

# AMELIA R.I. LINDSEY, PH.D.

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## PROFESSIONAL APPOINTMENTS

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- July 2020 – Present      **Assistant Professor**  
University of Minnesota Twin Cities  
Department of Entomology  
Microbial and Plant Genomics Institute  
Graduate Program Faculty Member, Entomology  
Graduate Program Faculty Member, Plant and Microbial Biology
- July 2017 – July 2020      **Postdoctoral Researcher**  
Indiana University Bloomington  
Department of Biology
- Sep. 2012 – June 2017      **Graduate Student Researcher**  
University of California Riverside  
Entomology Department
- Jan. 2014 – March 2014      **Teaching Assistant**  
University of California Riverside  
Ecology and Evolution
- Sep. 2013 – Dec. 2013      **Teaching Assistant**  
University of California Riverside  
Entomology

## EDUCATION

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- Sep. 2012 – June 2017      **Ph.D., Entomology, University of California Riverside**  
Molecular Entomology, Evolution, Bioinformatics.  
♦ Dissertation Title: “Genomic and Evolutionary Consequences of *Wolbachia*-Mediated Parthenogenesis in *Trichogramma* Wasps”
- Aug. 2007 – May 2011      **B.A., Biological Sciences *cum laude*, San José State University**  
Biology, Preparation for Teaching

## RESEARCH EXPERIENCE

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- July 2017 – July 2020      **Postdoctoral Researcher**  
Indiana University Bloomington  
Department of Biology, PIs: Irene Newton and Richard Hardy  
♦ *Wolbachia*-host interactions. Functional genomics of *Wolbachia*-mediated pathogen blocking.
- Sep. 2012 – June 2017      **Graduate Student Researcher**  
University of California Riverside  
Entomology Department, PI: Richard Stouthamer  
♦ Evolution, genomics, and infection dynamics of *Wolbachia*-mediated parthenogenesis in the parasitoid wasp, *Trichogramma*.  
♦ Coordinated genome analyses of *Trichogramma pretiosum* and the *wTpre* *Wolbachia* strain: <http://www.arthropodgenomes.org/wiki/i5K>

Nov. 2010 – Aug. 2012

**Undergraduate Researcher**

San José State University

Biology Department, PI: Cleber Ouverney

- ♦ Evolution of host-association in SR1, a phylum of uncultivable bacteria found in diverse environments, including the human oral cavity and mineral springs.

Jan. 2011 – May 2011

**Undergraduate Researcher**

San José State University

Biology Department, PI: Stephanie Trehwitt

- ♦ Managing skunk collection and databasing specimen information
- ♦ Goshawk pellet content identification for endangered species conservation

## PUBLICATIONS

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- 15) Lue CH, Buffington M, Scheffer S, Lewis M, Elliott T, **Lindsey ARI**, Driskell A, Jandova A, Kimura M, Carton Y, Kula R, Schlenke T, Mateos M, Govind S, Varaldi J, Guerrieri E, Giorgini M, Xingeng W, Hoelmer K, Daane K, Abram P, Pardikes N, Brown J Thierry M, Poirié M, Goldstein P, Miller S, Tracey WD, Davis J, Jiggins F, Wertheim B, Lewis O, Leips J, Staniczenko P, Hreck J. (2021) **DROP: Molecular voucher database for identification of *Drosophila* parasitoids**. *Molecular Ecology*. doi: doi.org/10.1111/1755-0998.13435
- 14) **Lindsey ARI**, Bhattacharya TB, Hardy RW, Newton ILG. ***Wolbachia* and virus alter the host transcriptome at the interface of nucleotide metabolism pathways**. (2021) *mBio*. doi: 10.1128/mBio.03472-20
- 13) **Lindsey ARI**<sup>°</sup>. (2020) **Sensing, signaling, and secretion: A review and analysis of systems for regulating host interaction in *Wolbachia***. *GENES*. doi:10.3390/genes11070813  
<sup>°</sup>Corresponding author.
- 12) Wu X<sup>‡</sup>, **Lindsey ARI**<sup>°‡</sup>, Chatterjee P, Werren JH, Stouthamer R, Yi SV<sup>°</sup>. (2020) **Distinct epigenomic and transcriptomic modifications associated with *Wolbachia*-mediated asexuality**. *PLoS Pathogens*. doi:10.1371/journal.ppat.1008397 <sup>‡</sup>Co-first authorship; <sup>°</sup>Co-corresponding author
- 11) Zhang J, **Lindsey ARI**, Peters R, Heraty JM, Hopper KR, Werren JH, Martinson EO, Woolley JB, Yoder MJ, Krogmann L. (2020) **Conflicting signal in transcriptomic markers leads to a poorly resolved backbone phylogeny of chalcidoid wasps**. *Systematic Entomology*. doi: 10.1111/syen.12427
- 10) Thomas GWC, Dohmen E, Hughes DST, Murali SC, Poelchau M, Glastad K, Anstead CA, Ayoub NA, Batterham P, Bellair M, Binford GJ, Chao H, Chen YH, Childers C, Dinh H, Doddapaneni H, Duan JJ, Dugan S, Esposito LA, Friedrich M, Garb J, Gasser RBB, Goodisman MAD, Gundersen-Rindal DE, Han Y, Handler AM, Hatakeyama M, Hering L, Hunter WB, Ioannidis P, Jayaseelan JC, Kalra D, Khila A, Korhonen PK, Lee CE, Lee SL, Li Y, **Lindsey ARI**, Mayer G, McGregor AP, McKenna DD, Misof B, Munidasa M, Munoz-Torres M, Muzny DM, Niehuis O, Osuji-Lacy N, Palli SR, Panfilio KA, Pechmann M, Perry T, Peters RS, Poynton HC, Prpic NM, Qu J, Rotenberg D, Schal C, Schoville SD, Scully ED, Skinner E, Sloan DB, Stouthamer R, Strand MR, Szucsich NU, Wijeratne A, Young ND, Zattara EE, Benoit JB, Zdobnov EM, Pfrender ME, Hackett KJ, Werren JH, Worley KC, Gibbs RA, Chipman AD, Waterhouse RM, Bornberg-Bauer E, Hahn MW, Richards S. (2020) **Gene content evolution in the Arthropods**. *Genome Biology*. doi:10.1186/s13059-019-1925-7
- 9) **Lindsey ARI** and Newton ILG. (2019) **Some like it HOT: Horizontal operon transfer**. *Cell*. doi:10.1016/j.cell.2019.02.007
- 8) Ebrahimi V, Ahouri A, Rugman-Jones PF, **Lindsey ARI**, Javan-Nikkhah M, Stouthamer R. (2019) **Using Parthenogenesis Inducing *Wolbachia* for the selection of optimal lines of the egg parasitoid *Trichogramma pretiosum* for use in biocontrol**. *Entomologia Experimentalis et Applicata*. doi:10.1111/eea.12755

- 7) Lindsey ARI<sup>¶</sup>, Kelkar YD, Wu X, Sun D, Martinson EO, Yan Z, Rugman-Jones PF, Hughes DST, Murali SC, Qu J, Dugan S, Lee SL, Chao H, Dinh H, Han Y, Doddapaneni HV, Worley KC, Muzny DM, Ye G, Gibbs RA, Richards S, Yi SV, Stouthamer R, Werren JH. (2018) **Comparative genomics of the miniature wasp and pest control agent *Trichogramma pretiosum***. *BMC Biology*. doi:10.1186/s12915-018-0520-9. <sup>¶</sup>Corresponding author
- 6) Lindsey ARI<sup>‡</sup>, Bhattacharya T<sup>‡</sup>, Newton ILG, Hardy RW. (2018) **Conflict in the intracellular lives of endosymbionts and viruses: a mechanistic look at *Wolbachia*-mediated pathogen blocking**. *Viruses*. doi:10.3390/v10040141 <sup>‡</sup>Co-first authorship
- 5) Lindsey ARI, Rice DW, Bordenstein SR, Brooks AW, Bordenstein SR, Newton ILG. (2018) **Evolutionary genetics of cytoplasmic incompatibility genes *cifA* and *cifB* in Prophage WO of *Wolbachia***. *Genome Biology and Evolution*. doi:10.1093/gbe/evy012  
 ♦ Recommended on Faculty of 1000 Prime: <https://f1000.com/prime/732528917>
- 4) Lindsey ARI, Stouthamer R. (2017) **The effects of outbreeding on a parasitoid wasp fixed for infection with a parthenogenesis-inducing *Wolbachia* symbiont**. *Heredity*. doi:10.1038/hdy.2017.53
- 3) Lindsey ARI, Stouthamer R. (2017) **Penetrance of symbiont-mediated parthenogenesis is driven by reproductive rate in a parasitoid wasp**. *PeerJ*. doi:10.7717/peerj.3505
- 2) Lindsey ARI, Werren JH, Richards S, Stouthamer R. (2016) **Comparative genomics of a parthenogenesis-inducing *Wolbachia* symbiont**. *G3: Genes | Genomes | Genetics*. doi:10.1534/g3.116.028449
- 1) Lindsey ARI<sup>¶</sup>, Bordenstein SR, Newton ILG, Rasgon JL. (2016) ***Wolbachia pipientis* should not be split into multiple species: A response to Ramírez-Puebla *et al.***, “Species in *Wolbachia*? Proposal for the designation of ‘*Candidatus Wolbachia bourtzisii*’, ‘*Candidatus Wolbachia onchocercicola*’, ‘*Candidatus Wolbachia blaxteri*’, ‘*Candidatus Wolbachia brugii*’, ‘*Candidatus Wolbachia taylori*’, ‘*Candidatus Wolbachia collembolicola*’ and ‘*Candidatus Wolbachia multihospitum*’ for the different species within *Wolbachia* supergroups. *Systematic and Applied Microbiology*. doi:10.1016/j.syapm.2016.03.001. <sup>¶</sup>Corresponding author

## RESEARCH GRANTS

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June 2022 – May 2025	<b>\$212,979</b>	<b>Minnesota Department of Agriculture AGRI Crop Research</b> PI: Koch, Lindsey as co-PI and student co-advisor ♦ Biological control for soybean gall midge, a new pest of soybean in Minnesota
July 2021 – June 2023	<b>\$137,370</b>	<b>Rapid Agricultural Response Fund</b> PI: Koch, Lindsey as co-PI and student co-advisor ♦ Evaluating biological control for soybean gall midge, a new pest of soybean in Minnesota
Jan. 2021 – June 2022	<b>\$44,989</b>	<b>University of Minnesota New Faculty Grants-In-Aid</b> PI: Lindsey ♦ Developing functional genomics tools to improve biological control
Feb. 2016 – Feb. 2018	<b>\$70,277</b>	<b>USDA NIFA Pre-Doctoral Fellowship</b> PI: Lindsey ♦ Evolutionary genomics of the reproductive manipulator, <i>Wolbachia</i> : Adaptation to biological control agents of the genus <i>Trichogramma</i> (NIFA 2016-67011-24778)
July 2016 – Dec. 2017	<b>\$15,000</b>	<b>van den Bosch Scholarship in Biological Control</b> PI: Lindsey ♦ Irreversible asexuality in biological control: Genomic consequences of <i>Wolbachia</i> -mediated parthenogenesis in <i>Trichogramma</i> wasps

June 2015 – May 2017	<b>\$18,989</b>	<b>NSF Doctoral Dissertation Improvement Grant</b> Co-PIs: Lindsey and Stouthamer ♦ Evolutionary strategies for adaptation in <i>Wolbachia</i> , a reproductive symbiont of arthropods (DEB 1501227)
July 2015 – Dec. 2016	<b>\$10,000</b>	<b>van den Bosch Scholarship in Biological Control</b> PI: Lindsey ♦ Comparative genomics of <i>Trichogramma</i> wasps and their associated reproductive symbiont, <i>Wolbachia</i>

## OTHER FELLOWSHIPS AND SCHOLARSHIPS

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Jan. 2019	<b>\$750</b>	IUB Provost's Travel Award for Women in Science (IU)
July 2018	<b>\$700</b>	IUB Provost's Travel Award for Women in Science (IU)
Sep. 2016	<b>\$320</b>	Ernest Propes Endowed Graduate Fellowship Fund (UCR)
July 2016	<b>\$2,000</b>	Young Investigator Travel Award (SMBE)
April 2016	<b>\$3,293</b>	Tejal Reddy Endowed Graduate Scholarship (UCR)
Feb. 2016	<b>\$800</b>	Graduate Dean's Dissertation Research Grant (UCR)
Sep. 2015 – June 2016	<b>\$21,598</b>	Graduate Research Mentorship Fellowship (UCR)
July 2015	<b>\$1,100</b>	Earle C. Anthony Graduate Travel Award (UCR)
May 2014	<b>\$6,000</b>	Dr. Mir S. Mulla & Leila Mulla Scholarship (UCR)
Nov. 2013 – June 2017	<b>\$2,455</b>	Graduate Student Association Travel Grants (UCR)
Sep. 2012 – June 2017	<b>\$24,807</b>	Chancellor's Distinguished Fellowship (UCR)

## AWARDS AND HONORS

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Nov. 2021	Early Career Professional Recognition Symposium (Entomological Society of America)
July 2021	Faculty Award for Mentorship in Entomology (UMN)
Sep. 2018	2 <sup>nd</sup> Place Presentation (Annual IU Microbiology Retreat)
Nov. 2017	1 <sup>st</sup> Place Graduate Student Presentation (Entomological Society of America)
Aug. 2017	Midwest Microbial Pathogenesis Conference 2017 Postdoc Registration Award
May 2017	Donors & Scholars Recognition Luncheon Selected Student Speaker (UCR)
April 2017	John Henry Comstock Ph.D. Student Award (Entomological Society of America)
April 2017	1 <sup>st</sup> Place Pacific Branch Linnaean Games (Entomological Society of America)
April 2017	2 <sup>nd</sup> Place Ph.D. Student Presentation (Entomological Society of America)
April 2017	Best Insect Photograph, Cellphone Category (Entomological Society of America)
Sep. 2016	1 <sup>st</sup> Place Graduate Student Poster (UCR)
July 2016	3 <sup>rd</sup> Place Graduate Student Presentation (International <i>Wolbachia</i> Conference)
Nov. 2015	1 <sup>st</sup> Place Graduate Student Presentation (Entomological Society of America)
Sep. 2015	1 <sup>st</sup> Place Graduate Student Presentation (UCR)
Nov. 2014	1 <sup>st</sup> Place Graduate Student Presentation (Entomological Society of America)
June 2014	3 <sup>rd</sup> Place Graduate Student Presentation (International <i>Wolbachia</i> Conference)
May 2014	Outstanding Teaching Assistant 2014 (UCR)
April 2014	Honorable Mention Student Presentation (Entomological Society of America)
April 2014	1 <sup>st</sup> Place Pacific Branch Linnaean Games (Entomological Society of America)
Nov. 2013	1 <sup>st</sup> Place National Linnaean Games (Entomological Society of America)
Sep. 2013	2 <sup>nd</sup> Place Graduate Student Presentation (UCR)
May 2011	Graduation with Honors, <i>cum laude</i> (San José State University)
April 2011	President's Scholar (San José State University)
March 2011	1 <sup>st</sup> Place Undergraduate Poster (American Society of Microbiologists)
Feb. 2011	3 <sup>rd</sup> Place Global Lens Photography Contest
April 2010	Dean's Scholar (San José State University)
May 2007	Honors at Entrance (San José State University)

- Lindsey ARI\***. “Parasite-mediated losses of sex.” Ecology, Evolution, and Behavior Department Seminar Series, University of Minnesota. Feb. 2, 2022. **(Invited Speaker)**.
- Lindsey ARI\***. “*Wolbachia* infections support fly development under nutritional stress, and, a bonus exploration of my OreR fly stock in which males have lost their genitalia.” Developmental Biology Center Seminar Series, University of Minnesota. Dec. 17, 2021. Host: Hiroshi Nakato **(Invited Speaker)**.
- Lindsey ARI\***. “Parasite-mediated losses of sex in parasitoid wasps.” Entomological Society of America Annual Meeting. Oct. 31 – Nov. 3, 2021. Symposium: “Early Career Professional Recognition Symposium.” **(Awarded Speaker)**.
- Lindsey ARI\***. “Developmental determinants of *Wolbachia*-mediated reproductive parasitism in *Drosophila*.” Developmental Biology Center Seminar Series, University of Minnesota. April 23, 2021. Host: Hiroshi Nakato **(Invited Speaker)**.
- Lindsey ARI\***. “The evolution of my evolution research: nearing one decade of work on *Wolbachia*-insect interactions.” Pacific Branch Meeting of the Entomological Society of America. Virtual due to COVID-19. April 5 – 7, 2021. Symposium: “PBESA Comstock Winners: Where are they now?” Organizer: Jacqueline Serrano **(Invited Speaker)**.
- Lindsey ARI\***. “Functional genomics of a bacterial symbiont that alters insect reproduction and vector competence.” Department of Animal Science Seminar Series, University of Minnesota. March 8<sup>th</sup>, 2021. Host: Andres Gomez **(Invited Speaker)**.
- Lindsey ARI\***. “Functional genomics of microbe mediated asexuality in *Trichogramma* wasps.” Entomological Society of America Annual Meeting. Virtual due to COVID-19. Nov. 15 – 18, 2020. Symposium: “Microbial Interactions and Their Influence on Organisms and Ecosystems.” Organizers: Jocelyn Holt, Antonino Malacrinò, and Raul F. Medina **(Invited Speaker)**.
- Lindsey ARI\***. “*Wolbachia* and virus alter the *Drosophila* transcriptome at the interface of nucleotide metabolism pathways.” Midwest *Drosophila* Conference. Oct. 24, 2020. **(Selected for talk)**.
- Lindsey ARI\***. “Mechanisms and consequences of host association in insect-*Wolbachia* interactions.” Plant and Microbial Biology Department Seminar Series, University of Minnesota. Oct. 20, 2020. Host: Katie Fixen **(Invited Speaker)**.
- Lindsey ARI\*** and Newton ILG. “*Wolbachia* colonization affects insect nucleotide metabolism.” ASM Microbe. Chicago, IL. June 18-22, 2020 **(Selected for talk)**. \*Canceled due to COVID-19
- Lindsey ARI\***. “Functional genomics of parthenogenesis and symbiosis in *Trichogramma* wasps.” *Nasonia* 2020. Claremont, CA. June 3-5, 2020. **(Invited Speaker)**. \*Canceled due to COVID-19
- Lindsey ARI\***. “Interactive effects on insect metabolism contribute to *Wolbachia*-mediated virus inhibition.” Entomology Department Seminar Series, University of California Riverside. April 6, 2020. **(Invited Speaker)**. \*Seminar given remotely due to COVID-19
- Lindsey ARI\***. “Functional genomics of insect-*Wolbachia* interactions.” Entomology Department, University of Minnesota. July 8, 2019. **(Invited Speaker)**.
- Lindsey ARI\*** and Newton ILG. “Mechanisms of establishing symbiosis in *Wolbachia*.” American Society for Rickettsiology Meeting. Santa Fe, NM. June 8-11, 2019 **(Selected for talk)**.
- Lindsey ARI\***, Wu X, Chatterjee P, Werren JH, Stouthamer S, and Yi SV. “Genomic signatures of the transition to *Wolbachia*-mediated asexuality” Entomological Society of America Annual Meeting. Vancouver, BC, Canada. Nov. 11 – 14, 2018. Symposium: “Insect Microbiomes: Traversing Disciplines to Understand and Manage Helpful and Harmful Hexapods.” Organizers: Molly Hunter and Jake Russell **(Invited Speaker)**.
- Lindsey ARI\*** “Metatranscriptomic analysis of *Wolbachia*-mediated pathogen blocking.” Joint *Drosophila* Group Meeting, IU Biology. Oct. 12, 2018.
- Lindsey ARI\***, Sheehan KB, Martin M, and Newton ILG. “Mechanisms of establishing symbiosis in *Wolbachia*.” 7<sup>th</sup> Annual IU Micro Retreat. Nashville, IN. Sep. 15, 2018 **(Selected for talk, 2<sup>nd</sup> place award)**.
- Lindsey ARI\***. “Mechanisms and consequences of horizontal transfer and co-evolution in *Wolbachia*.” Evolutionary and Population Genetics Chalk Talk Series. University of Montana, Missoula, MT. Aug. 16, 2018. Hosts: Brandon Cooper and John McCutcheon. **(Invited Speaker)**.

- Lindsey ARI\***, Bhattacharya T, Newton ILG, and Hardy RW. “Determining the mechanism of *Wolbachia*-mediated pathogen blocking.” International Symbiosis Society Congress. Corvallis, OR. July 15-20, 2018 **(Selected for talk)**.
- Lindsey ARI\***, Sheehan KB, Martin M, and Newton ILG. “Mechanisms of establishing symbiosis in *Wolbachia*.” International *Wolbachia* Conference. Salem, MA. June 17 – 22 **(Selected for talk)**.
- Lindsey ARI\***. Symposium: “*Wolbachia* and Other Prokaryotic Endosymbionts of Parasites” International Congress of Parasitology. Daegu, South Korea. Aug. 19 – 24, 2018. Symposium organizer: Wieslaw Kozek **(Invited Speaker, declined)**.
- Lindsey ARI\*** and Stouthamer R. “Penetrance of *Wolbachia*-mediated parthenogenesis is driven by reproductive rate in a parasitoid wasp” Entomological Society of America Annual Meeting. Denver, CO. Nov. 5 – 8, 2017. **(1<sup>st</sup> place award)**.
- Lindsey ARI\***. “Genomic and Evolutionary Consequences of *Wolbachia*-Mediated Parthenogenesis in *Trichogramma* Wasps” Dissertation Defense. Riverside, CA. May 31, 2017.
- Lindsey ARI\***. “Context matters: Genetic and environmental factors mediate the penetrance of symbiont phenotypes” UCR Entomology Department Seminar Series. Riverside, CA. May 1, 2017. Host: Hollis Woodard **(Invited Speaker)**.
- Lindsey ARI\***. “Evolutionary consequences of *Wolbachia*-mediated parthenogenesis in *Trichogramma* wasps” Pacific Branch Meeting of the Entomological Society of America. Portland, OR. April 2 – 5, 2017. **(Comstock award-recipient lecture)**.
- Lindsey ARI\*** and Stouthamer R. “The effects of outbreeding on a parasitoid wasp infected with parthenogenesis-inducing *Wolbachia*” Pacific Branch Meeting of the Entomological Society of America. Portland, OR. April 2 – 5, 2017. **(2<sup>nd</sup> place award)**.
- Lindsey ARI\***. “Genomic and phenotypic consequences of symbiont-mediated parthenogenesis” Microphiles Seminar. Indiana University, Bloomington, IN. Dec. 9<sup>th</sup>, 2016. Host: Irene Newton **(Invited Speaker)**.
- Lindsey ARI\***, Werren JH, Richards S, and Stouthamer R. “Genomics and adaptation in *Wolbachia*, an obligate reproductive parasite in *Trichogramma* wasps” XXV International Congress of Entomology. Orlando, FL. Sep. 25 – 30, 2016. Symposium: “Evolution and biology of Chalcidoidea: integrating genomics, fossils, microbiomes and natural history.” Organizers: John Heraty, James Woolley, and Astrid Cruaud **(Invited Speaker)**.
- Lindsey ARI\***, Werren JH, Richards S, and Stouthamer R. “Irreversible asexuality in biological control: Consequences of *Wolbachia*-mediated parthenogenesis in *Trichogramma* wasps” NIFA Fellows Project Directors Meeting. Washington D.C. Aug. 30 – 31, 2016.
- Lindsey ARI\***, Werren JH, Richards S, and Stouthamer R. “Genome evolution of a parthenogenesis-inducing *Wolbachia* symbiont” Society for Molecular Biology and Evolution Conference 2016. Gold Coast, Queensland, Australia. July 3 – 7, 2016. **(Young Investigator Travel award)**.
- Lindsey ARI\***, Werren JH, Richards S, and Stouthamer R. “Extensive protein-coding sequence truncations in the parthenogenesis-inducing *Wolbachia* strain infecting *Trichogramma pretiosum*” 9<sup>th</sup> International *Wolbachia* Conference. Lamington National Park, Queensland, Australia. June 28<sup>th</sup> – July 3<sup>rd</sup>, 2016 **(Selected for talk, 3<sup>rd</sup> place award)**.
- Lindsey ARI\***. “Genome evolution of a parthenogenesis-inducing *Wolbachia* symbiont” University of Rochester, Rochester, NY. March 31, 2016. Host: Jack Werren **(Invited Speaker)**.
- Lindsey ARI\*** and Stouthamer R. “Genomics and adaptation in *Wolbachia*, an obligate reproductive parasite in *Trichogramma* wasps” Entomological Society of America Annual Meeting. Minneapolis, MN. Nov. 15 – 18, 2015 **(1<sup>st</sup> place award)**.
- Lindsey ARI\***. “UCR's entomology outreach program: an integrative approach to community engagement” Entomological Society of America Annual Meeting. Minneapolis, MN. Nov. 15 – 18, 2015. Symposium: “Games, Comics, and Social Media: Outreach Education in Entomology.” Organizers: Carly Tribull, Morgan Jackson, and Derek Hennen **(Invited Speaker)**.
- Lindsey ARI\*** and Stouthamer R. “Evolutionary genomics and adaptation in *Wolbachia*, an obligate reproductive parasite in *Trichogramma* wasps” University of California, Riverside Entomology Department Student Seminar Day. Riverside, CA. Sep. 17<sup>th</sup>, 2015 **(1<sup>st</sup> place award)**.

- Lindsey ARI\*** and Stouthamer R. “Comparative genomics of *Wolbachia*: Evolution of genome content in a reproductive parasite” Southern California Evolutionary Genetics and Genomics Meeting. Riverside, CA. April 11<sup>th</sup>, 2015 (**Selected for talk**).
- Lindsey ARI\*** and Stouthamer R. “Functional adaptation of *Wolbachia* to novel hosts” Entomological Society of America Annual Meeting. Portland, OR. Nov. 16 – 19, 2014. (**1<sup>st</sup> place award**).
- Lindsey ARI\*** and Stouthamer R. “Experimental evolution of *Wolbachia* in novel hosts” 8<sup>th</sup> International *Wolbachia* Conference. Innsbruck, Tyrol, Austria. June 6 – 11, 2014 (**Selected for talk, 3<sup>rd</sup> place award**).
- Lindsey ARI\*** and Stouthamer R. “Experimental evolution of *Wolbachia* in recombinant hosts” Symbiosis Workshop. Sierra Nevada Research Institute, Wawona, Yosemite National Park, CA. May 3 – 4, 2014 (**Selected for talk**).
- Lindsey ARI\*** and Stouthamer R. “Experimental evolution of *Wolbachia* in novel hosts” Pacific Branch Meeting of the Entomological Society of America. Tucson, AZ. April 6 – 9, 2014 (**Honorable mention award**).
- Lindsey ARI\*** and Stouthamer R. “*Wolbachia*'s evolutionary strategies for adaptation to *Trichogramma* wasps” Entomological Society of America Annual Meeting. Austin, TX. Nov. 10 – 13, 2013.
- Lindsey ARI\*** and Stouthamer R. “Evolutionary strategies for adaptation in *Wolbachia*” University of California, Riverside Entomology Department Student Seminar Day. Riverside, CA. Sep. 19<sup>th</sup>, 2013 (**2<sup>nd</sup> place award**).

## POSTER PRESENTATIONS

\*presenting author

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- Lindsey ARI**. “Beneficial *Wolbachia* infections modulate fly metabolism” MidWest Fly Meeting. Virtual. October 23-24, 2021.
- Lindsey ARI**, Hardy RW, Newton ILG. “*Wolbachia* dramatically alters the host transcriptome and metabolism, resulting in a muted response to viral infection” Gordon Research Conference and Seminar on Animal Symbioses. West Dover, VT. June 15-21, 2019.
- Lindsey ARI**, Hardy RW, Newton ILG. “*Wolbachia* dramatically alters the host transcriptome and metabolism, resulting in a muted response to viral infection” Purdue Microbiome Symposium. West Lafayette, IN. May 13-14, 2019.
- Lindsey ARI\***, Wu X, Chatterjee P, Werren JH, Stouthamer S, and Yi SV. “Pathogenic parthenogenesis: Genome-wide consequences of symbiont-mediated asexuality” Midwest Microbial Pathogenesis Conference 2017. Notre Dame, IN. Aug. 25 – 27, 2017. (**Registration award**).
- Lindsey ARI\***, Werren JH, and Stouthamer R. “Genome evolution of an irreversibly asexual parasitoid wasp: *Trichogramma pretiosum*” University of California, Riverside Entomology Department Student Seminar Day. Riverside, CA. Sep. 14<sup>th</sup>, 2016 (**1<sup>st</sup> place award**).
- Lindsey ARI\*** and Stouthamer R. “Comparative genomics of *Wolbachia*: Evolution of genome content in a reproductive parasite” The 8th Congress of the International Symbiosis Society. Lisbon, Portugal. July 12 – 15, 2015.
- De La Riva D, Kietzman P, **Lindsey ARI\***, McDermott EG, Shogren C. “Outreach at UCR: Dynamic approaches to community science education” Entomological Society of America Annual Meeting. Portland, OR. Nov. 16 – 19, 2014.
- Caldwell AC, Ghotra S\*, **Lindsey ARI\***, Nystrom A, and Ouverney CC. “Host associated versus environmental SR1 bacteria” American Society for Microbiology General Meeting. San Francisco, CA. June 16 – 19, 2012.
- Caldwell AC, Ghotra S\*, **Lindsey ARI\***, Nystrom A, and Ouverney CC. “Novel lineages in the recent SR1 candidate division bacteria” CSUPERB CSU Biotechnology Symposium. Santa Clara, CA. Jan. 5 – 7, 2012.
- Caldwell AC, Ghotra S\*, **Lindsey ARI\***, Nystrom A, and Ouverney CC. “SR1 bacteria: A fresh look” SACNAS National Conference. San José, CA. Oct. 27 – 30, 2011.
- Caldwell AC, Ghotra S\*, **Lindsey ARI\***, Nystrom A, and Ouverney CC. “SR1 bacteria: A fresh look” Northern California Branch Spring Meeting of the American Society for Microbiology. Pleasanton, CA. March 11 – 12, 2011 (**1<sup>st</sup> place award**).

## TEACHING EXPERIENCE

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- UMN ENT 5011 **Structure and Function of Insects**  
Instructor of record, revised course structure and content. One of three entomology graduate core courses. Covers comparative insect morphology and physiology in an evolutionary context. 4 credit hours; lecture and lab.
- ◆ Spring 2022 (10 students)
  - ◆ Spring 2021 (7 students); Student evaluations: Mean of > 5.7/6.0 on each of 13 variables. Overall rating: 5.9/6.0
- UMN ENT 8300 **Graduate Seminar**  
Instructor of record. Department seminar series: Includes coordinating invited speakers and facilitating seminars from graduate students who register for credit 1-2 times during degree to give graded seminar; 1 credit hour. 2-7 students register per semester.
- ◆ Fall 2020, Spring 2021, Fall 2021, Spring 2022. No evaluations.
- UMN ENT 1908 **“Designer Insects”: Glowing eyes to self-destructing flies**  
Instructor of record, designed the course. Freshman seminar course: 7 students; 1 credit hour.
- ◆ Fall 2021 (7 students); Student Evaluations: Mean of > 5/6 on each of 13 variables. Overall mean rating: 5.40/6.0
- UMN ENT 1908 **"Engineered" Insects: Science, Ethics, Society, and the Environment**  
Instructor of record, designed the course. Freshman seminar course: 7 students; 1 credit hour.
- ◆ Fall 2020 (10 students); Student Evaluations: Mean of > 5.25/6.0 on each of 13 variables. Overall mean rating: 5.56/6.0
- Guest Lecture **Introduction to statistics for biology**  
IU BIOL M465, Lecturer: Irene Newton
- ◆ Nov. 2017
- Guest Lecture **Writing in the sciences**  
UCR ENGL 1C, Lecturer: Elizabeth Gumm
- ◆ June 2017
- UCR BIOL 5C **Introductory Evolution and Ecology**  
Instructor of record as teaching assistant for two lab sections.  
Lecturers: Richard Stouthamer and Erin Wilson-Rankin
- ◆ Winter 2015 (40 students); Student Evaluations: Mean of > 6.1/7.0 on each of 21 variables. Overall rating: 6.4/7.0 (85<sup>th</sup> %tile campus-wide)
- Guest Lecture **Bioinformatics for the –Omics: Processing next generation sequencing data for genomics and transcriptomics**  
Phylogenomics Reading Group, Organizers: John Heraty and Christiane Weirauch
- ◆ Nov. 2013
- UCR ENT 10 **Natural History of Insects**  
Instructor of record as teaching assistant for five discussion sections.  
Lecturer: Richard Redak
- ◆ Fall 2013 (163 students); Student Evaluations: Mean of greater than 6.5/7.0 on each of 21 variables. Overall: 6.8/7.0 (95<sup>th</sup> %tile campus-wide)
  - ◆ Received Outstanding Teaching Assistant award



## ORGANIZED SYMPOSIA

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“Synergy in arthropod genomics: Integrative solutions to functional and evolutionary biology.”

Entomological Society of America Annual Meeting. Minneapolis, MN. November 15 – 18, 2015.

Organized and moderated by: **Lindsey ARI**, Ricci JD, and Smith EA.

## ADDITIONAL TRAINING

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Dec. 2020 – Present	National Center for Faculty Development & Diversity (NCFDD)
Aug. 2020 – Present	Mental Health Advocate Training (UMN)
June 19-25, 2020	Anti-Racist Education and Training (Academics for Black Survival and Wellness -- <a href="https://www.academics4blacklives.com/">https://www.academics4blacklives.com/</a> )
Aug. 2017 – July 2020	Women’s Faculty Writing Groups (IU)
Aug. 2017	Setting Up Your Lab Workshop (IU)
Sep. 2016 – Dec. 2016	Research and Scholarship Ethics (UCR)
Dec. 2014	Next Generation Data Analysis Workshop (UCR)
Oct. 2014	POGIL (Process Guided Inquiry Learning), Facilitator: Dr. Laura Lavine
Sep. 2013	Teaching Assistant Development Program (UCR)

## SERVICE

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Feb. 2016 – Present	Manuscript reviewer for: The PeerJ, BMC Genomics, Nature Scientific Reports, Insect Biochemistry and Molecular Biology, GigaScience, Genes   Genomes   Genetics, MicrobiologyOpen, PLoS Pathogens, BMC Biology, Genome Biology and Evolution, Molecular Ecology, Microbiology Resource Announcements, PLoS ONE, eLife, BMC Evolutionary Biology, Journal of the International Society for Microbial Ecology: ISME, mSphere, Microbiology Spectrum. Peer review record is available at: <a href="https://publons.com/a/1432720/">https://publons.com/a/1432720/</a>
May 2018 – Present	Community contact for the <i>Trichogramma pretiosum</i> genome project: <a href="http://dx.doi.org/10.15482/USDA.ADC/1440020">http://dx.doi.org/10.15482/USDA.ADC/1440020</a> <a href="http://dx.doi.org/10.15482/USDA.ADC/1440022">http://dx.doi.org/10.15482/USDA.ADC/1440022</a>
March 2022	Session Moderator, NCB ESA Branch 2022 Meeting
Jan. 2022	External Proposal Reviewer, NIH South Dakota INBRE/BRIN
Nov. 2021	Organizer, Symbiosis Scientists Social, ESA 2021 Annual Meeting
Nov. 2021	Student Competition Judge, ESA 2021 Annual Meeting
Oct. 2021	Session Moderator, MidWest Fly Meeting 2021
Sept. 2021 – Sept. 2024	PMB Graduate Program Admissions Committee
June 2021	Student Competition Judge, ESA NCB 2021 Branch Meeting
June 2021	NSF IOS <i>ad hoc</i> Reviewer
Fall 2021	UMN Entomology Written Qualifying Exam Committee member
Jan. 2021 – Dec 2023	UMN Entomology Long Range Planning Committee (Elected)
Jan. 2021 – Feb 2021	UMN Entomology Graduate Student Recruitment Event Co-organizer
Jan. 2021	Rapid Agricultural Response Fund Review Committee (UMN)
Jan. 2021	External Grant Proposal Reviewer, Austrian Science Fund (equiv. of NSF)
Sept. 2020 – Present	Organizer, UMN Writing Groups
Oct. 2020	UMN Entomology Alumni Social Speaker
Oct. 2020 – Present	Member, Diversity and Inclusion Committee, UMN Entomology
Aug. 2020 – Present	Mental Health Advocate, UMN
Aug. 2020 – Present	UMN Entomology Seminar Committee, Chair
July 2020	Editorial Board Membership: mBio (Invited Editor)
June 2019 – Present	Graduate Program Planning Committee, UMN Entomology
Nov. 2019	Student Competition Judge, ESA 2019 Annual Meeting
Nov. 2019	PBT Symposium Moderator, ESA 2019 Annual Meeting

Nov. 2018	Student Competition Judge, ESA 2018 Annual Meeting
Oct. 2016	NSF GRFP Workshop Mock Reviewer, UCR Entomology
Oct. 2016 – June 2017	Hospitality Chair, UCR Entomology Graduate Student Association
July 2016 – June 2017	Instruction and Student Affairs Committee, UCR Entomology
Jan. 2016 – June 2017	Organizer, Molecular Evolution and Genomics Journal Club, UCR
Oct. 2015 – June 2017	Tech Committee, UCR Entomology Grad Student Association
Oct. 2015 – Oct. 2016	Entomology Representative, UCR Grad Student Association
Jan. 2015	<i>Trichogramma</i> Photo Contributor, Illinois Natural History Survey
Oct. 2014 – Feb. 2015	Science Olympiad Coach, Riverside STEM Academy
July 2014 – June 2015	President, UCR Entomology Graduate Student Association
Jan. 2014 – March 2014	Department Outreach Coordinator, UCR Entomology
Nov. 2013 – March 2014	Faculty Search Committee Member, UCR Entomology
Oct. 2013 – July 2014	Vice-President, UCR Entomology Graduate Student Association
June 2013 – June 2015	Social Committee Chair, UCR Entomology Grad Student Association
Nov. 2012 – June 2017	Linnaean Games Team, UCR Entomology
Oct. 2012 – Oct. 2013	Treasurer, UCR Entomology Graduate Student Association
Oct. 2012 – Oct. 2013	Social Committee, UCR Entomology Grad Student Association
Oct. 2012 – Oct. 2013	Merchandise Committee, UCR Entomology Grad Student Association
Sep. 2012 – June 2017	Entomology Outreach Program, UCR: 250+ hours completed
May 2011 – Aug. 2012	Alumni Officer, SJSU Tri-Beta Biological Honors Society
Jan. 2011 – May 2011	Treasurer, SJSU Tri-Beta Biological Honors Society
Nov. 2009 – May 2011	Biology Assistant Instructor, Fremont High, Sunnyvale, CA

## MENTORING AT UMN

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Graduate Students	<b>Laura Fricke</b> (July 2020 – Present)
	PhD Student, Entomology, UMN
	<ul style="list-style-type: none"> <li>◆ Uncovering parthenogenesis-inducing factors of <i>Wolbachia</i></li> <li>◆ Awarded Diversity of Views and Experiences (DOVE) Fellowship (18 Awards across UMN Twin Cities)</li> <li>◆ Awarded CFANS DOVE 2<sup>nd</sup> Year Match Fellowship</li> <li>◆ Honorable Mention, NSF GRFP, 2021</li> <li>◆ Marion Brooks-Wallace Scholarship, 2021</li> </ul>
	<b>Gloria Melotto</b> (May 2021 – Present)
	MS Student, Entomology, UMN
	<ul style="list-style-type: none"> <li>◆ Biological control of soybean gall midge</li> <li>◆ Co-advised with Bob Koch on Soybean Gall Midge RARF</li> </ul>
	<b>Tessa Durnin</b> (June 2021 – December 2021)
	MS Student, Entomology, UMN
	<ul style="list-style-type: none"> <li>◆ Exploring the hidden diversity of winter-emerging Chironomidae</li> <li>◆ I served on Tessa's thesis committee until the death of her advisor, Dr. Len Ferrington, at which point I took on advising Tessa.</li> <li>◆ Current Position: Molecular Biology Technician at Infinity Biologix, LLC</li> </ul>
	<b>Megan Jones</b> (Fall 2021 – Present)
MS Student, Entomology, UMN	
<ul style="list-style-type: none"> <li>◆ Regulation of <i>Wolbachia</i> co-infections</li> <li>◆ Awarded Excellence in Entomology Fellowship</li> </ul>	
Visiting Students	<b>Hailey Shanovich</b> (October 2020 – January 2021)
	PhD Student Natural Resource Science and Management Program, UMN <ul style="list-style-type: none"> <li>◆ Performing DNA barcoding and mitochondrial genome sequencing of mite species.</li> </ul>

**Rosa (Tina) Lozano** (January 2021 – Present)

PhD Student Entomology, UMN

- ◆ Performing library preparation for amplicon sequencing.

Thesis Committees **Xin Wu, PhD** (November 2019 – May 2021)

PhD Student, Bioinformatics, Georgia Tech

Advisor: Soojin Yi

- ◆ Functional epigenomics in insects using next-generation sequencing methods
- ◆ Current Position: Bioinformatics Data Analyst at RTI International

**Hailey Shanovich** (November 2020 – Present)

PhD Student, Natural Resource Science and Management, UMN Advisor: Brian Aukema

- ◆ Developing management plans for arthropod pests in hybrid hazelnut

**Rosa (Tina) Lozano** (Jan 2021 – Present)

PhD Student, Entomology, UMN

Advisor: Bob Koch

- ◆ Mechanism and population genetics of pyrethroid resistance in soybean aphid

**Josephine Dillon** (November 2021 – Present)

MS Student, Entomology, UMN

Advisor: Ian McRae

- ◆ Potato Virus Y transmission dynamics

Exam Committees **Xin Wu** (April 2021)

Member, Georgia Tech Bioinformatics, PhD Thesis Proposal Defense

**Hailey Shanovich** (July 2021)

Member, UMN Natural Resource Science and Management, PhD Oral Preliminary Exam

**Rosa (Tina) Lozano** (November 2021)

Chair, UMN Entomology, PhD Oral Preliminary Exam

Undergrad Students **Lauren Vander Esch** (Spring 2022)

1 credit directed research (ENT 3294)

- ◆ *Wolbachia* co-infection dynamics

## PREVIOUS MENTORING

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Newton and Hardy Labs

### Indiana University

Mentoring in the Newton and Hardy labs is very collaborative. I worked most closely with the following students on various aspects of their independent projects, including statistics, experimental design, insect cell culture, bioinformatics, and molecular methods.

- ◆ Kaeli Bryant, BS Biology Honors student
- ◆ Sylvie Martin-Eberhardt, BS Biology student
- ◆ Megan Perkins, BS Biology student
- ◆ Tamanash Bhattacharya, PhD Microbiology candidate
- ◆ Lauren Nease, PhD Microbiology candidate
- ◆ Jack Crawford, PhD Microbiology student
- ◆ Audrey Parish, PhD Ecology and Evolution student
- ◆ Delaney Miller, PhD Ecology and Evolution student

Stouthamer Lab

### University of California, Riverside

- ◆ Christina Luu, March 2016 – June 2017, BS Entomology student
- ◆ Barbara Baker, April 2016 – Dec. 2016, Lab Assistant
- ◆ Daniel Pers, Jan. 2016, visiting Ph.D. candidate
- ◆ Hector Montes, July 2013 – Sep. 2014, BA Anthropology student
- ◆ Jane Gao, Nov. 2013 – June 2014, BS Biochemistry student

Ouverney Lab

### San José State University

- ◆ Margarita Rangel, June 2012 – Aug. 2012, BS Microbiology student

## PROFESSIONAL MEMBERSHIPS

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Aug. 2017 – July 2020

Center of Excellence for Women in Technology at IU

March 2016 – Present

Society for Molecular Biology and Evolution

July 2014 – Present

International Symbiosis Society

March 2011 – Present

American Society for Microbiology

Feb. 2011 – Present

Entomological Society of America

Nov. 2010 – Present

Beta Beta Beta, Biological Honors Society

## SOCIAL MEDIA AND PRESS

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October 2021

**Interview**, Featured on “The *Wolbachia* Project’s”

(<https://www.vanderbilt.edu/wolbachiproject/>) series “Symbiosis Scientist Saturdays” which is published across several social media platforms.

- ◆ [https://www.facebook.com/200747433298748/posts/6494014883971940/?d=nlfile:///Users/Amelia\\_1/Documents/Amelia/\\_\\_\\_\\_https://entomologytoday.org/2021/09/30/entomologist-bridge-molecular-mechanisms-evolutionary-processes-amelia-lindsey-standout-early-career-professional](https://www.facebook.com/200747433298748/posts/6494014883971940/?d=nlfile:///Users/Amelia_1/Documents/Amelia/____https://entomologytoday.org/2021/09/30/entomologist-bridge-molecular-mechanisms-evolutionary-processes-amelia-lindsey-standout-early-career-professional)

September 2021

**Press Article**, Featured on Entomology Today, published by the Entomological Society of America “How One Entomologist Works to Bridge Molecular Mechanisms with Evolutionary Processes”

- ◆ <https://entomologytoday.org/2021/09/30/entomologist-bridge-molecular-mechanisms-evolutionary-processes-amelia-lindsey-standout-early-career-professional/>

November 2020

**Podcast Interview**, Featured on RadioBio (radiobio.net), a podcast produced by graduate students in the Quantitative & Systems Biology graduate group at UC Merced.

- ◆ <https://soundcloud.com/user-386034408/dr-amelia-lindsey-the-microbial-world-with-wolbachia>

July 2018

**Article Feature**, Faculty of 1000, Genomics and Genetics

Lindsey *et al.*, 2018 GBE “Evolutionary genetics of cytoplasmic incompatibility genes *cifA* and *cifB* in Prophage WO of *Wolbachia*” recommended by F1000 member Dr. Marta Wayne.

- ◆ <https://f1000.com/prime/732528917>

Jan. 2016

**Blog Contributor**, Entomology Graduate Student Association “A Whole New World (of Wasps)”

- ◆ <http://ucr-egsa.weebly.com/>
- ◆ <https://ucr-egsa.weebly.com/blog/a-whole-new-world-of-wasps>

March 2015 – June 2017

**Social Media Moderator**, University of California Riverside Annual Riverside Insect Fair Facebook & Twitter Pages

- ◆ <https://www.facebook.com/AnnualRiversideInsectFair>

- Jan. 2014 – June 2017

♦ <https://twitter.com/InsectFair>

**Social Media Moderator**, University of California Riverside  
UCR Entomology Facebook & Twitter Pages

♦ <https://www.facebook.com/ucrentomology>

♦ <https://twitter.com/UCRentomology>
- Aug. 2015

**Press Article**, UCR Today  
Six Graduate Students Win Entomology Awards

♦ <http://ucrtoday.ucr.edu/30851>
- March 2015

**Press Article**, UCR Today  
Grad Students Coach Local High School Students for Science Olympiad

♦ <https://ucrtoday.ucr.edu/27603>
- Jan. 2015

**Blog Feature**, Next Gen Scientist  
A List of Who to Follow for Entomology on Social Media

♦ <http://www.thenextgenscientist.com/2015/01/02/top-entomologists-entomology-pages-to-follow-in-2015/>
- Nov. 2013

**Press Article**, UCR Today  
UC Riverside Wins 2013 Linnaean Games

♦ <http://ucrtoday.ucr.edu/19152>