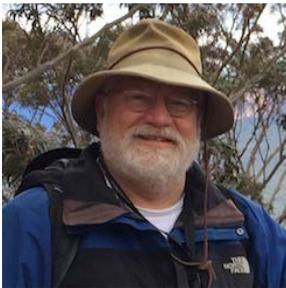


SPEAKERS



Andrea Williams has two decades of experience in science-based public lands management: monitoring rare plants and plant communities, carrying out project compliance surveys, mapping and removing invasive plants, and responding to landscape-level threats such as *Phytophthora*, climate change, and altered disturbance regimes. She has worked in partnership to design indicators, metrics, status, and trends for land health; lead volunteers in botanical inventories; improve the quality and quantity of data submitted to CNDDDB; and teach plant identification, field methods, and invasive plant management planning. She earned her B.S. in Biology from Lewis & Clark College in Portland, Oregon, where she spent summers on field research at a coastal grassland studying species composition and demography of the host plant of an endangered butterfly and decided to become a land manager.



Brent Mishler is Director of the University and Jepson Herbaria at UC Berkeley, as well as Professor in the Department of Integrative Biology, where he teaches about island biology, plant diversity, evolution, and phylogenetic analysis. His research interests are in the evolutionary biology of bryophytes (mosses and liverworts), as well as the theory of phylogenetic systematics. He has been heavily involved in developing electronic resources to present taxonomic and distributional information to the public, with applications to conservation concerns. He has most recently been involved in developing new "spatial phylogenetic" tools for studying biodiversity and endemism using large-scale phylogenies and collection data in a geographic and statistical framework.



Bruce Baldwin is Curator of the Jepson Herbarium, Professor of Integrative Biology, and Convening Editor of the Jepson Flora Project (including *The Jepson Manual*, *The Jepson Desert Manual*, and the Jepson eFlora) at U.C. Berkeley. His research has focused in part on California floristics, plant conservation, and systematics of native angiosperms, especially *Compositae*.



Leigh Johnson is a professor at Brigham Young University in Provo, Utah, with nearly 30 years of field experience with *Polemoniaceae* in California and the western U.S. At BYU, he teaches courses in plant classification and identification, general botany, and species-level systematics. His research interests include species delimitation, phylogeny, phylogeography, comparative morphology, and conservation genetics. He has contributed to the Tree of Life Project, the second edition of the *Jepson Manual: Vascular Plants of California*, and the *Flora of North America* project.



Justen B. Whittall was born in Santa Clara; he grew up running trails in the south County and surfing Santa Cruz beaches. He received a BS from Santa Clara University, an MS from Oregon State and a PhD from UC Santa Barbara in Plant Evolution (focusing on North America columbines). Justen has been an Associate Professor at Santa Clara University in Biology since 2007. He has expanded his research to include flower color evolution in arctic mustards (*Parrya*) and Mediterranean champions (*Silene*), plus conservation genetics and restoration ecology of jewelflowers (*Streptanthus*) and wallflowers (*Erysimum*). Justen is also the Editor-in-chief of *Madroño*, a peer-reviewed quarterly journal from the California Botanical Society.



Kyle Christie is a field botanist, an evolutionary ecologist, and a lover plants that grow on unusual soils. He completed a M.S. at Northern Arizona University studying floristics, and local and regional plant geography. He received a Ph.D. from UC Davis where he explored the evolution and ecology of reproductive isolation in the California Jewelflowers (*Streptanthus*, s.l.). As a post-doc, he is currently studying evolutionary responses to climate change in *Plantago patagonica* using a resurrection approach, growing seeds collected from herbarium specimens together with contemporary descendants from the same populations in a series of common environments simulating past, present, and future climates.



Dr. Shannon Still is Director of Science and Conservation at the UC Davis Arboretum & Public Garden. There he oversees the curatorial program for the campus, including the Arboretum, and he also leads the plant conservation program. Shannon studied the taxonomy and phylogenetics of *Eschscholzia* for his PhD in Plant Sciences at UC Davis, studies how plants may be impacted by climate change, is looking at threats to rare plants in the state, and edaphic endemism. Still also is a member of the CNPS Rare Plant Program Committee and is involved with California Plant Rescue.



Robert Steers got hooked on plants as an undergraduate at Cal Poly, San Luis Obispo. He has worked as a professional botanist and ecologist for various agencies, academic institutions, and consulting firms since 2000. He received a Ph.D. from UC Riverside in 2008 where he worked on nitrogen deposition, invasive plant fire regimes, and post-fire recovery/restoration. Later, as an ecologist for the Bay Area National Parks, he managed the invasive species monitoring program and developed the vegetation monitoring program. As a consultant, he has worked on numerous habitat restoration and monitoring plans throughout California.



Patricia Maloney is a forest and conservation biologist with the University of California – Davis' Tahoe Environmental Research Center (<https://tahoe.ucdavis.edu/forests>)

and the Department of Plant Pathology. My research broadly studies forest health, population dynamics of forest tree species, ecological genetics, and restoration and conservation biology. I am focused on gaining a better understanding of the role and interaction of disturbances (i.e., drought, disease, insects, climate change) and environmental influences (soil, climate, landscape heterogeneity) on eco-evolutionary processes in montane forests of California and Nevada. I am actively involved in the development of conservation, restoration, and climate adaptation strategies for five-needled white pines and other forest tree species.



Dr. Kristina Schierenbeck has been a professional botanist for 35 years and a professor of botany in the CSU system for 26 years. Her research and publications have focused on the role of hybridization in evolution, phylogeography, and the population genetics of both rare and invasive plant species. With her graduate students, she is currently working on the genetic diversity within and among populations of *Darlingtonia californica* and assessing the most economical methods for yellow star thistle control. She has been a proud member of CNPS since 1982 and served on the CNPS

state board in 1987 and 1988.



Jessica Wright received her Ph.D. from Rutgers University where her research focused on selection on floral morphology by a seed-eating moth in a dioecious, short-lived perennial. As a postdoctoral researcher at UC Davis she studied local adaptation to serpentine soils in the California Coast range in a native CA annual plant, *Collinsia sparsiflora*. Today Dr. Wright works as a research geneticist with the USDA Forest Service at the Pacific Southwest Research Station looking at seed transfer in California and how best to use the California Seed Zone map in a changing climate.



Dr. Michele Dudash received her Ph.D. from University of Illinois at Chicago, trained as a postdoctoral fellow at University of Toronto, and was a faculty member at University of Maryland moving through the ranks from Assistant, Associate to Full prior to becoming the Head of the Department of Natural Resource Management in 2015 at South Dakota State University. Dr. Dudash is a population biologist by training, thus her research has focused on both the ecological and genetic factors responsible for a population or species persistence or demise. The major theme of her

research has been on the ecology and evolution of plant reproductive systems in nature. Dr. Dudash's research has also contributed to the development of global conservation and restoration management plans for threatened plant populations.



Dr. Amy Vandergast is a Research Geneticist with the U.S. Geological Survey, Western Ecological Research Center. She completed a PhD in 2002 at UC Berkeley in the Department of Environmental Science, Policy and Management. Her research focuses on understanding the impacts of habitat fragmentation and other disturbance on population genetic structure and diversity for rare and endangered plants and animals to inform conservation and management.



Andrea Kramer is the Director of Restoration Ecology at Chicago Botanic Garden. She holds a B.A. in Biology and Environmental Studies from Macalester College and a Ph.D. in Biology from University of Illinois at Chicago. Her research background is in ecological genetics, with applications to native plant materials development and use in ecological restoration. She also works to understand genetic and environmental controls on critical stages of plant recruitment, with applications to restoration and conservation in a changing climate and works

collaboratively with the botanical and zoological community to build capacity for *ex situ* conservation of threatened exceptional species. In addition to her research, she is active in outreach related to botanical capacity as well as plant conservation and restoration at national and international scales.



Loraine Washburn received her Ph.D. in Biology from UCLA, and has taught at Duke University, Claremont Graduate University, Bates College and Unity College. Her research has included work in population genetics and genomics, conservation biology, reproductive ecology, and physiological ecology. At the California Botanic Garden her population genetics research informed management decisions for both rare and common plant species of California. Her conservation work has focused on applying biology to conservation planning locally and internationally.



Stu Weiss, Ph.D. (Stanford University 1996) is Chief Scientist of Creekside Science, which provides scientific and conservation expertise to diverse organizations as they cope with the rapidly changing 21st Century environment. He studies species ranging from the Bay checkerspot butterfly to bristlecone pines, using a wide range of modeling and statistical methods, and has authored dozens of scientific papers concerning climate change/microclimate, population dynamics, nitrogen deposition, and conservation ecology. Creekside Science executes many hands-on

restoration projects, including butterfly reintroductions, propagation of endangered plants at the Creekside Science Conservation Nursery, and habitat monitoring and management. His research and advocacy were instrumental in the development of the Santa Clara Valley Habitat Plan, and he is Science Advisor for the Bay Area Conservation Lands Network. For more information see www.creeksidescience.com



Pat Reynolds is a restoration ecologist with 30 years of professional experience in habitat restoration. As the General Manager of Hedgerow Farms, he manages the daily operations of Hedgerow Farms' seed, nursery and straw sales. Pat provides detailed recommendations to Hedgerow Farms customers on how to successfully establish native herbaceous vegetation. He utilizes his habitat restoration expertise to ensure Hedgerow Farms' mission of growing and selling high quality native seed and plants of known genetic origin is fulfilled. As a member of the Yolo County

Planning Commission, Pat uses his knowledge of the biological resources in Yolo County to evaluate proposed projects under the purview of the Yolo County General Plan. As a board member of the California Native Grasslands Association (CNGA), Pat helps teach workshops focused on establishing native grasses and forbs. Pat is also a member of the Yolo Habitat Conservancy's Science and Technical Advisory Committee where he provides recommendations on how to restore conservation lands to maximize habitat values.



Daniel Shryock has served as an Ecologist with the U.S. Geological Survey, Western Ecological Research Center since 2011. His research is broadly focused on species and community-level responses to changing environmental conditions in arid ecosystems, including the Mojave Desert in California. Recent projects have included demographic, landscape genetic, and habitat distribution models for various taxa, as well as community-level modeling of plant functional types. His work is interdisciplinary and applied in nature, and often focuses on developing

decision-support tools for land management. Recently, he has worked towards developing seed transfer zones and interactive web applications in partnership with the BLM's Mojave Desert Native Plant Program.



Jim Thorne is a landscape ecologist who specializes in watershed-to-regional assessments. He works as a research scientist at the University of California, Davis. He recently completed an updated vegetation map for Napa County, and served as science editor for California's 4th Climate Vulnerability Assessment.



Peggy Olwell is the Plant Conservation & Restoration Program Lead for the Bureau of Land Management. Peggy built the BLM's nationally recognized Native Seed Program, which promotes the use of native plants in habitat conservation and restoration projects. She was instrumental in developing the Plant Conservation Alliance in 1994, a partnership of federal government agencies and over 390 state and private organizations. In addition, she led the effort on the 2015 National Seed Strategy for Rehabilitation and Restoration. Peggy is Vice Chair of the IUCN SSC

North American Red List Authority. She is also co-author of a recently published book, *Seeds of Restoration Success: Wild Lands and Plant Diversity in the U.S.*, and co-editor of *Restoring Diversity: Strategies for Reintroduction of Endangered Plants*. Peggy has worked on plant conservation and endangered species issues for more than 30 years in positions with National Park

Service, Center for Plant Conservation and US Fish and Wildlife Service. Peggy received her undergraduate degree in Botany from the University of North Carolina at Chapel Hill and her master's degree in Biology from Southern Methodist University.



Holly Forbes is curator of the University of California Botanical Garden at Berkeley, where she has been employed for over 30 years. She oversees collection development, manages plant conservation programs, and facilitates research use of the collection. She is the garden's liaison with the national Center for Plant Conservation (CPC) as well as with government agencies in regard to conservation projects. She was awarded the CPC's 2011 Star Award for her dedication to the preservation of endangered species.



Diana Benner studied Marine Biology with an emphasis in Instrumental Analysis and then focused her graduate studies in the field of Vegetation Ecology. Prior to The Watershed Nursery, she conducted vegetation mapping for the Calfed Integrated Regional Wetland Monitoring project and the San Francisco National Estuarine Research Reserve, assessed success of riparian mitigation projects for the Regional Water Board and ACOE, and assisted the San Francisco Estuary Institute and the Environmental Protection Agency with the development of a rapid assessment method for wetlands.



Naomi Fraga began her work at the Garden in 2001, Dr. Fraga has taken on various roles; currently she serves as Director of Conservation Programs. Fraga earned her Ph.D. in 2015 from Claremont Graduate University and Rancho Santa Ana Botanic Garden. Her research focuses on systematics of the species formerly treated in the genus *Mimulus* (Phrymaceae) and commonly known as monkeyflowers, floristics of California, conservation of rare species, and pollination biology.



Heath Bartosh is co-founder and Senior Botanist of Nomad Ecology, based in Martinez (CCo, SnFrB), and a Research Associate at the University and Jepson Herbaria at UC Berkeley. As Nomad's senior botanist, Heath ensures his staff are properly trained in plant identification and rare plant survey methodologies. After graduating from Humboldt State University, Heath began his career as a professional botanist and since then he has designed and conducted rare plant inventories on nearly 100,000 acres of land in the San Francisco Bay Area. He is currently the chair of the Rare Plant Program Committee at the state level of CNPS. His role on this committee is to ensure these programs continue to develop current, accurate information on the distribution, ecology, and conservation status of CA's rare and endangered plants, and help to promote the use of this information to influence onsite plant conservation in CA.