Curriculum Vitae – Benjamin Gerstner, Ph.D.

University of Massachusetts Lowell
Office of the Provost
Martin T. Meehan Student Center
Lowell, MA 01852

Email: benjamin.p.gerstner@gmail.com
ORCID ID: 0000-0003-0884-6142

Pronouns: He/They

Current

2026 – present Director of AI Learning & Career Innovation — Lowell, MA
University of Massachusetts Lowell | Office of the Provost

Prior Positions

2024 – 2026 AAAS Science Technology Policy Fellow — Alexandria, VA
National Science Foundation | Technology, Innovation & Partnerships Directorate
Regional Innovation Engines | Program Evaluation | AI Taskforce Lead

2023 – 2024 Visiting Assistant Teaching Professor, School of Science — Erie, PA
Pennsylvania State University, Erie – The Behrend College

Education

2017 – 2023 *Ph.D. in Evolutionary Ecology*, University of New Mexico — Albuquerque, NM
Graduate Teaching Academy Certificate — Committee Chair: Kenneth Whitney
Research interests: polyploidy; population genetics; eco-evolutionary theory

2016 *Semester Abroad in Evolution, Ecology and Conservation*
Universidad de San Francisco de Quito — Quito and San Cristobal, Ecuador

2013 – 2017 *B.Sc. Ecology and Evolutionary Biology*
University of Rochester — Rochester, NY

Teaching & Curricular Development Experience

2025 Instructor & Curriculum Development – Office Productivity with AI – NSF
2023 – 2024 Instructor & Curriculum Development – Genetic Analysis, Evolution, Ecology
Instructor – Cell and Molecular Biology, General Biology Lab – PSUB
2021 Curriculum Development for Undergraduate Genetics Course – UNM
2017 – 2021 Teaching Assistant – Cell and Developmental Biology & Genetics – UNM
2016 Curriculum Development for Undergraduate Introductory Biology - UR
2015 – 2017 Teaching Assistant (Head TA 2017) – Principles of Biology II – UR
2014 – 2015 Instructor – EcoReps: Introduction to Leadership and Sustainability – UR

Fellowships

2024 – 2026 AAAS Science, Technology Policy Fellowship – National Science Foundation
2022 – 2023 Vice-President of Research Zancada Fellowship – Head Fellow
2022 Ecological Society of America Graduate Student Policy Fellow
2019 – 2024 National Science Foundation Graduate Research Fellow
2015 Ronald E. McNair Post-Baccalaureate Achievement Program Fellow

Research Experience

2025	Researcher in Federal Investments in Innovation Ecosystems – NSF
2024	Faculty Mentor for Senior Thesis – PSUB
2023	Project Lead with Dr. Michael Campbell – PSUB
2017 – 2023	Graduate Research Assistant – Dr. Kenneth Whitney – UNM
2014 – 2017	Undergraduate Research Assistant – Dr. Christian Rabeling Lab – UR

Funding

2022	Zancada Fellowship, Office of the Vice-President of Research, UNM - $2500
2021	Rosemary Grant Advanced Award, Society for the Study of Evolution - $3500
2020, 23	Graduate & Pro. Student Assoc. Professional Development Grant, UNM - $500
2020	Graduate & Pro. Student Assoc. Student Research Grant, UNM - $500
2019 – 2022	National Science Foundation Graduate Research Fellowship, NSF - $138,000
2019	Sevilleta LTER Graduate Summer Research Fellowship, UNM - $4,000
2019	Alvin R. and Caroline G. Grove Summer Research Scholarship, UNM - $2,000
2018, 20, 21	Graduate Research Allocations Committee, UNM - $400
2017 – 2019	Supplemental Recruiting Assistantship, UNM - $10,000
2015	Research and Innovation Grant, UR - $1,500

Manuscripts Under Review:

7. Granath, A., Portman T., **Gerstner B. P.**, Mann M., Marquez R., Cerrato J, Rudgers J. Stress responses of root-associated fungi to heat and water stress. In Review at Microbial Ecology.

Publications:

6. Gerstner B.P., Laport R. & Whitney K.D. 2024. Plant-soil microbe feedback depend on distance and ploidy in a mixed cytotype population of *Larrea tridentata*. American Journal of Botany 111(8):e16298 https://doi.org/10.1002/ajb2.16298. Special Issue

5. Gerstner B.P., Wearing H.J. & Whitney K.D. 2024. Why so many polyploids? Accounting for stochasticity in formation rate of unreduced gametes lowers the perceived barriers to polyploid establishment. Journal of Evo Biology 37(3): https://doi.org/10.1093/jeb/voae016

4. Gerstner, B.P., Mann, M.A., Laport, R.G. and Whitney, K.D. (2023), Differentiation of rhizosphere fungal assemblages by host ploidy level in mixed-ploidy Larrea tridentata populations. *Oikos* e09856. https://doi.org/10.1111/oik.09856. Special Issue

3. Ohlert T, Kimmel K, Avolio M, Chang C, Forrestel E, **Gerstner B**, Hobbie S, Komastu K, Reich P, Whitney K. 2022. Exploring the impact of trait number and type on functional diversity metrics in real-world ecosystems. PLoS ONE 17(8): https://doi.org/10.1371/journal.pone.0272791

2. Dahan R.A., Grove N., Bollazz M., **Gerstner, B.P.**, & Rabeling C. 2022. Decoupled evolution of mating biology and social structure in *Acromyrmex* leaf-cutting ants. Behavioral Ecology and Sociobiology **76,** 7. https://doi.org/10.1007/s00265-021-03113-1

1. Farkas T.E., **Gerstner B.P.**, and Whitney K.D. 2021. SEV-LTER Plant Traits Database ver 1. Environ. Data Initiative. https://doi.org/10.6073/pasta/5b3a6d80a1c6d3121a2196cb40838849

Selected Presentations

Gerstner, B. Rhizosphere fungal assemblages differentiate by host ploidy level in mixed-ploidy *Larrea tridentata* populations? Shared Knowledge Conference. Poster November 2022 Albuquerque, NM.

Gerstner, B. Why so many polyploids? Polyploid Webinar Series – Barker Lab. Presentation March 2021, Albuquerque, NM.

Gerstner, B. Why so many polyploids? UNM Biology Brown Bag Seminar Series. Presentation April 2020, Albuquerque, NM.

Gerstner, B., Baack, E. & Whitney, K. Adding genome size to the Sevilleta plants traits database. Sevilleta All-hands 2020 Meeting. Poster January 2020, Albuquerque, NM.

Gerstner, B., Wearing, H. & Whitney, K. The paradox of polyploidy: is variation in unreduced gamete formation the key missing factor? American Society of Naturalists Stand Alone Meeting. Poster January 2020, Pacific Grove, CA.

Gerstner, B., Interactions of soil microbes and *Larrea tridentata*. Sevilleta LTER Brown Bag Series. October 2019, Albuquerque, NM.

Gerstner, B., Wearing, H. & Whitney, K. The paradox of polyploidy: is variation in unreduced gamete formation the key missing factor? University of New Mexico Biology Department Annual Research Day. Poster March 2019, Albuquerque, NM.

Gerstner, B., Rabeling, C. & Dahan, R. Evolution of multiple queen breeding and social parasites in South American leaf-cutting ants. Annual Biomedical Research Conference for Minority Students. Poster November 2015, Seattle, WA.

Gerstner, B., Rabeling, C. & Dahan, R. Evolution of multiple queen breeding and social parasites in South American leaf-cutting ants. David T. Kearns Center Research Symposium. Presentation July 2015, Rochester, NY.

Leadership & Service Experience

2024 – 2026	Out to Innovate – Board Member
2023	SABER D&I Committee Member – LGBTQ+ Special Interest Group Member
2023	Out to Innovate Annual Scholarship Program – Reviewer
2023	Ecological Society of America Policy Section – Secretary
2022 – 2023	Faculty Senate Research Policy Committee – Graduate Student Member
2022 – 2023	Biology Graduate Student Association – Graduate Policy Committee Member
2022	Ecological Society of America Graduate Student Policy Lobbyist
2022	GPSA Strategic Support Chair
2021	UNM Biology Graduate Student Coordinator Hiring Committee – Observer
2021	Botanical Society of America Graduate Research Fellowship Reviewer
2021	Museum of Southwest Biology Herbarium Senior Curator Committee Member

2020 – 2024	Common Bond New Mexico Foundation – Board Member and Treasurer
2020	Sevilleta Long-term Ecological Research Summer Fellowship Reviewer
2020 – 2022	Biology Graduate Student Association – Co-President, Undergraduate Policy
2019 – 2021	GPSA Council Member – Biology Representative
2019 – 2020	Biology Graduate Student Association – Graduate Policy Committee Member
2018 – 2019	GPSA Grants Reader
2017 – 2018	Graduate and Professional Students Association (GPSA) Grants Committee
2014 – 2015	Recruitment and Retention Officer for Greenspace Community Living
2013 – 2014	Sustainability and Leadership Representative for Residential Community Life
2012 – 2013	North Rose – Wolcott CSD Board of Education Student Board Member

Technical Expertise

High Proficiency in R, working knowledge in Python, SQL, Git, HTML, and command line.
High Proficiency in Adobe Illustrator, Photoshop, working knowledge in Adobe Premiere Rush
High Proficiency in website building, design, and maintenance

Awards and Honors

2021	Graduate and Professional Student Association Council Chair's Service Award
2020	Doctoral Conference Presentation Award – University of New Mexico ($1,140)
2020	Sevilleta All-hands 2020 Meeting Poster Award 3rd place – Sevilleta LTER ($150)
2020	Ruth Patrick Student Poster Award – American Society of Naturalists ($400)
2019	Susan Deese-Roberts Teaching Assistant of the Year Award – UNM, nominated

Outreach

2023	Science Café – Explora Science Museum	Albuquerque, NM
2022	Slice of Bio: Paths to Research Panelist	Albuquerque, NM
2022	Empowering Graduate Pedagogies Panelist	Albuquerque, NM
2022	Building Community as a Graduate Student Luncheon	Albuquerque, NM
2020 – 2021	Reading Group on Evolution	Albuquerque, NM
2019 – 2022	Skype a Scientist: 7 classrooms, 5 states	
2018 – 2020	Jefferson Middle School Science Fair Judge	Albuquerque, NM

Peer and Undergraduate Mentoring

Abigail Granath; 2022 UNM	Emma Frederick; 2023 PSUB	Mark Parnell; 2023 PSUB
Adalberto Ubinas; 2022 UNM	Grant Forbrig; 2022 UNM	Matthew Taylor; 2022 UNM
Benjamin Sinclair; 2019 UNM	Jillian Devies-Adams; 2023 PSUB	Noah Janes; 2023 PSUB
Chelsea Sparta; 2023 PSUB	Joseph Outar; 2023 PSUB	Nola Amburgey; 2019 UNM
Claire Doherty; 2021 UNM	Joesph Irvin; 2025 UR	Sidney Eichelberger; 2026 UC Irvine
Craig Still; 2022 UNM	Laura Martinez; 2020 UNM	Yago Vinícius; 2022 UNM
Cyrus Martin; 2020 UNM	Marty Alani; 2022 UNM	