

Education

- 2018-2023 PhD: Biology (Ecology and Evolution)
University of Denver, Denver, CO
Advisor: Erica Larson
Committee Members: John Demboski, Scott Nichols, Scott Taylor,
Robin Tinghitella, and Jonathan Velotta
- 2011-2015 B.S. Biology with High Distinction, B.A. German Literature, Chemistry Minor
University of Virginia, Charlottesville, VA
Advisor: Deborah Roach

Professional Appointments

- 2023-present Postdoctoral Research Associate, Department of Biological Sciences, University of Denver, Denver CO
Advisor: Jonathan Velotta
- 2015-2018 Associate in Research, Duke University, Department of Biological Sciences, Durham NC
Advisor: Anne Yoder
- 2014 – 2015 Undergraduate Research Assistant and Honor's Thesis Research, University of Virginia, Department of Biology, Charlottesville VA
Advisor: Deborah Roach Lab

Peer-Reviewed Publications (352 citations; h-index: 9)

12. CS Jenck, WR Lehto, **KE Hunnicutt**, SM Murphy, TW Quinn, EL Larson, and RM Tinghitella. (2022). Genetic divergence among threespine stickleback that differ in nuptial coloration. **Journal of Evolutionary Biology**, 35, 934– 947.
11. EC Moore, GWC Thomas, S Mortimer, EEK Kopania, **KE Hunnicutt**, ZJ Clare-Salzler, EE Larson, and JM Good. (2022). The evolution of widespread recombination suppression on the Dwarf Hamster (*Phodopus*) X chromosome. **Genome Biology and Evolution**, 14(6), evac080.
10. EL Larson, EEK Kopania, **KE Hunnicutt**, D Vanderpool, S Keeble, and JM Good. (2022). Stage-specific disruption of X chromosome expression during spermatogenesis in sterile house mouse hybrids. **G3 Genes | Genomes | Genetics**, 12(2), jkab407.
9. **KE Hunnicutt**, JM Good, and EL Larson. (2022). Unraveling patterns of disrupted gene expression across a complex tissue. **Evolution**, 76(2), 275-291.
8. SM Murphy, DK Vyas, JL Hoffman, CS Jenck, BA Washburn, **KE Hunnicutt**, A Davidson, JM Andersen, RK Bennet, A Gifford, M Herrera, B Lawler, S Lorman, V Peacock, L Walker, E Watkins, L Wilkinson, Z Williams, and RM Tinghitella. (2021). Streetlights positively affect the presence of an invasive grass species. **Ecology and Evolution**, 11(15), 10320-10326.
7. CR Campbell, GP Tiley, JW Poelstra, **KE Hunnicutt**, PA Larson, H Lee, JL Thorne, M dos Reis, and AD Yoder. (2021). Pedigree-based and phylogenetic methods support surprising patterns of mutation rate and spectrum in the gray mouse lemur. **Heredity**, 127(2), 233-244.
6. JW Poelstra, J Salmons, GP Tiley, D Schüßler, MB Blanco, JB Andriambeloson, O Bouchez, CR Campbell, PD Etter, PA Hohenlohe, **KE Hunnicutt**, A Iribar, EA Johnson, PM Kappeler, PA Larsen, S Manzi, JM Ralison, B Randrianambinina, RM Rasoloarison, DW Rasolofoson, AR Stahlke, DW Weisrock, RC Williams, L Chikhi, EE Louis Jr., U Radespiel, and AD Yoder. (2021). Cryptic patterns of speciation in cryptic primates: microendemic mouse lemurs and the multispecies coalescent. **Systematic Biology**, 70(2), 203–218.

Peer-Reviewed Publications (continued)

5. **KE Hunnicutt**†, GP Tiley†, RC Williams, PA Larsen, MB Blanco, RM Rasoloarison, CR Campbell, K Zhu, DW Weisrock, H Matsunami and AD Yoder. (2020). Comparative genomic analysis of the pheromone receptor Class 1 family (V1R) reveals extreme complexity in mouse lemurs (genus, *Microcebus*) and chromosomal hotspots across mammals. **Genome Biology and Evolution**, 12(1): 3562–3579. † equal authorship
4. RC Williams, MB Blanco, JW Poelstra, **KE Hunnicutt**, AA Comeault, and AD Yoder. (2019). Conservation genomic analysis reveals ancient introgression and declining levels of genetic diversity in Madagascar's hibernating dwarf lemurs. **Heredity**, 124: 236–251. **[Editor's Choice Award 2019]**
3. PA Larsen, **KE Hunnicutt**, AD Yoder, and AM Saunders. (2018). Warning SINEs: *Alu* elements, incipient mitochondrial dysfunction, and the spectrum of neurological disease. **Chromosome Research**, 26(1-2): 93-111.
2. PA Larsen, MW Lutz, **KE Hunnicutt**, M Mihovilovic, AM Saunders, AD Yoder, and AD Roses. (2017). The *Alu* neurodegeneration hypothesis: A primate-specific mechanism for neuronal transcription noise, mitochondrial dysfunction, and manifestation of neurodegenerative disease. **Alzheimers & Dementia**, 13(7): 828-838.
1. AD Yoder, CR Campbell, M Blanco, JU Ganzhorn, SM Goodman, **KE Hunnicutt**, PA Larsen, PM Kappeler, RM Rasoloarison, JM Ralison, D Swofford, and DW Weisrock. (2016). Geogenetic patterns in mouse lemurs (genus *Microcebus*) reveal the ghosts of Madagascar's forests past. **Proceedings of the National Academy of Sciences**, 113: 8048-8056.

Book Reviews

1. Larson, EL, and **KE Hunnicutt** (2020). The beautiful chromosomes of shrews. **Evolution**, 74: 1584-1586.

Manuscripts in preparation (available upon request)

2. **KE Hunnicutt**, C Callahan, S Keeble, EC Moore, JM Good, and EL Larson (*in prep*). Different complex regulatory phenotypes underlie hybrid male sterility in divergent rodent crosses.
1. **KE Hunnicutt**, U Knaven, JR Demboski, and EL Larson (*in prep*). Population genomics of cottontail rabbits across Colorado reveals hidden complexity in species ranges and rare hybridization in urban areas.

Research Grants and Fellowships

2020	National Science Foundation Graduate Research Fellowship	\$138,000
2020	Jefferson County Open Space Small Research Grant (Co-PI)	\$5,000
2020	Society for the Study of Evolution R.C. Lewontin Early Award	\$2,500
2020	Society for Systematic Biology Graduate Student Research Award	\$2,000
2020	Society for Integrative and Comparative Biology Grant-in-Aid of Research	\$1,000
2020	University of Denver Shubert Award	\$500
2019	American Society of Mammalogists Grant-in-Aid of Research	\$1,500
2019	Sigma Xi Grant-in-Aid of Research	\$1,000
2018	Graduate Studies Doctoral Fellowship, University of Denver	\$4,500
2014	Ingrassia Family Echols Scholars Research Grant	\$1,500
2014	UVa College of Arts & Sciences Small Research and Travel Grant	\$1,500

Presentations and Posters at Professional Meetings

- June 2023 Evolution, Albuquerque, NM
Presentation Title: The conserved regulatory program of spermatogenesis across rodents
- June 2023 Evolution, Albuquerque, NM
Poster Title: The evolution of male reproductive physiology in response to high-altitude
- Sept 2022 Guild of Rocky Mountain Ecologists and Evolutionary Biologists, Nederland, CO
Presentation Title: Hybridization between overlapping cottontail species in urban areas of Colorado
- July 2022 American Genetics Association, Islandwood, WA
Presentation Title: Widespread disrupted sex chromosome regulation in sterile hybrid dwarf hamsters
- June 2022 Evolution, Cleveland, OH
Presentation Title: The regulatory basis of hybrid male sterility in dwarf hamsters
- May 2022 University of Denver PhD Student Seminar Series, Denver, CO
Presentation Title: Hybridization between overlapping cottontail species in urban areas of Colorado
- October 2021 American Genetics Association, Snowbird, UT
Poster Title: Hybridization between overlapping cottontail species in urban areas of Colorado
- June 2021 Evolution, Virtual
Presentation Title: Unraveling patterns of disrupted gene expression across complex tissues in hybrid house mice
- June 2021 American Society of Mammalogists, Virtual
Presentation Title: Investigating hybridization in overlapping cottontail species (genus *Sylvilagus*)
- June 2021 University of Denver PhD Student Seminar Series, Denver, CO
Presentation Title: Unraveling patterns of disrupted gene expression across complex tissues in hybrid house mice
- June 2017 Evolution, Portland, OR
Poster Title: “Comparative transcriptomics of the cellular response to hypoxia in a hibernating primate”
- January 2017 Duke University - Research Computing Symposium Poster Session
Poster Title: “Warning SINEs: Is there a link between sporadic neurodegenerative disease and *Alu* enrichment in mitochondrial genes?”
- April 2015 University of Virginia - Richard D. Katz Undergraduate Research Symposium
Presentation Title: “The Correlation between Early-Life Traits with Rates of Inbreeding in *Mimulus ringens*”

Workshops

- May 2019 Workshop in Applied Phylogenetics, Bodega Bay, Bodega Marine Laboratory
- July 2017 Workshop on Molecular Evolution, Woods Hole, Marine Biological Laboratory

Teaching Experience

April 2023	Introduction to Illustrator, <i>University of Denver Department Workshop</i> - Primary Instructor
May 2022	Introduction to Illustrator, <i>University of Denver Department Workshop</i> - Primary Instructor
Nov 2021	Introduction to Illustrator, <i>Front Range Data Visualization Workshop</i> - Primary Instructor
Winter 2020	Genetics Laboratory (BIOL 2511), <i>University of Denver</i> - Teaching Assistant
Autumn 2019	Sustaining Life Laboratory (BIOL 1260), <i>University of Denver</i> - Teaching Assistant
Spring 2019	Physiological Systems Laboratory (BIOL 1020), <i>University of Denver</i> - Teaching Assistant
Winter 2019	Evolution, Heredity, and Biodiversity Laboratory (BIOL 1021), <i>University of Denver</i> - Teaching Assistant
Autumn 2018	Molecules to Humankind Laboratory (BIOL 1220), <i>University of Denver</i> - Teaching Assistant

Undergraduate Student Mentorship

2019-2021	Uma Knaven (University of Denver, cottontail phylogenetics)
2017-2018	Michelle Larsen (Duke University, molecular techniques)
2016-2017	Annabelle Mercer (Duke University, molecular techniques)
2016-2017	Isabelle Clark (Duke University, nematode phylogenetics)
2015-2016	Lauriane Pinto (Duke University, molecular techniques)
2014-2015	Brandie Quarles (University of Virginia, early-life traits in <i>Mimulus ringens</i>)

Memberships in Professional Societies

- American Society of Mammalogists (2019-present)
- American Society of Naturalists (2021-present)
- Society for Systematic Biologists (2017, 2019-present)
- Society for the Study of Evolution (2019-present)

Outreach/Activities

Camp Counselor - DU SciTech (2019)

- Assists with a free STEM summer camp for low-income and minority middle school girls

Honors and Awards

- Editor's Choice Award 2019 for article in *Heredity* "*Conservation genomic analysis reveals ancient introgression and declining levels of genetic diversity in Madagascar's hibernating dwarf lemurs*"
- Sigma Xi Associate Member
- University of Virginia, Dean's List: six semesters
- University of Virginia, Echols Scholar

Professional Service

- Reviewer for *Evolution* (2021, 2022), *Molecular Biology and Evolution* (2020, 2023), *Journal of Heredity* (2020), and *Genome Biology and Evolution* (2019)
- Panel Reviewer for the University of Denver Shubert Award (2021)
- Zoology Department Associate – Denver Museum of Nature and Science (2019-present)
- Biology Representative – DU Graduate Students of the Four Faculties (2019-2023)
 - Participates on a panel to help graduate students fund their conference endeavors