Katherine E. Waselkov
Department of Biology, M/S SB 73
2555 East San Ramon
California State University, Fresno
Fresno, CA 93740

Email: kwaselkov@csufresno.edu
Phone: 559-278-2559
Website: waselkovlab.com

FACULTY POSITIONS

Associate Professor – Biology, California State University, Fresno (2021-present)
Assistant Professor – Biology, California State University, Fresno (2015-2021)

EDUCATION and PROFESSIONAL PREPARATION

Postdoctoral Research Associate – Biology, Kansas State University (2013-2015)
Adviser: Dr. Carolyn Ferguson

Ph.D. - Evolution, Ecology, and Population Biology, Washington University (2006-2013)
Advisers: Dr. Kenneth Olsen and Dr. Barbara Schaal

B.S. - Botany, Summa Cum Laude, University of Florida (2002-2006)
Minor in Anthropology

HONORS, AWARDS, and FUNDING

NSF DEB: LIFE: Collaborative Research: Leveraging weeds to understand evolutionary convergence to environmental change (2025-2029) (Co-PI)	$338,002
Sequoia Parks Conservancy Mini-Grant: Improving the data quality and public availability of THRI herbarium collections on the CCH2 online database (2025) (PI)	$7100
BLM and the University of Wyoming: CESU Cooperative Agreement: One Species or Two: Prickly Phlox (*Phlox pungens*) Taxonomy and Status (2024-2026) (Co-PI)	$20,580
CSUBIOTECH Research Development Grant: Investigating herbicide resistance in common chickweed in Central Valley small grain crops (2024-2025) (PI)	$15,000
STEM-NET Faculty Interdisciplinary Collaborative Research Seed Grant: Native plants, places and people: Linking STEM education to local cultural and linguistic diversity (2023-2024) (PI)	$24,820
CSU Agricultural Research Institute Grant: Biology, ecophysiology, genetics, and management of Central Valley populations of common waterhemp (*Amaranthus tuberculatus*) (2019-2023) (PI)	$149,572
USDA NIFA AFRI: Using evolutionary genomics to probe agricultural invasiveness and adaptive evolution in *Amaranthus palmeri* (2019-2023) (Co-PI)	$189,106
NSF ADBC: Digitization TCN: Capturing California's Flowers: using digital images to investigate phenological change in a biodiversity hotspot (2018-2023) (Co-PI)	$56,706
USDA NPGS Plant Exploration for Crop Improvement: Plant exploration in California, Arizona, and New Mexico to collect *Amaranthus* germplasm for crop improvement (2019-2020) (PI)	$9,936
CSU, Fresno Instructionally Related Activity Awards (2020, 2023, 2025, 2026)	$11,513
CSU, Fresno College of Science and Mathematics Faculty Professional Development Awards	$8,363
CSU, Fresno Undergraduate and Graduate Student Awards for Research (cumulative, 2015-2026) from external or internal funding sources	$40,549
CSU, Fresno College of Science and Mathematics Scholarly and Creative Activity Awards (2017-2018, 2022, 2025)	$28,460
CSUPERB (the California State University Program for Education and Research in Biotechnology) New Investigator Grant (2017-2018)	$15,000
COAST (CSU Council on Ocean Affairs, Science and Technology) Rapid Response	$7,500

Grant (2017-2018)

National Geographic Society Committee for Research and Exploration Grant 9126-12, Phylogenetic Relationships and Conservation of the Plant Genus *Amaranthus* in the Galápagos Islands (2012) $10,000

National Geographic Society Committee for Research and Exploration Grant 8901-11, An Investigation of the Phylogeographic Origin and Conservation Status of Endemic *Amaranthus* Species in the Galápagos Islands (2011) $8,780

National Science Foundation Graduate Research Fellowship (2007-2010)

PUBLICATIONS

* = Fresno State student; ^ = corresponding author

ORCID ID: https://orcid.org/0000-0001-8521-3694

Riley, A.*, and **K. Waselkov**^. In prep. A phylogeny of the western North American genus *Helianthella* Torr. & A.Gray. *Madroño*.

Lopez, A.*^, and **K. Waselkov**. In prep. Origins of *Amaranthus tuberculatus* in Central Valley agroecosystems: A population genetics approach using genotyping-by-sequencing. *Molecular Ecology*.

Valdez-Herrera, J.*, **K. Waselkov**^, N. Clark, and A. Shrestha^. 2026. Acetolactate synthase herbicide-resistant *Stellaria media* (L.) Vill. populations documented in forage cropping systems in California. *Crops* 6 (6): 107. https://doi.org/10.3390/crops6060107

Waselkov, K.^, E. Aguilar-Gutierrez*, P. Gill*, and S. Athwal*. Accepted October 1, 2026. Population genetics using microsatellite markers in showy phlox, *Phlox speciosa* Pursh (Polemoniaceae). *Western North American Naturalist* 2026, x.

Valdez-Herrera, J.*, N. Clark, **K. Waselkov**, and A. Shrestha^. 2026. Assessment of the germination capability of common chickweed (*Stellaria media* (L.) Vill.) under stress conditions and effects of its competition on the yield and quality of forage wheat (*Triticum aestivum* L.). *Agronomy* 16 (15): 1411. https://doi.org/10.3390/agronomy16151411

Frnzyan, T.*, **K. Waselkov**, and A. Shrestha^. 2025. Germination ecology, herbicide resistance status, and competitive ability of Palmer amaranth (*Amaranthus palmeri*) with young grapevines in the Central Valley of California. *Journal of Crop Improvement* 39(2), 1-29. https://doi.org/10.1080/15427528.2025.2458801

Faccenda, K.^, N.D. Bayón, **K. Waselkov**, and B. Hobdy. 2025. *Amaranthus pakai* (Amaranthaceae), a new critically endangered species from the Hawaiian islands. *Novon* 33: 1-5. https://doi.org/10.3417/2025953

Galvan, K.*, **K. Waselkov**, and A. Shrestha^. 2023. Environmental influences on common waterhemp germination and tolerance to salinity and herbicides. *Agronomy Journal* 115(6): 3092-3105. https://doi.org/10.1002/agj2.21474.

Waselkov, K.^, and K.M. Olsen. 2022. Herbaria reveal cost of the Green Revolution. *Science* Perspective 378(6624): 1053-1054. DOI: 10.1126/science.ade4615.

Avila, A.T.*, T.A. Van Laar, J.V.H. Constable, and **K. Waselkov^.** 2020. 16S rRNA gene diversity of bacterial endophytes in parasitic *Cuscuta campestris* and its *Helianthus annuus* host. *Microbiology Resource Announcements* 9(43): e00968-20. doi: 10.1128/MRA.00968-20.

Waselkov, K.E.^, N.D. Regenold, R.C. Lum*, and K.M. Olsen. 2020. Agricultural adaptation in the native North American weed waterhemp, *Amaranthus tuberculatus* (Amaranthaceae). *Plos One* 15(9): e0238861.

Waselkov, K.^, M. Santiago, B. Heidel, M.H. Mayfield, and C.J. Ferguson. 2020. Population genetics of the Wyoming endemic *Phlox pungens* (Polemoniaceae). *Western North American Naturalist* 80(3): 369-380.

Pearson, K.D.^, J.M. Yost^, J. Alexander, E. Gilbert, et al. 2019. The California Phenology Collections Network: Using digital images to investigate phenological change in a biodiversity hotspot.

Madroño 66(4): 130-141.

Waselkov, K.E.^, A. Boleda, and K.M. Olsen. 2018. A phylogeny of the genus *Amaranthus* (Amaranthaceae), based on several low-copy nuclear loci and chloroplast regions. *Systematic Botany* 43(2): 439-458.

Waselkov, K.E.^, and K.M. Olsen. 2014. Population genetics and origin of the native North American agricultural weed waterhemp (*Amaranthus tuberculatus*; Amaranthaceae). *American Journal of Botany* 101(10): 1726-1736.

Judd, W.S.^, N.C. Melvin III**, K. Waselkov**, and K.A. Kron. 2013. A taxonomic revision of *Leucothoë* (Ericaceae; tribe Gaultherieae). *Brittonia* 65(4): 417-438.

Judd, W.S.^, N.C. Melvin III, **K. Waselkov**, and K.A. Kron. 2012. Taxonomic revision of *Eubotrys* (Ericaceae; tribe Gaultherieae). *Brittonia* 64(2): 165-178.

Waselkov, K., and W. S. Judd^. 2008. A phylogenetic analysis of *Leucothoë* s.l. (Ericaceae; tribe Gaultherieae) based on phenotypic characters. *Brittonia* 60(4): 382-394.

Axsmith, B. J.^, M. Krings, and **K. Waselkov.** 2004. Conifer pollen cones from the Cretaceous of Arkansas: implications for diversity and reproduction in the Cheirolepidiaceae. *Journal of Paleontology* 78(2):402-409.

FEATURED RESEARCH

Fresno State Today Magazine (Fall/Winter 2026 issue): Cover Story: "Nationally known for national parks: Fresno State's proximity to major national parks gives students unique course opportunities and plenty of options for recreation." Article including story about collaborative Waselkov Lab research to digitize the Sequoia-Kings Canyon (THRI) Herbarium. https://today.fresnostate.edu/nationally-known-for-national-parks/#Kings-Canyon

Fresno State Today Magazine (June 14, 2024 Issue): "Blooming minds: How a biology class studies plants, contributes to historic collection." Article on Biol 125 Plant Taxonomy class, the Fresno State Herbarium, and undergraduate research student Giovanna Munoz-Gonzalez. https://today.fresnostate.edu/blooming-minds/

Progressive Crop Consultant Magazine (September/October 2023 Issue): "New Instances of Herbicide Resistance in California Small Grain Crops." Article on collaborative chickweed herbicide resistance research with CSU Fresno Plant Science faculty and UC Cooperative Extension faculty. https://issuu.com/myaglife/docs/pcc_sept_oct_e?fr=xKAE9_zU1NQ

CSU Fresno College of Science and Mathematics Facebook Page (February 11, 2020): Women in Science highlight. https://www.facebook.com/CSMFresnoState/

CSU Fresno Campus News (November 12, 2019): "Feature: Professors receive USDA grant to study problematic weed." Article about collaborative USDA-funded research on Palmer amaranth population genomics. https://campusnews.fresnostate.edu/

California Ag Today, podcast (February 24, 2019): "Fresno state student Priyanka Chaudhari is researching why hairy fleabane is glyphosate resistant." https://californiaagtoday.com/podcasts

CSU Fresno College of Science and Mathematics Elements Magazine (Fall 2019): "Dr. Katherine Waselkov to investigate flowering time shifts in the California flora." Article about the NSF CAP-TCN grant and the Fresno State Herbarium's involvement (along with associated social media posts on Facebook and Twitter). CSM Elements Fall 2019

PUBLISHED ABSTRACTS: PRESENTATIONS and POSTERS since 2015
Bold denotes student co-authors

Irewole, Oluwasegun Emmanuel, and Katherine Waselkov. Botany 2026 (annual meeting of the Botanical Society of America, American Society of Plant Taxonomists, and others) (Poster). Leveraging agricultural weeds in the genus *Amaranthus* to understand evolutionary convergence.

Figueroa Hernandez, Luis, Pankti Chavda, Andy Cabrera, Josué Magaña, Andrea Laine, Danya

Sumrein, and Katherine Waselkov. Botany 2026 (Poster); California Botanical Society 2026 Banquet and Mixer (Poster). Untangling species boundaries in Southwestern *Amaranthus* species: morphological and genetic analysis.

Laine, Andrea, Jose Camarena, Tess Aaron, and Katherine Waselkov. Botany 2026 (Poster); CCRS 2026 (Poster). Improving the accessibility and accuracy of the Sequoia and Kings Canyon National Parks Herbarium on CCH2.

Cabrera, Andy, Sienna Wessel, Carolyn J. Ferguson, Mark H. Mayfield, and Katherine Waselkov. Botany 2026 (Presentation); 47th Annual Central California Research Symposium (CCRS) 2026 (Presentation) and California Botanical Society 2026 Banquet and Mixer (Poster). To be or not to be, *Phlox pungens*.

Irewole, Oluwasegun Emmanuel, and Katherine Waselkov. Conference for Emerging Black Academics in Stem (CEBAS) 2026 (Poster). Leveraging agricultural weeds to understand evolutionary convergence.

Singh, Manasvi, Madison Zink, and Katherine Waselkov. 2026 CSUBIOTECH Symposium (Invited Lightning Talk and Poster) and CCRS 2026 (Presentation). Investigating herbicide resistance in shepherd's purse (*Capsella bursa-pastoris*) populations in California's Central Valley.

Cabrera, Andy, Josué Magaña, Danya Sumrein, Luis Figueroa Hernandez, Pankti Chavda, and Katherine Waselkov. Botany 2025; California Botanical Society 30th Graduate Student Symposium, April 5, 2025; and CCRS 2025 (Presentation). Discovering evolutionary relationships in the economically important plant genus *Amaranthus*.

Chavda, Pankti, Danya F. Sumrein, Andrea C. Laine, Luis Figueroa Hernandez, Andy Cabrera, and Katherine Waselkov. Botany 2025 (Poster). The case of the indistinguishable species: taxonomy of *Amaranthus wrightii* and *Amaranthus torreyi*.

Chavda, Pankti, Danya F. Sumrein, Luis Figueroa Hernandez, Andrea C. Laine, and Katherine Waselkov. CCRS 2025 (Poster). Taxonomic and geographic analysis of *Amaranthus wrightii* and *Amaranthus torreyi*.

Valdez Herrera, Jennifer, Katherine Waselkov, Nicholas E. Clark, and Anil Shrestha. CCRS 2025 (Poster). Evaluation of San Joaquin Valley common chickweed (*Stellaria media* (L.) Vill.) populations for resistance to ALS-inhibitors.

Valdez Herrera, Jennifer, Anil Shrestha, Katherine Waselkov, and Nick Clark. Western Society of Weed Science (WSWS) 2025 Meeting (Presentation). Herbicide-resistant common chickweed (*Stellaria media* (L.) Vill.) populations and yield losses in San Joaquin Valley small grain dairy crops.

Cabrera, Andy, and Katherine Waselkov. ARI-HIS and ARI-NEXTGEN Science and Leadership Conference, November 4, 2024 (Presentation – Lightning Talk). A genomic study of the genetic basis of weediness within the *Amaranthus* genus.

Singh, Manasvi, and Katherine Waselkov. Fresno State F3 Fellowship Mid-Year Research Symposium, December 13, 2024 (Presentation). Investigating herbicide resistance in shepherd's purse (*Capsella bursa-pastoris*).

Waselkov, Katherine, and **Josue Magaña**. Botany 2024 (Presentation). Misunderstood relatives of famous weeds: the genus *Amaranthus* in the Southwestern U.S.

Waselkov, Katherine, Leece Lee-Oliver, Brian Agbayani, John Pryor, Emily Walter, and Hubert Cecotti. Botany 2024 (Presentation). Native plants, people, and places in Central California: Linking herbarium specimen data to local cultural and linguistic diversity via undergraduate education.

Munoz-Gonzalez, Giovanna, Vanessa Fabian, and Katherine Waselkov. Botany 2024 (Poster). Student involvement in the digitization of the Fresno State Herbarium.

Munoz-Gonzalez, Giovanna, Vanessa Fabian, and Katherine Waselkov. CCRS 2024 (Poster). The digitization of the CSU Fresno Herbarium.

Magaña, Josue, and Katherine Waselkov. CCRS 2024 (Poster). Assessing the phylogenetic relationship between the U.S. Southwestern and Galapagos Islands *Amaranthus* species.

Valdez Herrera, Jennifer, Anil Shrestha, Nick Clark, and Katherine Waselkov. Western Society of Weed Science (WSWS) 2024 Meeting (Poster). Herbicide-resistant common chickweed (Stellaria media

(L.) Vill.) populations and yield losses in small grain crops in the Central Valley of California.

Anil Shrestha, **Takui Frnzyan, Kelsey Galvan, Curtis Lefler,** and Katherine Waselkov. WSWS 2024 (Presentation). Germination, competition, and herbicide resistance status of Palmer amaranth and common waterhemp in the Central Valley of California.

Valdez, Jennifer, Katherine Waselkov, Anil Shrestha, and Nicholas Clark. 76th Annual Conference of the California Weed Science Society (CWSS) 2024 (Presentation). Developing an integrated management system for common chickweed (*Stellaria media*) control in small grain crops in the Central Valley. *Winner of the 2nd Place Graduate Student Presentation Prize.

Lefler, Curtis, Alejandra Cardenas, Anil Shrestha, and Katherine Waselkov. CWSS 2024 (Poster). The genetics of herbicide resistance in California waterhemp, *Amaranthus tuberculatus*.

Marquez, Monique, and Katherine Waselkov. CCRS 2024 and Building Bridges to the Professoriate (BB2P) Mentoring Summer Research Internship Program Symposium 2023 (Poster). Evaluating the taxonomic relationships of different *Phlox pungens* population centers utilizing genetic characteristics.

Fajardo, Kristine, Josue Duque, and Katherine Waselkov. Botany 2023 (Poster). Pigweeds on the move: Tracing the Californian invasion of Palmer amaranth (*Amaranthus palmeri*).

Fajardo, Jacklyn, Andrew Cardenas, Arshnoor Kaur, Chris Winchell, and Katherine Waselkov. Botany 2023 and 44th Annual Central California Research Symposium (CCRS) 2023 (Poster). Central California's checker lilies: Exploring the diversity of *Fritillaria* species through population genetics.

Frnzyan, Takui, Katherine Waselkov, and Anil Shrestha. CCRS 2023 (Presentation). Herbicide resistance prevalence in San Joaquin Valley populations of Palmer amaranth.

Fajardo, Kristine, Josue Duque, and Katherine Waselkov. CCRS 2023 (Poster). Where the pigweed grows: A population genetics approach to tracing the Californian invasion of Palmer amaranth (*Amaranthus palmeri*).

Lefler, Curtis, Alejandra Cardenas, Anil Shrestha, and Katherine Waselkov. CCRS 2023 (Poster). The genetics of herbicide resistance in California waterhemp, *Amaranthus tuberculatus*.

Waselkov, Katherine, and Anil Shrestha. California Plant and Soil Conference 2023 (Presentation). Herbicide resistance in the Central Valley: ALS inhibitors and glyphosate for Palmer amaranth, waterhemp, and chickweed.

Galvan, Kelsey B., Katherine Waselkov, John T. Bushoven, and Anil Shrestha. CWSS 2023 (Presentation). Germination of common waterhemp (*Amaranthus tuberculatus*) seeds as influenced by soil environmental factors, and tolerance to common post-emergence herbicides and soil salinity.

Frnzyan, Takui, Katherine Waselkov, and Anil Shrestha. CWSS 2023 (Poster). Herbicide resistance prevalence in San Joaquin Valley populations of Palmer amaranth.

Cardenas, Andrew, Jacklyn Fajardo, Arshnoor Kaur, Chris Winchell, and Katherine Waselkov. California Native Plant Society 2022 Conference and CSU Summer Symposium at UCLA (Poster). Population genetics of two California species of checker lily (*Fritillaria*).

Waselkov, Katherine. California Native Plant Society 2022 Conference (Presentation). The involvement of students in digitizing the Fresno State Herbarium.

Lopez, Alexander, Anil Shrestha, Lynn Sosnoskie, and Katherine Waselkov. Botany 2022 (Presentation). Origin of *Amaranthus tuberculatus* (waterhemp) in Central Valley agroecosystems: a population genetics approach using genotyping-by-sequencing.

Duque, Josue, Alexander Lopez, Romy Lum, and Katherine Waselkov. Botany 2022 and 43rd Annual Virtual Central California Research Symposium (CCRS) 2022 (Presentation). Population genomics of the native and invaded California range of Palmer amaranth (*Amaranthus palmeri*).

Riley, Reece, and Katherine Waselkov. Botany 2022 and CCRS 2022 (Presentation). A phylogeny of the western North American wildflower genus *Helianthella*.

Fajardo, Kristine, Josue Duque, and Katherine Waselkov. Botany 2022 (Poster). Tracing the origin of Central California *Amaranthus palmeri* populations and identifying possible genes of adaptation.

Cardenas, Andrew, Arshnoor Kaur, Jacklyn Fajardo, and Katherine Waselkov. Botany 2022 (Poster). Population genetics of two California species of checker lily (*Fritillaria*).

Kaur, Arshnoor, Jacklyn Fajardo, Andrew Cardenas, and Katherine Waselkov. CCRS 2022 (Poster). Population genetics of two California species of checker lily (*Fritillaria*).

Lopez, Alexander, Katherine Waselkov, Tricia Van Laar, and Anil Shrestha. CCRS 2022 (Presentation) and 74th Annual Conference of the California Weed Science Society (CWSS) 2022 (Presentation). Origin of *Amaranthus tuberculatus* (waterhemp) in Central Valley agroecosystems: a population genetics approach using genotyping-by-sequencing.

Fajardo, Kristine, Josue Duque, and Katherine Waselkov. CWSS 2022 and CCRS 2022 (Poster). Tracing the origin of Central California *Amaranthus palmeri* populations and identifying possible genes of adaptation.

Shrestha, Anil and Katherine Waselkov. 2022 California Plant and Soil Conference (Presentation). The increasing prevalence of Palmer amaranth and common waterhemp in the Central Valley.

Frnzyan, Takui, Katherine Waselkov, Chance Riggins, and Anil Shrestha. CWSS 2022 (Poster). Competitive effects of glyphosate-resistant and -susceptible Palmer amaranth plants with grapevines during vineyard establishment.

Duque, Josue, Alexander Lopez, Romy Lum, Chance Riggins, and Katherine Waselkov. CWSS 2022 and 1st Annual Meeting of the International Weed Genomics Consortium 2021 (Poster). Population genomics of the native and invaded California range of Palmer amaranth (*Amaranthus palmeri*).

Lopez, Alexander, Anil Shrestha, Lynn Sosnoskie, and Katherine Waselkov. 1st Annual Meeting of the International Weed Genomics Consortium 2021 (Poster). Origin of *Amaranthus tuberculatus* (waterhemp) in Central Valley agroecosystems: a population genetics approach using genotyping-by-sequencing.

Gill, Pawanpreet, Savneesh Athwal, Estefania Aguilar-Gutierrez, and Katherine Waselkov. Botany 2021 (annual meeting of the Botanical Society of America, American Society of Plant Taxonomists, and others) (virtual presentation). Population genetics of the widespread perennial wildflower *Phlox speciosa* using microsatellite markers.

Riley, Reece, and Katherine Waselkov. Botany 2021 (virtual presentation). A phylogeny of the western North American montane perennial genus *Helianthella*.

Duque, Josue, Alexander Lopez, Romy Lum, and Katherine Waselkov. 73rd Annual Conference of the CWSS 2021 (virtual poster), and CCRS 2021 and Botany 2021 (virtual poster presentation). Population genomics of the native and invaded California range of Palmer amaranth (*Amaranthus palmeri*). CWSS poster presentation online at: https://www.youtube.com/watch?v=BC1sF28o3qY and CCRS presentation available online at https://www.youtube.com/watch?v=Rz3BcySoKgA (timestamp: 2:02:45).

Lopez, Alexander, Anil Shrestha, Lynn Sosnoskie, and Katherine Waselkov. CWSS 2021 (virtual poster), and 42nd Annual Virtual CCRS 2021 and Botany 2021 (virtual presentation). Origin of *Amaranthus tuberculatus* (waterhemp) in Central Valley agroecosystems: a population genetics approach using genotyping-by-sequencing. CWSS poster presentation online at https://www.youtube.com/watch?v=YAtk5DOUniY, and CCRS presentation available online at https://www.youtube.com/watch?v=TBUd2nWBWB4 (timestamp: 5:50).

Riley, Reece, and Katherine Waselkov. California Botanical Society 28th Annual Graduate Student Symposium (virtual presentation), and 42nd Annual Virtual Central California Research Symposium (CCRS) 2021 (virtual presentation). A phylogeny of the genus *Helianthella*. CCRS presentation available online at: https://www.youtube.com/watch?v=TBUd2nWBWB4 (timestamp: 50:37).

Lum, Romy, Anil Shrestha, and Katherine Waselkov. CWSS 2021 (virtual poster). Characterizing herbicide resistance in Southwestern U.S. and invasive California populations of *Amaranthus palmeri*. Poster presentation online at: https://www.youtube.com/watch?v=nieQo6eBdOA

Celaya-Finke, Gabrielle, Katherine Waselkov, Lynn Sosnoskie, and Anil Shrestha. CWSS 2021 (virtual

poster). Effects of moisture and salt stress on germination of common waterhemp (*Amaranthus tuberculatus*).

Steinhauer, Katrina, Anil Shrestha, John Bushoven, and Katherine Waselkov. CWSS 2021 (virtual poster). Environmental conditions on postemergence herbicides control of glyphosate-resistant junglerice (*Echinochloa colona*). https://www.youtube.com/watch?v=-bDm2rNUi9I

Galvan, Kelsey, Anil Shrestha, and Katherine Waselkov. CWSS 2021 (virtual poster). Effects of salinity and pH on common waterhemp (*Amaranthus tuberculatus*) germination. Poster presentation online at: https://www.youtube.com/watch?v=zC7F9LQNO1s

Waselkov, Katherine, **Reece Riley**, Maria Peña, Katelin Pearson, and Jenn Yost. Annual meeting of the Society for the Preservation of Natural History Collections 2020 (Virtual Poster). Capturing the flowers of the Sierra Nevada mountains: the contribution of the Fresno State Herbarium (FSC) to the California Phenology Network. Poster available online at: https://spnhc.biowikifarm.net/wiki/Posters

Gill, Pawanpreet, Savneesh Athwal, Monique Cantu, and Katherine Waselkov. Northern California Botanists Symposium 2020 and CSM Virtual Research Showcase 2020 (accepted for the Central California Research Symposium, cancelled due to COVID-19 shutdown) (Poster). Population genetics of the widespread perennial wildflower *Phlox speciosa* using microsatellite markers.

Lum, Romy, Anil Shrestha, and Katherine Waselkov. CSM Virtual Research Showcase 2020 (accepted for the Central California Research Symposium, cancelled due to COVID-19 shutdown) (Poster). Testing for herbicide resistance in the native and invaded California range of *Amaranthus palmeri*.

Bivins, Christopher, Josue Duque, Alexander Lopez, Brianna Mulvey, Reece Riley, Danielle Sublett, Franziska Wenger, and Katherine Waselkov. CSU Fresno High-Impact Practices Symposium, Fall 2019 (Poster). Plant exploration in the Southwestern U.S. to collect germplasm for crop improvement.

Figueroa, Norma, Paul Banayat Gonzales, Tshaaj Her, Kulvir Janjua, Benjamin Quatro, Karen Vasquez. CSU Fresno High-Impact Practices Symposium, Fall 2019 (Posters). Six total posters from Biol 140 Plant Anatomy Fall 2019 independent research projects.

Lum, Romy, Katherine Waselkov, and Chance Riggins. Botany 2019 (Poster). Testing for herbicide resistance in the native and invaded California range of *Amaranthus palmeri*.

Avila, Adam, John V.H. Constable, Katherine Waselkov, and Tricia Van Laar. Botany 2019 and CCRS 2019 (Poster). Investigating bacterial endophytes in parasitic *Cuscuta campestris* and its *Helianthus annuus* host.

Lum, Romy, Katherine Waselkov, and Chance Riggins. CCRS 2019 (Poster). Using evolutionary genomics to probe agricultural invasiveness in *Amaranthus palmeri*.

Chaudhari, Priyanka, Diana Camarena Onofre, and Katherine Waselkov. CSU Annual Biotechnology Symposium 2019 and California Weed Science Society (CWSS) Annual Conference 2019 (Poster and Lightning Talk). Characterizing the expression of candidate genes for herbicide resistance in the agricultural weed hairy fleabane (*Erigeron bonariensis*).
*Winner of 2nd place graduate student poster award at CWSS.

Waselkov, Katherine. Botany 2018 (Presentation). "Wait, plants have insides?" Leading an undergraduate plant anatomy class from basics to independent research, in one semester.

Benitez, Tomi, Aldo Chavira, Crystal Espindola, John Henry Fajardo, David Flores, Paritosh Gadra, Yesenia Gastelum, Daniel Gramajo, Isabella Heredia, Katherine Holm, Alexander Lopez, Alelhi Mendoza, Darian Rodriguez, Masou See, and Katherine Waselkov. CSU Fresno STEM Symposium for Course-Based Research and Projects 2018 (Poster). The impact of dredging on plant biodiversity at Morro Bay: Spring 2018 Biol 125 Plant Taxonomy Class research project.

Aguilar-Gutierrez, Estefania, and Katherine Waselkov. 60th Annual Maize Genetics Conference 2018 (Poster). Does subspecific variation correspond to genetic or cytotypic variation in the widespread taxon *Phlox speciosa* (Polemoniaceae)?

Yang, May N., and Katherine Waselkov. CWSS 2018 (Poster). Herbicide resistance in the native range of the agricultural weed Palmer amaranth.

Chaudhari, Priyanka, Diana Camarena Onofre, and Katherine Waselkov. CWSS 2018 and CCRS 2018 (Poster). The genetic basis of glyphosate resistance in the Central Valley agricultural weed hairy fleabane (*Erigeron bonariensis* L.). *Winner of 3rd place student poster award at CWSS.

Camarena Onofre, Diana, Katherine Waselkov, Anil Shrestha, Balaji Sethuramasamyraja, Dave Goorahoo, Florence Cassel Sharma, and John Bushoven. Students of Agronomy, Soils and Environmental Sciences Annual Meeting 2017 and CCRS 2018 (Poster). Germination rate and glyphosate resistance of hairy fleabane (*Conyza bonariensis*): research from the 2017-2018 USDA-NIFA-NLGCA Research Internship. *Winner of outstanding poster presentation in CCRS poster section.

Pathak, Ankit, Adam Avila, and Katherine Waselkov. Evolution 2017 (annual meeting of the Society for the Study of Evolution, the American Society of Naturalists, and the Society of Systematic Biologists) (Poster). Investigating the genetic basis of glyphosate resistance in the San Joaquin Valley agricultural weed hairy fleabane (*Erigeron bonariensis*).

Molina, Rigoberto, Ankit Pathak, and Katherine Waselkov. Evolution 2017, CSU Annual Biotechnology Symposium 2017, and CCRS 2017 (Poster). Investigating the genetic basis of glyphosate resistance in the San Joaquin Valley agricultural weed hairy fleabane (*Erigeron bonariensis*).

Pathak, Ankit, and Katherine Waselkov. CSU Annual Biotechnology Symposium 2017 and CCRS 2017 (Poster). Fitness cost of glyphosate resistance in hairy fleabane (*Erigeron bonariensis*) under drought conditions.

Aguilar-Gutierrez, Estefania, and Katherine Waselkov. Botany 2016, CSU Annual Biotechnology Symposium 2017, and CCRS 2017 (Poster). Does subspecific variation correspond to cytotypic variation in the widespread taxon *Phlox speciosa* (Polemoniaceae)?

Santiago, Mercedes, Katherine Waselkov, Bonnie Heidel, Mark H. Mayfield, and Carolyn J. Ferguson. Evolution 2016 and Botany 2016 (Poster). Genetic diversity of the Wyoming endemic *Phlox pungens* (Polemoniaceae), placed within a taxonomic context.

Pano, Emeline, John V.H. Constable, and Katherine Waselkov. CSU-LSAMP Fresno State Summer 2016 Research Program (Presentation). Modernizing the Fresno State Herbarium into an online resource.

Waselkov, Katherine, Shannon D. Fehlberg, L. Alan Prather, **Bethany Wright**, and Carolyn J. Ferguson. Botany 2015 (Presentation). Assessing allelic diversity in polyploid complexes of *Phlox* (Polemoniaceae) using next-generation amplicon sequencing.

SEMINARS (*invited) since 2015

***Waselkov, Katherine.** Misunderstood relatives of famous weeds: the genus *Amaranthus* in the Southwestern U.S. Botany Speaker Series, California Botanical Society, October 12, 2023.

***Waselkov, Katherine**. ALS inhibitor genetic resistance evolution. Herbicide Resistance and Common Chickweed Field Day (CSU, Fresno JCAST and UC Cooperative Extension) (April 21, 2023).

Waselkov, Katherine. Misunderstood relatives of famous weeds: the genus *Amaranthus* in the Southwestern U.S. CSU, Fresno Biology Colloquium (April 28, 2023).

Waselkov, Katherine. Introduction to the Waselkov Lab: Lightning Talk. CSU, Fresno Biology Colloquium (Fall 2022; Fall 2023; Spring 2026).

***Waselkov, Katherine**. The FSC Herbarium and its use in phenology research. California-Nevada Chapter of the Soil and Water Conservation Society of America. Webinar on Plant Materials and Conservation (October 20th, 2021).

***Waselkov, Katherine,** and R. Riley. Leafing through the past: A virtual walkthrough of the largest herbarium in the Central Valley. Webinar by the Sequoia Chapter of the California Native Plant Society (October 12th, 2021).

Lum, Romy, and **Katherine Waselkov**. Agricultural invasions and "superweeds": characterizing herbicide resistance in Palmer amaranth. CSU, Fresno Biology Colloquium (Fall 2019).

Waselkov, Katherine. Hidden in plain sight: The natural history collections of the Fresno State Biology Department. CSU, Fresno Biology Colloquium (Fall 2018).

***Waselkov, Katherine.** The evolutionary approach to weeds. Ecology, Evolution and Conservation Biology Seminar, San Francisco State University (Fall 2016).

***Waselkov, Katherine.** Perplexing polyploidy in the Polemoniaceae: patterns in *Phlox* phylogenies. Botany Lunch at the University and Jepson Herbaria, UC Berkeley (Fall 2016).

***Waselkov, Katherine.** The evolutionary approach to weeds. Plant Health Society, CSU, Fresno (Spring 2016).

***Waselkov, Katherine.** Population genetics and herbicide resistance studies in waterhemp (*Amaranthus tuberculatus*). Guest lecture for CSU, Fresno, Biometrics in Agriculture class (AGRI 200) (Fall 2015).

***Waselkov, Katherine.** The young and the restless: evolutionary explorations in the plant genera *Amaranthus* and *Phlox*. Wichita State University, Department of Biological Sciences Seminar Series (Spring 2015), and Rancho Santa Ana Botanic Garden Botany Seminar Series (Fall 2015).

TEACHING EXPERIENCE since 2015

Course leader

BIOL 105 – Evolution, CSU-Fresno (Fall 2016, Spring 2018, Spring 2019, Fall 2019, Fall 2020, Spring 2021, Fall 2021, Spring 2023, Fall 2023, Fall 2024, Spring 2026)
BIOL 251 (260T) – Experimental Design for Biologists, CSU-Fresno (Fall 2017, Fall 2018, Spring 2020, Fall 2020, Spring 2021, Spring 2022, Fall 2023, Spring 2024, Spring 2025, Fall 2026)
BIOL 125 – Plant Taxonomy, CSU-Fresno (Spring 2016-Spring 2020, Spring 2022-Spring 2026)
BIOL 140 – Plant Anatomy, CSU-Fresno (Fall 2015-Fall 2019, Fall 2021, Fall 2024, Fall 2026)
BIOL 178 – Systematic Biology and Macroevolution, CSU-Fresno (Fall 2023)
BIOL 112H – Honors Science Communication, CSU-Fresno (Fall 2024, Fall 2025)
BIOL 113H – Biology Honors Colloquium, CSU-Fresno (Spring 2019, Spring 2021)
BIOL 189T – Collection and Curation of Plant Biodiversity, CSU-Fresno (Fall 2019)
BIOL 180/280 – Biology Colloquium, CSU-Fresno (Spring 2016)
BIOL 230 – History of Evolution Seminar, CSU-Fresno (Fall 2025)
BIOL 281 – Graduate Seminar in Biological Science, CSU-Fresno (Fall 2015, Fall 2023, Fall 2025)

Course-based Undergraduate Research Experiences (CUREs)

BIOL 140 – Independent investigations into anatomy, ecology, and climate change impacts on native and invasive Central California plants (Fall 2017, Fall 2018, Fall 2019, Fall 2021, Fall 2024, Fall 2026)
BIOL 178 – Species Distributions and Their Drivers: Biological Collections in Ecology and Evolution Network (BCEENET) CURE (Fall 2023)
BIOL 189T – Plant exploration in the Southwestern U.S. to collect germplasm for crop improvement (Fall 2019)
BIOL 125 – The impact of dredging on plant biodiversity at Morro Bay: Plant Taxonomy class research project (Spring 2018)
BIOL 140 – Comparative plant anatomy independent projects (Fall 2016)

Research mentor

Lillian Holl, CSU-Fresno Biology MS student (Fall 2026-present)
Seed dormancy in the genus *Amaranthus*
Oluwasegun Emmanuel Irewole, CSU-Fresno Biology MS student (Spring 2026-present)
Genomics of weediness in the genus *Amaranthus*
Donald Ross, CSU-Fresno Biology undergraduate (Spring 2026-present)

Digitizing and curating the Fresno State Herbarium

Jaden Cannon, CSU-Fresno Biology undergraduate (Spring 2026-present)
Digitizing and curating the Fresno State Herbarium

Madison Zink, CSU-Fresno Biology undergraduate (Fall 2025-present)
Genetic testing for herbicide resistance in shepherd's purse, Italian rye, and littleseed canarygrass

Patience (Tess) Aaron, CSU-Fresno Biology undergraduate (Fall 2025-present)
Digitizing the THRI Herbarium collections

Jose Camarena, CSU-Fresno Biology undergraduate (Fall 2025-present)
Digitizing the THRI Herbarium collections

Luis Figueroa Hernandez, CSU-Fresno Biology undergraduate (Spring 2025-present): CSU STEM Pathways and Research Alliance (CSU-SpaRA) Summer 2025 Student Scholar
Project: Phylogenetic relationships of Southwestern *Amaranthus* species

Andrea Laine, CSU-Fresno Biology undergraduate (Spring 2025-Spring 2026)
Project: Digitizing and curating the Fresno State Herbarium and the THRI Herbarium collections

Manasvi Singh, CSU-Fresno Biotechnology MS student (Fall 2024-Summer 2026)
Project: Management of shepherd's purse in the San Joaquin Valley

*Andy Cabrera, CSU-Fresno Biology MS student (Summer 2024-present)
Project: Phylogenetic relationships of Southwestern *Amaranthus* species; taxonomic status of the Wyoming endemic *Phlox pungens*
*Fresno State BB2P Scholar, 2025; Outstanding MS Biology Graduate Student, 2025

Jennifer Valdez-Herrera, CSU-Fresno M.S. in Plant Science (Spring 2023-Spring 2026)
--co-advised with Dr. Anil Shrestha
Project: Management of common chickweed in the San Joaquin Valley

Pankti Chavda, CSU-Fresno Biology undergraduate (Spring 2024-Spring 2025)
Project: Phylogenetic relationships of Southwestern *Amaranthus* species

Danya Sumrein, CSU-Fresno Biology undergraduate (Spring 2024-Spring 2025)
Project: Phylogenetic relationships of Southwestern *Amaranthus* species, management of common chickweed in the San Joaquin Valley

Danica Belman, CSU-Fresno Biology undergraduate (Fall 2024)
Projects: Digitizing and curating the Fresno State Herbarium collections

Priyanka Chapagain, CSU-Fresno Plant Science undergraduate (Summer 2024-Fall 2024)
Project: Management of common chickweed in the San Joaquin Valley

Josue Magaña, CSU-Fresno Biology undergraduate (Summer 2023-Spring 2024)
Project: Phylogenetic relationships of Southwestern *Amaranthus* species

Giovanna Munoz-Gonzalez, CSU-Fresno Biology undergraduate (Summer 2023-Spring 2024)
Projects: Digitizing the Fresno State Herbarium collections, STEM-Net Ethnobotany project

Vanessa Avendano, CSU-Fresno Plant Science undergraduate (Spring 2023-Fall 2023)
Project: Testing germination of Palmer amaranth populations in Central Valley conditions

Curtis Lefler, CSU-Fresno Plant Science undergraduate (Fall 2022-Fall 2023)
Project: Herbicide resistance screening for Central Valley waterhemp

*Monique Marquez, CSU-Fresno Biology undergraduate (Fall 2022-Spring 2024)
Projects: Population genetics of *Phlox pungens*, STEM-Net Ethnobotany project, Digitizing the Fresno State Herbarium collections
*Fresno State BB2P Scholar, 2023

Vanessa Fabian, CSU-Fresno Biology undergraduate (work-study) (Fall 2022-Spring 2024)
Project: Digitizing the Fresno State Herbarium collections

Jashandeep Gill, CSU-Fresno Biology undergraduate (Spring 2022-Summer 2024)
Project: STEM-Net Ethnobotany project, Digitizing the Fresno State Herbarium collections

Takui (Tiffany) Frnzyan, CSU-Fresno M.S. in Viticulture (Fall 2021-Spring 2024)
--co-advised with Dr. Anil Shrestha
Project: Herbicide resistance screening for Central Valley Palmer amaranth

LeAnne Gip, CSU-Fresno Biology undergraduate (Fall 2023)
Project: Phylogenetic relationships of Southwestern *Amaranthus* species
Kristine Fajardo, CSU-Fresno M.S. in Biology (Fall 2020-Fall 2023)
Project: Population genomics of the cross-continental invasion of Palmer amaranth
Alejandra Cardenas, CSU-Fresno Plant Science undergraduate (Spring-Summer 2023)
Project: Herbicide resistance screening for Central Valley waterhemp
Samantha Camarena, CSU-Fresno Biology undergraduate (Spring 2022-Summer 2023)
Project: Digitizing the Fresno State Herbarium collections, STEM-Net Ethnobotany project
Jacklyn Fajardo, CSU-Fresno Biology undergraduate (Spring 2021-Summer 2023)
Project: Chloroplast marker sequencing for *Fritillaria* species ID; Digitizing the Fresno State Herbarium collections
*Andrew Cardenas, CSU-Fresno Biology undergraduate (Fall 2021-Spring 2023)
Project: Chloroplast marker sequencing for *Fritillaria* species ID
*Fresno State RISE Scholar, 2022
Arshnoor Kaur, CSU-Fresno Biology undergraduate (Fall 2021-Spring 2023)
Project: Chloroplast marker sequencing for *Fritillaria* species ID; Digitizing the Fresno State Herbarium collections
Padmavathi Bhavana Rongala, CSU-Fresno M.S. in Biotechnology (Fall 2021-Fall 2022)
Project: Herbicide resistance testing for Central Valley waterhemp
Josue Duque, CSU-Fresno M.S. in Biology (Fall 2019-Spring 2022)
Project: Population genomic diversity and structure of Palmer amaranth in the native and invaded California range
Reece Riley, CSU-Fresno Biology undergraduate, then M.S. in Biology (Fall 2018-Spring 2022)
Projects: Digitizing the Fresno State Herbarium collections; molecular phylogeny of *Helianthella*
*Alexander Lopez, CSU-Fresno Biology undergraduate, then M.S. in Biology (Fall 2018-Spring 2022)
Projects: Digitizing the Fresno State Herbarium collections; describing a new species of *Fritillaria* from Southern California; population genomics of the California invasion of waterhemp (*Amaranthus tuberculatus*)
*Outstanding MS Thesis for Biology Department and College of Science and Mathematics, 2023
Zainab Rana, CSU-Fresno Biology undergraduate (Spring 2021-Fall 2021)
Project: Digitizing the Fresno State Herbarium collections
Christopher Bivins, CSU-Fresno M.S. in Biology (Spring 2019-Spring 2021)
--co-advised with Dr. Alija Mujic
Project: The mycorrhizal ecology of four mycoheterotrophic plant species in California
Savneesh Athwal, CSU-Fresno Biology undergraduate (Summer 2018-Spring 2021)
Project: Population genetics of diploid and polyploid *Phlox speciosa*
Pawanpreet Gill, CSU-Fresno Biology undergraduate (Summer 2018-Spring 2021)
Project: Population genetics of diploid and polyploid *Phlox speciosa*; digitizing the Fresno State Herbarium collections
Romy Lum, CSU-Fresno M.S. in Biology (Spring 2018-Fall 2020)
Project: Testing for herbicide resistance in the native and invaded California range of *Amaranthus palmeri*
Tyrren Parrish, CSU-Fresno Biology undergraduate (Spring 2019; Spring 2020)
Project: Population genomics of the cross-continental invasion of Palmer amaranth
Adam Avila, CSU-Fresno M.S. in Biology (Spring 2018-Fall 2020)—co-advised with Dr. John Constable
Project: Investigating bacterial endophytes in parasitic *Cuscuta campestris* and its *Helianthus annuus* host
Monique Cantu, CSU-Fresno Biology undergraduate (Spring 2019-Spring 2020)
Project: Digitizing the Fresno State Herbarium collections; population genetics of *Sidalcea keckii* in the Central Valley; population genetics of diploid and polyploid *Phlox speciosa*
Harneet Kaur, CSU-Fresno Biology undergraduate (Summer 2018-Spring 2020)

Projects: Digitizing the Fresno State Herbarium collections; population genetics of *Sidalcea keckii* in the Central Valley

Catherine Prieto, CSU-Fresno Biology undergraduate (Spring 2019)
Project: Digitizing the Fresno State Herbarium collections

Chyann Stiles, CSU-Fresno Biology undergraduate (Summer 2018-Fall 2018)
Project: Fitness costs of glyphosate resistance under drought conditions in hairy fleabane

Priyanka Chaudhari, CSU-Fresno M.S. in Biotechnology (Spring 2017-Fall 2018)
Project: RNA-Seq analysis of genes underlying glyphosate resistance in hairy fleabane

Diana Camarena, CSU-Fresno Plant Science undergraduate, USDA-NIFA intern (Spring 2017-Fall 2018)
Project: Fitness costs of glyphosate resistance at multiple stages in hairy fleabane

Gurkiran Bains, CSU-Fresno Biology undergraduate (Spring 2018)
Projects: Digitizing the Fresno State Herbarium collections

May Yang, CSU-Fresno Plant Science undergraduate (Fall 2017-Spring 2018)
Project: Population genomics of the cross-continental invasion of Palmer amaranth

Adam Avila, CSU-Fresno Biology undergraduate (Spring 2017-Summer 2017)
Project: Detecting hybridization between two weedy *Erigeron* species in the Central Valley

Ankit Pathak, CSU-Fresno M.S. in Biotechnology (Fall 2015-Spring 2017)
Project: Fitness costs of glyphosate resistance under drought conditions in hairy fleabane

Emeline Pano, CSU-Fresno LSAMP Biology undergraduate (Summer 2016-Fall 2017)
Projects: Digitizing the Fresno State Herbarium collections, and Population genetics of diploid and polyploid *Phlox speciosa*

Rigoberto Molina, CSU-Fresno Biology undergraduate (Spring 2016-Fall 2017)
Project: Genetic basis of glyphosate resistance in hairy fleabane

Estefania Aguilar-Gutierrez, CSU-Fresno Biology Honors undergraduate (Spring 2016-Spring 2018)
Project: Population genetics of diploid and polyploid *Phlox speciosa*

Faculty science education outreach

- Smittcamp Honors College Retreat at Camp Keola (September 12, 2026): led a plant walk with the honors students around Huntington Lake
- CSM Science Carnivale (February 28, 2026): faculty, graduate, and undergraduate students had a booth with a hands-on herbarium specimen creation activity
- Fresno State Maker Faire, NSF-funded STEAM event (May 10, 2025): graduate and undergraduate students had a booth with a hands-on herbarium specimen creation activity
- Career Technical Education Charter (CTEC) High School (April 11, 2025 and April 15, 2026): guest lecture about herbicide resistance evolution for Project-Based Learning unit, sophomore biology class
- Coexist with Wildlife California Day, San Joaquin River Parkway Trust and Fresno Chaffee Zoo (August 31, 2024): led a public plant ID hike on the San Joaquin River
- Sequoia Chapter of the California Native Plant Society: China Creek Park 20th Anniversary Celebration (March 9, 2024): led a public plant walk around the park
- Sequoia Chapter of the California Native Plant Society: Herbarium Tour and Volunteer Days (Every other month starting August 5, 2023-present)
- Reinvigorating the Fresno State Herbarium (Fall 2017-Spring 2023): intermittent volunteer days
- Notes from Nature Citizen Science Initiative: Fresno State Herbarium (9 expeditions, 2019-2025) (https://www.zooniverse.org/projects/md68135/notes-from-nature-capturing-californias-flowers)
- Central Valley Café Scientifique: Science: A Candle in the Dark Radio Show
    - "What's in a name? The recent changes proposed by the American Ornithological Society," with Dr. Joel Slade and Dr. Alija Mujic, November 23, 2023. Radio interview on KFCF 88.1 FM.
    - "The Great Invasive Species Debate", with Dr. Brian Tsukimura and Dr. Ulrike Müller,

October 3, 2016. Radio interview on KFCF 88.1 FM and public talk at Santa Fe Basque Restaurant as part of the Café Scientifique public lecture series presented by CSU, Fresno.

- Fresno County Science Fair: Plant Science Judge (March 11, 2019; March 16, 2020; March 15, 2021; March 13, 2023; March 16, 2026)
- Central California Research Symposium Judge (May 1, 2019; April 20, 2022)
- Tulare County Expanding Your Horizons Conference (2015, 2018, 2021): STEM outreach for K-12 girls
- CSU Fresno CSM Stars, Science, and Birthday Party for Galileo Reception for San Joaquin River Parkway organization (February 15, 2020)
- CSU Fresno CSM Science Fair (Day of Giving, November 7, 2019)
- Feria de Educación/Day of Discovery Public Outreach Event (October 20, 2018)
- Botanical Society of America PLANTS Mentor (Preparing Leaders and Nurturing Tomorrow's Scientists) (Summer 2018)

Agricultural consulting work

- Sierra IP Law, Fresno, CA: Plant patent consultations for botanical descriptions of new orchard crop varieties in the Central Valley of California (10 patents, 2016-2025)

SERVICE since 2015

External to the university:

Professional society service:

- Advisory Board Member, Central California Botanical Society (2026-27)
- Program Director, California Botanical Society (2026-27)
- Treasurer, California Native Plant Society, Sequoia Chapter (January 2021-present)
- Website Committee member, American Society of Plant Taxonomists (September 2020- present; Chair: September 2025-present)
- Treasurer, American Society of Plant Taxonomists (September 2022-August 2025)
- Website Committee Liaison to Diversity, Equity, and Inclusion Committee, American Society of Plant Taxonomists (October 2020-21)
- Conservation Chair, California Native Plant Society, Sequoia Chapter (June 2019-December 2020)

Journal reviewer: American Journal of Botany, Annals of the Missouri Botanical Garden, Biodiversitas Journal of Biological Diversity, Botanical Journal of the Linnean Society, Canadian Journal of Plant Science, Ecology and Evolution, Evolutionary Applications, Frontiers in Agronomy, Frontiers in Plant Science, Journal of Heredity, Molecular Ecology, Molecular Ecology Notes, Molecular Phylogenetics and Evolution, PeerJ, Phytotaxa, Plant Biotechnology Journal, Plant Genetic Resources, Plant Molecular Biology Reporter, PLoS One, Systematic Botany, Taiwania.

Grant reviewer: National Geographic Society, US-Israel Binational Agricultural Research and Development Fund, National Science Foundation (3 panels and 2 ad hocs).

Internal university service:

University level:

- Arboretum Committee, CSU-Fresno University Committee (2017-present)
- Institutional Biosafety Committee, CSU-Fresno University Committee (Spring 2019-present)
- Academic Senate, Department of Biology Representative, CSU Fresno (April 2025-April 2028)
- University Graduate Committee, CSM Representative, CSU Fresno (August 2025-May 2028)
- CSU, Fresno Campus Faculty Hearing Panel (2020-2021)

- M.S. Biotechnology Application Review Committee, CSU-Fresno College of Science and Mathematics (Spring 2018-present)

College level:

- Search Committee for Biology Department Administrative Analyst/Specialist, CSU-Fresno College Committee (Summer 2019, Summer 2020)
- College Research Committee, CSU-Fresno College of Science and Mathematics (Fall 2019)

Department level:

- Public Relations Committee, CSU-Fresno Biology Department (Fall 2024-Spring 2026)
- Ad-Hoc Safety Committee, CSU-Fresno Biology Department (Chair in Fall 2023-present)
- Assessment Committee, CSU-Fresno Biology Department (2017-Spring 2023; Chair in Spring 2021)
- Graduate/Research Committee, CSU-Fresno Biology Department, (2015-2016, Fall 2018-present); Chair of the Research Committee (Fall 2026-present)
- Search Committee Chair, CSU, Fresno Biology Department Microbiology Faculty Search (2021-2022)
- Four Ad-Hoc 3-Year Lecturer Evaluation Committees (2022, 2024, 2025, 2026)
- Dog Days Advising Volunteer, CSU-Fresno Department of Biology (Summer 2017, 2018, 2019, 2022, 2024, 2026)
- Faculty Mentor to Dr. Justin Shaffer (Spring-Fall 2024); drafted Year 2 RTP Department Review
- Restarting Research During COVID-19 Committee, CSU-Fresno Biology Department (Summer 2020)
- Staffing and Scheduling Committee, CSU-Fresno Biology Department (2016-Spring 2018)
- Scholarship Committee, CSU-Fresno Biology Department (2015-2017)
- Tri Beta Biology Honors Society, CSU-Fresno Faculty Advisor (Fall 2018-Spring 2020)

Professional development activities since 2021

- *Amaranthus* Collaboration Workshop: 1.5 days of presentations and activities, August 17-18, 2026
- Attendance at Botany 2021 (virtual), Botany 2022-2026 (in person): international scientific conferences held for 5 days each July-August
- UC and Jepson Herbaria Botanical Illustration Workshop: 2 full days, March 21-22, 2026
- Advancing Inclusive Mentoring (AIM) Mentorship Training Workshops through the Office of IDEAs: 6 in-person hour-long workshops, Fall 2024-Spring 2025
- 2025 Capstone Institute Faculty Learning Community through the Office of IDEAs: 3 1.5-hour in-person workshops, January 7-9, 2025
- Crop Wild Relatives Symposium: 3.5-day international scientific conference, September 16-19, 2024
- Data Carpentries R Workshop through the Fresno State Biology Department: two 5-hour in-person sessions, July 9-10, 2024
- Genome Skimming workshop via the Botany 2024 Annual Conference: one 2-hour in-person session, June 16, 2024
- UC Davis Weed Day: 1 full day of talks and field visits, June 21, 2023
- BCEENet CURE Training via the Biological Collections in Ecology and Evolution network: five 6-hour virtual workshops, July 13-17, 2022
- STEM Writing Across the Curriculum Summer Certificate Program through the CSU: four 4-hour in-person workshops, May 31-June 3, 2022
- Jepson Herbarium Field Trip to Kennedy Table Mountain, 1 day event, April 8, 2022: Co-leader
- Active Learning Virtual Short Course through the Fresno State STEM Education Center: five 3-hour sessions, July 12-16, 2021

PROFESSIONAL ORGANIZATIONS

Botanical Society of America (joined 2006)
Society for the Study of Evolution (joined 2011)
The American Society of Plant Taxonomists (joined 2012)
California Native Plant Society, Sequoia Chapter (joined 2015)
California Botanical Society (joined 2015)
Southern California Botanists (joined 2015)
Northern California Botanists (joined 2015)
The Society of Herbarium Curators (joined 2018)
California Weed Science Society (joined 2019)
Weed Science Society of America (joined 2020)
Central California Botanists (joined 2026)