

KELSEY A. COFFMAN | CURRICULUM VITAE

Assistant Professor | Department of Entomology & Plant Pathology | University of Tennessee, Knoxville
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EDUCATION

University of Georgia – Athens, GA 2015 – 2020
PhD, Entomology | Advisor: Dr. Gaelen Burke | GPA: 3.92
Dissertation: "Evolution and Function of a Parasitoid Facultative Symbiont"

University of Missouri – Kansas City – Kansas City, MO 2010 – 2014
BS, Biology, Bioinformatics Emphasis
Summa Cum Laude | GPA: 3.97

PROFESSIONAL EMPLOYMENT

Assistant Professor – Department of Entomology & Plant Pathology, University of Tennessee, Knoxville, TN 2024 – present

USDA-NIFA Postdoctoral Research Fellow – USDA-ARS Pacific Basin Agricultural Research Center, Hilo, HI 2022 - 2023

Postdoctoral Research Entomologist – USDA-ARS Pacific Basin Agricultural Research Center, Hilo, HI 2021 – 2022

Graduate Research/Teaching Assistant – Department of Entomology, University of Georgia, Athens, GA 2015 – 2020

PEER-REVIEWED PUBLICATIONS

Coffman KA, Hankinson QM, Burke GR. A viral mutualist employs posthatch transmission for vertical and horizontal spread among parasitoid wasps. *Proceedings of the National Academy of Sciences*. 2022;119(16):e2120048119. <https://doi.org/10.1073/pnas.2120048119>

Wallace MA, **Coffman KA**, Gilbert C, Ravindran S, Alberly GF, Abbott J, *et al.* The discovery, distribution and diversity of DNA viruses associated with *Drosophila melanogaster* in Europe. *Virus Evolution*. 2021;veab031. <https://doi.org/10.1093/ve/veab031>

Coffman KA, Burke GR. Genomic analysis reveals an exogenous viral symbiont with dual functionality in parasitoid wasps and their hosts. *PLoS Pathogens*. 2020;16(11): e1009069. <https://doi.org/10.1371/journal.ppat.1009069>

Coffman KA, Harrell TC, Burke GR. A mutualistic poxvirus exhibits convergent evolution with other heritable viruses in parasitoid wasps. *Journal of Virology*. 2020;94: e02059–19. <https://doi.org/10.1128/JVI.02059-19>
Chosen as a "Spotlight Selection" for the journal issue.

EXTERNAL FUNDING

USDA-NIFA-AFRI Education and Workforce Development Postdoctoral Fellowship – \$224,653 2022-2024

AWARDS & DISTINCTIONS

USDA Achievement Award – \$1,000 2022
Hawaiian Entomological Society Student & Early Career Symposium – 1st Place, \$100 2022
Society for Invertebrate Pathology Martignoni Award – Virus Division, 1st Place 2021
UGA Sparks Award for Outstanding Achievement in Research – \$500 2020
UGA Graduate School Domestic Travel Award – \$800 2020
UGA Herbert H. Ross Memorial Scholarship – \$5,000 2019
GRC: Animal-Microbe Symbioses Best Poster Award – \$500 2019
UGA Department of Entomology Lund Week 2019 Poster Competition – 1st Place, \$200 2019
UGA CAES Global Programs International Travel Award – \$2,250 2018
UGA Department of Entomology Lund Week 2018 Poster Competition – 1st Place, \$200 2018
UGA Department of Entomology Lund Week 2017 Oral Competition – 1st Place, \$200 2017

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UGA Department of Entomology Lund Week 2016 Oral Competition – 2nd Place, \$100
UGA Excellence in Graduate Recruitment Fund Award – \$3,000

2016
2014

PROFESSIONAL AFFILIATIONS

Hawaiian Entomological Society	2022 – present
Society for Invertebrate Pathology	2021 – present
American Society for Virology	2020 – present
Entomological Society of America	2016 – present

PRESENTATIONS

Oral (*invited presentations)

- Coffman KA, Burke GR, Geib SM. "Infection frequency of a symbiotic virus reflects its crucial role for parasitoid wasp success in the wild." Society for Invertebrate Pathology Annual Meeting. 2023 Aug 1; College Park, MD.
- *Coffman KA. "Viruses as mutualistic symbionts of parasitoid wasps." University of Tennessee Department of Entomology and Plant Pathology Seminar. 2023 April 17; Knoxville, TN.
- *Coffman KA. "Viruses as mutualistic symbionts of parasitoid wasps and prospects for biological control." Montana State University Department of Plant Sciences and Plant Pathology Seminar. 2023 Jan 19; Bozeman, MT.
- *Coffman KA. "Not all viruses are bad: symbiotic viruses as key players in parasitoid wasp success." Tufts University Department of Biology Seminar. 2022 Dec 9; Boston, MA.
- *Coffman KA, Burke GR, Geib SM. "Move over, cellular microbes: symbiotic viruses as key players in parasitoid wasp success." Entomology 2022 Symposium: Microbes Rulers of Us All: Microbial Interactions and Their Influence over Host Fitness. 2022 Nov 13; Vancouver, BC.
- Coffman KA, Kauwe AN, Gillette NE, Geib SM, Burke GR. "Host range of a parasitoid wasp is correlated with host susceptibility to its mutualistic viral symbiont." Society for Invertebrate Pathology Annual Meeting. 2022 Aug 2; online.
- *Coffman KA. "Viruses as parasitoid symbionts and opportunities for fruit fly biocontrol." Hawai'i Invasive Pest Mini-Conference. 2022 May 25; online.
- Coffman KA. "Parasitoid wasps, viruses, and prospects for biocontrol." Hawaiian Entomological Society Student & Early Career Symposium; 2022 Mar 11; online.
- *Coffman KA. "Parasitoid wasps, viruses, and prospects for biocontrol." Hawaiian Entomological Society Quarterly Meeting Seminar; 2021, Dec 16; online.
- *Coffman KA, Burke GR. "Parasitoid wasps, viruses, and prospects for biocontrol." Entomology 2021; IOBC-NRS Symposium: Diversity in Biocontrol: Scale, Systems, and Practitioners; 2021 Oct 31-Nov 3; Denver, CO.
- *Coffman KA. "Beneficial viruses in parasitoid wasps and prospects for fruit fly biological control." USDA Pacific Basin Agricultural Research Center Seminar; 2021 Sept 2; Hilo, HI.
- Coffman KA, Burke GR. "A viral mutualist employs post-hatch transmission for vertical and horizontal spread among parasitoid wasps." Society for Invertebrate Pathology Annual Meeting. 2021 June 30; online.
- Coffman KA. "Evolution and Function of a Parasitoid Facultative Symbiont." Dissertation Defense Seminar. 2020, Nov 13; online.
- Coffman KA, Burke GR. "Viruses as beneficial symbionts of parasitoid wasps." Virtual Symbiosis Seminar Series. 2020, June 30; online.
- *Coffman KA, Burke GR. "Genomic insights into beneficial virus evolution within fruit fly parasites." Plant and Animal Genome Conference Symposium: Beyond *Drosophila*: Genomic Advances in Non-model Diptera; 2020, Jan 14; San Diego, CA.
- *Coffman KA, Burke GR. "Viruses as beneficial symbionts of parasitic wasps." USDA Pacific Basin Agricultural Research Center Seminar; 2019 Aug 14; Hilo, HI.
- Coffman KA, Burke GR. "Shifting the paradigm of viral symbiosis: insights from a novel parasitoid mutualist." EDGE Seminar; 2018 Apr 20; UGA.
- Coffman KA, Burke GR. "Transcriptomic analysis of a novel viral symbiont reveals differential expression during virus replication in parasitoid wasps and fly hosts." Entomology 2017; 2017 Nov 6; Denver, CO.
- Coffman KA, Burke GR. "Comparative genomic and transcriptomic analyses of a novel viral symbiont in parasitoid wasps." Department of Entomology Lund Week Oral Competition; 2017 Apr 10-14; UGA.
- *Coffman KA, Burke GR. "The role of novel viruses as mutualists." International Congress of Entomology Symposium: Interactions Between the Insect Immune System and Parasites; 2016 Sept 25-30; Orlando, FL.
- Coffman KA, Burke GR. "Characterization and evolutionary implications of a recently acquired symbiotic virus in parasitoid wasps." Presented:
– International Congress of Entomology Student Oral Competition; 2016 Sept 25-30; Orlando, FL.

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- Department of Entomology Lund Week Oral Competition; 2016 Apr 4-8; UGA.
- Coffman KA, Burke GR. "Characterization of a recently evolved viral symbiont of parasitoid wasps." EDGE Seminar; 2015 Nov 20; UGA.

Poster

- Coffman KA, Burke GR, Geib SM. "Infection frequency of a symbiotic virus reflects its crucial role for parasitoid wasp success in the wild." Entomology 2023. 2023 Nov 7; National Harbor, MD.
- Coffman KA, Harrell TC, Burke GR. "The role of a symbiotic poxvirus in the success of its parasitoid wasp host." Presented:
- GRC: Animal-Microbe Symbioses; 2019 June 16-21; West Dover, VT.
 - Department of Entomology Lund Week Poster Competition; 2019 Apr 1-5; UGA.
 - Entomological Society of America Southeastern Branch Meeting; 2019 Mar 3-6; Mobile, AL.
 - Entomology 2018; 2018 Nov 11-14; Vancouver, BC.
- Coffman KA, Burke GR. "Transcriptomic analysis of a novel viral symbiont reveals differential expression during virus replication in parasitoid wasps and fly hosts." Presented:
- European Congress of Entomology; 2018 Jul 2-7; Naples, IT.
 - Society for Molecular Biology and Evolution Satellite Meeting; 2018 May 9-12; Park City, UT.
 - Department of Entomology Lund Week Poster Competition; 2018 Apr 9-13; UGA.
 - Entomological Society of America Southeastern Branch Meeting; 2018 Mar 4-7; Orlando, FL.
 - Southeastern Population Ecology and Evolutionary Genetics Meeting; 2017 Oct 20-22; Laurel Hill, NC.
- Coffman KA, Burke GR. "Genomic characterization of *Diachasmimorpha longicaudata* entomopoxvirus, a recently evolved parasitoid viral symbiont." Presented:
- Department of Entomology Lund Week Poster Competition; 2016 Apr 4-8; UGA.
 - Southeastern Population Ecology and Evolutionary Genetics Meeting; 2015 Oct 23-25; Eatonton, GA.
 - Gordon Research Conference on Animal-Microbe Symbioses; 2015 Jun 21-26; Waterville Valley, NH.

TEACHING, MENTORSHIP, & SERVICE

- The Carpentries Certified Instructor** 2022 – present
- Utilize evidence-based computer science teaching practices to lead workshops for The Carpentries that teach biological data handling topics to fellow scientists
- Peer Review** 2021 – present
- Peer reviewer for manuscripts submitted to *Journal of General Virology*, *Archives of Virology*, *Journal of Economic Entomology*, *Journal of Insect Science*, *Environmental Entomology*
 - *Ad hoc* reviewer for funding opportunities from the Agence Nationale de la Recherche
- Co-advisor for UH-Hilo Master's student Nathalie de Rocquigny** 2021 – 2022
- Developed a comprehensive thesis research plan with the student, teaching principles of experimental design, the scientific process, protocols of molecular biology, scientific writing, and presentation of results
- Mentor for undergraduate researcher Quinn Hankinson** 2018 – 2021
- Oversaw student's independent research project, taught principles of experimental design, the scientific process, scientific writing, and presentation of results
- General Entomology Teaching Assistant (ENTO4000)** Fall 2017
- Converted class to an active learning format, graded written assignments and exams
- Organismal Biology Laboratory Teaching Assistant (BIOL1108L)** Fall 2016
- Sole instructor in classroom, gave weekly lectures, led class discussions, wrote exams with higher order thinking-based questions, taught scientific writing principles
- Mentor for undergraduate researcher Sherilyn Harper** 2016
- Taught principles of experimental design and the scientific process
- Mentor for undergraduate researcher Madeline McDonald** 2016
- Taught principles of experimental design and the scientific process
- Organismal Biology Laboratory Teaching Assistant (BIOL1108L)** Fall 2015
- Sole instructor in classroom, gave weekly lectures, led class discussions, wrote exams with higher order thinking-based questions, taught scientific writing principles

SCHOOL & COMMUNITY INVOLVEMENT

- UGA Entomology Games Team** – national entomology-themed collegiate quiz bowl 2018 – 2020
- Team Captain (2018-2020)

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- Funded by the UGA Department of Entomology, UGA CAES, and the Entomological Society of America to compete in the national Entomology Games (formerly Linnaean Games) Tournament at the Entomology 2018 meeting in Vancouver, BC
- Won 2nd place at the 2018 Southeastern Branch Entomology Games Tournament
- UGA H.O. Lund Club** – Department of Entomology student organization 2015 – 2020
- Volunteered for various local entomology outreach activities, such as the annual Insectival!, Tarantula 5k, and OctoBEEfest events
- UGA Women in Science** – promoting women and equality in the sciences 2014 – 2020
- Funded by the UGA Office of the Provost to attend the 1st WIE Women Leadership Summit in Atlanta, GA
- Helped organize the 1st UGA Women in Science Career Symposium
- Mentor for STEM undergraduate Xin Lin on navigating her career path toward graduate school