

ERIC ROBERT HAGEN

Curriculum Vitae (March 2026)

PERSONAL INFORMATION

Address: Department of Ecology and Evolutionary Biology
University of Michigan
1105 North University Avenue, Room 5032
Ann Arbor, MI 48109

Email: erhagen@umich.edu

Website: <https://erichagen.github.io/>

EDUCATION

Ph.D., University of Arkansas, Biology (2023)
Dissertation: *Time and Chance Happen to Them All: A Macroevolutionary Examination of the Effects of Whole Genome Multiplications.*
Advisor: Jeremy M. Beaulieu

B.A., Wesleyan University, Biology and Earth & Environmental Sciences (honors, 2018)
Senior Thesis: *Examining "Small Leaf Bias" in the Hell Creek and Fort Union Formations Using Secondary Vein Scaling.*
Advisor: Dana L. Royer

PROFESSIONAL APPOINTMENTS

2025 – 2026 Postdoctoral Fellow, Dept. of Ecology and Evolutionary Biology, University of Michigan
PI: Thais Vasconcelos

2023 – 2025 Postdoctoral Fellow, Dept. of Ecology & Evolutionary Biology, University of Toronto
Project title: "Integrating fossils, genomics, and machine learning to reveal drivers of Cretaceous innovations in flowering plants"
Funding: NSF grant DEB-2217117
PIs: C. Tomomi Parins-Fukuchi (mentor) and James B. Pease

HONORS, AWARDS, AND FUNDING

2023	\$1,100	Doctoral Student Travel Grant, University of Arkansas
2022	\$3,000	Graduate Student Research Award, Society of Systematic Biologists
2022	\$5,000	Fulbright College Graduate Dissertation Research Award, University of Arkansas
2021	\$1,000	Doctoral Student Travel Grant, University of Arkansas

2019	\$1,000	Doctoral Student Travel Grant, University of Arkansas
2018 – 2022	\$88,000	Distinguished Doctoral Fellowship, University of Arkansas
2017	\$4,000	College of the Environment Summer Internship, Wesleyan University
2016	\$4,000	Research in the Sciences Summer Fellowship, Wesleyan University

PUBLICATIONS

- [8] Thompson, J.B., **Hagen, E.R.**, Forward, E.A., Pérez-Escobar, O.A., Clark, J.W., and Priest, N.K. 2025. Frequent shifts in pollination strategy are decoupled from diversification in terrestrial orchids. *EcoEvoRxiv* [Link here](#)
- [7] **Hagen, E.R.**, and Beaulieu, J.M. 2024. New beginnings for dead ends: polyploidy, -SSE models and the dead-end hypothesis. *Annals of Botany* 134 (6): 923-932. [Link here](#)
- [6] **Hagen, E.R.** 2024. A critique of Thompson and Ramírez-Barahona (2023) or: how I learned to stop worrying and love the fossil record. *Biology Letters* 20: 20240039. [Link here](#)
- [5] **Hagen, E.R.**, Vasconcelos, T., Boyko, J.D., and Beaulieu, J.M. 2024. Investigating historical drivers of latitudinal gradients in polyploid plant biogeography: a multiclade perspective. *American Journal of Botany* 111 (8): e16356. [Link here](#)
- [4] **Hagen, E.R.**, and Mason, C.M. 2024. Differences in pathogen resistance between diploid and polyploid plants: a systematic review and meta-analysis. *Oikos* 2024 (5): e09908. [Link here](#)
- [3] Boyko, J.D., Vasconcelos, T., **Hagen, E.R.**, and Beaulieu, J.D. 2023. Long-term responses of life-history strategies to climatic variability in flowering plants. *New Phytologist* 240 (4): 1587-1600. [Link here](#)
- [2] Lanno, S.M., Lam, I., Drum, Z.A., Gregory, S.M., Shimshak, S.J., Becker, M.V., Brew, K.E., Budhiraja, A., Carter, E.A., Chigweshe, L., Collins, K.P., Earley, T., Einstein, H.L., Fan, A.A., Goss, S.S., **Hagen, E.R.**, Hutcheon, S.B., Kim, T.T., Mitchell, M.A., Neri, N.R., Patterson, S.E., Ransom, G., Sanchez, G.J., Weiner, B.M., Zhao, D., and Coolon, J.D. 2019. Genomics analysis of L-DOPA exposure in *Drosophila sechellia*. *G3: Genes, Genomes, Genetics* 9 (12): 3973-3980. [Link here](#)
- [1] **Hagen, E.R.**, Royer, D.L., Moye, R.A., and Johnson, K.R. 2019. No large bias within species between the reconstructed areas of complete and fragmented fossil leaves. *PALAIOS* 34 (1): 43-48. [Link here](#)

TEACHING EXPERIENCE

Spring 2022 – Spring 2023	Teaching Assistant: BIOL 3023, Evolutionary Biology (University of Arkansas)
Spring 2020 – Fall 2021	Teaching Assistant: BIOL 2211, Human Physiology Lab (University of Arkansas)
Spring 2019	Teaching Assistant: BIOL 4153, Biology of Global Change (University of Arkansas)

Fall 2018 & Fall 2019

Teaching Assistant: BIOL 1541, Principles of Biology
Lab (University of Arkansas)

POPULAR ARTICLES

Tye, S.P., and **Hagen, E.R.** 2022. The perennial seeds of Zapata. *Science for the People* 25 (1): 40-44. [Link here](#)

MENTORING EXPERIENCE

Ari Hoffman, undergraduate researcher: Demographic survey of plant awareness disparity (PAD)

Maguire Topping, undergraduate researcher: Tracking mast-seeding using herbarium specimens

Michelle Su, PhD student: Analyses of biotic replacement in echinoids using neutral theory

Christopher Wilson, PhD student: Climatic determinants of biogeographic distributions and diversification in the bee genus *Melissodes*

Courtney Watson, undergraduate researcher: Genome size change in angiosperms from the Cretaceous to present (2022)

Phoebe Bruffett, undergraduate researcher: Genome size change in angiosperms from the Cretaceous to present (2019-2022)

Lora Koonce, undergraduate researcher: Genome size change in angiosperms from the Cretaceous to present (2018-2020)

INVITED TALKS

Hagen, E.R. March 23, 2026. Search strategy for meta-analysis. Institute for Global Change Biology Stats Sessions: Meta-analysis for ecology, evolution, and sustainability (101). University of Michigan. Ann Arbor, Michigan, USA.

Hagen, E.R. February 23, 2026. Modeling the tertiary structure of proteins. Weber State University. Ogden, Utah, USA.

Hagen, E.R. February 23, 2026. The plant's declassified Earth survival guide: polyploidy, macroevolution, and anthropogenic change. Weber State University. Ogden, Utah, USA.

Hagen, E.R. January 21, 2026. The plant's declassified Earth survival guide: evolutionary effects of polyploidy across scales. University of California, Santa Barbara. Goleta, California, USA.

Hagen, E.R. October 23, 2025. Meta-analysis for biological sciences. Guest lecture, BIO202: Biological Data Analysis and Programming. University of Michigan. Ann Arbor, Michigan, USA.

Hagen, E.R., and Beaulieu, J.M. April 2, 2025. Using -SSE models to study diversification after neopolyploidy and paleopolyploidy. Polyploidy Webinar. Online via Zoom. [Available on YouTube](#)

Hagen, E.R. March 27, 2025. How polyploidy affects plant evolution: traits, diversification, and biogeography in phylogenetic context. University of Central Florida. Orlando, Florida, USA.

CONFERENCE PRESENTATIONS

- Hagen, E.R.**, and Parins-Fukuchi, C.T. 2025. Biotic replacements and macroevolutionary lags: searching for mechanisms. Evolution Conference. Athens, Georgia, USA.
- Hagen, E.R.**, Pease, J.B., and Parins-Fukuchi, C.T. 2024. Integrating phylogenomic and paleobiological approaches to investigate the emergence of novelty in flowering plants. Evolution Conference. Montreal, Quebec, Canada.
- Hagen, E.R.**, and Beaulieu, J.M. 2023. Directly testing for diversification lags after polyploidization. Botanical Society of America Conference. Boise, Idaho, USA.
- Hagen, E.R.**, Vasconcelos, T.N.C., Boyko, J.D., and Beaulieu, J.M. 2022. The biogeography of polyploid plants in historical and phylogenetic context. Evolution Conference. Cleveland, Ohio. USA.
- Hagen, E.R.**, Vasconcelos, T.N.C., Boyko, J.D., and Beaulieu, J.M. 2022. Climatic instability through time shaped the global distribution of polyploid diversity in flowering plants. International Biogeography Society Conference. Vancouver, British Columbia, Canada.
- Hagen, E.R.**, and Beaulieu, J.M. 2019. An event-based model for examining the influence of genome duplications on diversification dynamics. Botanical Society of America Conference. Tucson, Arizona, USA.

EDITORIAL BOARD AND REVIEWER EXPERIENCE

Reviewer for: *American Journal of Botany*, *Annals of Botany*, *AoB Plants*, *Cell*, *Evolution*, *Global Ecology & Biogeography*, *New Phytologist*, *Proceedings of the Royal Society B*, *Systematic Biology*

SERVICE AND OUTREACH

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| 2022 – 2025 | <p>Research presentation competitions</p> <ul style="list-style-type: none"> - <i>Lightning talk moderator, 19th Annual University of Toronto Atwood Colloquium in Ecology & Evolution, 2025</i> - <i>Judge, University of Toronto EEB Undergraduate Research Fair, 2025</i> - <i>Judge, University of Toronto Science Rendezvous Festival, 2024</i> - <i>Judge, University of Arkansas Undergraduate Research Week, 2022</i> |
| 2023 – 2025 | <p>Canadian Union of Public Employees Local 3902, Unit 5 (Postdocs)</p> <ul style="list-style-type: none"> - <i>Unit 5 Lead Steward, 2025</i> - <i>Grievance Council member, 2025</i> - <i>Unit 5 Steward for EEB Dept., 2024 – 2025</i> - <i>Contract Action Team Member, 2023 – 2024</i> |
| 2018 – 2023 | <p>University of Arkansas Wildlife Society</p> <ul style="list-style-type: none"> - <i>Vice president + Treasurer, 2022 – 2023</i> - <i>Participated in native plant seed collecting, tree planting, predator cam installation, clean-ups, and other projects</i> |
| 2015 – 2016 | <p>Wesleyan Center for Prison Education</p> <ul style="list-style-type: none"> - <i>Tutored students at York Correctional Institution in Niantic, CT with math and writing</i> |

PROGRAMMING LANGUAGES

R, Python, Julia, Bash

REFERENCES

Jeremy M. Beaulieu, jmbeauli@uark.edu, 479-575-2618; Dept. of Biological Sciences, University of Arkansas; Fayetteville, AR 72701

Thais Vasconcelos, tvasc@umich.edu; Dept. of Ecology and Evolutionary Biology, University of Michigan; Ann Arbor, MI 48109

Joel Sharbrough, jsharbro@ucsb.edu, 805-893-4432; Dept. of Ecology, Evolution, and Marine Biology, University of California, Santa Barbara; Santa Barbara, CA 93106

C. Tomomi Parins-Fukuchi, tomo.fukuchi@utoronto.ca, 416-978-8436; Dept. of Ecology & Evolutionary Biology, University of Toronto; Toronto, ON M5S 3B2

Chase M. Mason, chase.mason@ubc.ca; Dept. of Biology, University of British Columbia Okanagan; Kelowna, BC V1V 1V7

Dana L. Royer, droyer@wesleyan.edu, 860-685-2836; Dept. of Earth & Environmental Sciences, Wesleyan University; Middletown, CT 06457

PROFESSIONAL AFFILIATIONS

Botanical Society of America

Society for Integrative & Comparative Biology

Society for the Study of Evolution

Society of Systematic Biologists

The International Biogeography Society