

# Andrew D. Sweet, Ph.D.

## Curriculum Vitae

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Assistant Professor | Department of Biological Sciences | Arkansas State University  
PO Box 599, State University, Jonesboro, AR USA 72467

**Email:** [asweet@astate.edu](mailto:asweet@astate.edu)

**Website:** [sweetomics.com](http://sweetomics.com)

**Github:** <https://github.com/adsweet>

### EDUCATION

- 2018 Ph.D. Ecology, Evolution, and Conservation Biology.  
University of Illinois, Urbana, IL. Advisor: Dr. Kevin P.  
Johnson
- 2012 B.S. Biology. Grove City College, Grove City, PA.

### PROFESSIONAL APPOINTMENTS

- 2021 – Present Assistant Professor of Evolutionary Biology, Dept. of Biological  
Sciences, Arkansas State University, Jonesboro, AR.
- 2019 – 2020 NSF Postdoctoral Fellow. Dept. of Entomology, Purdue  
University, West Lafayette, IN.
- 2018 – 2019 Postdoctoral Research Associate. Dept. of Entomology, Purdue  
University, West Lafayette, IN.
- 2018 – Present Research Affiliate. Illinois Natural History Survey, Prairie  
Research Institute, University of Illinois, Urbana, IL.

### RECENT GRANTS (amounts given in USD)

- 2024 National Science Foundation. COLLABORATIVE RESEARCH: The  
causes and consequences of fragmented mitochondrial genomes in  
parasitic lice (DEB-2328117) \$1,148,065 (\$496,624 to PI Sweet). PI:  
**Andrew Sweet**. Co-PIs: Stephen Cameron (Purdue University) and  
Kevin Johnson (Illinois Natural History Survey).
- 2023 INBRE Core Voucher. Genomics of hybridization in a species of  
feather parasite. \$7,195.
- 2023 Arkansas Space Grant Consortium. Acquisition of genetic analyzer to  
enhance research and education at ASU. \$34,927.48. Co-PIs: Kyle  
Gustafson and **Andrew Sweet**.

- 2023 Memphis Zoo. Conservation Action Network Grant. Diversity and host-sharing in ectoparasitic lice of flamingos at the Memphis Zoo. \$3,975. PI: **Andrew Sweet**. co-PIs: Sinlan Poo (Memphis Zoo) and Anna Chaney (Memphis Zoo).
- 2023 The Kays Foundation. Application of cutting-edge molecular techniques for assessing insect biodiversity in northeast Arkansas. \$12,223.19.
- 2022 Arkansas Game and Fish Commission State Wildlife Grant. Phylogenomic evaluation and conservation genomics of the Ouachita River population of the *Notropis rubellus* species group. \$117,665. Co-PIs: Brook Fluker and **Andrew Sweet**.
- 2022 National Science Foundation. NRT-URoL: UandI-DEECODE: Understanding Invasion and Disease Ecology and Evolution through Computational Data Education (DGE-2151820). \$1,999,484. PI: Travis D. Marsico. Co-PIs: Emily S. Bellis, Jake Qualls, Kyle Gustafson, Asela Wijeratne. Senior Personnel: Christy Brinkley, Than Boves, Scott A. Mangan, Lorin Neuman-Lee, **Andrew Sweet**.
- 2022 INBRE. Shared Equipment Grant. Acquisition of equipment to enhance genomic infrastructure at Arkansas State University. \$26,395. PIs: **Andrew Sweet**, Kyle Gustafson, Scott Mangan, Asela Wijeratne.
- 2021 A-State Faculty Research Fund. Islands with islands: Correlated genetic structure between mainland and Caribbean populations of common ground-doves and their parasitic lice. \$9,001.
- 2021 INBRE Core Voucher. Hybridization of parasites from hosts in novel environments. \$4,992.
- 2021 Arkansas Biosciences Institute. Seed Grant. Abundance and dispersal of an ectoparasite across different landscapes in Arkansas. \$70,000.
- 2020 National Science Foundation. Do tolerant host amplify the threat of invasive parasites? Darwin's finches, mockingbirds, and nest flies (DEB-2025085). \$774,474. PI: Dale H. Clayton, co-PIs: Frederick R. Adler and Sarah E. Bush. Senior Personnel: **Andrew Sweet**.

### **FELLOWSHIPS**

- 2019 National Science Foundation. Postdoctoral Research Fellowship in Biology.

2017 Dissertation Completion Fellowship, University of Illinois.

### AWARDS

2023 Honors Professor of the Year, Arkansas State University  
2015 Teacher Ranked as Excellent, University of Illinois  
2014 Graduate Teacher Certificate, Center for Innovation in Teaching and Learning, University of Illinois  
2014 American Ornithologists' Union Student Membership Award  
2013 Teacher Ranked as Outstanding, University of Illinois  
2012 Teacher Ranked as Outstanding, University of Illinois  
2012 Outstanding Senior Biology Major Award, Grove City College

### PUBLICATIONS (Google Scholar Webpage)

\* Graduate student co-author

\*\* Undergraduate student co-author

#### Book Chapters

1. **Sweet AD.** Coevolution. in: Russo, C. and J. Wolf (Eds.), *Encyclopedia of Evolutionary Biology, 2<sup>nd</sup> edition*. Academic Press. Oxford. In Press.

#### Peer-Reviewed Publications

48. Sharrow TS\*, King BG, **Sweet AD**, McKay T. 2024. New state record of *Phytomyza ditmani* Kulp (Diptera: Agromyzidae) in Arkansas. *Southeastern Naturalist*. 23(3): N50-N53. <https://doi.org/10.1656/058.023.0315>.
47. **Sweet AD**, Doña J, Johnson KP. 2024. Biogeographic history of pigeons and doves drives the origin and diversification of their parasitic body lice. *Systematic Biology*. In press. <https://doi.org/10.1093/sysbio/syae038>.
46. Ghosh A, Tyagi K, Dubey AK, **Sweet AD**, Singha D, Goswami P, Kumar V. 2024. Purifying selection drove the adaptation of mitochondrial genes along with correlation of gene rearrangements and evolutionary rates in two subfamilies of Whitefly (Insecta: Hemiptera). *Functional & Integrative Genomics*. 24:121. <https://doi.org/10.1007/s10142-024-01400-4>.
45. Najer T, Doña J, Buček A, **Sweet AD**, Sychra O, Johnson KP. 2024. Mitochondrial genome fragmentation is correlated with increased rates of molecular evolution. *PLOS Genetics*. 20(5): e1011266. <https://doi.org/10.1371/journal.pgen.1011266>.
44. Schroeder JL\*\*, Worm AJ\*, **Sweet AD**, Rolland VR. 2024. Genomic data reveal unexpected relatedness between a brown female Eastern Bluebird and her brood. *Ecology and Evolution*. 14(1): e10851. <https://doi.org/10.1002/ece3.10851>.

43. Starkie ML., Cameron SL, Krosch MN, **Sweet AD**, Clarke AR. 2024. Biogeographic influences on the evolution and historical dispersal of the Australo-Pacific Dacini fruit flies (Tephritidae: Dacinae). *Zoologica Scripta*. 53(1): 87-97. <https://doi.org/10.1111/zsc.12631>.
42. Matthews AE\*, Boves TJ, **Sweet AD**, Ames EM, Bulluck LP, Johnson EI, Johnson M, Lipshutz SE, Percy KL, Raybuck DW, Schelsky WM, Tonra CM, Viverette CB, Wijeratne AJ. 2023. Novel insights into symbiont population structure: globe-trotting avian feather mites contradict the specialist-generalist variation hypothesis. *Molecular Ecology*. 32(19): 5260-5275. <https://doi.org/10.1111/mec.17115>.
41. Brewer PJ\*\*, **Sweet AD**. 2023. Prevalence and diversity of parasitic lice (Insecta: Psocodea) in northeast Arkansas. *International Journal for Parasitology: Parasites and Wildlife*. 22: 205-215. <https://doi.org/10.1016/j.ijppaw.2023.06.007>.
40. Matthews AE\*, Wijeratne AJ, **Sweet AD**, Hernandez FA, Toews DPL, Boves TJ. 2023. Dispersal-limited symbionts exhibit unexpectedly wide variation in host specificity. *Systematic Biology*. 72(4): 802-819. <https://doi.org/10.1093/sysbio/syad014>.
39. **Sweet AD**, Browne DR, Hernandez AG, Johnson KP, Cameron SL. 2023. Draft genome assemblies of the avian louse *Brueelia nebulosa* and its associates using long-read sequencing from an individual specimen. *G3 Genes | Genomes | Genetics*. 13(4): jkad030. <https://doi.org/10.1093/g3journal/jkad030>.
38. **Sweet AD**, Stanford-Beale DAC. 2022. Thrips (Insecta: Thysanoptera) associated with two species of live birds (*Cardinalis cardinalis* and *Zenaidura macroura*) in northeast Arkansas. *Southeastern Naturalist*. 21: N37-N42. <https://doi.org/10.1656/058.021.0305>.
37. **Sweet AD**, Johnson KP, Cameron SL. 2022. Independent evolution of highly variable, fragmented mitogenomes of parasitic lice. *Communications Biology*. 5: 677. <https://doi.org/10.1038/s42003-022-03625-0>.
36. Virrueta Herrera S, Johnson KP, **Sweet AD**, Ylinen E, Kunnasranta M, Nyman T. 2022. High levels of inbreeding with spatial and host-associated structure in lice of an endangered freshwater seal. *Molecular Ecology*. 31: 4593-4606. <https://doi.org/10.1111/mec.16569>.

**Cover Article**

35. Starkie ML, Cameron SL, Krosch MN, Phillips MJ, Royer JE, Schutze MK, Strutt F, **Sweet AD**, Zalucki MP, Clarke AR. 2022. A dated phylogeny of the Australian Dacini fruit flies (Diptera: Tephritidae). *Molecular Phylogenetics and Evolution*. 172: 107481. <https://doi.org/10.1016/j.ympev.2022.107481>.
34. Boyd BM, Nguyen N-P, Allen JM, Waterhouse R, Vo KB, **Sweet AD**, Clayton DH, Bush SE, Shapiro MD, Johnson KP. 2022. Long-distance dispersal of pigeons and doves generated new ecological opportunities for host-switching and adaptive radiation by their parasites. *Proceedings of the Royal Society B*. 289: 20220042. <https://doi.org/10.1098/rspb.2022.0042>.
33. Smith AD, Kamiński MJ, Kanda K, **Sweet AD**, Betancourt JL, Holmgren CA, Hempel E, Alberti F, Hofreiter M. 2021. Recovery and analysis of ancient insect DNA from subfossil packrat middens using high-throughput sequencing. *Scientific Reports*. 11: 12635. <https://doi.org/10.1038/s41598-021-91896-8>.
32. **Sweet AD**, Johnson KP, Cao Y, de Moya RS, Skinner RK, Tan M, Virrueta-Herrera S, Cameron SL. 2021. Structure, gene order, and nucleotide composition of mitochondrial genomes in parasitic lice from Amblycera. *Gene*. 768: 145312. <https://doi.org/10.1016/j.gene.2020.145312>.
31. de Moya RS, Yoshizawa K, Walden KKO, **Sweet AD**, Dietrich CH, Johnson KP. 2021. Phylogenomics of parasitic non-parasitic lice (Insecta: Psocodea): combining sequence data and exploring compositional bias solutions in next generation datasets. *Systematic Biology*. 70: 719-738. <https://doi.org/10.1093/sysbio/syaa075>.
30. Najer T, Papousek I, Sychra O, **Sweet AD**, Johnson KP. 2021. Combining nuclear and mitochondrial loci provides phylogenetic information in the *Philopterus* complex of lice. *Journal of Medical Entomology*. 58: 252-260. <https://doi.org/10.1093/jme/tjaa166>.
29. Doña J, **Sweet AD**, Johnson KP. 2020. Comparing rates of introgression in parasitic feather lice with differing dispersal capabilities. *Communications Biology*. 3: 610. <https://doi.org/10.1038/s42003-020-01345-x>.
28. **Sweet AD**, Wilson RE, Sonsthagen SA, Johnson KP. 2020. Lousy grouse: comparing evolutionary patterns in Alaska galliform lice to understand host evolution and host-parasite interactions. *Ecology and Evolution*. 10(15): 8379-8393. <https://doi.org/10.1002/ece3.6545>.

27. **Sweet AD**, Johnson KP, Cameron SL. 2020. Mitochondrial genomes of *Columbicola* feather lice are highly fragmented, indicating repeated evolution of minicircle-type genomes in parasitic lice. *PeerJ*. 8: e8759. <https://doi.org/10.7717/peerj.8759>.
26. Virrueta-Herrera S, **Sweet AD**, Allen JM, Walden KKO, Weckstein JD, Johnson KP. 2020. Extensive *in situ* radiation of feather lice on tinamous. *Proceedings of the Royal Society B*. 287: 20193005. <http://dx.doi.org/10.1098/rspb.2019.3005>.
25. Tyagi K, Chakraborty R, Cameron SL, **Sweet AD**, Chandra K, Kumar V. 2020. So few thrips, so many mitochondrial genome rearrangements: Expanded sampling reveals extensive genomic evolution within Thysanoptera. *Scientific Reports*. 10: 695. <https://doi.org/10.1038/s41598-020-57705-4>.
24. Skinner RK, Dietrich CH, Walden KKO, Gordon E, **Sweet AD**, Podsiadlowski L, Petersen M, Simon C, Takiya DM, Johnson KP. 2020. Phylogenomics of Auchenorrhynca (Insecta: Hemiptera) using transcriptomes. *Systematic Entomology*. 45(1): 85-113. <https://doi.org/10.1111/syen.12381>.
23. de Moya RS, Allen JM, **Sweet AD**, Walden KKO, Palma RL, Smith VS, Cameron SL, Valim MP, Galloway TD, Weckstein JD, Johnson KP. 2019. Extensive host-switching of avian lice following the Cretaceous-Paleogene mass extinction. *Communications Biology*. 2: 445. <https://doi.org/10.1038/s42003-019-0689-7>.
22. de Moya RS, Weirauch C., **Sweet AD**, Skinner R, Walden KKO, Swanson DR, Dietrich C, Johnson KP. 2019. Deep instability in the phylogenetic backbone of Heteroptera is only partly overcome by transcriptome-based phylogenomics. *Insect Systematics and Diversity*. 3: 7. <https://doi.org/10.1093/isd/ixz020>.
21. de Moya RS, Brown JK, **Sweet AD**, Walden KKO, Paredes-Montero JR, Waterhouse RM, Johnson KP. 2019. Nuclear orthologs derived from whole genome sequencing indicate cryptic diversity in the *Bemisia tabaci* (Insecta: Aleyrodidae) complex of whiteflies. *Diversity*. 11: 151. <https://doi.org/10.3390/d11090151>.
20. Nowak JE\*\*†, **Sweet AD†**, Weckstein JD, Johnson KP. 2019. A molecular phylogenetic analysis of the genera of fruit doves and allies using dense taxonomic sampling. *Illinois Natural History Survey Bulletin*. 42: 2019001.

† Contributed equally to the work

19. Leonardi MS, Virrueta Herrera S, **Sweet AD**, Negrete J, Johnson KP. 2019. Phylogenomics and population genomics of seal lice. *Systematic Entomology*. 44(4): 699-708. <https://doi.org/10.1111/syen.12350>.
18. Catanach TA†, **Sweet AD†**, Nguyen ND, Peery RM, Debevec AH, Thomer AK, Owings AC, Boyd BM, Katz AD, Soto-Adames FN, Allen JM. 2019. Fully automated sequence alignment methods are comparable to, and much faster than, traditional methods in large data sets: an example with hepatitis B virus. *PeerJ*. 7:e6142. <https://doi.org/10.7717/peerj.6142>.
- † Contributed equally to the work**
17. **Sweet AD**, Johnson KP. 2018. The role of parasite dispersal in shaping a host-parasite system at multiple timescales. *Molecular Ecology*. 27: 5104-5119. <http://dx.doi.org/10.1111/mec.14937>.
16. Johnson KP, Nguyen N, **Sweet AD**, Boyd BM, Warnow T, Allen JM. 2018. Simultaneous radiation of bird and mammal lice following the K-Pg boundary. *Biology Letters*. 14(5). <https://doi.org/10.1098/rsbl.2018.0141>.
15. Soto J, Londono G, Johnson KP, Weckstein JD, Avendano JE, Jankowski J, Catanach TA, **Sweet AD**, Allen JM. 2018. Composition and distribution of lice (Insecta: Phthiraptera) on Colombian and Peruvian birds: New data on host-lice association in the Neotropics. *Biodiversity Data Journal*. 6: e21635. <https://doi.org/10.3897/BDJ.6.e21635>.
14. Sangster G, **Sweet AD**, Johnson KP. 2018. *Paraclaravis*, a new genus for the Purple-winged and Maroon-chested Ground-doves (Aves: Columbidae). *Zootaxa*. 4461(1): 134-140. <http://dx.doi.org/10.11646/zootaxa.4461.1.10>.
13. **Sweet AD**, Bush SE, Gustafsson DR, Allen JM, DiBlasi E, Skeen HR, Weckstein JD, Johnson KP. 2018. Host and parasite morphology influence congruence between host and parasite phylogenies. *International Journal for Parasitology*. 48: 641-648. <https://doi.org/10.1016/j.ijpara.2018.01.007>.
- Editor's Choice**
12. **Sweet AD**, Boyd BM, Allen JM, Villa SM, Valim MP, Rivera-Parra JL, Wilson RE, Johnson KP. 2018. Integrating phylogenomic and population genomic patterns in avian lice provides a more complete picture of parasite evolution. *Evolution*. 72(1): 95-112. [doi/10.1111/evo.13386/full](https://doi.org/10.1111/evo.13386/full).
11. Yoshizawa K, Johnson KP, **Sweet AD**, Yao I, Ferreira RL, Cameron SL. Mitochondrial phylogenomics and genome rearrangements in the barklice (Insecta: Psocodea). 2017. *Molecular Phylogenetics and Evolution*. 119: 118-127. [doi.org/10.1016/j.ympev.2017.10.014](https://doi.org/10.1016/j.ympev.2017.10.014).

10. Doña J, **Sweet AD**, Johnson KP, Serrano D, Mironov S, Jovani R. 2017. Cophylogenetic analyses reveal extensive host-shift speciation in a highly specialized and host-specific symbiont system. *Molecular Phylogenetics and Evolution*. 115: 190-196. <https://doi.org/10.1016/j.ympev.2017.08.005>.
9. **Sweet AD**, Chesser RT, Johnson KP. 2017. Comparative cophylogenetics of Australian phabine pigeons and doves (Aves: Columbidae) and their feather lice (Insecta: Phthiraptera). *International Journal for Parasitology*. 47: 347-356. doi:10.1016/j.ijpara.2016.12.003.
8. Boyd BM, Allen JM, Nguyen N, **Sweet AD**, Warnow T, Shapiro MD, Villa SM, Bush SE, Clayton DH, Johnson KP. 2017. Phylogenomics using target-restricted assembly resolves intra-generic relationships of parasitic lice (Phthiraptera: Columbicola). *Systematic Biology*. 66(6): 896-911. doi.org/10.1093/sysbio/syx027.
7. **Sweet AD**, Maddox JD, Johnson KP. 2017. A complete molecular phylogeny of *Claravis* confirms its paraphyly within small New World ground-doves (Aves: Peristerinae) and implies multiple plumage state transitions. *Journal of Avian Biology*. 48: 459-464. doi:10.1111/jav.01077.
6. **Sweet AD**, Johnson KP. 2016. Cophylogenetic analysis of New World ground-doves (Aves: Columbidae) and their parasitic wing lice (Insecta: Phthiraptera: Columbicola). *Molecular Phylogenetics and Evolution*. 103: 122-132. doi.org/10.1016/j.ympev.2016.07.018.
5. Boyd BM, Allen JM, Koga R, Fukatsu T, **Sweet AD**, Johnson KP, Reed DL. 2016. Two bacteria, *Sodalis* and *Rickettsia*, associated with the seal louse *Proechinophthirus fluctus* (Phthiraptera: Anoplura). *Applied and Environmental Microbiology*. 82(11): 3185-3197. doi:10.1128/AEM.00282-16.
4. **Sweet AD**, Boyd BM, Johnson KP. 2016. Cophylogenetic patterns are uncorrelated between two lineages of parasites on the same hosts. *Biological Journal of the Linnean Society*. 118(4): 813-828. <https://doi.org/10.1111/bij.12771>.
3. Escalante GC\*\*, **Sweet AD**, McCracken KG, Gustaffson D, Wilson R, Johnson KP. 2016. Patterns of cryptic host specificity in duck lice based on molecular data. *Medical and Veterinary Entomology*. 30(2): 200-208. doi:10.1111/mve.12157.
2. **Sweet AD**, Johnson KP. 2015. Patterns of diversification in small New World ground doves are consistent with major geologic events. *The Auk*. 132: 300-312. <https://doi.org/10.1642/AUK-14-193.1>.



1. **Sweet AD**, Allen JM, Johnson KP. 2014. Novel primers from informative nuclear loci for louse molecular phylogenetics (Insecta: Phthiraptera). *Journal of Medical Entomology*. 51(6): 1122-1126. <https://doi.org/10.1603/ME13218>.

#### Genome reports

1. **Sweet AD**, Wilson R, Reakoff J, Sonsthagen S, Hurst C, Pirro S. 2024. The Complete Genome Sequence of *Splendidofilaria pectoralis* (Onchocercidae, Rhabditida, Chromadorea, Nematoda). *Biodiversity Genomes*. 2024:10.56179/001c.1267786. <https://doi.org/10.56179/001c.126786>.

#### **Manuscripts in Review**

Najer T, Doña J, Buček A, **Sweet AD**, Sychra O, Johnson K. Phylogenomics reveals the timescale of diversification in Amblycera. In Review.

Ten S, Pool R, Raga JA, **Sweet AD**, Aznar FJ. Phylogeography of the world's largest copepods indicates interoceanic gene flow mediated by the dispersal of their cetacean and fish hosts. In Review.

Ryals D, Fikere M, Carpenter M, Given JK, Fulton J, Moore M, Villalobos E, Underwood R, Dickey M, **Sweet AD**, Allen J, Rangel J, Lopez-Urbe M, Brito L, Patterson A, Harpur B. Assessing ancestry and diversity in honey bees (*Apis mellifera*) through low-pass whole-genome sequencing. In Review.

#### **TEACHING EXPERIENCE**

##### **Instructor**

Arkansas State University (2021-Present)

BIO 1303: Biology of Animals

BIO 3013: Genetics

BIO 3011: Genetics Laboratory

BIO 4021: Biological Seminar

BIO 4083: Evolution

BIO 4114/5114: Phylogenetics and Systematics

BIO 6001/ESCI 7121: Topical Seminar: Coevolution

##### **Workshops**

2018-2019 Instructor, Bioinformatics and Phylogenomics Workshop. Purdue University.

2017-2018 Instructor, Bioinformatics Workshop. University of Illinois.

##### **Educator**

2011-2012 Coordinator, Internship Program. Maritime Gloucester, Gloucester, MA.

2007-2012 Educator, Marine Science. Maritime Gloucester, Gloucester, MA.

### **Invited Lectures**

- 2022 Arkansas State University, Natural History Collections and Curation Club. DNA Day. 11 February 2022.
- 2021 Arkansas State University, BIO 4033: Bioinformatics and Applications. 14 October 2021.
- 2020 University of Illinois, IB 467: Principles of Systematics. 8 December 2020.
- 2019 Purdue University, ENTM 69200: Tree Thinking. 16 October 2019.
- 2018 Purdue University, Dept. of Entomology Methods Seminar. 16 October
- 2015 University of Illinois, IB 467: Principles of Systematics. 12 November 2015.

### **STUDENT MENTORSHIP AND TRAINING**

#### **Arkansas State University:**

*Graduate Students:* Nora Hines (Ph.D., 2023-present), Colleen Hurst (Ph.D., 2023-2024), Brian Okwiri (Ph.D., 2023-present, co-advised with Dr. Brook Fluker), Paige Brewer (M.S., 2022-present), Alexander Worm (Ph.D., 2021-present, co-advised with Dr. Than Boves)

*Undergraduate Students:* Tra Le (2024), Anahi Garcia Valdez (2023-present), Salma Abdel-Karim (2022-present), Paige Jennings (2022-present), Callie Beaird-Campbell (2022-2023), Jasmine Jones (2022-present), Joe Green (2022-2023), Mikayla Westman-Forbes (2022-2023), Paige Brewer (2021-2022), Kendall Lee (2021-2022)

*High School Students:* Olivia Fears (2024), Anahi Garcia Valdez (2023)

*Visiting Scholars:* Sofia Ten Gonzalez (University of Valencia, 2024)

*Thesis Committees:* Md. Naim Uddin (M.S., 2024), Taylor Fiedor (M.S., 2024), Matthew Waller (University of Utah, Ph.D., 2023-present), Andrew Goode (B.S. Honors, 2023-2024), Ty Sharrow (M.S., 2022-present), Zachary Campbell (Ph.D., 2022-present), Courtney Dover (B.S. Honors, 2022-2023; M.S., 2023-present), Monica Reusche (M.S., 2021-present), Alix Matthews (Ph.D., 2021-2024), David Stanford-Beale (Purdue University, Ph.D., 2021-2022)

**Purdue University:** Melissa Starkie (2019), Shuangmei Ding (2018-2020), Makani Fisher (2018-2020), David Stanford-Beale (2018-2020)

**University of Illinois:** Mark Prakash (2018), Brandon Jones (2013), Jennifer Nowak (2013-2015), Ashley Markazi (2013), Matthew Mason (2013-2017), Gabriela Escalante (2013-2015)

### INVITED SEMINARS

- 2024 Memphis Zoo, Conservation and Research Showcase. 19 March 2024  
2023 Harding University, Biology Dept. Seminar, 2 October 2023.  
2023 Arkansas Biosciences Institute, Spring Research Series. 13 April 2023.  
2022 Arkansas Biosciences Institute, Summer Research Series. 28 July 2022.  
2021 University of Arkansas, Dept. of Biology Seminar. 21 October 2021.  
2021 California Academy of Science Genomic Social Hour. 17 February 2021.  
2018 Purdue University, Dept. of Entomology Seminar. 30 August 2018.  
2017 Arkansas State University, Dept. of Biology Seminar. 15 November 2017.

### INVITED CONFERENCE PRESENTATIONS

- 2023 **Andrew Sweet**, Jorge Doña, and Kevin Johnson. Diversification and biogeography of a globetrotting groups of parasitic lice from doves. Symposium: Birds and ectosymbiotic arthropods. AOS/SCO Joint Meeting. London, ON, Canada. 11 August 2023.
- 2023 **Andrew Sweet**. Integrating evolution, biogeography, and host associations of feather lice across time and space. *Keynote*. 7<sup>th</sup> International Conference of Phthiraptera. Virtual. 10 July 2023.

### CONTRIBUTED ORAL PRESENTATIONS

\* Graduate student co-author

\*\* Undergraduate student co-author

† Presenter

- 2024 Paige Brewer\*†, Alexander Worm, and **Andrew Sweet**. Phylogeography of Common ground doves and their lice: host-parasite evolution in island and mainland populations. American Ornithological Society Annual Meeting. Estes Park, CO. 4 October 2024.
- 2024 Alexander Worm\*†, Emily Donahue, Than Boves, Bryant Dossman, and **Andrew Sweet**. Delimiting the Loggerhead Kingbird (*Tyrannus caudifasciatus*) species complex using a holistic approach. American Ornithological Society Annual Meeting. Estes Park, CO. 4 October 2024.
- 2024 Matthew Waller†, Sarah Bush, **Andrew Sweet**, and Dale Clayton. Genomic tracking of parasitic flies that threaten Darwin's finches. 3<sup>rd</sup> Joint Congress on Evolutionary Biology. Montreal, Canada. 29 July 2024.
- 2024 Monica R. Reusche, Hannah Warr, Kyle D. Gustafson, Ronald L. Johnson, Virginie Rolland, and **Andrew D. Sweet**. Scratching at the phylogeny of the pocket gopher lice: assessment for Arkansas's endemic mammal *Geomys bursarius ozarkensis*. 99<sup>th</sup> Annual Meeting of the American Society of Parasitologists. Denver, CO. 14-17 June 2024.

- 2024 Monica R. Reusche, Hannah Warr, Kyle D. Gustafson, Ronald L. Johnson, Virginie Rolland, and **Andrew D. Sweet**. Scratching at the phylogeny of the pocket gopher lice: assessment for Arkansas's endemic mammal *Geomys bursarius ozarkensis*. Southwestern Association of Parasitology. Kingston, OK. 11-13 April 2024.  
**David A. Becker Memorial Award for best student presentation**
- 2024 Alexander Worm\*†, Emily Donahue, Than Boves, and **Andrew Sweet**. Species delimitation in the Loggerhead Kingbird (*Tyrannus caudifasciatus*) species complex. Association of Southeastern Biologists Annual Meeting. Chattanooga, TN. 22 March 2024.
- 2024 **Andrew Sweet**† and Sinlan Poo. Host sharing of ectoparasitic lice in flamingos at the Memphis Zoo. Association of Southeastern Biologists Annual Meeting. Chattanooga, TN. 22 March 2024.
- 2024 Matthew M. Waller, Sarah E. Bush, **Andrew D. Sweet**, and Dale H. Clayton. Genomic tracking of parasitic flies that threaten Darwin's finches. 6<sup>th</sup> International *Philornis* Workshop. Charles Darwin Foundation.
- 2023 Paige Brewer\*† and **Andrew Sweet**. Population genomics among mainland and island chewing lice (*Physonelloides eurysema*) from *Columbina passerina*. AOS/SCO Joint Meeting. London, ON, Canada. 11 August 2023.
- 2023 Alexander Worm\*†, Emily Donahue, Than Boves, and **Andrew Sweet**. Population genomics of ectoparasitic feather lice (Insecta: Phthiraptera) from hybridizing songbirds (genus *Tyrannus*). AOS/SCO Joint Meeting. London, ON, Canada. 11 August 2023.
- 2023 Tomáš Najer†, Jorge Doña, Aleš Buček, **Andrew D. Sweet**, Oldřich Sychra, and Kevin P. Johnson. Genome sequencing reveals the phylogeny and patterns of mitochondrial fragmentation in Amblycera. 7<sup>th</sup> International Conference of Phthiraptera. Virtual. 10 July 2023.
- 2023 **Andrew Sweet**†, Daniel Browne, Alvaro Hernandez, Kevin Johnson, and Stephen Cameron. Insights into genome evolution and host-symbiont relationships from long-read sequencing of a single feather louse. Association of Southeastern Biologists Annual Meeting. Winston-Salem, NC, USA. 23-26 March 2023.
- 2022 Alix Matthews†, Asela Wijeratne, **Andrew Sweet**, Fabio Hernandez, David Toews, and Than Boves. Host specificity varies widely in dispersal-limited symbionts. International Congress of Acarology. Auckland, New Zealand. 1-5 December 2022.

- 2022 Paige Brewer<sup>\*\*†</sup> and **Andrew Sweet**. Diversity and abundance of ectoparasites on birds in northeast Arkansas. Association of Field Ornithologists Annual Meeting. Plymouth, MA, USA. 13 October 2022.
- 2022 **Andrew Sweet**<sup>†</sup> and Stephen Cameron. The fragmented mitogenomes of lice: how a rare and often fatal phenomenon persists in a group of insects. XXVI International Congress of Entomology. Helsinki, Finland. 21 July 2022.
- 2022 David Stanford-Beale<sup>†</sup>, **Andrew Sweet**, Lawrence Mound, Kevin Johnson, and Stephen Cameron. Phylogenomics of Thrips (Thysanoptera). XXVI International Congress of Entomology. Helsinki, Finland. 18 July 2022.
- 2022 **Andrew Sweet**<sup>†</sup>, Jorge Doña, and Kevin P. Johnson. Evolutionary history of a globally distributed group of ectoparasitic lice from doves. Association of Southeastern Biologists Annual Meeting. Little Rock, AR, USA. 31 March 2022.
- 2020 **Andrew Sweet**<sup>†</sup> and Stephen Cameron. Evolution and persistence of fragmented mitogenomes in parasitic lice. Entomological Society of America Virtual Annual Meeting. 11-25 November 2020.
- 2020 Makani Fishert<sup>†</sup>, Nicolas Dowdy, Alan R. Lemmon, Emily M. Lemmon, **Andrew Sweet**, Stephen Cameron, and Jennifer Zaspel. Phylogenetic assessment of the lichen-feeding tiger moth subtribe Cisthenina (Erebidae: Arctiinae: Lithosiini) by combining anchored hybrid enrichment data with traditional loci. Entomological Society of America Virtual Annual Meeting. 11-25 November 2020.
- 2019 **Andrew D. Sweet**<sup>†</sup> and Stephen L. Cameron. Broken records: a repeated evolutionary history of mitochondrial genome fragmentation in parasitic lice. Entomological Society of America. St. Louis, MO, USA. 20 November 2019.
- 2019 Stephen Cameron<sup>†</sup>, **Andrew Sweet**, and David Stanford-Beale. Mitochondrial genome evolution in thrips (Thysanoptera). Entomological Society of America. St. Louis, MO, USA. 20 November 2019.
- 2019 Robert de Moya<sup>†</sup>, **Andrew Sweet**, Julie Allen, Kimberly K.O. Walden, and Kevin P. Johnson. Phylogenomics and host-switching patterns among major feather louse (Psocodea: Phthiraptera: Philopteridae) groups. Entomological Society of America. St. Louis, MO, USA. 18 November 2019.
- 2019 **Andrew D. Sweet**<sup>†</sup> and Stephen L. Cameron. The tumultuous evolutionary history of mitochondrial genome architecture in parasitic lice. Evolution 2019. Providence, RI, USA. 24 June 2019.

- 2018 **Andrew D. Sweet**<sup>†</sup> and Kevin P. Johnson. Ground-dove lice, genomes, and the search for a more complete picture of host-parasite coevolution. 6<sup>th</sup> International Conference on Phthiraptera. Brno, Czech Republic. 24 June 2018.
- 2018 Robert S. de Moya<sup>†</sup>, Kazunori Yoshizawa, Kimberly K.O. Walden, Julie M. Allen, **Andrew D. Sweet**, Malte Peterson, Lars Podsiadlowski, Christopher H. Dietrich, Hugh M. Robertson, and Kevin P. Johnson. The next generation of phylogenetic relationships within Psocodea. 6<sup>th</sup> International Conference on Phthiraptera. Brno, Czech Republic. 24 June 2018.
- 2018 Stephany Virrueta Herrera<sup>†</sup>, Jason D. Weckstein, **Andrew D. Sweet**, Julie M. Allen, Kimberly K.O. Walden, Michel P. Valim, and Kevin P. Johnson. Phylogenomics of tinamou feather lice and relatives. 6<sup>th</sup> International Conference on Phthiraptera. Brno, Czech Republic. 24 June 2018.
- 2017 **Andrew D. Sweet**<sup>†</sup> and Kevin P. Johnson. Untangling the coevolutionary trees between New World ground-doves and their parasitic lice. AOS/SCO Joint Meeting. East Lansing, MI, USA. 3 August 2017.
- 2017 **Andrew D. Sweet**<sup>†</sup>. Untangling the coevolutionary trees between New World ground-doves and their parasitic lice. Evolution 2017. Portland, OR, USA. 24 June 2017.
- Ernst Mayr Award finalist**
- 2017 Bret Boyd, Kevin Johnson<sup>†</sup>, Ian James, Adam Clayton, **Andrew Sweet**, Julie Allen, Robert Weiss, and Colin Dale. Phylogenomics of *Sodalis* symbionts: models for repeated replacement. Evolution 2017. Portland, OR, USA. 26 June 2017.
- 2017 **Andrew D. Sweet**<sup>†</sup> and Kevin P. Johnson. Untangling the evolutionary history between New World ground-doves and their parasitic body lice using genomic data. Midwest Ecology and Evolution Conference. Champaign, IL, USA. 18 March 2017.
- 2016 **Andrew D. Sweet**<sup>†</sup> and Kevin P. Johnson. Evolutionary history between a group of doves and their parasitic wing lice. Evolution 2016. Austin, TX, USA. 21 June 2016.
- 2016 **Andrew D. Sweet**<sup>†</sup>. Cophylogenetic patterns between small New World ground-doves and their parasitic wing lice (Phthiraptera: *Columbicola*). 18<sup>th</sup> Annual GEEB Research Symposium. University of Illinois, Urbana, IL, USA. 13 February 2016.

- 2014 **Andrew D. Sweet**<sup>†</sup> and Kevin P. Johnson. Patterns of diversification in small New World ground doves are consistent with major geologic events. AOU/COS/SCO Joint Meeting. Estes Park, CO, USA. 27 September 2014.
- 2014 **Andrew D. Sweet**<sup>†</sup> and Kevin P. Johnson. Cospeciation patterns between small New World ground doves and their parasitic wing lice (Phthiraptera: *Columbicola*). 5<sup>th</sup> International Conference on Phthiraptera. Park City, UT, USA. 6 August 2014.

### **CONTRIBUTED POSTER PRESENTATIONS**

\* Graduate student co-author

\*\* Undergraduate student co-author

† Presenter

- 2024 Nora Hines<sup>\*†</sup>, Alexander J. Worm<sup>\*</sup>, Kevin Krajcer, Maureen McClung, and **Andrew D. Sweet**. Variation in the prevalence of ectoparasites on Northern cardinals (*Cardinalis cardinalis*) across ecoregions in Arkansas. American Ornithological Society Annual Meeting. Estes Park, CO. 2 October 2024.
- 2023 Paige Brewer<sup>\*†</sup> and **Andrew Sweet**. Population genomics among mainland and island chewing lice (*Physconelloides eurysema*) from Common ground doves (*Columbina passerina*). 7<sup>th</sup> International Conference of Phthiraptera. Virtual. 10-13 July 2023.
- 2023 Mikayla Westman-Forbes<sup>\*\*†</sup> and **Andrew Sweet**. Identification of arthropod diversity in northeast Arkansas using pooled MinION sequencing. CREATE@ASTATE. 18 April 2023  
**Chancellor's Award for Best Undergraduate Poster**
- 2023 Paige Brewer<sup>\*†</sup> and **Andrew Sweet**. Population genomics among mainland and island chewing lice (*Physconelloides eurysema*) from Common ground doves (*Columbina passerina*). Association of Southeastern Biologists Annual Meeting. Winston-Salem, NC, USA. 23-26 March 2023.
- 2022 Alexander J. Worm<sup>\*†</sup>, Emily R. Donahue, Than J. Boves, and **Andrew D. Sweet**. Joint-nesting and cooperation between a Western Kingbird (*Tyrannus verticalis*) and a hybrid Western Kingbird x Scissor-tailed Flycatcher (*T. forficatus*) in Arkansas. Association of Field Ornithologists Annual Meeting. Plymouth, MA. October 2022.
- 2022 Paige Brewer<sup>\*\*†</sup> and **Andrew Sweet**. Diversity and abundance of ectoparasites on birds in northeast Arkansas. American Ornithological Society and Birds Caribbean Joint Meeting. San Juan, PR. 28 June 2022.

- 2022 Alexander J. Worm\*†, Emily R. Donahue, Than J. Boves, and **Andrew D. Sweet**. Joint-nesting and cooperation between a Western Kingbird (*Tyrannus verticalis*) and a hybrid Western Kingbird x Scissor-tailed Flycatcher (*T. forficatus*) in Arkansas. American Ornithological Society and Birds Caribbean Joint Meeting. San Juan, PR. 28 June 2022.
- 2022 Paige Brewer\*\*† and **Andrew Sweet**. Diversity and abundance of ectoparasites on birds in northeast Arkansas. CREATE@STATE. Jonesboro, AR. 19 April 2022.
- 2022 Alexander J. Worm\*†, Emily R. Donahue, Than J. Boves, and **Andrew D. Sweet**. Joint-nesting and cooperation between a Western Kingbird (*Tyrannus verticalis*) and a hybrid Western Kingbird x Scissor-tailed Flycatcher (*T. forficatus*) in Arkansas. CREATE@STATE. Jonesboro, AR. 19 April 2022.  
**Outstanding Graduate Student Poster Award**
- 2022 Paige Brewer\*\*† and **Andrew Sweet**. Diversity and abundance of ectoparasites on birds in northeast Arkansas. Association of Southeastern Biologists Annual Meeting. Little Rock, AR, USA. 31 March 2022.  
**Outstanding Student Poster Award**
- 2022 Alexander J. Worm\*†, Emily R. Donahue, Than J. Boves, and **Andrew D. Sweet**. Joint-nesting and cooperation between a Western Kingbird (*Tyrannus verticalis*) and a hybrid Western Kingbird x Scissor-tailed Flycatcher (*T. forficatus*) in Arkansas. Association of Southeastern Biologists Annual Meeting. Little Rock, AR, USA. 31 March 2022.
- 2018 Maria Soledad Leonardi, Stephany Virrueta Herrera†, **Andrew Sweet**, Javier Negrete, and Kevin Johnson. 6<sup>th</sup> International Conference on Phthiraptera. Brno, Czech Republic. 25 June 2018.
- 2018 **Andrew D. Sweet**†. Unraveling the evolutionary tangle between ground-doves and their parasitic wing lice. 20<sup>th</sup> Annual GEEB Research Symposium. University of Illinois, Urbana, IL, USA. 10 February 2018.
- 2016 **Andrew D. Sweet**† and Kevin P. Johnson. Unraveling the evolutionary tangle between ground-doves and their parasitic wing lice. North American Ornithological Conference. Washington, D.C., USA. 19 August 2016.
- 2014 Kevin P. Johnson†, Jennifer E. Nowak\*, **Andrew D. Sweet**, and Jason D. Weckstein. A molecular phylogeny for fruit doves and their allies. 26<sup>th</sup> International Ornithological Conference. Tokyo, Japan. 18 August 2014.



- 2014 Jennifer E. Nowak<sup>\*\*†</sup>, **Andrew D. Sweet**, Jason D. Weckstein, and Kevin P. Johnson. A phylogenetic comparison of African doves and their lice. 5<sup>th</sup> International Conference on Phthiraptera. Park City, UT, USA. 4 August 2014.

### **OUTREACH**

- 2023-2024 Interactive displays and activities for TinkerFaire. Arkansas State University Museum. “Insects.”
- 2018 Yankee Ridge Elementary School, Junior Scientist Day. Urbana, IL. Unit: “Parasites!” 27 April 2018.
- 2017 Prairie Research Institute fundraising event. “Passenger pigeons and their lice.” Champaign, IL. 8 July 2017.
- 2015 Leal Elementary School, Science Night. Urbana, IL. Unit: “Organizing Organisms.” 10 April 2015.
- 2014-2018 Community Expert for the Next Generation School Science and Engineering Fair. Champaign, IL.
- 2013 Southview Middle School, Science Night. Danville, IL. Unit: “Classification and Biodiversity.” 18 November 2013.

### **RELEVANT EXPERIENCES**

- 2021-2022 Hanover Grant Academy.
- 2019 *Amplify the Signal* Science Communication Workshop. University of Illinois. 14-15 May 2019.
- 2018 aTRAM Workshop. Illinois Natural History Survey. 2 November 2018.
- 2015 Workshop on Molecular Evolution. Marine Biological Laboratory, Woods Hole, MA. 19-29 July 2015.
- 2015 Issues in Gene Alignment and Phylogenomics Workshop. Illinois Natural History Survey. 13 June 2015.
- 2015 Science Writing Workshop. University of Illinois. 23 April 2015.

### **SERVICE AND LEADERSHIP**

#### **Volunteer:**

- 2024 AOS Annual Meeting – student award judge; mentor
- 2023-2024 ASB Annual Meeting – student award judge; moderator
- 2022-2023 Northeast Arkansas Regional Fair – judge
- 2020-2023 ESA Early Career Professionals Research Award – reviewer
- 2019 ESA Annual Meeting – student competition judge; moderator
- 2019 Purdue University Bug Bowl – volunteer
- 2017 Midwest Ecology and Evolution Conference – volunteer; moderator
- 2017 GEEB Research Symposium – judge
- 2016-2017 GEEB Research Symposium – moderator
- 2013-2014 U. of Illinois Systematics Reading Group – student coordinator

**Committees:**

- 2024-present Undergraduate Graduation and Academic Credit Appeals Committee.  
Arkansas State University.
- 2024-present Curriculum Committee. Department of Biological Sciences.  
Arkansas State University.
- 2023-present Graduate Program Committee. Department of Biological Sciences.  
Arkansas State University.
- 2021-present Darwin Day Organization Committee (**Chair**). Department of  
Biological Sciences. Arkansas State University
- 2021-2022 Animals Use Committee. Department of Biological Sciences. Arkansas  
State University
- 2016-2017 Seminar Committee. Program in Ecology, Evolution, and Conservation  
Biology. University of Illinois.

**Symposia:**

- 2024 “Decoding Parasitic Lice: Systematics, Evolution, and Genomics.”  
XXVII International Congress of Entomology. Kyoto, Japan. Co-  
organizer: Jorge Doña. 25-30 August 2024.
- 2022 “Mechanisms of host-symbiont coevolution: from genotype to  
phenotype.” European Society for Evolutionary Biology. Prague,  
Czech Republic. Co-organizers: Jorge Doña, Megan Sørensen, Dragan  
Stajic. 14-19 August 2022.

**Grant panels:**

- 2024 National Science Foundation

**Ad hoc reviews:**

- 2024 National Science Foundation
- 2022 EBSCO Information Services

**Journal Service:**

- 2020-2023 Guest co-editor *Life*  
Special issue: “Untangling host-symbiont coevolutionary history  
in the High Throughput Sequencing (HTS) era”
- 2020-present Reviewer Board *Insects*

**Reviewer:**

*The American Naturalist, Arxius de Miscel·lània Zoològica, Asian Pacific Journal of Tropical  
Medicine, Biological Journal of the Linnean Society, Cladistics, Diversity and Distributions,  
Diversity, Ecological Entomology, The Great Lakes Entomologist, Insects, International Journal for  
Parasitology: Parasites and Wildlife, iScience, The Journal of Agriculture of the University of Puerto  
Rico, Journal of Economic Entomology, Journal of Heredity, Journal of Medical Entomology,  
Frontier in Ecology and Evolution, Frontiers in Zoology, Genes, GigaScience, Medical and  
Veterinary Entomology, Mitochondrial DNA Part B: Resources, Molecular Biology Reports,*

*Molecular Ecology, Parasitology, Parasitology Research, Philosophical Transactions of the Royal Society B, Oecologia, Organisms Diversity and Evolution, PeerJ, PLOS ONE, Scientific Data, Systematic Entomology, The Journal of Parasitology, Wellcome Open Research, Zoologica Scripta, Zoological Journal of the Linnean Society*

**PROFESSIONAL SOCIETIES**

American Ornithological Society  
Association of Southeastern Biologists  
Society for the Study of Evolution  
Society of Systematic Biologists