

Curriculum Vitae

LINDSEY G. BIEHLER

PhD Student

New Mexico State University
Department of Biology
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EDUCATION

- 2024-Present** **Ph.D., Biology.** New Mexico State University, Advisor: Dr. Kathryn A. Hanley Dissertation: Impact of RNA interference on the outcomes of within-cell competition between sylvatic and human-endemic strains of dengue virus.
- 2021-2024** **M.S., Biology.** California State University, Fresno. Advisor: Dr. Joel Slade Thesis: Constitutive and Genetic Innate Immunity of Wild Cardueline Finches against a Harmful Strain of Avian *Salmonella*
- 2016-2021** **B.S., Biology.** California State University, Fresno. Chemistry minor. Graduated Magna Cum Laude

RESEARCH EXPERIENCE

- 2024-Present** **Ph.D. Research Assistant,** New Mexico State University. PI: Dr. Kathryn A. Hanley, Department of Biology.
- Cell cultures
 - Viral titers and plaque assays
 - Viral coinfections with sylvatic and human-endemic strains of dengue virus
- 2021-2024** **Master's Research and Bridge Student Assistant,** California State University Fresno. PI: Dr. Joel Slade, Department of Biology.
- Fieldwork with banding birds
 - Bacteria killing assays
 - Molecular work with DNA extractions, polymerase-chain reactions, and gel electrophoresis
- 2020-21** **Volunteer Research Student,** California State University Fresno. PI: Dr. Tricia Van Laar, Department of Biology.
- Bioinformatics
 - Culturing and isolating bacteria

PUBLICATIONS:

- 2025** **Biehler, L. G.,** Van Laar, T. A., & Slade, J. W. 2025. Cardueline finches vary in constitutive innate immunity against a harmful strain of avian *Salmonella*. *Integrative and Comparative Biology*, Volume 65, Issue 1, July 2025, Pages 119–126, <https://doi.org/10.1093/icb/icaf005>
- 2022** Van Laar, T.A., **Biehler, L.,** and Slade, J.W.G. 2022. Draft genome sequence of a multi-drug resistant strain of *Salmonella enterica* serovar Typhimurium isolated from a pine siskin (*Spinus pinus*). *Microbiology Resource Announcements*, 0(0), e00982-22, <https://doi.org/10.1128/mra.00982-22>.

HONORS AND AWARDS:

2024-Present	G-RISE Fellowship at New Mexico State University
2024	UCSF-Fresno Outstanding Oral Graduate Winner at CCRS
2023	UCSF-Fresno Outstanding Oral Graduate Winner at CCRS
2023	California State University, Fresno. Graduate Student Travel Grant
2023	American Ornithological Society Travel Grant
2022	Wilson Ornithological Society Travel Grant
2022	CSUPERB Travel Grant
2018-2021	President's List, California State University Fresno
2016-2017	Dean's List, California State University Fresno

CONFERENCE PRESENTATIONS:

Submitted Poster Presentations:

- 2026** Biehler, L.G. and Hanley, K.A. 2026. Impact of RNA interference, the front-line antiviral defense of mosquito vectors, on the outcomes of within-cell competition between sylvatic and human-endemic strains of dengue virus. Annual Biosymposium at New Mexico State University. Las Cruces, NM.

Submitted Oral Presentations:

- 2024** Biehler, L., Van Laar, T.A., and Slade, J.W.G. 2024. Constitutive and genetic innate immunity of wild cardueline finches against a harmful strain of avian *Salmonella*. 38th Annual CSU Student Research Competition. San Luis Obispo, CA.

Biehler, L., Van Laar, T.A., and Slade, J.W.G. 2024. Constitutive and Genetic Innate Immunity of Wild Cardueline Finches Against a Harmful Strain of Avian *Salmonella*. Three-Minute Thesis (3MT), Fresno State Research Week.

Biehler, L., Van Laar, T.A., and Slade, J.W.G. 2024. Genetic diversity of Toll-like receptor 4 in Cardueline finches. 45th Central California Research Symposium. Fresno, CA. **UCSF Graduate Student Oral Presentation Award.**

2023 Biehler, L., Van Laar, T.A., and Slade, J.W.G. 2023. Cardueline finches vary in innate immunity against a deadly strain of avian *Salmonella*. Birds as Bridges, AOS & SCOSOC Joint Conference. London, Ontario, Canada.

Biehler, L., Van Laar, T.A., and Slade, J.W.G. 2023. The role of constitutive and genetic innate immunity on *Salmonella* in wild finches. 44th Central California Research Symposium. Fresno, CA. **UCSF Graduate Student Oral Presentation Award.**

2022 Biehler, L., Van Laar, T.A., and Slade, J.W.G. 2022. The role of constitutive and genetic innate immunity on *Salmonella* in wild finches. Wilson Ornithological Society 103rd Meeting. Santa Fe, NM, USA.

Biehler, L., Van Laar, T.A., and Slade, J.W.G. 2022. Quantification of constitutive innate immunity of songbirds against *Salmonella*. 43rd Virtual Central California Research Symposium.

TEACHING EXPERIENCE

2023-2024 **Teaching Assistant**
Department of Biology, California State University, Fresno.
BIOL 20L - Introductory Microbiology

ADDITIONAL COURSES:

2025 Grant Writing Intensive by Drs. Hanley and Vasilakis
2024 Medical Entomology (ACME) Pre-Meeting Course: Medical Entomology

OUTREACH ACTIVITIES:

2023 How to Get Involved in Research on Campus, Fresno State Research Week

LANGUAGES SPOKEN:

English
U.S.A Citizen