Aramee Diethelm

1 Shields Ave. • Davis, CA 95616

EDUCATION

University of Nevada, Reno — Reno, NV
PhD, Ecology, Evolution, and Conservation Biology — *2023*
Supervisor: Dr. Elizabeth G. Pringle

Thesis: From plants to predators: investigating the phytochemical landscape from the herbivore's perspective

Portland State University — Portland, OR
BS, Biology. *Summa cum laude.* Phi Kappa Phi Honors Society — *2016*

RESEARCH EXPERIENCE

Postdoctoral Researcher — 2023 – current
University of California, Davis
Supervisors: Dr. Elizabeth E. Crone / Dr. Neal M. Williams

- Leading a multi-year, multi-agency study of western monarch (*Danaus plexippus*) breeding phenology and habitat use across Department of Defense lands and nearby wildlife refuges, examining how seasonal and spatial variation in breeding activity, milkweed availability, and vegetation structure shape patterns of habitat use and guide the timing and prioritization of conservation actions in relation to other land-use needs.
- Co-leading a National Park Service–funded inventory of monarch butterflies and bumble bees, developing protocols, conducting surveys, and delivering Darwin Core–standardized datasets, actionable reports, and maps to guide management.

Graduate Research Assistant — 2017 – 2023
National Science Foundation Graduate Research Fellowship
University of Nevada, Reno
Research Advisor: Dr. Elizabeth G. Pringle

Dissertation: Community dynamics across a mosaic of chemistry: a study of monarch butterflies (*D. plexippus*), their larval food-plant (*Asclepias* spp.; milkweeds), and their predators through an environmental gradient in the Great Basin.

- Investigated the "phytochemical landscape" of milkweeds by surveying 45 populations across the Great Basin. Phenotype data were then compared to plant secondary metabolites using a non-target approach, from which I identified compound classes that respond differently to biotic and abiotic pressures.
- Established six common gardens across a 400 km environmental gradient to determine differing climate-mediated abiotic and biotic pressures on a specialist herbivore (*D. plexippus*, N = 1,290).
- Examined the intraspecific variation of induced plant trait responses to co-occurring herbivory and water-limitation using a common garden, with plants from low water-availability areas responding with greater magnitude to single stressors, and all populations showing a decline in response to two stressors.

Field Assistant Researcher — 2017
Washington State University
Supervisor: Dr. Cheryl B. Schultz

- Conducted surveys for endangered Fender's blue butterfly *(Icaricia ilariids fenderi*) eggs on threatened host-plants (Kincaid's lupine; *Lupinus sulphureus kincaidii*) in long-term monitoring plots.

Undergraduate Researcher 2016 – 2017
Washington State University
National Science Foundation Research Experience for Undergraduate Program
Research Advisor: Dr. Cheryl B. Schultz

- Designed and implemented independent project investigating the sublethal effects of neonicotinoid seed treatments from co-planted crop species with host-plants (milkweeds) on monarch larval development and survival.

Undergraduate Researcher 2015 – 2017
Portland State University
Ronald E. McNair Scholars Program
Research Advisor: Dr. Susan E. Masta

- Identified parasitoid Hymenoptera from pitfall traps to family level and analyzed those data to determine differences in parasitoid community assemblages from different types of urban green roof vegetative plantings.

Undergraduate Assistant Researcher 2015 – 2017
Portland State University
Research Advisor: Dr. Daniel J. Ballhorn

- Examined the effects of nitrogen-fixing rhizobia on parasitoid Hymenoptera recruitment in *Phaseolus lunatus* (lima bean) by assisting with background literature searches, data analysis, and manuscript preparation.

PUBLICATIONS

Diethelm, A.C., Reichelt, M., & Pringle, E.G. (2024). Herbivores disrupt clinal variation in plant responses to water limitation. *Journal of Ecology*, 112(2). https://doi.org/10.1111/1365-2745.14237

Diethelm, A.C., Kost, K.E., & Pringle, E.G. (2023). Plant water limitation and its impact on the oviposition preferences of the monarch butterfly (Lepidoptera: Nymphalidae). *Journal of Insect Science*, 23(4). https://doi.org/10.1093/jisesa/iead075

Godschalx, A.L., **Diethelm, A.C.**, Kautz, S., et al. (2023). Nitrogen-fixing rhizobia affect multitrophic interactions in the field. *Journal of Insect Behavior*, 36. https://doi.org/10.1007/s10905-023-09833-8

Diethelm, A.C., & Masta, S.E. (2022). Urban green roofs can support a diversity of parasitoid wasps. *Frontiers in Ecology and Evolution*, 10. https://doi.org/10.3389/fevo.2022.983401

Diethelm, A.C., Reichelt, M., Dilts, T.E., Farlin, J.P., Marlar, A., & Pringle, E.G. (2022). Climatic history, constraints, and the plasticity of phytochemical traits under water stress. *Ecosphere*, 13(8). https://doi.org/10.1002/ecs2.4167

GRANTS

National Science Foundation Graduate Research Fellowship, $138,000 2019

University of Nevada, Reno

Garden Club of America Centennial Pollinator Fellowship, $4,000 2019
University of Nevada, Reno

Graduate Student Access Grant, $1,500 2019
University of Nevada, Reno

Graduate Student Access Grant, $1,500 2018
University of Nevada, Reno

Hitchcock Center for Chemical Ecology Fellowship, $4,000 2018
University of Nevada, Reno

NSF Research Experience for Undergraduates Program, $3,000 2016
Washington State University

Oregon Opportunity Grant, $3,000 2016
Portland State University

Oregon Opportunity Grant, $3,000 2015
Portland State University

Ronald E. McNair Scholars Program, $2,500 2014

AWARDS AND HONORS

Brussard Scholarship (demonstrated excellence in graduate program), $1,000 2022
University of Nevada, Reno

Diana Hadley-Lynch Women in STEM Scholarship, $1,100 2022
University of Nevada, Reno

Graduate Student Association Outstanding Graduate Student, $1,000 2022
University of Nevada, Reno

Graduate Student Association Travel Award, $500 2022
University of Nevada, Reno

Graduate Dean's Merit Scholarship, $5,000 2017
University of Nevada, Reno

TEACHING EXPERIENCE

University of Nevada, Reno Biology Help Center 2023
Graduate Coordinator

- Overseeing and assisting in the mentoring of >600 students per semester.
- Supporting student academic performance by coordinating tutor availability.

University of Nevada, Reno Ecology and Population Biology 2023
Graduate Teaching Assistant

- Created grading rubrics for course worksheets and long-answer exam questions.
- Consulted instructor on students' progress to provide target areas for improvement.

University of Nevada, Reno Introduction Organismal Biology 2018
Graduate Teaching Assistant

- Implemented biweekly flip-classroom workshops to increase student engagement and introduced remote attendance options that increased student participation.
- Developed original worksheets from lecture material to improve student learning.

University of Nevada, Reno Principles of Biology Laboratory 2017 – 2018
Graduate Teaching Assistant

- Prepared dynamic lectures to engage students and increase active learning.
- Instructed students in a variety of biology-related laboratory skills and taught essential techniques to composing a quality scientific research paper.

Portland State University Principles of Biology II 2014
Classroom Facilitator

- Engaged students to be active participants by encouraging communication within groups while providing key insights into the concepts from class worksheets.

CONFERENCE PRESENTATIONS

Uncovering breeding phenology complexity: Spatiotemporal dynamics using western monarch butterflies (*Danaus plexippus*) as a model. AC Diethelm. Western Monarch Breeding Science Meeting. Davis, CA. July 2025. Invited talk.

Evaluating competing hypotheses for breeding season phenology of western monarch butterflies (*Danaus plexippus*). AC Diethelm. Annual Meeting of the Ecological Society of America. Long Beach, CA. August 2024. Contributed talk.

Understanding western monarch butterfly breeding phenology for optimized DoD habitat management. AC Diethelm. Annual National Military Fish and Wildlife Association Meeting. Grand Rapids, MI. March 2024. Contributed talk.

Monarch butterfly survival in the Anthropocene: How variation in abiotic conditions impacts monarch performance from a tritrophic perspective. AC Diethelm. Annual Meeting of the Ecological Society of America. Montreal, Quebec. August 2022. Contributed talk.

Monarch butterfly success in the Great Basin, USA: a tritrophic perspective. AC Diethelm. Annual Meeting of the Entomological Society of America. Denver, CO. October 2021. Contributed talk.

Co-occurring drought and herbivory modulate plant stress responses in narrowleaf milkweed (*Asclepias fascicularis*) in a population-dependent manner. AC Diethelm. Annual Meeting of the Ecological Society of America. Virtual. August 2020. Contributed talk.

Tritrophic interactions and monarch larval success in the Great Basin, USA. AC Diethelm. International Pollinator Conference. Davis, CA. July 2019. Poster presentation.

Presence of parasitoid wasps (Hymenoptera) on urban green roofs suggests natural pest control. AC Diethelm. Annual Urban Ecology and Conservation Symposium. Portland, OR. February 2016. Poster presentation.

Indirect affects of seed-treatments of larval performance of monarch (*Danaus plexippus)* butterflies across three host plant (*Asclepias)* species. AC Diethelm. Annual

Summer Undergraduate Research Poster Symposium. Vancouver, WA. September 2016. Poster presentation.

SEMINAR PRESENTATIONS

Feeding in fear: host-plant species, predators, and larval performance in the monarch butterfly (*Danaus plexippus*). AC Diethelm. Animal Behavior Seminar, University of California, Davis. Davis, CA. February 2024. Invited talk.

OUTREACH PRESENTATIONS

Paving the Way: Postdoctoral Tips for First-Gen Scholars. UC Davis Postdoctoral Scholars Association and Graduate Student Association. Nov. 2024. Invited talk.

Graduate School Insights for Non-traditional Students. Environment for the Americas (EFTA). August 2024. Invited panelist.

First Gen Graduate Student Discussion Panel. TRiO, McNair, and Upward Bound Programs (National First Gen Week), University of Nevada, Reno. Nov. 2023. Invited panelist.

Milkweeds and Monarchs: Precarious Pals. Great Basin Bird Observatory. Jan. 2022. Invited talk.

Talking Toxicity: Northern Nevada Milkweeds and the Community Around Them. Nevada Native Plant Society. March 2020. Invited talk.

SERVICE EXPERIENCE

Ecology 2022 – 2024
Ad hoc Reviewer

- Evaluated submitted manuscript using critical thinking skills and knowledge of system being investigated.

Society for Ecological Restoration 2021 – 2023
UNR Chapter Vice President

- Arranged field visits and planned relevant workshops to provide hands-on training for conservation-related activities to undergraduate and graduate students.

Graduate Student EECB Colloquium Nomination Committee 2018 – 2023
Committee Chair

- Organized regular meetings and trained new members. Implemented selection criteria that increased the diversity among invited speakers.

Annals of the Entomological Society of America 2021
Ad hoc Reviewer

- Assisted in the peer-review process by providing insightful and thorough evaluation of submitted manuscript.

VOLUNTEER EXPERIENCE

Bumble Bee Atlas (Xerces Society for Invertebrate Conservation) 2025
Community Science Volunteer

- Conduct standardized surveys following established protocols to document bumble bee

species in support of regional conservation and management efforts.

UNR Museum of Natural History 2017 – 2023
Museum Volunteer, Outreach

- Led ecology-based classroom activities, including Big Brothers Big Sisters events, to increase awareness of native biodiversity and inspire conservation interest in underrepresented communities.

Truckee Meadows Park Foundation 2019 – 2022
Volunteer Biodiversity Researcher

- Increased public awareness of local biodiversity and stewardship needs by writing natural history stories that supported conservation education in regional parks.

Applied Institute of Ecology 2019 – 2022
Sagebrush in Prisons Project Volunteer

- Collaborated with incarcerated crews at Northern Nevada Correctional Center to grow milkweed for monarch research and created an educational pamphlet on monarch biology and milkweed ecology.
- Coordinated monarch butterfly releases using milkweed cultivated in the program, bridging ecological research with prison-based restoration and expanding conservation participation to a community rarely engaged in science.

Washoe County Regional Parks and Open Spaces 2020 – 2022
Habitat Restoration Volunteer

- Designed and implemented restoration plans that improved pollinator habitat and stabilized degraded areas using native seeding and erosion-control techniques.
- Organized and led restoration activities that have installed ~100 lbs. of native seed and 240 native plants, while also removing over 400 invasive plants.

Portland State University Museum of Natural History 2015 – 2018
Museum Volunteer, Outreach

- Expanded public engagement with Oregon’s biodiversity by managing interactive exhibits from PSU's scientific collections. that connected visitors to conservation issues in the region.

Washington State University 2016
Research Surveyor

- Conducted behavioral surveys of the endangered Fender’s blue butterfly to inform long-term population monitoring and species recovery efforts.

W. Multnomah Soil and Water District 2013 – 2015
Urban Watershed Mentor

- Developed and implemented riparian restoration plans, establishing over 600 native plants and removing invasive species to improve watershed resilience and habitat quality.

Ridgefield National Wildlife Refuge 2010 – 2013
Habitat Restoration Volunteer

- Assisted with restoration to enhance wildlife refuge ecosystems by planting and caging native trees, removing invasive ricefield bulrush (*Schoenoplectus mucronatus*), and

repairing tree protection from previous plantings.

PROFESSIONAL AFFILATIONS

California Native Plant Society	2024 – current
Society for Ecological Restoration	2021 – current
Entomology Society of America	2021 – current
Ecology Society of America	2020 – current
Sigma Xi, the Scientific Research Honor Society	2019 – 2023
Phi Kappa Phi Honors Society	2015 – 2018

UNDERGRADUATE MENTORING

- 14 students total with two honors thesis and four independent research projects.

Herron Renegado (2024-2025), Emeline Huffaker (2023-2025), Konnor Kost (2019-2023), Noah Jordan (2021-2023), Alejandra Garcia (2022), Mackenzie Lange (2020-2021), Benjamin Baker (2021), Peter Beardsley (2021-2022), Brooke DerAshodian (2021-2022), Douglas Collins (2019-2021), Cassidy Gosse (2018-2020), Allison Dooley (2018-2019, Audrey Marlar (2017-2019), and Hunter Wyett (2017-2020).

REFERENCES

Elizabeth G. Pringle, Ph.D.
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Elizabeth E. Crone, Ph.D.
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Evolution and Ecology
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