CHRISTINE WHITNEY MILLER

Entomology and Nematology Department | University of Florida, Gainesville, FL 32611 USA Email: cwmiller@ufl.edu | Website: http://www.millerlab.net

ACADEMIC POSITIONS

2017 – present Associate Professor, Entomology & Nematology Dept, UF **2022 – 2023** Visiting Scholar, Pembroke College & Dept. Zoology, Univ.

of Cambridge

2018 Easter Term Visiting Fellow, Sidney Sussex College & Dept. Zoology, Univ.

of Cambridge

2011 – 2017 Assistant Professor, Entomology & Nematology Dept, UF

2007 – 2011 Assistant Research Scientist, Univ. Florida

EDUCATION

The University of Montana – Missoula **Ph.D., Organismal Biology and Ecology**, 2007. Advisor: Dr. Douglas J. Emlen.

Wesleyan University, Middletown, CT

B.A. Biology, 1998

EXTERNAL AWARDS, GRANTS and FELLOWSHIPS

National Science Foundation, Behavioral Systems Program, \$1,214,230. 2022- 2026. "Dynamic environments and the biomechanics of animal weapons" PI: Christine W. Miller

National Science Foundation CAREER Award, Behavioral Systems Program, \$845,000. 2016-2022. "CAREER: Fighting behavior, performance, and the evolution of shape" PI: Christine W. Miller

USDA National Excellence in Teaching Award, 2017. Awarded at a ceremony in Washington D.C.

United States Department of Agriculture, NIFA, Women and Minorities in Science, Technology, Engineering, and Mathematics Fields Program (WAMS), \$90,000. 2016-2018. "Increasing student diversity in food and agriculture-related STEM disciplines through undergraduate classroom-based research experiences" PI: Adam Dale, Co-PIs: Christine Miller & Anne Donnelly.

National Institutes of Health, Maximizing Access to Research Careers (MARC) U-STAR Program, \$2,350,594, 2016-2021. "GatorSTAR: A New MARC U*STAR Program at the University of Florida." PI: David Julian, Co-PIs: Christine Miller, Ryan Duffy, & David Miller.

National Science Foundation, Behavioral Systems Program, \$325,394. 2009-2013. "Selection in heterogeneous environments: a multi-trait perspective" PI: Christine W. Miller.

National Evolutionary Synthesis Center (NESCent) Postdoctoral Fellowship, 2007-2009 (I declined to instead accept a position at UF).

Smithsonian Tropical Research Institute, Short Term Fellowship, \$1000, 2005; Ernst Mayr Fellowship, \$4850, 2004; Research Award, \$1138, 2004; Graduate Student Fellowship, \$3700, 2003.

NSF Graduate Research Fellowship Program, \$121,500. 2003-2006.

LEADERSHIP EXPERIENCE

Director of Weaving the Future of Animal Behavior (WFAB). Director of a DEI initiative that sets up diverse early career animal behavior scientists for success in academia. We received funding from the U.S. National Science Foundation, and I have worked closely with the Executive Committee of the Animal Behavior Society to enable institutionalization of this initiative. Director 2022 – present, Member of Leadership Team 2018 – 2022.

College of Agriculture and Life Sciences Faculty Mentor Academy Facilitator, Spring 2022 and Spring 2024. Direct a bi-weekly, semester-long mentor training for 16 - 20 early career faculty members at the University of Florida. This DEI initiative is aimed to foster mentoring excellence to enhance productivity of research groups while fostering career success for early-career members of groups underrepresented in STEM.

Secretary and Division Officer, for the Division of Ecology & Evolution, Society for Integrative and Comparative Biology, 2021 – 2023.

Trained Facilitator for *Entering Mentoring* Curriculum, Week-long training by the Center for the Improvement of Mentored Experiences in Research (CIMER) Madison, WI. 2021.

LEAD IFAS, Year-long, intensive leadership training by invitation only. Designed to train future academic leaders and administrators. University of Florida/IFAS. 2018 - 2019.

Co-Director. UF Campus Initiative to boost UF's national standing into the top 5 public research universities. Working as a team, we created a new program to recruit 300 of the very top undergraduate students into UF by placing them into a research-intensive degree program that include dozens of Course-based Undergraduate Research Experience (CURE) courses that we newly formulated across the university. This program was run in partnership and funding from the UF Provost's office. 2018 – 2020.

INTERNAL AWARDS and GRANTS

UF/IFAS Large Grant Leadership Award 2024. Recognition for excellence in grantsmanship.

UF Term Professorship Award 2017-2020; again 2020-2023. \$15,000 each term, total \$30,000. Award to recognize and reward UF faculty for outstanding accomplishments.

UF Faculty Enhancement Opportunity Program 2022, \$36,345.

University of Florida, College of Agriculture and Life Sciences Undergraduate Teacher of the Year Award 2018.

UF Internationalizing the Curriculum Grant 2018, \$5000, support to bring in international course content and active learning activities as part of the Learning Without Borders initiative at UF; **UF International Center, Global Fellow Award** 2016, \$4000; **UF International Center, Faculty Grant** 2015, \$5000.

UF Interdisciplinary Research on Invasive Species Seed Grant 2018-2019, \$64,500.

UF Excellence Award for Assistant Professors 2014, \$5000. Campus-wide honor.

HHMI-UF Science for Life Distinguished Mentor Award 2013, \$10,000. Award for excellence in mentoring undergraduate researchers.

UF/IFAS Early-Career Seed Grant 2013, \$55,000.

UF Faculty Enhancement Opportunity Program 2013, \$5,317.

PEER-REVIEWED PUBLICATIONS

- Miller CW, Kimball RT & Forthman M (2024). The evolution of multi-component weapons in the superfamily of leaf-footed bugs. *Evolution*. qpae011, https://doi.org/10.1093/evolut/qpae011.
- Jarrett BJM & Miller CW (2024). Host plant effects on sexual selection dynamics in phytophagous insects. Annual Review of Entomology. 69: https://doi.org/10.1146/annurev-ento-022823-020258.
- 3. Allen, PE & **Miller CW** (2024). Inbreeding depression on a sexually selected weapon and the female homologous trait. *Journal of Evolutionary Biology*. https://doi.org/10.1093/jeb/voad011.
- 4. Greenway EV, Angelis E & **Miller CW** (2023). How does the timing of weapon loss influence reproductive traits and trade-offs in the insect *Namia femorata?* **Evolution**. 77: 1422-1429.
- 5. Forthman M, Downie C, **Miller CW**, Kimball RT (2023). Evolution of stridulatory mechanisms: vibroacoustic communication may be common in leaf-footed bugs and allies (Heteroptera: Coreoidea). *Royal Society Open Science*. 10: 221348.
- 6. Zlotnik S & **Miller CW** (2023). Adult presence does not ameliorate juvenile feeding challenges in a leaf-footed bug. *Royal Society Open Science* 10: 221291
- 7. Greenway EV, Hamel JA & **Miller CW** (2022). A tangled web: Comparing inter- and intraspecific mating dynamics in *Anasa* squash bugs. *Journal of Evolutionary Biology*. 35: 91-99. Journal cover and winner of the Editor's Choice award.
- 8. Forthman M, **Miller CW**, Kimball RT (2022). Phylogenomic analysis with improved taxon sampling corroborates an Alydidae + Hydarinae + Pseudophloeinae clade (Heteroptera: Coreoidea: Alydidae, Coreidae). *Organisms Diversity & Evolution.* 22: 669–679.
- Adler K, Schill AER, Stolberg AM, Miller CW & Forthman M (2022). First record of the bow-legged bug, *Hyalymenus subinermis* Van Duzee, 1923 (Hemiptera: Heteroptera: Alydidae), in California, with description of the mimetic immature stages. *Pan-Pacific Entomologist*. 98: 138-149.
- 10. Cirino LA, Moore PJ & **Miller CW** (2022). High-quality host plant diets partially rescue female fecundity from a poor early start. *Royal Society Open Science*. 9: 211748.

- 11. Miller CD, Forthman M, **Miller CW**, & Kimball RT (2022). Extracting 'legacy loci' from an invertebrate sequence capture data set. **Zoologica Scripta.** DOI: 10.1111/zsc.12513.
- Woodman TE, Chen S, Emberts Z, Wilner D, Federle W & Miller CW (2021).
 Developmental nutrition affects the structural integrity of a sexually selected weapon.
 Integrative & Comparative Biology. 61: 723-735.
- 13. **Miller CW**, Joseph PN & Emberts Z (2021). Trade-offs between weapons and testes do not manifest at high social densities. *Journal of Evolutionary Biology*. 34: 726-735.
- 14. Greenway EV, Hamel J & Miller CW (2021). Exploring the effects of extreme polyandry on estimates of sexual selection and reproductive success. *Behavioral Ecology*. DOI: 10.1093/beheco/arab081
- Cavender K, Ricker T, Lyon M, Shelby E, Miller CW & Moore PJ (2021). The trade-off between investment in weapons and fertility is mediated through spermatogenesis in the leaf-footed cactus bug Narnia femorata. Ecology & Evolution. DOI: 10.1002/ece3.7686
- Allen PE, Cui Q & Miller CW (2021). Evidence of a rapid and adaptive response of hemipteran mouthparts to a physical barrier. *Journal of Evolutionary Biology*. 34: 653-66.
- Cirino LA, Lenga SH & Miller CW (2021). Do males that experience weapon damage have greater reproductive potential than intact males in polygynous scenarios? Behav. Ecol. & Soc. 75: 1-8.
- Greenway EV, Cirino LA, Wilner D, Somjee U, Anagnostou ME, Hepple RT & Miller CW (2020). Extreme variation in testes size in an insect is linked to recent mating activity.
 Journal of Evolutionary Biology. 33: 142-150.
- 19. Allen PE, **Miller CW**, and Dale AG (2020). Bringing the scientific process into the undergraduate classroom. *American Entomologist*. 66: 24-27.
- 20. Allen PE & **Miller CW** (2020). The hidden cost of group living for aggregating juveniles in a sexually dimorphic species. *Biological Journal of the Linnean Society 131: 39-49.*
- 21. Forthman M, **Miller CW**, Kimball RT. (2020) Phylogenomics of the leaf-footed bug subfamily Coreinae (Hemiptera: Coreidae). *Insect Systematics and Diversity*. 4:1-15.
- 22. Emberts Z, St. Mary CM, Howard CC, Forthman MP, Bateman B, Somjee U, Hwang W, Li D, Kimball R, **Miller CW** (2020). The evolution of autotomy in leaf-footed bugs. *Evolution*. 74: 897-910.
- 23. Wilner D, Greenway EG, Cirino LA & **Miller CW** (2020). Long-term reproductive success is predicted by sexual behavior and impaired by temporary nutritional stress during sexual maturation. *Behavioural Processes*. 175: 104122.
- 24. Emberts Z, **Miller CW**, Skojec C, Shepherd R, St. Mary C (2020). Leaf-footed bugs possess multiple hidden contrasting color signals, but only one is associated with increased body size. *Ecology & Evolution* 10: 8571-8578.
- 25. **Miller CW**, Joseph PN, Kilner RM, Emberts Z (2019). A weapon–testes trade-off in males is amplified in female traits. *Proceedings of the Royal Society of London (B).* 286: 20190906. *Recipient of the* 2019 *UF/IFAS High-Impact Publication Award.*
- 26. Forthman M, Miller CW, Kimball RT (2019) Phylogenomic analysis suggests Coreidae and Alydidae (Hemiptera: Heteroptera) are not monophyletic. **Zoologica Scripta.** 48: 520-534.

- 27. Somjee U, Woods HA, Duell M, & Miller CW (2018). The hidden cost of sexually selected traits: the metabolic expense of maintaining a sexually selected weapon. *Proceedings of the Royal Society of London (B).* DOI: 10.1098/rspb.2018.1685. Press.
- 28. Joseph PN, Emberts Z, Sasson DA, & **Miller CW** (2018). Males that drop a sexually selected weapon grow larger testes. *Evolution*. 72: 113–122. DOI: 10.1111/evo.13387. Press.
- 29. Somjee U, **Miller CW**, Tatarnic NJ, & Simmons LW (2018). Experimental manipulation reveals a trade-off between weapons and testes. *Journal of Evolutionary Biology.* 31: 57–65. DOI: 10.1111/jeb.13193. <u>Press.</u>
- 30. Emberts Z, St. Mary CM, Herrington TJ, & **Miller CW** (2018). Males missing their sexually selected weapon have decreased fighting ability and mating success in a competitive environment. **Behavioral Ecology and Sociobiology.** 72: 81.
- 31. Allen PE, Dale AG, Diyaljee SI, Ector NJ, Petit-Bois D, Quinn JT, Ranieri AC, Sanchez JA, Smith HM, Tran DX, Winsor AM & **Miller CW**. (2018). Long-term sperm storage in the cactus-feeding bug, Narnia femorata (Hemiptera: Coreidae). *Annals of the Entomological Society of America*. 111:271-277.
- 32. Cattau CE, Fletcher RJ, **Miller CW**, Kimball RT & Kitchens, WM (2018). Rapid morphological change of a top predator with the invasion of a novel prey. **Nature Ecology and Evolution.** DOI:10.1038/s41559-017-0378-1. Press: NY Times, ARS Technica.
- 33. Allen PE & **Miller CW** (2017). Novel host plant leads to the loss of sexual dimorphism in a sexually selected male weapon. *Proceedings of the Royal Society of London (B).* 284: 20171269. *Recipient of the* 2017 *UF/IFAS High-Impact Publication Award.*
- 34. Emberts Z, **Miller CW**, Kiehl D, & St. Mary C (2017). Cut your losses: self-amputation of injured limbs increases survival. *Behavioral Ecology*. 28: 1047–1054.
- 35. Emberts Z, **Miller CW**, Li D, Hwang WS, & St. Mary CM (2017). Multiple male morphs in the leaf-footed bug *Mictis longicornis* (Hemiptera: Coreidae). *Entomological Science*. 20: 396–401.
- 36. Nolen ZJ, Allen PE, & **Miller CW** (2017). Seasonal resource value and male size influence male aggressive interactions in the leaf footed cactus bug, *Narnia femorata*. **Behavioural Processes.** 138: 1-6.
- 37. Cirino LA & **Miller CW** (2017). Seasonal effects on the population, morphology and reproductive behavior of *Narnia femorata* (Hemiptera: Coreidae). *Insects.* 8: 1-16.
- 38. Cirino LA, Emberts Z, Joseph PN, Allen PE, Lopatto D, & **Miller CW** (2017). Broadening the voice of science: promoting scientific communication in the undergraduate classroom. *Ecology and Evolution*. 7: 10124–10130.
- 39. **Miller CW**, McDonald G, & Moore AJ (2016). The tale of the shrinking weapon: seasonal changes in nutrition affect weapon size and sexual dimorphism, but not contemporary evolution. *Journal of Evolutionary Biology*. 29: 2266-2275.
- 40. McCullough E, **Miller CW**, and Emlen DE (2016). Why sexually selected weapons are not ornaments. *Trends in Ecology and Evolution*. 31: 742-751.
- 41. Emberts Z, St. Mary CM, & **Miller CW** (2016). Coreidae (Insecta: Hemiptera) limb loss and autotomy. *Annals of the Entomological Society of America*, 109: 678–683.

- 42. Joseph PN, Sasson DA, Allen PE, Somjee U. and **Miller, CW** (2016). Adult nutrition, but not inbreeding, affects male primary sexual traits in the leaf-footed cactus bug *Narnia femorata* (Hemiptera: Coreidae). *Ecology & Evolution*. 6: 4792–4799.
- 43. Sasson DA, Munoz PR, Gezan SA, & **Miller CW** (2016). Resource quality affects weapon and testis size and the ability of these traits to respond to selection in the leaf-footed cactus bug, *Narnia femorata*. *Ecology & Evolution*. 6: 2098-2108.
- 44. Somjee U, Allen PE, & **Miller CW** (2015). Different environments lead to a reversal in the expression of weapons and testes in the heliconia bug, *Leptoscelis tricolor* (Hemiptera: Coreidae). *Biological Journal of the Linnean Society* 115: 802-209.
- 45. Hamel J, Nease SA, & **Miller CW** (2015). Male mate choice and female receptivity lead to reproductive interference. *Behavioral Ecology and Sociobiology* 69: 951-956. Press: IFLScience, Discover Magazine.
- 46. Gillespie SR, Tudor MS, Moore AJ, & Miller CW (2014). Sexual selection is influenced by both developmental and adult environments. *Evolution* 68: 3421-3432.
- 47. **Miller CW** & Somjee U (2014). Male-male competition. In *Oxford Bibliographies in Evolutionary Biology*. Ed. Jonathan Losos. New York: Oxford University Press.
- 48. Miller CW & Svensson E (2014). Sexual selection in complex environments. *Annual Review of Entomology* 59: 427-445.
- 49. Helmey-Hartman W & Miller CW (2014). Context-dependent mating success in *Murgantia histrionica* (Hemiptera: Pentatomidae). *Annals of the Entomological Society of America* 107: 264-273.
- 50. Addesso KM, Short KA, Moore AJ, & **Miller CW** (2014). Context-dependent female mate preferences in leaf-footed cactus bugs. *Behaviour* 151: 479-492.
- 51. **Miller CW** (2013). Sexual selection: Male-male competition. In: J. Losos, Editor. *The Princeton Guide to Evolution*. Princeton University Press.
- 52. **Miller CW**, Hamel J, Holmes KD, Helmey Hartman WL & Lopatto D (2013). Expanding your research team: learning gains when a laboratory partners with a classroom. *Bioscience* 63: 754-762.
- 53. **Miller CW**, Fletcher RJ & Gillespie SR (2013). Conspecific and heterospecific cues override resource quality to influence offspring production. *PLoS One* 8:e70268.
- 54. Procter DS, Moore AJ & **Miller CW** (2012). The form of sexual selection arising from malemale competition depends on the presence of females in the social environment. *Journal of Evolutionary Biology* 25: 803-812.
- 55. **Miller CW**, Fletcher RJ, Anderson BD, & Nguyen LD (2012). Natal social environment influences habitat selection later in life. *Animal Behaviour* 83: 473-477.
- 56. **Miller CW** & Emlen DJ (2010). Dynamic effects of oviposition site on offspring sexually selected traits and scaling relationships. *Evolutionary Ecology* 24(2): 375-390.
- 57. **Miller CW** & Emlen DJ (2010). Across and within population differences in the size and scaling relationship of a sexually selected trait in *Leptoscelis tricolor* (Hemiptera: Coreidae). *Annals of the Entomological Society of America* 103: 209-215.
- 58. **Miller CW** & Hollander SE (2010). Predation on heliconia bugs, *Leptoscelis tricolor* (Hemiptera: Coreidae): examining the influences of crypsis and predator color preferences. *Canadian Journal of Zoology* 88: 122-128.

- 59. Nageon de Lestang F & **Miller CW** (2009). Effects of diet on the development and survivorship of *Narnia femorata* nymphs (Hemiptera: Coreidae). *Florida Entomologist* 92:511-512.
- 60. **Miller CW** (2008). Seasonal effects on offspring reproductive traits through maternal oviposition behavior. *Behavioral Ecology* 19: 1297-1304.
- 61. Fletcher RJ & **Miller CW** (2008). The type and timing of social information alters offspring production. *Biology Letters* 4:482-485.
- 62. **Miller CW** & Moore AJ (2007). A potential resolution to the lek paradox through indirect genetic effects. *Proceedings of the Royal Society of London (B)* 274:1279-1286.
- 63. Fletcher RJ & **Miller CW** (2006). On the evolution of hidden leks and implications for reproductive and habitat selection behaviours. *Animal Behaviour* 71:1247-1251.

RECENT PUBLIC ENGAGEMENT and OUTREACH ACTIVITIES

- **Streaming Science.** We partner with experts in science education and communication to develop and deliver science curriculum based on my NSF-funded research on evolutionary biology and insect weapons. These live programs are delivered to six rural and underserved middle schools across the United States. 2023-2026.
- **Living Laboratory Exhibit.** In close collaboration with the Florida Museum of Natural History, we are presenting a living laboratory exhibit where our laboratory essentially relocates to the center of the Museum where the public can directly observe and interface with members of my research team as they conduct research on insect evolutionary biology. 2024.
- **Florida State Fair.** My research team provides regular public engagement activities based on insect evolutionary biology, including providing the public with living insects to hold and observe. 2007 present (annually).
- **Bug Fest.** We deliver research talks and student-leg activities at the University of Florida Bug Fest held every year (with 200-400 visitors annually). 2017 present.
- **Bug Week.** Partnered with UF/IFAS Communications to produce a leaf-footed bug coloring book based on my research. This coloring book is routinely provided at public events by the university and my research group. 2018 present.

COURSES and TRAININGS OFFERED

Principles of Entomology, Undergraduate/Graduate Course & Laboratory, 2008- present. Evolutionary Theory & Application, Graduate seminar, University of Florida, Spring 2022. Mentoring Excellence, Seminar for graduate students, postdoctoral researchers, and early-career faculty. Center for Teaching Excellence at the University of Florida. 2022- present. Insect Research and Scientific Engagement, Course-based Undergraduate Research

Experience (CURE), 2012- 2019. I have published three pedagogical manuscripts on our teaching approach and results (e.g., Miller et al. 2013)

Animal Weapons, Graduate seminar, Fall 2015

Critical Analysis of Scientific Presentations, Graduate seminar, Fall 2014
Behavioral Plasticity and Evolution, Graduate seminar, Spring 2012
Sexual selection, Graduate seminar, Spring 2008
Advances in Evolutionary Theory, University of Montana, Fall 2006

MENTORING through RESEARCH

Six postdoctoral researchers: Jennifer Hamel, Michael Forthman, E.V. (Ginny) Greenway, Pablo Allen, Christina Salerno, Benjamin Jarrett.

Thirteen graduate students: Wendy Helmey-Hartman, Pablo Allen, Ummat Somjee, Daniel Sasson (major advisor: Jane Brockmann), Scarlett Tudor (co-advised with Colette St. Mary), Lauren Cirino, Paul Joseph, Zach Emberts (co-advised with Colette St. Mary), Daniela Wilner, Sam Zlotnik, James Boothroyd, Steven Smit, Yichen Li

Six visiting international student researchers: Gayatri Raina (Indian Institute of Science Education and Research, Mohali, 2022), Tamsin Woodman (University of Manchester, 2019-2020), Duncan Procter (University of Exeter, 2010), Grant McDonald (Oxford University, 2010), Katherine Short (University of Exeter, 2011), Iain Gordon (University of Exeter, 2011), Aitor Alvarez-Fernandez (Oxford University, 2011)

Undergraduate Mentor and Recipient of 2013 Howard Hughes Medical Institute
Distinguished Mentor Award. Together with my graduate students and postdocs, I have mentored over 240 undergraduates in my laboratory. Since 2017 alone, 26 undergraduate researchers have authored peer-reviewed publications, presented 35 talks and posters at conferences, and won local and national awards (e.g., Animal Behavior Society Turner Awards, UF Best Undergraduate Paper Award). Since 2008 I have hosted ten UF University Scholars' Program students, two HHMI Science for Life students, and six College of Agriculture and Life Sciences internship students. In addition, I collaborated with the UF Provost's office to bring over 20 Classroom Undergraduate Research Experience (CURE) courses to UF undergraduates, leading to teaching publications and awards locally and nationally.

INVITED RESEARCH SEMINARS

University College London, UK. Centre for Biodiversity and Environmental Research (CBER), 2023.

University of East Anglia, UK. Department of Biology, 2023.

Institute of Functional Genomics – Lyon, France, 2023.

University of Plymouth, UK. School of Biological and Marine Sciences, 2023

University of Cambridge, UK. Behavior, Ecology, and Evolution Seminar Series, 2022.

University of Georgia. Entomology Department, 2022.

University of Texas-Austin. Integrative Biology, 2021.

University of Oklahoma. Department of Biology, 2020.

University of Illinois. Entomology Department, 2020.

University of Houston. Biology and Biochemistry Department, 2020.

University of Cambridge, U.K. Department of Zoology, 2018.

University of Saint Andrews, U.K. School of Biology, 2018.

University of Minnesota, Department of Ecology, Evolution and Behavior, 2014.

University of Kentucky Symposium in Ecology, Evolution and Behavior. Keynote, 2014.

University of South Florida, Department of Biology, 2012.

University of Central Florida, Department of Biology, 2011.

University of Missouri, Evolution and Ecology Seminar Series, 2010.

University of Florida, Department of Biology, 2007, 2013.

Montana State University, Entomology Symposium, 2006.

Smithsonian Tropical Research Institute, Tupper Seminar Series, 2004.

SYMPOSIUM TALKS

Florida Statewide Symposium on Best Practices in Undergraduate Research, 2021. "Successful Implementation of a Campus Wide CURE Initiative."

University of Florida, Fusing Research and Teaching Symposium 2017. Featured speaker on bringing authentic research into the classroom.

University of Florida, CALS Teaching Enhancement Symposium 2017, 2016, 2013, 2012 (six presentations total). Invited presentations and workshops on best practices in graduate mentoring, undergraduate classroom instruction, and undergraduate mentoring.

Behaviour 2015, Cairns, Australia. Invited Symposium Speaker, 2015.

Entomological Society of America Annual Meeting, Invited Symposium Speaker, 2015.

University of Florida, Center for Undergraduate Research, Integrating Research

Workshop. 2015. Featured speaker on bringing authentic research into the classroom.

University of Florida, Tropical Connections: Career Development Workshop for Post-Doctoral and Senior Graduate Scientists, 2015.

Winter Animal Behavior Conference 2014, 2013, 2010, 2009. Steamboat Springs, CO. Invited Speaker.

Entomological Society of America Annual Meeting, Invited Symposium Speaker, 2010. Gordon Conference - Genes and Behavior, Italy. Invited "Data blitz" Speaker, 2008.

MEMBERSHIP in PROFESSIONAL SOCIETIES

Society for the Study of Evolution Entomological Society of America European Society for Evolutionary Biology Society for Integrative and Comparative Biology Intl. Society for Behavioural Ecology

American Society of Naturalists **Animal Behavior Society British Ecological Society**

ADDITIONAL SERVICE to SCIENTIFIC COMMUNITY

2023	External Examiner for two Viva Examinations (Ph.D. and
	MPhil) at the University of Cambridge
2021 - 2022	Associate Editor and Editorial Board Member for
	Proceedings of the Royal Society: B.
2016 - 2021	Associate Editor and Editorial Board Member for Functional
	Ecology

2010 – present	Four-time Panelist, National Science Foundation,	
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Washington D.C.

2011 – 2016 Editorial Board Member and Reviewing Editor for the

Journal of Evolutionary Biology

2010 - Present Grant Proposal Reviewer for the National Science

Foundation (ad hoc)

ADDITIONAL SERVICE to UNIVERSITY of FLORIDA

2021 & 2022	Director, Recruitment events for outstanding prospective graduate students to the Entomology graduate program.
2020 – 2021	Founding Member, Diversity, Equity, and Inclusion Committee for the Entomology & Nematology Department.
2017 – 2021	Reviewer , UF College of Agriculture and Life Sciences Annual Teaching & Advising Awards Committee. Reviewer , Excellence Awards for Assistant Professors.
2017	Panelist and Reviewer, Global Fellows Program, Office for Global Research Engagement, University of Florida International Center.
2017	Graduate Curriculum Revision Committee, Entomology & Nematology Department, University of Florida
2017	Research Retreat Committee, Entomology & Nematology Department, University of Florida
2015 – 2017	Long-Range Strategic Planning Committee for Undergraduate Research, University of Florida Center for Undergraduate Research.
2015 – 2017	Scholarship & Leadership Awards Committee, University of Florida, College of Agriculture and Life Sciences
2007 – 2024	Graduate Committee Member for 26 graduate students
2012 – 2014	Graduate Admissions Committee , University of Florida, Entomology and Nematology Department.
2012 – 2014	Administrative Committee, University of Florida, Entomology and Nematology Department.
2009 – 2014	Seminar Committee Director. Organized the University of Florida Entomology and Nematology Departmental Seminar Series and mentored students in professional development.