Lauren Azevedo-Schmidt, PhD

lazevschmidt@gmail.com | www.lazevedoschmidt.com | lazevedoschmidt

Education

University of Wyoming — *Laramie, WY*
PhD Ecology — *August 2022*
- Advisor: Dr. Ellen D. Currano

University of Wyoming — *Laramie, WY*
M.S. Botany — *July 2018*
- Advisor: Dr. Ellen D. Currano

Metropolitan State University, Denver — *Denver, CO*
B.S. Applied Geology — *December 2015*

San Francisco State University — *San Francisco, CA*
B.A. Art History — *May 2009*
- Focus: Non-Western Art History

Professional Experience

2023–2026	**Postdoctoral Research Associate**, University of California, Davis
2022–2023	**Adjunct Professor**, University of Maine
2022–2023	**Postdoctoral Research Associate**, Climate Change Institute, University of Maine
2020–2022	**Graduate Teaching Assistant**, Ecology, University of Wyoming
2018–2020	**Graduate Research Assistant**, Program in Ecology, University of Wyoming
2016–2018	**Graduate Teaching Assistant**, Botany, University of Wyoming
2017–2017	**LAMP Teaching and Learning Fellow**, University of Wyoming

Publications

*+ co-first author; * authors contributed equally*

Marcus A. Brown, Dana L. Royer, Valerie Nazzaro, and **Lauren Azevedo-Schmidt**.2026. Leaf Size And Shape As A Paleoclimate Proxy: Investigating Taphonomic Biases Within Species. *PALAIOS* .

Lifang Xiao, Conrad C. Labandeira, **Lauren Azevedo-Schmidt**, Yongjie Wang, Dong Ren. 2025. The modern pattern of insect herbivory predates the advent of angiosperms by 60 million years. *PNAS* .

Alexander J. Lowe, Dana Royer, Daniel Wieczynski, Daniel Peppe, Brian Enquist, Matt Butrim, Tammo Reichgelt, **Lauren Azevedo-Schmidt**, Caroline Stromberg. 2025. Global patterns in community-scale leaf mass per area distributions of woody non-monocot angiosperms and their utility in the fossil record. *American Journal of Botany* .

Lauren Azevedo-Schmidt, Madeleine Landrum[+], Meghan M. Spoth[+], Nikhil R. Brocchini, Kit M. Hamley, Alessandro Mereghetti, Andrea J. Tirrell, Jacquelyn L. Gill. 2024b. Advancing terrestrial ecology by improving cross-temporal research and collaboration. *BioScience*

Richard J. Knecht, Jacob S. Benner, Anshuman Swain, **Lauren E. Azevedo-Schmidt**, Christopher J. Cleal, Conrad C. Labandeira, Michael S. Engel, Jason A. Dunlop, Paul A. Selden, Cortland F. Eble, Mark D. Renczkowski, Dillon A. Wheeler, Mataeus M. Funderburk, Andrew H. Knoll, and Naomi E. Pierce. 2024. Early Pennsylvanian Lagerstätte reveals a diverse ecosystem on a subhumid, alluvial fan. *Nature Communications* .

Anshuman Swain[+], **Lauren Azevedo-Schmidt[+]**, S. Augusta Mccracken, Ellen D. Currano, Emily K. Meineke, Naomi E Pierce, William F Fagan, Conrad C Labandeira. 2024. Integrating cross-temporal insights into the effects of temperature, plant stoichiometry, and aridity on insect herbivory. *The American Naturalist* (Invited manuscript).

Lauren Azevedo-Schmidt, Ellen D. Currano, Regan Dunn, Elizabeth Gjieli, Jarmila Pittermann, Emily Sessa, and Jacquelyn Gill. 2024a. Ferns as facilitators of community recovery following biotic upheaval. *BioScience*

Lauren Azevedo-Schmidt and Ellen D. Currano. 2023. Leaf traits linked to structure and palatability drive gall and mine damage within forested ecosystems. *American Journal of Botany.*

Lauren Azevedo-Schmidt, Anshuman Swain, Lauren Shoemaker, Ellen D. Currano. 2023. Landscape level variability and insect herbivore outbreak captured within modern forests provides a framework for interpreting the fossil record. *Scientific Reports.*

Anshuman Swain, **Lauren Azevedo-Schmidt**, S. Augusta Maccracken, Ellen D. Currano, Jennifer Dunne, Conrad C. Labandeira, and William F. Fagan. 2022. Effects of sampling bias on the robustness of ecological metrics for fossil plant-damage-type association networks. *Ecology.*

Lauren Azevedo-Schmidt, Emily K. Meineke, Ellen D. Currano. 2022b. Insect herbivory within modern forests is greater than at fossil localities. *PNAS.*

Lauren E. Azevedo-Schmidt, Aaron F. Diefendorf, Kristen Schlanser, Allie Baczynski, Marieke Dechesne, Regan Dunn, Katherine H. Freeman, Ellen D. Currano. 2022a. Local differences in paleohydrology more heavily influence plant biomarkers than regional climate change across two Paleogene Laramide Basins, Wyoming, USA. *Paleo^3.*

Ellen D. Currano, **Lauren Azevedo-Schmidt**[*], S. Augusta Maccracken[*], Anshuman Swain[*]. 2021. Scars on fossil leaves: An exploration of ecological patterns in plant-insect herbivore associations during the Age of Angiosperms. Invited review paper. *Paleo^3.*

Lauren E. Azevedo-Schmidt, Regan E. Dunn, Jason Mercer, Marieke Dechesne, Ellen D. Currano. 2019. Plant and insect herbivore community variation across the Paleocene-Eocene boundary, Hanna Basin WY. *PeerJ.*

In Review

Lauren Azevedo-Schmidt, S. Augusta Mccracken, Jessica A. Rick, Richard J. Knecht,Ellen D. Currano, Emily K. Meineke, Naomi E Pierce, William F Fagan, Conrad C Labandeira, Anshuman Swain. The Temporal Constancy Hypothesis and the Stability of Plant-Insect Interactions under Climate Change. *In-review* at Ecology Letters.

Lauren Azevedo-Schmidt, Suzan Mazer, Emily K. Meineke. Herbarium specimens reveal complex drivers of herbivory within and among years over more than a century. *In-review* at Ecological Monographs.

In Prep

Lauren Azevedo-Schmidt, Susan Mazer, Charles Davies, Emily K. Meineke. The impact of summer temperatures on insect feeding across northeastern united states.

Grace Horne, **Lauren Azevedo-Schmidt**, Emily K. Meineke. Herbivory diversity and function: A unifying framework for temporal ecology.

Lauren Azevedo-Schmidt, Richard J. Knecht, Anshuman Swain, Naomi E. Pierce. 318 million year old in situ forest floor provides evidence for macroscopic plant-fungal mutualism.

S. Augusta Mccracken[+] and **Lauren Azevedo-Schmidt**[+]. The ecological legacy of stratified canopies and the roll of facilitation.

Awards, Fellowships, & Grants (Total: $42,355)

2021	**Payson Scholarship in Botany**, Department of Botany, University of Wyoming	*$ 440*
2021	**Community Foundation of Jackson Hole Edelweiss Fund**, Roy J. Shlemon Center for Quaternary Studies, University of Wyoming	*$ 6,040*
2020	**Wyoming NASA Space Grant Consortium**, University of Wyoming	*$ 20,000*
2019	**Outstanding Women in Science award**, Roy J. Shlemon Center for Quaternary Studies, University of Wyoming	*$ 5,000*
2019	**Solheim Award**, Botany, University of Wyoming	*$ 1,200*
2019	**Aven Nelson Fellowship in Systematic Botany**, Botany, University of Wyoming	*$ 1,300*
2019	**Service Award**, Botany, University of Wyoming	*$ 200*

2018 **Dean's Graduate Scholars Award**, University of Wyoming *$ 2,000*
2018 **Edwin B Payson Scholarship**, University of Wyoming *$ 575*
2018 **Aven Nelson Fellowship in Systematic Botany**, Botany, University of Wyoming *$ 2,500*
2018 **Service Award**, Botany, University of Wyoming *$ 300*

2018 **Aven Nelson Fellowship in Systematic Botany**, Botany, University of Wyoming *$ 2,000*
2018 **Dennis H Knight Graduate Student Fellowship**, Botany, University of Wyoming *$ 1,000*
2017 **Botany Service Award**, University of Wyoming *$ 200*
2017 **Research Grant**, Paleontological Society Grant *$ 500*

Presentations

** presenting author; # mentored undergraduate*

Invited Talks

Fall 2025. **Lauren Azevedo-Schmidt***. *Bridging Time: Integrating Modern and Fossil Approaches to Plant-Insect Interactions*. University of California Berkeley Integrative Biology Departmental Seminar, Berkeley, CA.

Spring 2025. **Lauren Azevedo-Schmidt*** and Emily K. Meineke. *What defines a paleontologist? Using modern plant-insect interactions to connect past, present, and future.* Denver Museum of Nature and Science Earth Sciences Colloquium, Denver, CO.

Winter 2025. **Lauren Azevedo-Schmidt*** and Emily K. Meineke. *Past, present and future of plant-insect interaction: What drives patterns under "unprecedented" conditions*. American Society of Naturalists Annual Meeting, Pacific Grove, CA.

Summer 2024. **Lauren Azevedo-Schmidt***, Ellen D. Currano, Regan Dunn, Jarmila Pittermann, Emily Sessa, and Jacquelyn Gill. *Ferns as facilitators of community recovery following biotic upheaval*.Geologic Society of America Annual Meeting, Anaheim, CA.

Summer 2023. **Lauren Azevedo-Schmidt***, Ellen D. Currano, Regan Dunn, Jarmila Pittermann, Emily Sessa, and Jacquelyn Gill. *Fern communities act as facilitators of community assembly following disturbance*. American Society of Plant Biologists Annual Meeting, **Plenary Symposium**, Savannah, GA.

Fall 2022. **Lauren Azevedo-Schmidt***, Emily Meineke, and Ellen D. Currano. *Insect herbivory within modern forests is greater than fossil localities*. Geologic Society of America 2022 annual meeting, Denver, CO.

Fall 2021. **Lauren Azevedo-Schmidt***, S. Augusta Maccraken, Anshuman Swain, and Ellen D. Currano. *Plant-insect interactions across geologic deep-time and modern ecosystems. Are insects hungrier in the modern?*. Entomological Society of America 2021 annual meeting, Denver, CO.

Fall 2020. Ellen D. Currano*, **Lauren Azevedo-Schmidt**, *Plant-insect interactions throughout geologic history.* Geological Society of America 2020 annual meeting, virtual.

Presentations

Spring 2023. **Lauren Azevedo-Schmidt***. Bridging the gap between modern and paleoecology from ferns to plant-insect interactions. School of Biology and Ecology Seminar Series, University of Maine, Orono, ME.

Spring 2021. **Lauren Azevedo-Schmidt***. Plant-insect interactions across geologic deep-time and modern ecosystems: Are insects hungrier in the modern?. Oral Presentation: University of Wyoming PiE Symposium, Laramie, WY.

Fall 2020. **Lauren Azevedo-Schmidt***. Comparing apples to apples: bringing paleobotanical methods into a modern ecological study. Oral Presentation: Shlemon Center Quaternary Center, Laramie, WY.

Spring 2019. **Lauren Azevedo-Schmidt***. Utilizing paleobotanical field collection methods to compare modern leaf and insect herbivore interactions to fossil data sets. Oral Presentation: University of Wyoming PiE Symposium, Laramie, WY.

Fall 2019. **Lauren Azevedo-Schmidt***. Comparing apples to apples: bringing paleobotanical methods into a modern ecological study. Oral presentation: University of Wyoming, Laramie, WY.

Fall 2018. **Lauren Azevedo-Schmidt*** and Ellen D. Currano. Plant and insect herbivore community variation across the Paleocene-Eocene boundary. Oral presentation: Annual GSA Conference, Indianapolis, IN.

Fall 2017. **Lauren Azevedo-Schmidt*** and Ellen D. Currano. Paleobotany in the Hanna Basin, WY: Effects of water availability on forest ecosystems during the Paleocene-Eocene in Wyoming. Poster Presentation: CBEP Conference, Snowbird, UT.

Contributed Presentations

Spring 2026. Conrad Labandeira[*], Lifang Xiao, Liang Chen, **Lauren Azevedo-Schmidt**, Yongjie Wang, and Dong Ren. Did the Early Cretaceous Emergence of Angiosperms Restrict or Extend Arthropod and Pathogen Herbivory?. Mid-Continent Paleobotanical Colloquium (MPC). Smithsonian Tropical Research Institute, Panama.

Fall 2025. Grace Horne[*], **Lauren Azevedo-Schmidt**, Emily K. Meineke. *Herbarium sheets as ecological data caches*. Entomological Society of America Annual Meeting. Portland, OR.

Spring 2025. Theodore Mantel[*], **Lauren Azevedo-Schmidt**, Mónica R. Carvalho. Spatial resolution, compositional fidelity, and isotaphonomy of leaf assemblages. 42nd Mid-Continent Paleobotanical Colloquium (MPC). Middletown, CT.

Spring 2025. Emily K. Meineke[*] and **Lauren Azevedo-Schmidt**. Herbivory through the ages: Applying paleoecological methods to herbaria to investigate modern global change. Smithsonian National Museum of Natural History National Botanical Symposium. Washington DC.

Summer 2023. Dana Royer[*], Marcus Aurelius Brown, and **Lauren Azevedo-Schmidt**. Leaf shape as a climate proxy: Do incomplete leaves retain a strong signal? Botany Conference, Boise, Idaho.

Summer 2023. Anshuman Swain[*], **Lauren Azevedo-Schmidt**, S. Augusta Maccracken, Ellen D. Currano, Emily K. Meineke, Naomi E Pierce, William F Fagan, Conrad C Labandeira. Evolution Conference, Albuquerque, New Mexico.

Spring 2022. Kalley Collins[*,#], **Lauren Azevedo-Schmidt**, Ellen D. Currano. What we can learn from plant traits. Presentation: Rotary Club Cody, WY.

Fall 2021. Kalley Collins[*,#], **Lauren Azevedo-Schmidt**, Ellen D. Currano. Isotopic Composition of Leaves in Harvard Forest. Presentation: WRSP Symposium University of Wyoming, Laramie, WY.

Fall 2021. Adalyn Vergara[*,#], **Lauren Azevedo-Schmidt**, Ellen D. Currano. Effects of the Environment on Plant-Insect Interactions. Presentation: WRSP Symposium University of Wyoming, Laramie, WY.

Fall 2021. Anshuman Swain[*], **Lauren Azevedo-Schmidt**, S. Augusta Maccracken, Ellen D. Currano, Jennifer Dunne, Conrad Labandeira, Bill Fagan. Effects of sampling bias on robustness of ecological metrics in fossil plant-damage type association networks. Geological Society of America 2021 annual meeting, Portland, OR.

Fall 2021. Anshuman Swain[*], **Lauren Azevedo-Schmidt**, S. Augusta Maccracken, Conrad Labandeira, Bill Fagan, Ellen D. Currano. Understanding plant-insect interactions in the fossil record. Oral Presentation: IU Network Science Institute, Networks 2021, Washington DC

Fall 2020. Natasha Heins[*,#], **Lauren Azevedo-Schmidt**, Ellen D. Currano. Utilizing leaves to quantify changes in insect herbivory across facies, Harvard Forest, Massachusetts, USA. Presentation: WRSP Symposium University of Wyoming, Laramie, WY.

Teaching Experience

Sum 2023	**INT 500: Communicating Climate Science**, Adjunct Professor	*University of Maine*
Fall 2022	**BIO 205: Field Natural History**, Adjunct Professor	
Sp 2022	**LIFE 1003: Current Issues in Biology**, Lab instructor	*University of Wyoming*
Sp 2021	**LIFE 1002: Discovering Science**, Teaching assistant	
Sp 2020	**BOT 5000: Graduate Seminar in Ecological Statistics**, Instructor	
Sp 2018	**LIFE 1003: Current Issues in Biology**, Lab instructor	
Fall 2017	**BOT 1101: Paleo's Great Debates**, Teaching assistant	
Fall 2017	**BOT 4775: Forest Ecology**, Teaching assistant and lab instructor	
Sp 2017	**LIFE 1003: Current Issues in Biology**, Teaching assistant	
Sp 2017	**LIFE 1003: Current Issues in Biology**, Lab instructor	
Fall 2016	**LIFE 2023: Biology of Plants and Fungi**, Teaching assistant	

Relevant Work Experience

Position	Skills	Years
Kitchen Manager	Working well under pressure and deadlines, organization and overseeing of staff, time management, communication, mentoring, able to lead a team, taught new techniques and skill sets	2014–2016
Rock Climbing Route Setter	Technical climbing skills, communication, problem solving, time management, overseeing staff, following safety protocols	2013–2014
Preschool Teacher	Time management, very patient, able to lead team, great organization, working well under pressure	2011–2012

Mentoring

Year	Male	Female	First Generation	Description	Institution
2024-2026	1	0	0	Graduate Student	University of Michigan
2024-2025	1	0	0	Undergraduate	Wesleyan University
2023-2025	0	1	0	Postdoc	UC Davis
2023-2025	0	4	0	Graduate Student	UC Davis
2022-2023	1	3	0	Graduate Student	University of Maine
2018-2022	0	1	1	Graduate Student	University of Wyoming
2021-2022	0	3	1	Undergrad. Research Assistant	University of Wyoming
2021-2021	0	4	0	Undergrad. Research Assistant	University of Wyoming
2019-2020	0	1	0	Undergrad. Research Assistant	University of Wyoming
2018-2019	0	1	1	Undergrad. Field Assistant	University of Wyoming
2017-2018	1	0	0	Undergrad. Field Assistant	University of Wyoming

Research Experience

University of California, Davis – Dept of Entomology & Nematology *Davis, CA*

PI: Dr. Emily Meineke *2023–2026*

- Postdoc Research: "Quantifying the effect of leaf phenologic sensitivity on plant-insect interactions using herbarium data and field experiments"

University of Maine - Climate Change Institute *Orono, ME*

PI: Dr. Jacquelyn Gill *2022–2023*

- Postdoc Research: "Rethinking fern communities post disturbance events: Are ferns facilitators of community assemblage rather than pioneer taxa?"

University of Wyoming - Dept of Botany *Laramie, WY*

Advisor: Dr. Ellen D. Currano *2018–2022*

- Dissertation: "Utilizing modern leaves to calibrate the plant-insect fossil record"

University of Wyoming - Dept of Botany *Laramie, WY*

Advisor: Dr. Ellen D. Currano *2016–2018*

- Thesis: "Plant-insect interactions across the Paleocene-Eocene boundary, Hanna Basin, WY"

Metropolitan State University, Denver - Dept of Environmental Science *Denver, CO*

Advisor: Dr. Barb Echohawk *2015–2015*

- Undergraduate Research Topic: "Soft sediment coring and the use of x-rays to detect changes in sedimentary structures on a coastline, Davenport CA"

Service & Professional Development

Service

2024–2025	**Wesleyan University**, Undergrad Honors Thesis Committee Member	*Middletown, CT*
2021–2021	**Program in Ecology**, Co-lead writer of DEI Statement	*Laramie, WY*
2021–2021	**Midcontinent Paleobotanical Colloquium** , Website design, abstract review	*Host: Burke Museum*
2019–2022	**Program in Ecology**, Finance Committee Member	*UW*
2019–2020	**Program in Ecology**, Mentor Mentee Committee Member	
2018–2019	**Program in Ecology**, Odyssey Committee Member	

Professional Development

Teaching Academy at U. Maine, The Spring 2023 Teaching Academy at the University of Maine is a semester-long working group that focuses on teaching styles and practices, focusing on active learning. The Center for Innovation in Teaching and Learning facilitates this academy.

Grants Academy at U. Maine, The 2022-2023 Grants Academy at the University of Maine is a year-long workshop that supports interdisciplinary collaboration between researchers, providing skill-based talks and presentations to further develop grant writing skills.

Learning Actively Mentoring Program (LAMP) at U. Wyoming, I attended the 2017-2018 LAMP workshop in Jackson, Wyoming. This program is an intensive week-long workshop focusing on teaching active learning practices to teachers, which is then further continued throughout the academic year.

Peer Reviewer

PALAIOS
Review of Palaeobotany and Palynology
PLOS Climate
American Journal of Botany
Ecology & Evolution
Nature Reviews Biodiversity
European Journal of Forest Research

Professional Memberships

Botanical Society of America
Graduate Women in Science
Geological Society of America (GSA)
American Women Geologists (AWG)
International Organization of Paleobotany
Paleontological Society
Girls Who Code
Letters to a Pre-Scientist

Media & Outreach

Media

Science Alert 09/25/2024. An article about our Knect et al. (2024) publication, which documented an exceptionally preserved Carboniferous ecosystem.

The Outside Story: The World According to Ferns 08/12/2024. Catherine Schmitt wrote an ecological article about my recent *BioScience* publication, which challenged the existing framework of how ferns are perceived within the fossil record. In the article, Catherine connects modern northeastern forests that are dominated by a fern understory to the framework I proposed in the publication. This article was written for a general audience.

In Defense of Plants podcast guest on episode 394 (11/06/2022). Host Matt Candeias and I discuss my recent *PNAS* publication, which focused on plant-insect interactions across geologic and modern time bins.

Science Alert 10/11/2022. An article about one of my PhD dissertation chapters. This particular paper found that insect herbivory within modern ecosystems is greater than the past 66.7 million years.

Prehistoric Road Trip. 07/01/2020. Hosted by Emily Graslie of the Brain Scoop and Chief Curiosity Correspondent at the Field Museum in Chicago, this three-episode series focuses on paleontologists studying Earth's geologic record. I was featured in the third episode titled *Tiny Teeth, Fearsome Beasts* and highlighted in a *The Rock Stars of Paleontology and Geology*

Outreach

Nature Nerds. 04/10/2025. I was one of three invited presenters for a Sacramento County Nature Conservancy fundraiser event. The event is centered around communicating science to a general "nature nerds" (i.e., people interested in natural ecosystems) audience. I presented a talk titled "*Time Traveling Insects: Using the fossil record to understand the future*" and discussed the importance of using fossil specimens to understand the evolutionary legacy of organisms, especially due to future climate change.

Poly Prep Academy guest lecture. 02/10/2023. I had the opportunity and privilege to give a guest lecture to the Poly Prep Academy honors biology class, hosted by Dr. Ramesh Laungani. During this lecture, I discussed paleoecology and specifically the role of plants and insect herbivore interactions in a healthy forested ecosystem. This lecture provided me the opportunity to discuss my non-traditional path to academics and my passion for research and teaching.

1000 STEM Women Project. 10/10/2022. This project showcases videos created by scientists who identify as women, for middle school-aged students. By introducing a wide variety of science and scientists to students, STEM becomes more visible and accessible. Click here to see my video submission.