

Loren Cassin Sackett

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Biology Institute

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RESEARCH INTERESTS

I am driven to understand the processes that shape the distribution of genetic diversity within and among species, with a focus on species adaptation to novel versus historical selection pressures. I am especially interested in using genomics to understand the mechanisms underlying the evolution of resistance and tolerance to introduced pathogens.

EDUCATION

Ph.D, Ecology and Evolutionary Biology, University of Colorado, December 2012.

*Dissertation title: Dispersal, diversity and divergence: evolutionary processes in prairie dogs (genus *Cynomys*).* (Advisor: Andrew P. Martin)

Committee: Sharon K. Collinge, Robert P. Guralnick, Patrik Nosil, Alan R. Templeton

B.A., Psychology, Whitman College, 2003.

Thesis title: Perceptual differences between native English- and Spanish-speakers using their first or second language. (Advisor: Matthew Prull)

PROFESSIONAL APPOINTMENTS

2019-present: Assistant Professor, Department of Biology, University of Louisiana, Lafayette, LA

2018-2019: Visiting Assistant Professor, Department of Biology, University of Louisiana, Lafayette, LA

2016-2018: Assistant Professor, Department of Integrative Biology, University of South Florida, Tampa, FL

2013-2016: Postdoctoral fellow, Center for Conservation Genomics, Smithsonian Institution, Washington D.C. (Advisor: Robert C. Fleischer)

2012: Research Assistant, Transforming Undergraduate Education in Ecology and Evolutionary Biology. University of Colorado, Boulder, CO (Advisors: Kendi Davies and Sarah Wise)

2008-2010: Teaching Fellow, National Science Foundation GK-12. Ryan Elementary School (Lafayette, CO) and Louisville Middle School (Louisville, CO)

2006-2012: Teaching Assistant, multiple courses (Evolution, Genetics, General Biology I and II, Ecology). University of Colorado, Boulder, CO

2005-2006: Research Assistant, Landscape effects on disease dynamics in prairie dogs. University of Colorado, Boulder, CO (Advisors: Sharon K. Collinge and Andrew P. Martin)

2003-2005: Research Assistant, Analysis of nutrient status in alpine soils of Colorado. Institute for Arctic and Alpine Research, University of Colorado, Boulder, CO (Advisor: Iggy Litaor)

RESEARCH AND TRAINING GRANTS**Total \$1,732,932**

2023:	National Science Foundation. <i>Predicting the evolution of disease resistance across heterogeneous landscapes.</i> (Lead PI; \$2,000,000 across 5 institutions)	\$1,030,611
2020:	Arizona Game and Fish Department Heritage Fund. <i>Uncovering the genetic basis of survival from plague in Gunnison's prairie dogs.</i>	\$69,925
2017:	National Science Foundation, Ecology and Evolution of Infectious Disease Program. <i>Predicting the evolution of vector-borne disease dynamics in a changing world.</i> Co-PI, Sackett portion	\$370,468
2016:	United States Fish and Wildlife Service. <i>Population genetic analysis to guide emergency management actions for two crashing endangered species, Kauai Island's Akikiki and Akeke'e</i> (co-PI)	\$14,504
2016:	Friends of the National Zoo Conservation Grant. <i>Genomic analysis of severely endangered Hawaiian honeycreepers in support of captive propagation</i> (co-PI).	\$5,000
2016:	Instrumentl crowdfunding, <i>Using prairie dog genomics to understand disease</i>	\$1,440
2015:	National Geographic Society's Committee for Research and Exploration research grant. <i>Genomics of Resistance to Avian Malaria in Hawaiian Honeycreepers.</i>	\$22,701
2015:	Smithsonian Institution Competitive Grants Program for Science. <i>Genomics of Resistance to Avian Malaria in Hawaiian Amakibi</i> (co-PI).	\$99,500
2013:	Smithsonian Institution postdoctoral research grant. <i>Genomics of Resistance to Avian Malaria in Hawaii Amakibi (Hemignathus virens)</i>	\$4,000
2013:	RocketHub crowdfunding. <i>Soil Microbial Communities in Prairie Dog Burrows</i>	\$2,130
2010:	Colorado Division of Wildlife. <i>Comparison of Migration Potential, Inbreeding, and Flea Ecology in the Candidate and Non-candidate Portion of the Gunnison's Prairie Dog Range in Colorado</i> (co-PI)	\$50,000
2010:	Beverly Sears graduate student grant, University of Colorado	\$1,000
2009:	National Science Foundation GK-12 International Research Partnership: <i>Ecology of McMurdo Dry Valleys, Antarctica</i> (PI: Lesley Smith; written by Susan Whitehead, Loren C. Sackett, Kallin Tea and Philip Taylor)	\$42,516
2009:	EEB department grant, University of Colorado	\$2,500
2009:	Boulder County Nature Association grant	\$1,000
2009:	Undergraduate Research Opportunities Program (training grant), University of Colorado	\$2,000
2009:	University of Colorado Natural History Museum Award, University of Colorado	\$1,194
2009:	Verona Walker Award, University of Colorado	\$2,000
2008:	Undergraduate Research Opportunities Program (training grant), University of Colorado	\$3,000
2008:	EEB department grant, University of Colorado	\$2,000
2008:	Boulder County Nature Association grant	\$1,000
2008:	University of Colorado Natural History Museum Walker Van Riper grant	\$1,000
2008:	Beverly Sears graduate student grant, University of Colorado	\$993
2007:	EEB department grant, University of Colorado	\$2,450

FELLOWSHIPS AND AWARDS**Total \$222,750**

2021:	Fulbright Commission, Unifying 'omics to illuminate wildlife disease dynamics in Colombia	\$26,000
2023:	South Louisiana Mid-Winter Fair/BORSF Professorship in Environmental Science, University of Louisiana (approximate amount)	\$19,900
2020:	South Louisiana Mid-Winter Fair/BORSF Professorship in Environmental Science, University of Louisiana	\$20,400
2019:	Fulbright Commission, The influence of microbiota on wildlife diseases in Colombia	\$26,000
2013:	Post-Doctoral Fellowship, Smithsonian Institution: <i>Genomics of Resistance to Avian Malaria in Hawaii Amakihi (Hemignathus virens)</i>	\$45,000
2012:	Graduate School Dissertation Completion Fellowship, University of Colorado	\$14,000
2011:	EEB Rosella Smith Fellowship, University of Colorado	\$13,000
2011:	ARCS Foundation Achievement Award, University of Colorado	\$5,000

- 2011: Finalist, W.D. Hamilton Award for Outstanding Student Talk, **Society for the Study of Evolution**
- 2009: EEB Excellence in Teaching Award, **University of Colorado** \$200
- 2009: **National Science Foundation** GK-12 Teaching Fellowship \$45,000
+ \$22,500 education allowance
- 2009: EEB fellowship to attend Organization for Tropical Studies short course, **University of Colorado** \$2,850
- 2008: EEB fellowship to attend Organization for Tropical Studies short course, **University of Colorado** \$2,800

PEER-REVIEWED PUBLICATIONS (*undergraduate author, #graduate student author)

- Paxton, K.L., **L. Cassin-Sackett**, C.T. Atkinson, Videvall, E., M.G. Campana, R.C. Fleischer 2023. Gene expression reveals immune response strategies of naïve Hawaiian honeycreepers experimentally infected with introduced avian malaria. *Journal of Heredity*, esad017.
- Kaufmann, C.* and **L. Cassin-Sackett** 2021. Fine-scale spatial structure of soil microbial communities in the burrows of a keystone rodent. *Frontiers in Ecology and Evolution* 9: 758348.
- Cassin-Sackett, L.**, M.G. Campana, N.R. McInerney, H.C. Lim, N.A.S. Przelomska, B.M. Masuda, R. T. Chesser, E.H. Paxton, J.T. Foster, L.H. Crampton, R.C. Fleischer 2021. Genetic structure and population history in two critically endangered Kauaʻi honeycreepers. *Conservation Genetics* 22: 601–614.
- Videvall, E., K.L. Paxton, M.G. Campana, **L. Cassin-Sackett**, C.T. Atkinson, R.C. Fleischer 2021. Transcriptome assembly and differential gene expression of the invasive avian malaria parasite *Plasmodium relictum* in Hawaiʻi. *Ecology and Evolution* 11(9): 4935–4944.
- Joubran, S.#, **L. Cassin-Sackett** 2021. Genomic resources for an ecologically important rodent, Gunnison’s prairie dogs (*Cynomys gunnisoni*). *Conservation Genetics Resources* 13(2): 123–126.
- Tsuchiya, M.N., R. Dikow, **L. Cassin-Sackett** 2020. First genome sequence of the Gunnison’s prairie dog (*Cynomys gunnisoni*), a keystone species and player in the transmission of sylvatic plague. *Genome Biology and Evolution* 12 (5): 618 – 625.
- Cassin-Sackett, L.** 2020. Promising Protocols for Parasites: Metatranscriptomics reveals improved detection of hyperdiverse but low abundance communities. *Molecular Ecology Resources* 20(1): 8 – 10. **Invited Perspective.**
- Cassin-Sackett, L.**, A. Welch, M.X. Venkatraman#, T.E. Callicrate#, R.C. Fleischer 2019. The contribution of genomics to avian conservation. *In: Avian Genomics in Ecology and Evolution: From the Lab Into the Wild.*
- Cassin-Sackett, L.**, T.E. Callicrate#, R.C. Fleischer 2019. Parallel evolution of gene classes, but not genes: Evidence from Hawaiʻian honeycreeper populations exposed to avian malaria. *Molecular Ecology* 28: 568 – 583.
- Cassin Sackett, L.** 2017. Does the host matter? Variable influence of host traits on parasitism rates. *International Journal of Parasitology* 48(1): 27-39.
– *Selected for feature on the journal website*
- Castellanos-Morales, G., J. Ortega, R. Castillo-Gómez, **L.C. Sackett**, L. Eguiarte 2015. Genetic variation and structure in contrasting geographic distributions: widespread vs. restricted black-tailed prairie dogs

(subgenus *Cynomys*). *Journal of Heredity* 106: 478 – 490.

Sackett, L.C., A. Seglund, R.P. Guralnick, M.N. Mazzella*, D.M. Wagner, J.D. Busch, A.P. Martin 2014. Evidence for two subspecies of Gunnison’s prairie dogs (*Cynomys gunnisoni*), and the general importance of the subspecies concept. *Biological Conservation* 174: 1 – 11.
– **Contributed to listing decision under the Endangered Species Act**

Sackett, L.C., S.K. Collinge, A.P. Martin 2013. Do pathogens reduce genetic diversity of their hosts? Variable effects of sylvatic plague in black-tailed prairie dogs. *Molecular Ecology* 22: 2441 – 2455.

Sackett, L.C., T.B. Cross*, R.T. Jones, W. Johnson, K. Ballare, C. Ray, S.K. Collinge, A.P. Martin 2012. Connectivity of prairie dog colonies in an altered landscape: inferences from analysis of microsatellite DNA variation. *Conservation Genetics* 13: 407 – 418.

Paull, S.H., S. Song, K.M. McClure, **L.C. Sackett**, M. Kilpatrick, P.T.J. Johnson 2012. From superspreaders to disease hotspots: linking transmission across hosts and space. *Frontiers in Ecology and the Environment* 10: 75 – 82.
– **Selected for podcast feature on journal website**

Sackett, L.C., L.K. Etchberger, M.N. Mazzella*, D.D. Lim*, A.P. Martin 2010. Characterization of 18 microsatellite loci for three species of prairie dogs. *Molecular Ecology Resources* 10: 232–236.

Basey, J.M., **L.C. Sackett**, N.S. Robinson 2008. Optimal science lab design: impacts of various components of lab design on students’ attitudes toward lab. *International Journal for the Scholarship of Teaching and Learning* 2(1), Article 15.

Litaor, M.I., T.R. Seastedt, **L.C. Sackett** 2008. An analysis of the nutrient status of alpine soils of the Colorado Front Range using the N:P ratio index. *Soil Science Society of America Journal* 72: 1628 – 1636.

MANUSCRIPTS IN REVIEW AND IN PREPARATION

Cassin-Sackett, L., Tsuchiya, M.N., and R. Dikow. Rapid adaptation to a globally introduced pathogen in prairie dogs. In review at *PNAS Nexus*. bioRxiv: <https://doi.org/10.1101/2024.09.16.613142>

Cassin-Sackett, L., K.M. McClure, T.E. Callicrate, E.H Paxton, and R.C. Fleischer. Variation in gene expression across a infection status and elevation in a Hawaiian honeycreeper. In preparation for submission to *Ecology and Evolution*. (submitted to co-authors)

Atkinson, G.A.#, K.L. Paxton, C.T. Atkinson, R.C. Fleisher, and **L. Cassin-Sackett**. Multigenic basis of survivorship from malaria may not have evolved in parallel in Hawai’i ‘amakihi. In preparation for submission to *Proceedings of the Royal Society B*. (submitted to co-authors)

Kyriazis, C.C., M. Venkatraman, B. Masuda, C.C. Steiner, L.H. Crampton, A.M. Flanagan, **L. Cassin-Sackett**, M.L. Houck, A.C. Misuraca, J.A. Robinson, R.R. Swaisgood, R.C. Fleischer, O.A. Ryder, M.G. Campana, and A.A. Wilder. Population genomics of a collapsing avian radiation in Hawai’i. In preparation for submission to *Proceedings of the National Academy of Sciences*.

Jackson, A.C. #, G.A. Atkinson#, N. Stone, R.D. Nottingham, J.D. Busch, D.M. Wagner, T.E. Rocke, and **L. Cassin-Sackett**. Identifying the genomic regions underlying survival from experimental plague infection in Gunnison’s prairie dogs, *Cynomys gunnisoni*. In preparation for *Conservation Genetics*.

OTHER PUBLICATIONS AND PRODUCTS

Warren, C.C., L.K. Berthold, H.L. Mounce, J.T. Foster, **L.C. Sackett**. 2019. Evaluating the risk of avian disease in reintroducing the endangered Kiwikiu (Maui Parrotbill: *Pseudonestor xanthophrys*) to Nakula NAR, Maui, Hawai'i. Pacific Cooperative Studies Unit Technical Report #201. University of Hawai'i at Mānoa, Department of Botany. Honolulu, HI. 50 pages.

Fleischer, R.C., **L. Cassin-Sackett**, M.G. Campana 2018. Population genetic analysis to guide emergency management actions for two crashing endangered species, Kauai Island's Akikiki and Akeke'e. Report prepared the U.S.F.W.S.

Cassin Sackett, L. 2016. SNP_Capture (A full pipeline for processing and analyzing population genetics data from SNPs generated by Illumina sequencing). *GitHub repository*.
https://github.com/CassinSackett/SNP_capture

Cassin Sackett, L. 2015. R_Scripts (scripts for simulating data with small sample sizes). *GitHub repository*.
https://github.com/CassinSackett/R_scripts

Martin, A.P. and **L.C. Sackett** 2012. Assessing the subspecies status within *Cynomys gunnisoni*. Final report prepared for the Colorado Division of Wildlife, Denver, CO.

Sackett, L.C. 2009. Recolonization after plague in black-tailed prairie dogs. Final report prepared for the Boulder County Nature Association, Boulder, CO. Available at
http://bcna.org/library/Sackett_finalreport09.pdf.

Dunnivant, F.M., L. DeMuth, S. Ferguson, R. Kormanyos, S. McConnell, **L. Sackett**, J. Schulte 2006. Environmental Laws. In: *A Basic Introduction to Pollutant Fate and Transport: An Integrated Approach with Chemistry, Modeling, Risk Assessment, and Environmental Legislation*, F.M. Dunnivant, E. Anders. John Wiley & Sons Inc., Hoboken, NJ.

INVITED SEMINARS

2021: Asociación Colombiana de Ciencias Biológicas y Universidad de Córdoba, Colombia. (In Spanish)

2020: Universidad de los Andes, Bogotá, Colombia.
University of Memphis, Memphis, TN.

2019: Genomics of Wildlife Diseases workshop, **Plenary Speaker**, Fort Collins, CO.

2018: Louisiana State University Museum of Natural Science, Baton Rouge, LA (invited by grad students).
University of Louisiana, Lafayette, LA.

2016: University of South Florida, Tampa, FL.

2015: University of Virginia, Charlottesville, VA.
Malaria RCN, Shepherdstown, WV.

2013: Smithsonian Conservation Biology Institute, Washington, D.C.

2012: Prairie Dog Conservation Team Annual Meeting, Fort Collins, CO.
City of Boulder Open Space and Mountain Parks, Boulder, CO.

- 2010: Graduate Student Evolution Symposium, University of Colorado Museum, Boulder, CO.
2009: Graduate School Advisory Board quarterly meeting, Boulder, CO.

CONTRIBUTED PRESENTATIONS

- 2024: American Society of Mammalogists, Boulder, CO.
2023: Evolution, Albuquerque, NM.
2018: European Society for Evolutionary Biology / Society for the Study of Evolution Joint Congress, Montpellier, France.
2017: Jacques Monod Conference “Open questions in disease ecology and evolution,” Roscoff, France. Ecology and Evolution of Infectious Diseases, Santa Barbara, CA.
2016: Southeastern Population Ecology and Evolutionary Genetics, Madison, FL. Evolution, Austin, TX. Video at <https://www.youtube.com/watch?v=u8iotGtFqL8>. Ecology and Evolution of Infectious Diseases, Ithaca, NY.
2015: Evolution, Guarujá, Brasil. Video at <https://www.youtube.com/watch?v=HyFSq3omWis>. Ecology and Evolution of Infectious Diseases, Athens, GA.
2012: Dissertation Seminar, University of Colorado, Boulder, CO. Ecological Society of America, Portland, OR.
2011: Ecological Society of America, Austin, TX. Evolution, Norman, OK. **Hamilton Award Finalist**.
2010: Evolution, Portland, OR. University of Colorado Museum, Boulder, CO.
2009: University of Colorado Museum, Boulder, CO.
2003: Whitman Undergraduate Conference, Walla Walla, WA.

SELECT STUDENT PRESENTATIONS

- 2022: Thomas Rojas, D.C., A.J. Crawford, H. López-Arévalo, O. Montenegro Díaz, **L. Cassin-Sackett**: Parásitos en chigüiros silvestres (*Hydrochoerus hydrochaeris*) en Colombia. Wildlife Disease Association – Latin America chapter, Valdivia, Chile (poster).
2021: G. Atkinson, K.L. Paxton, C.T. Atkinson, R.C. Fleischer, **L. Cassin-Sackett**: Genomic basis of survivorship from malaria in Hawai‘i ‘amakihi. University of Bern Ecology and Evolution seminar series, Bern, Switzerland.

SERVICE, OUTREACH AND AFFILIATIONS

- 2010-present: Research-based Mentoring and Outreach:
Co-Mentor, LAGNiAppE (Louisiana Graduate Network in Applied Evolution) **NSF RAMP** scholar (2023-2024)
Mentor, **Talaria Summer Research Program** for high school students interested in research careers (2021)
STEM Representative (2017), Athletes for Charity's **Youth Football Camp + STEM Expo**, Tampa, FL
Smithsonian National Zoo events (2013-2016): Autumn Conservation Festival (thousands of

- attendees, Smithsonian Conservation Biology Institute); research presentation to Small Mammal House Volunteers (30 attendees, contact with millions of visitors)
- Rayne High School (10 students – Rayne, LA)
- Thomas Jefferson High School lab visit (30 students – Alexandria, VA)
- Sherwood High School lab visit (50 students – Washington, D.C.)
- Goldrick Elementary School lab visit (75 students – Denver, CO)
- D.C. Science Writers Association lab visit (12 writers)
- Author, In The Light of Evolution blog (2006 – 2016)
- Coauthor, Project Extremes blog (<https://extremesantarctica.wordpress.com/>) (2009-2010)
- 2006-present: Professional Service:
- Representative (2013-2016), Conservation Genetics branch, **Smithsonian Biodiversity Genomics Initiative**
 - Co-organizer (2014), Smithsonian Conservation Biology Institute **seminar series**
 - Co-organizer (2014), **Animal Disease Symposium** (Smithsonian Conservation Biology Institute)
 - Chair (2009-2011) and Representative (2007-2008), **Teaching Evolution Outreach Committee**, University of Colorado
 - Co-organizer (2009-2012), **Teaching Evolution Workshop** for high school teachers (attracts ~100 teachers annually from Colorado and Wyoming)
 - Representative (2007-2012), **Colloquium Committee** (University of Colorado)
 - Founder and Chair (2008-2010), **Undergraduate-Graduate mentoring program** (University of Colorado)
 - Representative (2007-2009), **Spring Symposium Committee** (University of Colorado)
- 2008-present: Activities to Advance Underrepresented Groups in Science:
- Member (2022 inception-present), **Biology Inclusion and Diversity committee** (University of Louisiana)
 - Member (2020-present), **Equity Caucus** (University of Louisiana)
 - Ambassador (2016-2018), **500 Women Scientists** (Florida chapter)
 - Founder and Chair (2013-2016), **Professional Development series** (biweekly workshops, Smithsonian Conservation Biology Institute, 95% women)
 - Representative (2013-2016), Women in Science Solutions Forum (Smithsonian Institution)
 - Graduate Student Co-Chair (2008-2010), Nag's Heart organization for women in STEM (University of Colorado)
- 2012-present: Reviewer (journals): *Biological Conservation* (2), *Ecology and Evolution* (1), *Evolutionary Applications* (2), *Functional Ecology* (1), *International Journal for Parasitology* (1), *Journal of Biogeography* (1), *Journal of Heredity* (2), *Molecular Ecology* (8), *Molecular Ecology Resources* (1), *Ornithology* (1), *Parasitology* (2), *Parasitology Open* (2), *PLoS One* (3), *PNAS Nexus* (1), *Proceedings of the Royal Society B* (1), *Therya* (1)
- 2016-present: Reviewer (fellowships): Fulbright Scholar Program (2x), Smithsonian Postdoctoral Fellowship Program (1x), Cards Against Humanity Science Ambassador Scholarship Competition (1x)
- 2017: Reviewer (conservation decisions): Species Status Assessment Report for white-tailed prairie dogs; submitted as part of a **listing decision under the Endangered Species Act**
- 2008-present: Society Memberships: Society for the Study of Evolution; American Society of Mammalogists; American Society of Naturalists; Wildlife Disease Association
- 2016-present: Departmental and University Service:
- Evolutionary biology and ecology faculty search committee (UL, 2023-2024)
 - Faculty advisor to Pre-Vet Society (University of Louisiana, 2023-present)
 - Research presentation to congressional lobbyists (University of Louisiana at Lafayette, 2022)
 - COVID-19 University task force (University of Louisiana at Lafayette, 2020-2021)

Pre-vet scholarship committee (University of Louisiana at Lafayette, 2019-present)
Graduate Admissions and Policy Committee (Univ. of South Florida, 2016-2018)
Faculty Advisory Committee, Office of Undergraduate Research (U. South FL, 2016-2018)
College of Arts and Sciences Diversity Committee (Univ. of South FL, 2016-2018)

TEACHING AND MENTORING EXPERIENCE:

Course Development:

Molecular Evolution (graduate level), University of Louisiana (2022)
Quantitative Evolution (with R-based and other lab activities; under/graduate), University of Louisiana (2021)
Disease Ecology and Evolution (graduate level), University of Louisiana (2019)
Wildlife Ecology and Management (with lab and R-based activities), University of Louisiana (2018)
Organic Evolution (with R-based lab activities), University of South Florida (2017)
Mammalogy (with lab), University of South Florida (2017)
The Influence of Humans on Evolutionary Processes, Smithsonian Adult Education Program (2014)

Course Instruction:

Molecular Evolution (graduate), University of Louisiana (1 semester, 11 students)
Quantitative Evolution (graduate/undergraduate), University of Louisiana (3 semesters, 30 students)
Disease Ecology and Evolution (graduate), University of Louisiana (1 semester, 3 students)
Wildlife Ecology and Management (with lab), University of Louisiana (7 semesters, 100 students)
Organic Evolution, University of South Florida (1 semester, 39 students)
Mammalogy, University of South Florida (2 semesters, 42 students)
The Influence of Humans on Evolutionary Processes, Smithsonian Adult Education Program (14 students)

Teaching Assistant Training and Instruction:

Wildlife Ecology and Management, University of Louisiana (4 TAs, 12 labs/semester)
Mammalogy, University of South Florida (2 TAs, 13 labs/semester)

Research Assistantships:

Transforming Undergraduate Education in Ecology and Evolutionary Biology (2012)
Evaluation of Lab Design in Engaging General Biology Students (2007)

Teaching Assistantships:

Evolutionary Biology, University of Colorado (2008, 2011)
Genetics: Molecules to Populations, University of Colorado (2008, 2011)
Ecology, University of Colorado (2007)
General Biology II, University of Colorado (2007, 2012)
General Biology I, University of Colorado (2006)

STEM K-12 Education:

Teaching Evolution workshop for high school teachers, Boulder, CO (2010, 2011, 2012)
7th grade Life Science Teaching Fellow (NSF GK-12), Louisville Middle School, Louisville, CO (2009-2010)
4th grade Science Teaching Fellow (NSF GK-12), Ryan Elementary School, Lafayette, CO (2009)

Guest Lectures:

Genetics and Evolution, University of Louisiana at Lafayette (2024)
Evolutionary Biology, University of Hawai'i at Hilo (2022, 2023 (2 each yr) – research talk & science journey)
Conservation Biology, Warren Wilson College (2018; via Skype)
Evolutionary Biology, University of Colorado (2011, 2012)
Genetics: Molecules to Populations, University of Colorado (2008, 2011)

Students Mentored:

Graduate students mentored as advisor (UL): Gabrielle Atkinson (2019-), Carlos Campos (2021-), Phillip Foret (2021-2023), Anna Jackson (2021-2023), Sydni Joubran (2018-2020), Jordan Love (2022-), Carolina Thomas Rojas (2024-)

Graduate students mentored as thesis committee member (UL): Sarah Bolinger (2018-), Romina Carnero-Huaman (2019-2022), Zoe Chatman (2019-2020), Audrey DeMahy (2019-2021), Anna Espinoza (2022-2024), Jessé Figueiredo (2023-), Kassandra Ford (2020-2021), Donna Hinrichs (2022-2024), Stacy Holt (2023-), Simon Innes (2021-), Ron Kittle (2022), Juita Martinez (2020-2022), Kevin Torgersen (2023-)

Graduate students mentored as thesis committee member—outside of UL: Haley Hanson (2017-2021, University of South Florida), John Neddermeyer (Northern Arizona University, 2020-), Chloe Ramsay (2016-2018, University of South Florida), Kerri Surbaugh (2018-2019, University of South Florida)

Undergraduate students: Freddie Albert (2023-), Erin Arnold (2006-2010), Gabrielle Atkinson (2016-2019), Monica Burley (2009), Jeanette Calarco (2016-2018), India Flowers (2023-), Corey Fulton (2008), Hayden Gardner (2009), Rebecca Harripersaud (2016-2018), Mackenzie Hebert (2020-), Charné Hill (2020-2021), August Jensen (2007-2009), Chadwick Kaufmann (2017-2019), Su Lai (2008), Max Mazzella (2008-2010), Jeanette Miller (2016-2017), Olivia Sciandra (2017-2018), Brenden Scott (2017-2018), Carolina Thomas Rojas (2020-2023), Silas Tittes (2012-2013) [at least 15 from groups underrepresented in STEM]

WORKSHOPS AND SKILL DEVELOPMENT

2018:	NSF RCN: Using metamodels to enable transdisciplinary research for the study of dynamic biological systems under global change, Yulee, FL
2016:	Prairie Dog / Plague Resistance Research Coordination Network, Fort Collins, CO
2014:	Programming for Evolutionary Biology, Leipzig, Germany
2013:	Evolutionary Quantitative Genetics, NESCent Academy, Durham NC
2012:	Software Carpentry Workshop, Washington University in St Louis, St Louis, MO
2012:	Next-Generation Sequencing Workshop, Ottawa, Canada
2012:	Estimating Species Trees, The Ohio State University, Columbus, OH
2009:	Conservation and Adaptive Management (Organization for Tropical Studies), Las Cruces Biological Station, Costa Rica
2008:	International Plague Symposium, Fort Collins, CO
2008:	NSF/University of Colorado LEAP Professional Development Workshop, Boulder, CO
2008:	Conservation and Biodiversity Genetics (Organization for Tropical Studies), Palo Verde Research Station, Costa Rica

POPULAR PRESS:

Avian Hybrids Blog, October 2023. Saving Hawaiian birds: Promising genetic diversity in captive breeding populations. <https://avianhybrids.wordpress.com/2023/10/11/saving-hawaiian-birds-promising-genetic-diversity-in-captive-breeding-populations/>

The Acadiana Advocate, October 2022. Volunteers banding birds gives an in-depth picture about how birds are doing. https://www.theadvocate.com/baton_rouge/entertainment_life/volunteers-banding-birds-gives-an-in-depth-picture-about-how-birds-are-doing/article_506328f8-4e34-11ed-a4e9-03acc81c78ff.html

Avian Hybrids Blog, April 2019. Mastering Malaria: The Hawaiian ‘amakihi uses a combination of genes to combat avian malaria. <https://avianhybrids.wordpress.com/2019/04/02/mastering-malaria-the-hawaiian-amakihi-uses-a-variety-of-genes-to-combat-avian-malaria/>

Science For the People Podcast, May 2018. Episode #472: A Good Bout of Plague. <http://www.scienceforthepeople.ca/episodes/a-good-bout-of-plague>

- The Garden Island, 2016. Research could help save Kaua'i's endangered birds.
http://thegardenisland.com/news/local/research-could-help-save-kauai-s-endangered-birds/article_473f0ee6-48cf-5e7b-be24-09f20235c6bc.html
- Eco Tones Podcast, 2016. Episode 3: Loren Cassin Sackett and Nic Kooyers—Science and spirit animals.
<https://soundcloud.com/ecotonespodcast/episode-3-loren-cassin-sackett-and-nic-kooyers>
- Eco Tones Podcast, 2016. Episode 2: Loren Cassin Sackett and Nic Kooyers.
<https://soundcloud.com/ecotonespodcast/episode-2-loren-cassin-sackett-and-nic-kooyers>
- Kiwikiu News, Maui Forest Bird Recovery Project Newsletter, 2016. Avian Research and Management.
http://www.mauiforestbirds.org/Newsletters/2016_Spring.pdf
- Scientific Collections International (blog), 2014. Tracing the history of disease.
<http://blog.scicoll.org/2014/09/tracing-history-of-disease.html>
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