Creative Activity 2023
2023 Guest speaker, "Rejection in Academia: Rewrite Your Story", at USM Prism Center
2022-USM "Chop to the Top" Karate Club faculty advisor, class instructor, & team coach

School of Biological, Environmental and Earth Sciences

2023-BEES Scholarship Committee, *committee member*
2023-2024 Darwin Day, Donuts with Darwin, *faculty volunteer*
2022-Undergraduate advising, *faculty advisor*
2022-2023 BEES Ambassador Program, *co-advisor*

Professional

2024 Entomological Society of America Southeastern Branch Meeting, *student competition judge*
2023-IUSSI-North American Section, *DEIJ Committee Member*
2021-2022 IUSSI 2022 International Meeting, *Organizing committee member*
2020-2021 IUSSI-North American Section, *awards committee co-chair*
2020 Annual Meeting of the Animal Behavior Society, Virtual Mentoring Sessions, *mentor*
2020 ASU Social Insect Research Group - Diversity Equity & Inclusion, *committee member*
2020 ASU SoLS in-coming student virtual coffee chats, *out-of-classroom personality*
2019 Entomology 2019 (annual meeting of ESA), *undergraduate student competition judge*
2019 56th Annual Conference of the Animal Behavior Society, "social behavior" *moderator*
2019 Workshop on insect inspired models for social behavior, *organizing committee chair*
2018-2021 IUSSI-NAS, *awards committee member*
2017 Entomology 2017 (annual meeting of ESA), *student competition judge*
2016 Frances Velay Fellowship Program, Drexel/ Temple, *mentor*
2013-2015 Biology Graduate Student Association, Drexel University, *community chair*

Manuscript review for the following academic journals

<i>The American Naturalist</i>	<i>Ecology & Evolution</i>	<i>Myrmecological News</i>
<i>Animal Behaviour</i>	<i>Ecosphere</i>	<i>Nature Communications</i>
<i>Behavioral Ecology</i>	<i>Environmental Physiology</i>	<i>Nature Ecology & Evolution</i>
<i>Behavioral Ecology & Sociobiology</i>	<i>Functional Ecology</i>	<i>Neotropical Entomology</i>
<i>Biological Reviews</i>	<i>Global Ecology & Biogeography</i>	<i>Oecologia</i>
<i>Biology</i>	<i>Heredity</i>	<i>Oikos</i>
<i>Biotropica</i>	<i>Insect Conservation and Diversity</i>	<i>Philosophical Transactions of the Royal Society B</i>
<i>Climate Change Ecology</i>	<i>Insect Science</i>	<i>Proceedings of the Royal Society B</i>
<i>Conservation Physiology</i>	<i>Journal of Animal Ecology</i>	<i>PLoS ONE</i>
<i>Current Zoology</i>	<i>Journal of Biogeography</i>	<i>Revista de Biología Tropical</i>
<i>Diversity & Distribution</i>	<i>Journal of Comparative Physiology B</i>	<i>The Science of Nature</i>
<i>Ecology</i>	<i>Journal of Insect Science</i>	<i>The Southwestern Naturalist</i>

Grant review

2022 National Science Foundation
2021 Israel Science Foundation

Editorial board service

2020- *Neotropical Naturalist*

Public Outreach

2023 Interviewed for "Her Stem Journey" by Oak Grove High School Student
2023 Pine Woods Audubon Society, Hattiesburg, MS, United States, *guest speaker*
2022-2023 Teachers Conservation Workshop, Lake Thoreau Environmental Center, *guest speaker*
2022 Osher Lifelong Learning Institute (OLLI), *summer instructor*
2022 Pinebelt Beekeepers' Association, *guest seminar speaker*
2021 Bug Fest, The Crosby Arboretum, *guest entomologist*
2019 Gamboa Discovery School, Gamboa, Panama (K-4), *guest speaker*
2018 Smithsonian Tropical Research Institute, Ant Day, *meet-and-greet scientist*
2018 Phoenix March for Science (all ages), *meet-and-greet scientist*
2016 Women in Natural Sciences (9-12), Academy of Natural Sciences, *mentor*
2014-2015 Philadelphia Science Festival (K-12 + families), *guest exhibitor*
2013-2016 Drexel Students Tackling Advanced Research (STAR), *mentor*
2013-2015 George Washington Carver Science Fair (grades 4-12), *guest judge*
2010-2012 Interactive talks at Orleans Parish Public schools via KIDsmART, *guest entomologist*

Media Appearances & Interviews

- "USM Professor's Ant Research Leads to Publication in Scientific Journal," Southern Miss Now. (2023).
- "USM Graduate's Breakthrough Wasp Research Set to Make Waves in Entomology World" Mississippi Updates. (2023).
- "USM Alumna's Wasp Research Accepted for Publication in Prestigious Journal," Southern Miss Now. (2023).
- "Extreme Temperature Tolerance of Army Ants Could Inform How Animal Populations Will Respond to Changing Climates," Drexel News. (2023).
- "Love Bug Season", *WDAM 7*, (2022)
- "USM Professor Leads Research Team to Study How Climate Affects Ant Colonies", *Southern Miss Now* (2022)
- "USM professor publishes breakthrough paper on bee research", *The PineBelt News*, (2022)
- "USM professor publishes new paper about bee brains", *Southern Miss Today at WUSM*, (2022)
- "USM professor publishes breakthrough paper on bee research", *WDAM 7*, (2022)

Presentations §invited, ‡international conference, †national conference, *undergraduate or graduate mentee

Invited Seminars

- §Baudier KM. Social thermal adaptation: Using ants to study how climate shapes form and function across spatial scales and levels of biological organization. Entomology Colloquium. University of Illinois at Urbana-Champaign. 15 November 2021.
- §Baudier KM. Flexible defense specialization in eusocial insects: From group behavior to soldier physiology. Evolution, Ecology, Genetics & Genomics Seminar, University of Rochester. 23 April 2021.
- §Baudier KM. Flexible defense specialization in eusocial insects: From group behavior to soldier physiology. Ecology and Evolution Seminar, University of Copenhagen. 9 April 2021.
- §Baudier KM. Social heterogeneity in the context of aggression, truce, and battling the elements. NSF-Simons QBio Center, Harvard University. 16 December 2020.
- §Baudier KM. Social insect macrophysiology: using ants to study climate adaptation at big scales. Division of Natural Sciences. College of Mount Saint Vincent. Biological Colloquium. 5 November 2020.
- §Baudier KM. Social axes of ecological physiology: Individual to group form and function. University of Southern Mississippi. Hattiesburg, MS. 25 February 2020.
- §Baudier KM. Social axes of ecological physiology: individual to group form and function. San Francisco State University. San Francisco, CA. 11 December 2019.
- §Baudier KM. Social physiology: Discoveries in group function of tropical social insects. University of Hawaii at Manoa. Honolulu, HI. 23 April 2019.
- §Baudier KM. Catching more flies with Truvia: Erythritol as a human-safe pesticide. Arid Land Agricultural Research Center (USDA-ARC). Maricopa, AZ. 3 December 2018.
- §Baudier KM. La tolerancia térmica y la termorregulación de un grupo de hormigas legionarias neotropicales. Reserva Biológica del Bosque Nuboso de Monteverde. Monteverde, Puntarenas, Costa Rica. 25 April 2016.
- §Baudier KM. Thermal tolerance in Neotropical army ants: body size, microhabitat & elevational effects. American Entomological Society Monthly Meeting. Academy of Natural Sciences. Philadelphia, PA. 26 March 2014.

Guest Lectures

- §Baudier KM. Social macrophysiology: using ants to study climate adaptation at big scales. The Community College of Baltimore County. Baltimore, MD. 13 October 2020.

Workshop Presentations

- §Baudier KM. Insect colony defense strategies as a model for human defense allocation. Workshop on Insect-Inspired Models for Social Behavior (WIIMSB). Arizona State University. Tempe, AZ. 14 January 2019.
- §Pippin C, Squires E, Baudier KM. Swarming in the presence of adversaries. Workshop: Bio-Inspired Algorithms for Managing Emergent Behavior in Sociotechnical Systems. at Arizona State University. Tempe, AZ. 14 November 2017.

Organized symposium

- †Baudier KM, Mora-Kepfer Uy F, Cook C. "Balancing social and ecological information in a changing world". IUSI 2022 International Meeting, International Union for the Study of Social Insects, San Diego, CA, United States. 4 July 2022.

Conference Talks

- §Marley C*, Ziemke CH*, Baudier KM, "Exploring how microclimate shapes the relationship between body size and thermal tolerance in a tropical ant community," Entomological Society of America - Southeastern Branch Meeting, Augusta, GA, United States. 20 March 2024.

- §Baudier KM, Robinson KM*, Johnson A*, Guild T*, Gillespie N*, Uy FMK, "Thermal adaptations of the paper wasp *Mischocyttarus mexicanus*: a study of the interplay between behavioral and physiological strategies," Entomological Society of America - Southeastern Branch Meeting, Augusta, GA, United States. 20 March 2024.
- Robles López KY*, Baudier KM, "Desiccation adaptations in army ants: How rain shadows influence desiccation adaptations," Annual Meeting of the Mississippi Academy of Sciences, Hattiesburg, MS, United States. 29 February 2024.
- Robinson KM*, Baudier KM, "The interplay of division of labor and thermal tolerance in a stingless bee species," Annual Meeting of the Mississippi Academy of Sciences, Hattiesburg, MS, United States. 29 February 2024.
- †Robles López KY*, Baudier KM, Entomology 2023, "Desiccation resistance adaptations in army ants: How do rain shadows shape tropical insect functional traits?," Entomology 2023, Entomological Society of America, National Harbor, MD, United States. 6 November 2023.
- †Baudier KM, Robinson KM*, Johnson A*, Guild T*, Gillespie N*, Uy FMK, "Social macrophysiology of the subtropical paper wasp *Mischocyttarus mexicanus cubicola*," Entomology 2023, Entomological Society of America, National Harbor, MD, United States. 6 November 2023.
- †Robinson KM*, Baudier KM, "The interplay of division of labor and thermal tolerance in a stingless bee species," Entomology 2023, Entomological Society of America, National Harbor, MD, United States. 6 November 2023.
- †Ziemke C*, Johnson A*, Gregg S, Yee DA, Baudier KM, "Thermal biology of ants in the Luquillo Mountains of Puerto Rico," Entomology 2023, Entomological Society of America, National Harbor, MD, United States. 6 November 2023.
- §†Baudier KM. Distributed defenses of insect societies against biotic and abiotic threats. Biological Distributed Algorithms. Orlando, FL, United States, 23 June 2023.
- §†Baudier KM, Bennett MM, Ostwald MM, Fewell JH, Harrison JF. Inter-caste metabolic scaling in workers of the stingless bee *Tetragonisca angustula*, IUSSI 2022 International Meeting, International Union for the Study of Social Insects, San Diego, CA, United States. 4 July 2022.
- §†Robinson K*, Johnson A, Mora-Kepler Uy F, Baudier KM. IUSSI 2022 International Meeting, "Biogeography of thermal performance in the subtropical paper wasp, *Mischocyttarus mexicanus cubicola*. International Union for the Study of Social Insects, San Diego, CA, United States. 4 July 2022.
- Serio J*, Robinson K*, Baudier KM. Flight Willingness Behavior Within the Soldier Caste of *Tetragonisca angustula*. USM Undergraduate Symposium on Research and Creative Activity. Hattiesburg, MS, United States. 22 April 2023.
- §†Calixto* JM, Baudier KM, Fewell JH. IUSSI 2022 International Meeting, Is reproductive caste associated with critical thermal limits in desert seed-harvester ants? International Union for the Study of Social Insects, San Diego, CA, United States. 4 July 2022.
- §Baudier KM, Robinson K*, Mora Kepler Uy F. Thermal adaptations of the Mexican paper wasp (*Mischocyttarus mexicanus*) in the Southeastern United States. Annual Conference of the Mississippi Entomological Association and Mississippi Association of Plant Pathologists and Nematologists. Starkville, MS. 9 November 2021.
- §Baudier KM. New Faculty Showcase. Annual Conference of the Mississippi Entomological Association and Mississippi Association of Plant Pathologists and Nematologists. Starkville, MS. 9 November 2021
- †Baudier KM, Pavlic TP. Multi-level instrumentation of bivouac thermoregulation: current methods and future directions. The 15th International Symposium on Distributed Autonomous Robotic Systems & The 4th International Symposium on Swarm Behavior and Bio-Inspired Robotics. Virtual Meeting. 5 January 2021.
- †Baudier KM, Ostwald MM, Calixto JM*, Cossio FJ*, Fewell JH. Thermal benefits of polygyny? Multi-queen desert ant colonies have higher and more uniform heat tolerance. Entomological Society of America. Virtual Meeting. 11-25 November 2020.
- †Baudier KM. Living walls: An emergent defensive subroutine of army ant raids. Animal Behavior Society. Virtual Meeting. 28-31 July 2020.
- †Baudier KM, Barrett M, Bennett MM, Fewell JH, Pavlic TP. Neural and physiological underpinnings of defense specialization in soldiers of the stingless bee *Tetragonisca angustula*. Entomological Society of America. St. Louis, MO. 20 November 2019.
- †Baudier KM, Bennett MM, Fewell JH, Pratt SC, Pavlic TP. Ageing modulates defensive tasks performed by soldiers of the stingless bee *Tetragonisca angustula*. 56th Annual Conference of the Animal Behavior Society. Chicago, IL. 27 July 2019.
- §†Baudier KM, Fewell JH, Pavlic TP, Pratt SC. Changing of the guard: Task dynamics of stingless bee nest defense in cleptoparasitic environments. International Union for the Study of Social Insects. Guarujá, Brazil. 5-10 August 2018.
- §†Baudier KM, O'Donnell S. Interacting climate scales of army ant thermal tolerance. International Union for the Study of Social Insects. Guarujá, Brazil. 5-10 August 2018.
- †Baudier KM, O'Donnell S. Weak links: Behavioral and physiological implications of thermal tolerance variation within insect societies. Entomological Society of America. Denver, CO. 8 November 2017.

- Baudier KM, O'Donnell S. Elevation, site choice, & brood age factors in army ant bivouac thermoregulation. Social Insects in the North-East Regions meeting. Washington, DC. 10 December 2016.
- §Baudier KM. Social thermoregulation along elevational clines: lessons from a Neotropical army ant. Philadelphia Evolution Group. Philadelphia, PA. 10 October 2016.
- †Baudier KM, O'Donnell S. Microhabitat, elevation and body size effects on thermal tolerance among Neotropical army ants. International Union for the Study of Social Insects North American Section Colloquium. Orlando, FL. 24 September 2016.
- ‡Baudier KM, O'Donnell S. Thermoregulatory responses to thermal clines: Bivouac function across the wide elevational range of a Neotropical army ant (Formicidae: Dorylinae: *Eciton burchellii parvispinum*). XXV International Congress of Entomology. Orlando, FL. 27 September 2016.
- Baudier KM, O'Donnell S. Geographic patterns of thermoregulation: homeostasis in surface & below-ground bivouacking army ants. Social Insects in the North-East Regions meeting. Scranton, PA. 10 December 2015.
- †Baudier KM, O'Donnell S. Social thermal physiology: How superorganismal homeostasis confronts elevational thermal clines (Formicidae: Ecitoninae: *Eciton burchellii parvispinum*). Entomological Society of America National Meeting. Minneapolis, MN. 16 November 2015.
- †Baudier KM, O'Donnell S. Microclimate and body size affect thermal tolerance among Neotropical army ants (Ecitoninae). Entomological Society of America National Meeting. Portland, OR. 18 November 2014.
- †Baudier KM, Austero M, Schauer C, O'Donnell D. Evolution of larval adhesive structures in the ant subfamily Ponerinae. Entomological Society of America National Meeting. Austin, TX. 12 November 2013.
- Baudier KM, Austero M, Schauer C, O'Donnell S. The Evolution of Sticky Tubercles in Ponerine Larvae. Social Insects in the North-East Regions meeting. Newark, NJ. 24 May 2013.
- †Strecker R, Baudier KM, Hooper-Bui L. Effects of a d-Limonene product on leaf-cutting ant *Atta texana* Entomological Society of America National Meeting. Reno, NV. 17 November 2008.
- ‡Hooper-Bui L, Wiltz B, Baudier KM. Effect of hurricanes Katrina and Rita on the ant fauna of South Louisiana. XXIII International Conference of Entomology. Durban, South Africa. 6-12 July 2008.
- †Hooper-Bui L, Wiltz B, Baudier KM, Strecker R. Post-Katrina pest ants in south Louisiana. National Conference for Urban Entomology. Tulsa, OK. 17-20 May 2008.

Conference Posters

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