

UC CALIFORNIA NATURALIST PROGRAM

**Observe nature
Foster partnerships
Plan for change**

CALIFORNIA



NATURALIST

**Pali Mountain Retreat & Conference Center, Running Springs, Calif.
September 9-11, 2016**

2016 Statewide Conference Program

University of California
Agriculture and Natural Resources



About the UC California Naturalist Program

Launched in 2012 through the University of California Cooperative Extension, the California Naturalist Program is designed to introduce the public, teachers, interpreters, docents, green collar workers, natural resource managers, and budding scientists to the wonders of our unique ecology and engage these individuals in the stewardship of California's natural communities.

The California Naturalist Program combines a science curriculum, experiential learning, and service to instill a deep appreciation for the natural environment of the state and to engage people in natural resource conservation. By training partner organizations in the delivery of the California Naturalist program we are building local capacity in stewardship, natural resource management and citizen science.

The California Naturalist Program has trained over 1,700 naturalists who have in turn volunteered over 64,000 hours of service. We are currently partnering with 34 organizations (see map), and many other informal science and natural resource management organizations have expressed interest in participating.

The California Naturalist Program plays an essential role in California's future by fostering a new era of public involvement in environmental science, management, and policy. We strive to include young and culturally diverse people in environmental and workforce educational opportunities by collaborating with institutions serving these communities.





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Welcome from the California Naturalist Program

University of California
Agriculture and Natural Resources

UC California Naturalist Program

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Davis, CA 95618
707.744.1424 x104
canaturalist@ucanr.edu
<http://calnat.ucanr.edu/>

September 1, 2016

On behalf of the California Naturalist conference organizing committee, we are excited to welcome you to the 2nd biennial California Naturalist Statewide Conference. We couldn't be happier to see all of your faces and share in your enthusiasm for nature. We are grateful to all of you for making space in your lives to come to the conference this weekend to learn, share, and connect in this beautiful forest.

We started planning for this conference in the summer of 2015 and the process has been a marvelous collaboration among the entire conference planning committee. Our circle of volunteers and sponsors grew with time and all deserve our thanks. Along with UC ANR's program support unit, we all worked hard on the many important details that make up this special event.

The mission of the California Naturalist Program is to foster a diverse community of naturalists and promote stewardship of California's natural resources through education and service. This is made possible by partnerships between UC Agriculture and Natural Resources and environmental education, research, and stewardship institutions across California. This network allows stewards to share an identity and be part of a larger community, as well as provides new opportunities for life-long learning.

It's a thrill to convene with all of you to celebrate the work you do on behalf of nature and to strengthen the ties that bind us together as a community of naturalists. We hope you will take the opportunity to meet some new people, build connections, and plan future activities that will benefit our efforts at discovery, action, and stewardship on behalf of nature. Let us all value this opportunity to meet in this beautiful montane environment and tell our stories, learn from others, and set future collaborations in motion.

We hope everyone has a wonderful shared experience at the conference fostering lasting relationships and exploring ways we can adapt to change together.

Have a blast,

Adina Merenlender, Conference Planning Committee Chair & Director

Sabrina Drill, Associate Director



Welcome from Southern California Mountains Foundation



September 9, 2016

Welcome to the second bi-annual California Naturalist Conference! On behalf of the Southern California Mountains Foundation, welcome to the San Bernardino National Forest. Part of the newly designated Sand to Snow National Monument, the San Bernardino National Forest has many year-round opportunities connect to the forest. From the hiking, biking, or camping in the summer to skiing, snowboarding, or snowshoeing on the fresh snow covered peaks, there are countless moments to capture. Southern California Mountains Foundation is committed to connecting communities to these lands in efforts to protect these them for future generations.

As a new member to the California Naturalist family, we are excited to have this year's conference in our own backyard! The California Naturalist program has built a community connected to nature. We are very lucky to be joining this community and creating a doorway for others to connect. This Friday will mark the first day of Southern California Mountains Foundation naturalist class, and I cannot wait to see the outcome of this enthusiastic, committed group of people.

As many before us, I hope you are able to breathe deeply the fresh air of this mountain retreat and take some time to reconnect with nature. I hope you fully engage in the many learning opportunities, trainings, and trips offered over the course of this weekend and enjoy our beautiful mountains!

Stacy Gorin

Executive Officer

Southern California Mountains Foundation



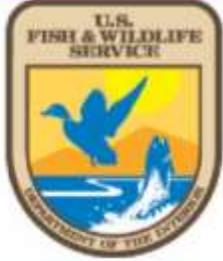
2016 Conference Planning Committee

Name		Affiliation	Role
Janice	Alexander	UCCE Marin	Trainings chair
Edith	Allen	UC Riverside	Field trips
Tyler	Ash	UC ANR Communications Services	Marketing and communications
Carol	Blaney	Riverside Metropolitan Museum CalNat Instructor	Trainings, Scholarships
Brian	Cahill	California State Parks	Scholarships
Chris	Cameron	Camp Ocean Pines CalNat Instructor	Member
Kathy	Ramos	Metropolitan Water District of Southern California	Field trips
Sherry	Cooper	UC ANR Program Support Unit	Operations
Sabrina	Drill	UCCE Los Angeles/Ventura & UC ANR CalNat Associate Director	Field trips chair
MV	Eitzel Solera	Diablo California Naturalist Program CalNat Instructor; UC Santa Cruz	Scholarships
Shayna	Foreman	UC ANR CalNat	Scholarships
Brook	Gamble	UC ANR CalNat	Marketing and communications
Greg	Ira	UC ANR CalNat	Sponsorship chair
Adina	Merenlender	UC ANR CalNat Director	Committee Chair
Megan	Oberdoerster	Southern California Mountains Foundation	Local host
Colin	O'Mara-Green	Mountains Recreation and Conservation Authority CalNat Instructor	Member
Mike	Roa	Educator	Scholarships
Deborah	Stanger Edelman	Mendocino County Resource Conservation District	Poster session chair
Alisa	Varney	California Naturalist, Garden Celebrations	Auction chair
Saundra	Wais	UC ANR Program Support Unit	Operations
Jeannette	Warnert	UC ANR Communications Services	Marketing and communications
Diana	Rohini Lavigne	California Naturalist; San Mateo County	Marketing and communications



Conference Sponsors

We thank the California Naturalist conference sponsors who made it possible for our growing community to convene again. Their generosity allowed us to award over 60 conference scholarships!

MOUNTAIN YELLOW-LEGGED FROG	 
QUINO CHECKERSPOT BUTTERFLY	       
LEMON LILY	   
SCHOLARSHIP	  



California Naturalist Program Partners

AMERICAN RIVER CONSERVANCY



Preserving Rivers and Land for Life

American River Conservancy serves our communities by ensuring healthy ecosystems within the Upper American and Upper Cosumnes River Watersheds through land conservation, stewardship and education. www.arconservancy.org



The American River Natural History Association and the Effie Yeaw Nature Center are dedicated to bringing awareness of the beauty and diversity of the natural world to children, families, and the community through education initiatives that foster appreciation, enjoyment, and stewardship of the unique natural and cultural resources of the Sacramento region. www.arnha.org



CALAVERAS BIG TREES ASSOCIATION

Calaveras Big Trees Association was founded in 1974 as a non-profit to support the interpretive and environmental educational programs at Calaveras Big Trees State Park. Programs enable visitors to understand, appreciate, conserve, enjoy and explore Calaveras Big Trees State Park. <http://bigtrees.org>



Camp Ocean Pines was established in 1946 to serve as a non-profit camp and conference center. The mission of Camp Ocean Pines is to foster enjoyment and appreciation of the natural world among people of all ages through creative activities in a residential camp setting. <http://campoceanpines.org>



COLLEGE OF THE REDWOODS

College of the Redwoods is a community college that delivers excellent academic and career technical education. Located on northern California's picturesque Redwood Coast, CR was established in 1964. www.redwoods.edu



Dominguez Rancho Adobe Museum at the Rancho San Pedro preserves and increases community awareness of early California history through education programs. Rancho Adobe is a California Historical Landmark and on the National Register of Historic Places. <http://dominguezrancho.org>



California Naturalist Program Partners (Continued)



The mission of the **Jepson Herbarium at UC Berkeley** is to understand and conserve the California flora through systematic, floristic, and conservation biology studies and to communicate knowledge of the flora through publications and instructional programs. <http://ucjeps.berkeley.edu/jeps>



Lindsay Wildlife Experience, Save Mount Diablo and Mount Diablo Interpretive Association are partnering to

offer a UC California Naturalist certification course focused on the Mount Diablo region. The Diablo lands stretch from Pittsburg and Antioch all the way to Corral Hollow, southwest of Tracy, and these organizations steward and educate a wide diversity of ecosystems and human communities. <http://lindsaywildlife.org> • www.savemountdiablo.org • www.mdia.org



Mountains Recreation & Conservation Authority

Mountains Recreation & Conservation Authority manages over 70,000 acres of parkland. MRCA's mission is to protect and preserve park and open space lands surrounding Los Angeles as well as urban natural parks and parks along the Los Angeles River and to ensure that parkland is accessible and welcoming to the public. www.lamountains.com



Ojai Valley Land Conservancy is a community-based non-profit organization working with partners to permanently protect the open space, natural scenic beauty, wildlife, habitat and watershed of the Ojai Valley for current and future generations. <https://ovlc.org>



Pacific Grove Museum of Natural History's mission is to inspire discovery, wonder, and stewardship of our natural world. The Museum is a living field guide of the California Central Coast. www.pgmuseum.org



Pasadena Naturalist

Pasadena City College invites California Naturalist certification as part of the biology curriculum. Students discover the dynamic southern California environs, engage in local stewardship challenges and project-based learning, and become active members of a growing base of citizen scientists and volunteers. www.pasadena.edu



California Naturalist Program Partners (Continued)



Preserve Calavera protects, enhances, and restores the natural resources of coastal north San Diego County.

<http://preservecalavera.org>



Santa Rosa Junior College and Pepperwood Preserve jointly offer the California Naturalist Program. While the field component is focused on Pepperwood Preserve, the content applies to the natural history of Sonoma County and surrounds and is a component of the Pepperwood Preserve Steward training program. <http://pepperwoodpreserve.org> and www.santarosa.edu



Point Reyes National Seashore Association is a cooperating association of the National Park Service working in partnership with Point Reyes National Seashore and the public to preserve, restore and maintain wildlife habitat, trails, and historic sites in our beautiful coastal park. Year-round environmental education programs help children and adults deepen their understanding of nature and inspire the next generation of park stewards. www.ptreyes.org



The **Riverside Metropolitan Museum** is a center for learning and a community museum that collects, exhibits, and interprets cultural and natural history. In a rapidly changing community, the museum provides an understanding and appreciation of our region's legacy. www.riversideca.gov/museum



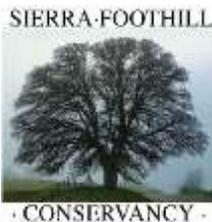
The **Salmon Protection and Watershed Network** is a project of the **Turtle Island Restoration Network**. Turtle Island and its suite of marine restoration programs work to protect endangered marine species, save critical ecosystems, improve consumer choices, encourage government action and inspire corporate responsibility. <https://seaturtles.org/programs/salmon>



California Naturalist Program Partners (Continued)



Santa Barbara Botanic Garden fosters the conservation of California's native plants through gardens, research, and education, and serves as a role model of sustainable practices. The Santa Barbara Botanic Garden envisions a world where society understands the interdependency between people and plants, and acts to preserve the natural world. www.sbbg.org



Sierra Foothill Conservancy honors our natural and cultural heritage by protecting the grasslands, foothills, and forests between Yosemite and Kings Canyon National Parks, ensuring that present and future generations will continue to experience and enjoy the land in this region. www.sierrafoothill.org



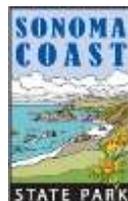
Sierra Streams Institute promotes community stewardship and advances scientific knowledge of watersheds through monitoring, research, restoration and education, for the benefit of the entire Sierra Nevada region and beyond. www.sierrastreams.org



Sonoma Ecology Center addresses challenges related to water supply and quality, open space, rural character, biodiversity, energy, climate change, and quality of life. The mission of Sonoma Ecology Center is to work with our community to enhance and sustain ecological health in Sonoma Valley. www.sonomaecologycenter.org



The Southern California Mountains Foundation promotes responsible use and stewardship of our natural environment by providing interpretive services, family programs, environmental education and youth development through conservation initiatives. <http://mountainsfoundation.org>



Stewards of the Coast and Redwoods promotes education, preservation and restoration of the natural and cultural resources of Russian River area State Parks through interpretation and public stewardship. www.stewardscr.org



California Naturalist Program Partners (Continued)



Tejon Ranch Conservancy is the largest contiguous private property in California. Located at the intersection of four ecological regions and between large tracts of public and private conservation land, the Conservancy is key to sustaining California's biodiversity.

www.tejonconservancy.org



UC Berkeley Sagehen Creek Field Station and the Sagehen Experimental Forest are research and teaching facilities of the University of California at Berkeley, the Berkeley Natural History Museum and the UC Natural Reserve System. <http://sagehen.ucnrs.org>



University of California Cooperative Extension in Plumas and Sierra Counties facilitates the Upper Feather River California Naturalist course. UCCE is part of the University of California's Division of Agriculture and Natural Resources division which serves as a bridge between local issues and the power of UC Research. ANR's advisors, specialists and faculty bring practical, science-based answers to Californians. ANR's advisors statewide are key leaders in guiding and developing the California Naturalist Program in their counties through UC Cooperative Extension and other valuable community partnerships. <http://ucanr.edu>



UC Hopland Research & Extension Center is a UC Agriculture and Natural Resources research and education facility in California's north coast region whose mission is to use science to find better ways to manage natural resources and conduct sustainable agricultural practices, for the benefit of California's citizens. <http://hrec.ucanr.edu>



UC Merced Vernal Pools and Grassland Reserve manages the Reserve ecosystem to protect the rare and endangered organisms and to allow university students and faculty to investigate ecological research questions that have relevance at local, national and global scales. <http://vernalpools.ucmerced.edu>



California Naturalist Program Partners (Continued)



UC Santa Cruz Arboretum is a research and teaching facility committed to plant conservation and serves both the campus and the public. Its rich and diverse collection provides beginning students with a broad survey of the plant kingdom. <http://arboretum.ucsc.edu>



UC Sierra Nevada Research Station, Yosemite, and the **Yosemite Conservancy** partner to offer the California Naturalist Program. In addition to supporting classroom and field studies in Yosemite and the Sierra National Forest, they inspire people to support projects and programs that preserve and protect Yosemite National Park's resources and enrich the visitor experience.

<http://snrs.ucmerced.edu> • www.yosemiteconservancy.org



USC Sea Grant contributes to solving the problems of the Urban Ocean. The **Los Angeles Conservation Corps** operates the SEA Lab, a hands-on science center dedicated to marine conservation and education.

<http://dornsife.usc.edu/uscseagrant> • <http://lacorps.org/programs/sea-lab>



West Valley College Park Management Program maintains excellence and relevance by continuously evolving and listening to industry, local, county, regional, state and federal park and resource agencies to ensure cutting-edge GIS technology and the latest in land management methods, strategies, and processes are provided to students. <http://westvalley.edu>



Dining

Having earned the 2010 Family Choice Award for "Best Conference Center Cuisine," Pali Mountain Retreat's dining is exceptional. The Pali kitchen's mission is to produce delicious food that is inspired by the natural beauty of our location, focusing on responsible sourcing and from-scratch nutrition. A buffet at every meal provides healthy and varied options for all palates. Conference guests will have their choice of two entrees, two side dishes, a salad bar, fruit and a variety of soft drinks, juice, coffee and tea. Vegetarian and special dietary options are accommodated.

Meals will be served in the Huckleberry Hall Dining Room. All meals, including Friday dinner, Saturday breakfast, lunch and dinner, Sunday breakfast, and coffee breaks during your stay are included. Lunch is provided for all Sunday field trip participants.

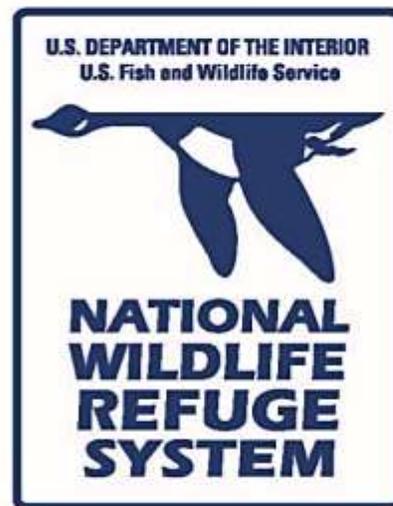
Dining Schedule:

Friday: Dinner 7:30

Saturday: Breakfast 7:30-8:30; Lunch 12:15-1:15; Dinner 6-7

Sunday: Breakfast 7:30-8:30

....working with others to conserve, protect, and enhance fish, wildlife, plants, and their habitats for the continuing benefit of the American people.



Pacific Southwest Region

www.fws.gov/cno



Schedule Overview

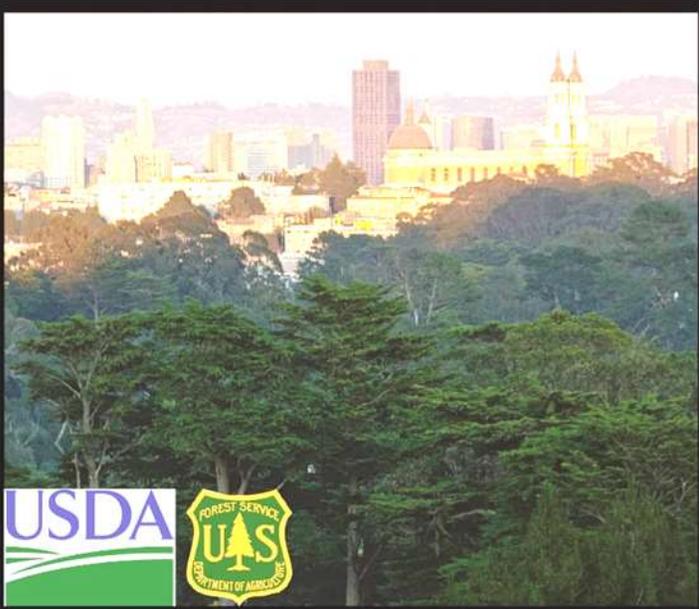
Friday Sept 9	Start Time	Saturday Sept 10			Start Time	Sunday Sept 11	Monday Sept 12	
	7:30	Breakfast - Huckleberry Hall			7:30	Breakfast	Breakfast	
Pre- conference trainings	8:30	Engaging people in nature <i>Huckleberry Hall</i>	Research & citizen science <i>Eagle</i>		8:30	Closing ceremony <i>Acorn Hollow</i>	CalNat instructor meeting	
					9:30			
	10:00	Break			10:00			
	10:15	Environmental engagement: Learn through doing <i>Huckleberry Hall</i>	Global change <i>Eagle</i>		10:15			
	12:15 PM	Lunch - Huckleberry Hall			12:15 PM			Instructor lunch
	1:15	PLENARY: New approaches to conservation <i>Huckleberry Hall</i>			1:15	Field trips		
	2:30	Break			2:30			
	2:45	Biodiversity: Species conservation planning <i>Huckleberry Hall</i>	Art and sense of place: Creating an experience <i>Eagle</i>	Forest health: Drought, bugs, and disease <i>Oak</i>	2:45			
Registration opens & cabins ready	4:15	Coffee break			4:15			
	4:30	PLENARY: Nature Para Todos: Culture and stories for an inclusive nature movement <i>Huckleberry Hall</i>			4:30			
Opening ceremony	5:30	Break			5:30			
	6:00	Dinner - Huckleberry Hall			6:00			
Dinner	7:00				7:00			
	7:30	Poster Session, Book Corner, Silent Auction: drinks and desserts served!						
Campfire & S'mores <i>Acorn Hollow</i>	8:30	<i>Huckleberry Hall</i>			8:30			



Friday Advanced Trainings

Conference events begin Friday, September 9, with the following advanced training opportunities.

- **California's Venomous Animals: Fact & Fiction** (Mike Cardwell, Wildlife Biologist)
- **How to Draw Like a Naturalist** (John Muir Laws, Naturalist Author)
- **iNaturalist 202: Monitoring, Exporting Data, Best Practices for Projects** (Ken-ichi Ueda, iNaturalist)
- **Smartphone GPS and Mapping Skills Development Workshop** (Sean Hogan, UC Agriculture and Natural Resources Division)
- **The Power of Direct Engagement with Nature: Outdoor Science Instruction** (Kevin Beals, Lawrence Hall of Science, UC Berkeley)
- **The California Phenology Project: Tracking the Effects of Climate on the Seasonal Cycle of Wild Plants** (Susan Mazer, UC Santa Barbara)



USDA 

Working to ensure more livable communities by caring for trees and forests where people live, work, and play

USDA Forest Service
Urban and Community Forestry Program
State & Private Forestry
Pacific Southwest Region
707-562-9025 • <http://1.usa.gov/1oOfCh>





Friday Welcome Ceremony

Friday, September 9, 5:30-7:30PM; Huckleberry Hall. Come dressed as your favorite organism!

Call to order (5:30) Sabrina Drill, Associate Director UC California Naturalist

Welcome (5:35) San Manuel Band of Mission Indians

San Manuel Bird Singers San Manuel Band of Mission Indians

Engaging communities in stewardship of the San Bernardino Mountains (6:00) Stacy Gorin, Executive Director Southern California Mountains Foundation

Natural wonders: Sand to Snow National Monument and San Bernardino National Forest (6:15) Marc Stamer, District Ranger, San Bernardino National Forest, Mountaintop District

UC California Naturalist community growth (6:30) Greg Ira, UC California Naturalist

California Naturalist experience: connecting with nature and community (6:45) Mary Ellen Hannibal, Author and Science Communicator

California Naturalist Awards (7:00) Shayna Foreman, Community Education Specialist UC California Naturalist

Telling your story and social media (7:05) Brook Gamble, Community Education Specialist UC California Naturalist

Being a Naturalist: The power of observation (7:10) John Muir Laws, Author

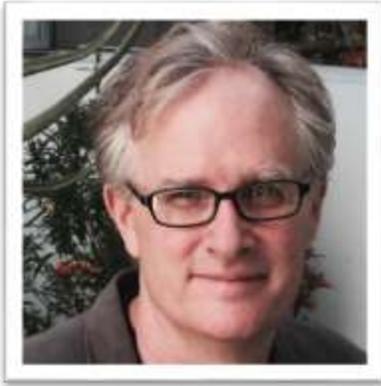
Friday Post-DINNER S'MORES & STORIES AROUND THE Firepit

Friday, September 9, 8:30PM; Acorn Hollow Fire Pit



Saturday Plenary Speakers: New Approaches to Conservation

Saturday, September 10, 1:15-2:30PM; Huckleberry Hall



Jon Christensen is one of the most respected environmental journalists of our day. He is currently on the faculty at UCLA's Institute of the Environment and Sustainability, the Department of History, and the Center for Digital Humanities. He is a regular columnist at LA Observed and editor of Boom: A Journal of California, a quarterly magazine published by the University of California Press that brings scholars, researchers, journalists, writers, artists, photographers, policymakers, advocates, and the public into common conversations about California in the world. And he is a partner and strategic adviser at Stamen Design, an interactive design studio specializing in mapping, data visualization, and strategic communications.

His upcoming book is entitled "Critical Habitat: A History of Thinking with Things in Nature." He is also engaged in a multidisciplinary digital environmental humanities research project on nature in cities as senior fellow at UCLA's cityLAB.



Peter Kareiva is an internationally renowned conservation scientist with over 150 scientific publications and author or editor of eight books. He is the Director of UCLA's Institute of the Environment and Sustainability. His current research concerns the connection between human activities and changes in ecosystem services. This includes the linkage between the sustainability initiatives of global corporations and their impacts on ecosystems, as well as their own corporate performance; the environmental impact and value of aquaculture for food production; and the value of nature for people in urban areas. Kareiva is a Fellow of the American Academy of Arts and Sciences and a member of the National Academy of Sciences.



Saturday Plenary Speakers: Nature Para Todos: Culture & Stories for an Inclusive Nature Movement

Saturday, September 10, 4:30-5:30PM; Huckleberry Hall



José G. González is the founder of Latino Outdoors, a growing community and volunteer-run organization that exists to "connect cultura with the outdoors." This involves building a network of Latino professionals, supporting outdoor leadership capacity-building opportunities for youth, and serving as a storytelling platform for defining the ambicultural identity of Latino communities and the outdoors.

He has broad experience as a K-12 public school teacher, environmental education advisor, outdoor education instructor and coordinator, and university adjunct faculty.



Alina Bokde is the Executive Director of the Los Angeles Neighborhood Land Trust. Alina is responsible for overseeing the development of community green spaces in underserved neighborhoods, as well as working to create park equity through public policy and replicable models to address systemic change. Prior to joining the Los Angeles Neighborhood Land Trust, Alina served as Deputy Executive Officer for the Rivers and Mountains Conservancy where she was responsible for the development of the urban lands program.

Alina serves on the Board of the California Council of Land Trusts, the City of Los Angeles Proposition O Oversight Committee, and the City of South Gate Oversight Board for its redevelopment agency; she formally served on the Board of Communities for a Better Environment, and is past president of the City of Los Angeles Environmental Affairs Commission.



Saturday: Lightning Talks

Saturday, September 10, 8:30-10AM; Session A: Eagle, Session B: Huckleberry Hall

Start time	Research and Citizen Science (Session A)	Talk Title
8:30	Hannah Bird	Living and Ranching with Wildlife
8:38	Walter Roth	Ponderosa Pine Forest Succession and the Prospects for Recovery from the 2015 Lake Fire in the San Bernardino National Forest
8:46	Alan Prichard	Habitat Restoration for Pelagic Seabirds of Santa Barbara Island
8:54	Dona Jenkins	California Naturalist Program Volunteer Portal Training Module
9:02	Adrian Cotter	The Nerds for Nature Complete Park/Complete Nerd Project
9:10	Michelle Gee	The Power of Newsletters: A Look at How Newsletters can keep your Cal Nat Alumni Active and Involved Post-Program
9:18	Frederique Lavoipierre	Citizen Science Club: Establishing A Community Hub
9:26	Mary Ellen Hannibal	New Book Citizen Scientist: Searching for Heroes and Hope in an Age of Extinction
9:40-10	Questions & Discussion	
Start time	Engaging People in Nature (Session B)	Talk Title
8:30	David Johnstone	Let's Create a Nature Trail
8:38	Diana RohiniLaVigne	Game Changing Free PR Tool: Generating Media Buzz for Your Message
8:46	Susan Sanford	ABT: And, But, Therefore - Simple Structure for Stories that Work
8:54	Judy Willens	Channel Islands Naturalist Corps
9:02	Joan Barger	What (Not) to Do, Where to Go, What to See: A Practical Approach to Information Design in the Field and on the Trail
9:10	Russell DiFiori	"Zarte Empirie": Using Goethe's Method to Explore Nature
9:18	Caroline Korn	How An Ecological Tragedy Inspired Our Learning Garden
9:26	Gary Serbeniuk	The Making of the Dominguez Rancho Adobe Gardens Self-Guided Tour Pamphlet
9:34	Heather Galles	Collaboration in the Expanded Field: An Online Forum Feasibility Study for Local & Statewide California Naturalist Programs
9:40-10	Questions & Discussion	



Saturday: Morning Speaker Session
Saturday, September 10, 10:15AM-12:15PM

Environmental Engagement: Learn Through Doing Huckleberry Hall

Heidi Ballard: How citizen science can foster science and environmental learning
Kevin Beals: Environmental engagement: learn through doing
Lila Higgins: Engaging Angelenos in citizen science
Paakuma' Tawinat: Serrano history and culture

Global Change Eagle

Peter Alagona: Bear essential: should Californians bring back their long lost grizzlies?
Travis Longcore: Envisioning nature in the city
Lee Hannah: Climate impacts on species in California
Michael Allen: Conservation lands for carbon sequestration

THERE ARE TIMES WHEN DISAPPEARING
INTO THE WILDERNESS IS THE PERFECT
WAY TO FIND YOURSELF.



Save The Redwoods

L E A G U E®

SaveTheRedwoods.org



Saturday: Afternoon Speaker Session
Saturday, September 10, 2:45-4:15PM

Biodiversity: Species Conservation Planning
Huckleberry Hall

Tom Scott: Natural history drives habitat conservation planning in California
Sophie Parker: City distinctiveness elements for urban biodiversity conservation
Cameron Barrows: Conserving species as their ranges shift due to climate change

Art and Sense of Place: Creating an Experience
Eagle

Faerthen Felix: Art at field research stations
Elkpen: Seeing the underseen or pigeons bustops & wonderment
Charles Convis: Seeing the landscape

Forest Health: Disease, Bugs, and Other Stressors
Oak

Stacy Hishinuma: Bark Beetles and Climate Change
Jennifer Riddell: Using Lichens to Monitor Air Quality in the South Coast Air Basin
Susan Frankel: Forest tree diseases: A view from behind a microscope and up in a plane

The Nature
Conservancy



Protecting nature. Preserving life.®



Invited Speaker Biographies

Peter Alagona is an Associate Professor in History, Geography and Environmental Studies at UC Santa Barbara. He is an environmental historian and historian of science with additional interests and training in geography, conservation biology, and science and technology studies.

Michael Allen is a Distinguished Professor in the College of Natural and Agricultural Sciences, UC Riverside. He does research in ecosystem-level dynamics with a special emphasis on impacts of disturbance and global change. He also directs the Center for Conservation Biology which focuses on working between policy makers, the public, and the research community on California and global conservation issues.

Heidi Ballard is an Associate Professor in School of Education, UC Davis. She collaborates with teachers and out-of-school educators to study what and how people learn and may benefit from participating in community and citizen science (CCS) programs. She also works with conservation scientists and community organizations to study and improve the ways they design and implement CCS programs.

Cameron Barrows is an Associate Researcher at UC Riverside whose work has focused on conservation planning and the effects of climate change on biodiversity. One of the tools I use is to engage citizen scientists to collect the basic data needed to project if and how species will respond to a warming world.

Kevin Beals is co-founder and director of the BEETLES (Better Environmental Education, Teaching, Learning, & Expertise Sharing) project, has 7 years of experience as a field instructor, and since '88 has worked at Lawrence Hall of Science in teaching, curriculum design and professional development. He has authored/designed more than 110 published classroom curriculum guides, curriculum sequences, children's books, science comics, afterschool units, professional development videos and science music albums.

Charles Convis founded the Society for Conservation GIS and works for ESRI where he manages grants to conservation groups of all types worldwide as part of the Esri Conservation Program. He conducts research in ecological standards and basemaps and effective ways to make natural science mapping available and interesting to the public.

Elkpen is a Los Angeles based artist who uses temporary installations and signs in public space to engage the community with seeing the under-seen, nature in an urban context. Elkpen studied art and anthropology in Canada and has been combining her interest in conservation, community and the graphic arts since 2002 when she created illustrations for the Tiger Mountain Exhibit for the Wildlife Conservation Society and the Bronx Zoo in New York.

Faerthen Felix has managed and lived on site at Sagehen Creek Field Station since 2001 where she works to make the station function as a bridge between field science and the community.

Susan Frankel has responded to California tree health problems for over 25 years as a plant pathologist for the USDA Forest Service. Currently Frankel is working on pest problems in native plant nurseries and restoration areas; invasive species including sudden oak death and plant pathogens and climate change.



Invited speaker biographies (Continued)

Lee Hannah is Senior Fellow in Climate Change Biology at Conservation International's (CI) Center for Applied Biodiversity Science. Tracking with his interest in the role of climate change in conservation planning and methods of corridor design, he heads CI's efforts to develop conservation responses to climate change. He also works collaboratively with the Bren School and UC Santa Barbara to model climate impacts on species in California.

Lila Higgins is a museum educator and science communicator with 14 years of experience in environmental education, exhibit development, and citizen science programming. In late 2008 she joined the Natural History Museum of Los Angeles where she currently oversees the Museum's Citizen Science program and was the lead educator on the Museum's Nature Gardens and Nature Lab exhibits.

Stacy Hishinuma is finishing her PhD from UC Davis working on tree pests. More specifically, her research focused on systems with bark beetles and fungal pathogens. She also was a USDA Pathways Intern with the Region 5 field office of the USDA Forest Service, San Bernardino.

Travis Longcore is an Assistant Professor of Architecture, Spatial Sciences, and Biological Sciences at the University of Southern California. He is a core faculty member in the Landscape Architecture graduate program and the undergraduate BS in GeoDesign. He is a Faculty Affiliate of the GIS Research Laboratory and the Wrigley Institute for Environmental Studies and serves as Science Director of The Urban Wildlands Group, a Los Angeles-based conservation nonprofit. Dr. Longcore's research is focused on nature in cities.

Sophie Parker is a Senior Scientist in the Los Angeles office of The Nature Conservancy, where she has provided scientific leadership and support on Conservancy projects in southern California since 2008. She leads the science team for the Conservancy's California Deserts Renewable Energy Initiative, providing science review and leadership for restoration projects along the Santa Clara River and at Ormond Beach in Ventura County, and forging new planning methods for urban conservation in Greater Los Angeles.

Jennifer Riddell did her graduate research in the San Bernardino Mountains, investigating the effects of urban air pollutants on the forest ecosystems in the mountains surrounding the Los Angeles Air Basin. She followed this work with a science policy stint in Washington, DC working on developing policy for greening the federal government's \$600 billion annual purchases. She now teaches biology and construction at Mendocino College and is a CA Naturalist course instructor.

Tom Scott works for UC Cooperative Extension, focused on the persistence of plant and animal species in southern California. He grew up in San Diego in the 1950s, when it was an Eden of natural landscapes. He remains a student of California's higher provincialism, committed to maintaining the state's unique aggregation of natural wonders.

Paakuma' Tawinat is a San Manuel Band of Mission Indians tribal member and cultural presenter who teaches Serrano language, culture, and history.



Saturday Poster Reception

Saturday, September 10, 7-9PM, Huckleberry Hall

Beverages and desserts served. Please tear out your drink ticket on the last page of your program!

The Saturday night reception provides a forum for poster authors and attendees to discuss their projects and programs at length. California Naturalists, partners, and other relevant organizations will present posters on topics and activities related to California's natural history, conservation, citizen science and stewardship, or California Naturalist Program activities specifically. Desserts and beverages are provided at the Poster Reception for all participants. Full abstracts, co-authors, topical areas, and where approved by authors, PDFs of posters will be available on-line after the conference.

Poster title, primary author (last, first), organization

Riparian California - A Project of the California Academy of Sciences. **Ted Barone**, California Academy of Sciences.

Documenting History through Plein Air Paintings: San Clemente Dam/Chinese Dam Removal and Carmel River Reroute Project. **Paola Berthoin**.

Citizen Science: Phenology. Lessons learned from the initiation of a new program. **Hannah Bird**, Hopland Research and Extension Center.

Resilient Silicon Valley: Mountain View, CA Native Oak Inventory. **Alejandro Brambila**.

The Cal Nat Program at Camp Ocean Pines. **Chris Cameron**, Camp Ocean Pines.

Most Small Vertebrates at Effie Yeaw Nature Center are Unaffected by Regional Drought. **Michael Cardwell**, Effie Yeaw Nature Center.

LA Coastal California Naturalist in Action. **Linda Chilton**, USC Sea Grant Program.





Poster title, primary author, organization (Continued)

Monitoring Nest Boxes in the East Bay Regional Park District for Cornell NestWatch. **Kathleen Susie Claxton**.

Redwoods the Icon of Action: Fighting Climate Change on Tree at a Time. **Catie Clune**, Turtle Island Restoration Network.

Urban Ravens of San Francisco. **Adrian Cotter**.

Downstream: Our Year of Learning in the Santa Ana Watershed. **Summer Davidson**, Dehesa Charter School.

Wakamatsu Community Farm: Connections to the Land. **Elena DeLacy**, American River Conservancy.

Naturalist Training: The General Education Model Delivered Hybrid and Project Based. **Russell DiFiori**, Pasadena City College.

Invasive Shot Hole Borers - A Serious Threat to California's Riparian Woodlands. **Sabrina Drill**, University of California Cooperative Extension.

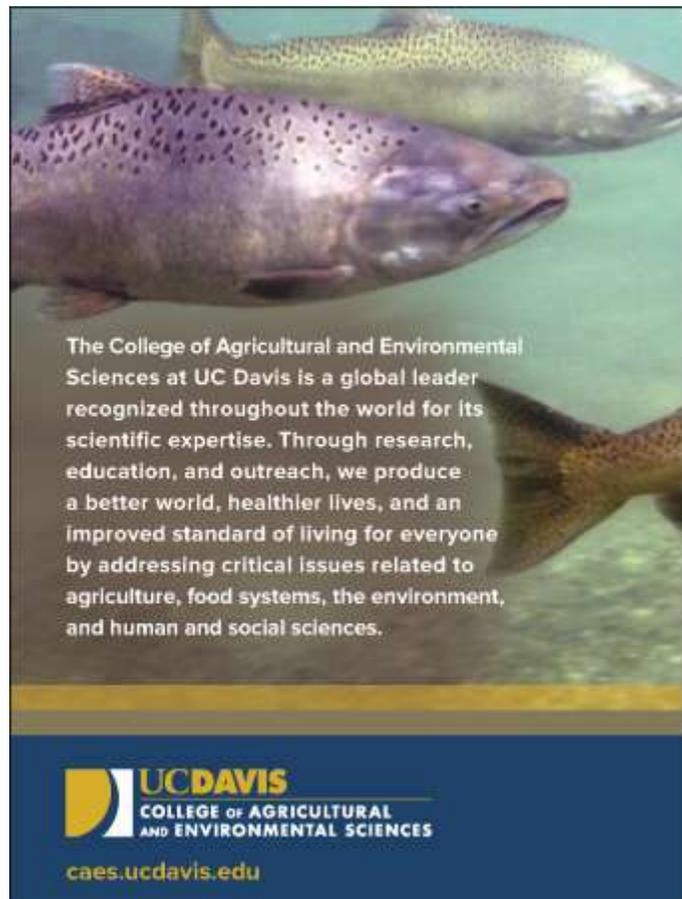
Diablo California Naturalist Program. **M.V. Eitzel**, Lindsay Wildlife Experience, Save Mount Diablo and Mount Diablo Interpretive Association.

Ecology and Areal Extent of *Lewisia leeana*, quill-leaf lewisia, in Eastern Fresno County. **Bill Finch**.

Pepperwood's TeenNat, Diverse Youth Contributing to Conservation Science. **Sandi Funke**, Pepperwood Foundation.

Collaboration in the Expanded Field: An Online Forum Feasibility Study for Local & Statewide California Naturalist Programs. **Heather Galles**.

The Power of Newsletters: A Look at How Newsletters can keep your Cal Nat Alumni Active and Involved Post-Program. **Michelle Gee**, Santa Barbara Botanic Garden.





Poster title, primary author, organization (Continued)

Sugar Pine Interpretive Trail Brochure. **Elaine Gorman**.

Comparison of oak phenology between a drought year (WY 2014–2015) and an El Niño year (WY 2015–2016) at Pepperwood Preserve, Sonoma County, CA. **Wendy Herniman**, Pepperwood Preserve.

California Naturalist Program Volunteer Portal Training Module. **Dona Jenkins**.

Citizen Science Program: Participation Opportunities for California Naturalists. **Frederique Lavoipierre**, Santa Barbara Botanic Garden.

Unauthorized Trails in the Crafton Hills Open Space Conservancy. **Rebecca Levers**.

Applications of Web Mapping and Data Technology for CA Naturalists. **Andy Lyons**, IGIS/ANR.

Interpretation of Natural and Cultural Resources through the Park Management Program. **Heidi McFarland**, West Valley College Park Management Program.

Citizen Activists. **Margaret Meyncke**, Sierra Club / Santa Margarita Group.

Southern California Mountains Foundation Naturalist Program. **Megan Oberdoerster**, Southern California Mountains Foundation.

Living with Wildlife While Managing Working Landscapes. **Dr. Kimberly Rodrigues**, UC Hopland Research and Extension Center

Connecting with Plant Science: Sierra Streams Institute's Phenology Citizen Science Project. **Kelly Santos**, Sierra Streams Institute.

Dominguez Rancho Adobe Gardens: Self-Guided Tour. **Gary Serbeniuk**.

Using the Wildlife Picture Index to Measure Ecosystem Health and Connectivity. **Susan E. Townsend**, Dwight Center for Conservation Science at Pepperwood Preserve

Summer Learning Program: Exploring and Observing Nature with Underserved Kids! **Ingrid van Dijk**, California State Parks.





Saturday Natural History Book Corner

Saturday, September 10, 7-9PM, Huckleberry Hall

To highlight conference partner and California Naturalist authors, the Natural History Book Corner will occur in conjunction with the Saturday Poster Reception and Silent Auction. Authors will be present to sell, display, and sign books for conference participants. Representatives with both UC ANR Press, Heyday, and Acorn Naturalists will also sell books at the Natural History Book Corner.

Participating Book Corner Authors

Paola Berthoin: *Passion for Place: Community Reflections on the Carmel River Watershed*

Mary Ellen Hannibal: *Citizen Scientist: Searching for Heroes and Hope in an Age of Extinction*

Katherine Joye: *Day Hikes Along the Highway 108 Corridor*

Beverly Treadwell: *Native Edibles - A Food Plant Guide for Southern California Lawns and Gardens*

Saturday Silent Auction

Wildlife prints, journals, jewelry, signed books, and more... These are just a few of the items that have already been generously donated for the silent auction scholarship fund. Items will be displayed Saturday evening at the Poster Reception. Proceeds will help build a scholarship fund to provide opportunities for new California Naturalists. Please drop off items for the auction near the registration table before Saturday at noon and thank you for your generous donation. Bring some extra fun money for the auction and you'll be sure to walk away with a unique gift or memento of your trip!

Closing Ceremony

Sunday, September 11, 8:30-9:30AM, Acorn Hollow Fire Pit

Please have your cabin packed up before you attend the closing ceremony! **We'll have a secure area** available for luggage storage for those without a personal vehicle.

About your New Journal

We worked with Brandes Printing in Berkeley (<http://www.brandesprinting.com>) to produce a beautiful nature journal for you to enjoy during and after the conference. The paper is 100% recycled, 110lb acid-free, archival quality. We wish you many enjoyable hours observing and sharing nature with others!

Stay in Touch!

The conference hash tag is #CalNat2016. **We'll have fun sharing** stories and pictures over the conference! The rest of the time we are #CalNat. Follow us on Facebook, Twitter, and Instagram and **we'll follow you back!** The more the merrier- **we'd love to hear what you're up to!** Or feel free to share pictures and thoughts via e-mail: canaturalist@ucanr.edu.



Field Trips

Conference events wrap up on Sunday, September 11 with fantastic field trips! We're excited to share this full spread of field trips in the beautiful San Bernardino National Forest and surrounds! Forest elevations range from a few thousand feet to 11,501 feet at Mount San Gorgonio, the highest peak in Southern California. This large elevation range creates highly diverse habitats in which plants and animals thrive. Indeed the San Bernardino National Forest is one of the most diverse in the country when it comes to plant and animal diversity. This is truly a naturalist's wonderland and we can't wait to share it with you!

Exclusive Tour of the Tejon Ranch Conservancy (Overnight Pre-Trip, Thursday-Friday)

Location: Tejon Ranch Conservancy, 1037 Bear Trap Road, Lebec, CA 93243

Date/Time: Noon, Thursday 9/8 – Noon, Friday 9/9 (Participants will not be back in time to take other afternoon advanced trainings but will have plenty of time to register and join the opening ceremony at Pali Mountain); Transportation: On your own.

This is the first overnight field trip to Tejon Ranch ever! At 270,000 acres, Tejon Ranch is home to almost 25% of the critical feeding habitat for California condor in California, the southernmost population of pronghorn in California, and dozens of rare and endangered plants. In 2008, the landowner, Tejon Ranch Company, signed an agreement to place up to 90% (240,000 acres) of the property under conservation easement managed by the nonprofit and California Naturalist Program partners Tejon Ranch Conservancy. Since its inception, the Conservancy has worked to understand, manage, and provide public opportunities on this extraordinary property. In addition to Tejon Ranch's size, its geographic location at the nexus of the San Joaquin Valley, Southern Sierra, Mojave Desert, and Southwestern California make it an extremely diverse and dynamic landscape for natural history study.

SUNDAY FIELD TRIPS

Unless otherwise noted, trips will leave Pali Mountain at 9:30 am and include a box lunch. Some trips will return to Pali, while others will require participants to drive to an appointed site in the San Bernardino area to park and board a van or bus, to save time at the end of the day.

From Mountain to City: Tour of the Santa Ana Watershed

Location: Near Running Springs, Forest Service building on HWY 330 along City Creek 34°11'6.30"N, 117°10'52.08"W; End time: 3:00 pm; Transportation: Vans depart from East Valley Water District.

The Santa Ana River Watershed is a habitat for a diversity of unique and rare species. It is also an important source of local water supply for the region and provides recreational opportunities for activities such as hiking, fishing, and wildlife viewing. In this field trip, participants will learn about how planning of water supply infrastructure projects has been a catalyst for habitat restoration efforts and large-scale conservation efforts for native and special-status species, though Section 10 of the Endangered Species Act. The focus will be on current plans to reintroduce the federally protected fish, Santa Ana sucker, into mountain streams in the upper watershed. During the tour, participants will view a potential re-introduction site at City Creek before heading through the mountains to visit the Seven Oaks Dam and other potential re-introduction locations.



UC Riverside Botanic Gardens

Location: UCR Botanic Gardens, Riverside; End time: 1:00 pm or stay later on your own; Field Trip Leader: Botanic Gardens docent; Transportation: On your own

The UCR Botanic Gardens cover 40 acres nestled in the foothills of the Box Springs Mountains on the east side of the University of California, Riverside Campus. The Gardens are a living museum with more than 3500 plant species from California and around the world, especially representing deserts and Mediterranean climate regions. A docent will guide you through the Southwest desert garden, Australian and South African gardens, Sierra foothills garden, butterfly garden, herb garden, native California vegetation and others. The Garden also has over four miles of scenic trails.

Unique Plant Communities and Geology of Bear Valley

Location: Big Bear Lake, San Bernardino National Forest; End Time: 1:00 pm. Field Trip Leader: Scott Eliason, Botanist, US Forest Service; Transportation: Vans depart from Pali Mountain Retreat and Conference Center.

Big Bear Lake Bear Valley lies within the San Bernardino National Forest about 15 miles from Pali Mountain Conference Center and is a beautiful jewel with a lake surrounded by mixed coniferous forest. It also hosts mountain meadow, carbonate, and pebble plain plant communities each supporting many endemic plant species. Field trip leader Scott Eliason has been responsible for management of these natural areas and will lead a tour focused on the rare plants and the challenges of protecting them. He will also discuss the unique geology of the region that hosts these plants as well as the riparian vegetation around the lake and forests in the surrounding mountains.

The National Children's Forest

Location: 32573 Highway 18, Running Springs, CA 92382. (10 minutes from Pali Conference Center); End Time: 1:00 pm; Transportation: Vans depart from Pali Mountain Retreat and Conference Center.

The Children's Forest was created in the wake of the 1970 Bear Fire, with a mission of providing the opportunity for children to take a leadership role in forest management by giving them a legitimate voice in caring for our local mountains. Children's Forest is a place where children learn how to become stewards of the land through education and opportunities. The area was replanted with trees bearing the names of children. In 1993, the first trail was established by a work group of children from around the country, including having children develop the interpretive signage. Field trip participants will walk this ¾ mile alpine trail with gorgeous views into the San Bernardino National Forest, and may walk up to the nearby fire lookout. They will hear from some of the folks involved in the creation of this unique site as well as educators and youth who work there now, and visit the nearby nature center. We will then travel to the nearby Heap's Peak Arboretum to learn about alpine plants, and about their education programs, including walking the 1 mile all-access Sequoia Trail. The trip is perfect for those who want to learn more about youth education in the area, and take easy walks in the forest.



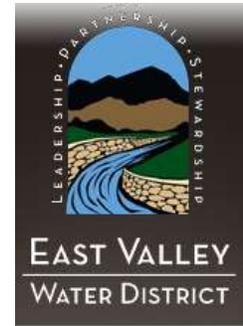
Transitional Plant Communities at Oak Glen Preserve and the Montane Botanic Garden

Location: Southern California Montane Botanic Garden (39611 Oak Glen Road, Oak Glen, CA 92399)

Tour leader: Tim Krantz, University of Redlands and The Wildland Conservancy; End Time: 1:30 pm;

Transportation: Vans depart from East Valley Water District.

This trip will explore the Southern California Montane Botanical Garden and the Oak Glen Preserve. Starting with the Botanical Garden, participants will have the chance to experience the largest native plant garden in Southern California comprising more than 200 acres of transition plant communities of chaparral, mixed conifer forest, oak and riparian woodlands, two perennial streams, ponds and wetlands. We will tour ‘Hummingbird Hill’ featuring a collection of Penstemons, sages, currants, and other nectar-bearing native (to the So Cal mountains) wildflowers, attracting five different hummingbird species and butterflies. In addition, we will see "Falling Waters" which features several cascades and ponds, with collections of native buckwheats, manzanitas, grasses/sedges/rushes and aquatics. Participants will also view parts of the nearby Oak Glen Preserve, which covers more than 2,000 acres of terrain from about 4500-8,500 feet in elevation. The entire tour is a 2.5 mile easy to moderate walk with level ground and one short uphill section with steps. This tour ends with a great BBQ lunch (provided).



A River in the High Desert – Tour of Whitewater Preserve

Location: 9160 Whitewater Canyon Road, Whitewater, CA 92282 – at the end of Whitewater Canyon Road northwest of Palm Springs; Tour leader: Caroline Conway, The Wildlands Conservancy; Date/Time: depart East Valley Water District in vans at 9:30 am, arrive Whitewater Preserve by 11:00 am. End at Whitewater by 2:00 pm, return to parking area by 3:30 pm; Transportation: Vans depart from East Valley Water District.

Whitewater Preserve is over 2800 rugged acres of high desert, surrounded by the Bureau of Land Management’s San Geronio Wilderness. It includes the year-round Whitewater River which supports rich riparian habitat, home to the endangered Southwest willow flycatcher and Bell’s vireo, and provides opportunity to see migrating summer tanagers and vermilion flycatchers. The canyon has a robust population of bighorn sheep, deer and bear, and is an important wildlife corridor between the San Bernardino and San Jacinto Mountains. Recently, the Windy Point area at the confluence of the Whitewater and San Geronio Rivers was added to the reserve, including sand dunes that are home to the endangered fringe-toed lizard. Field trip participants will hike on an easy trail for about an hour, crossing the river and then heading to the junction with the Pacific Crest Trail. They’ll hear from Wilderness Conservancy experts about watershed and wildlife management on the preserve, as well as how recreation and education support the conservation mission. Toward the end of the trip, participants will have the chance to view the visitor’s center in the historic building that used to house a trout farm.



Notes

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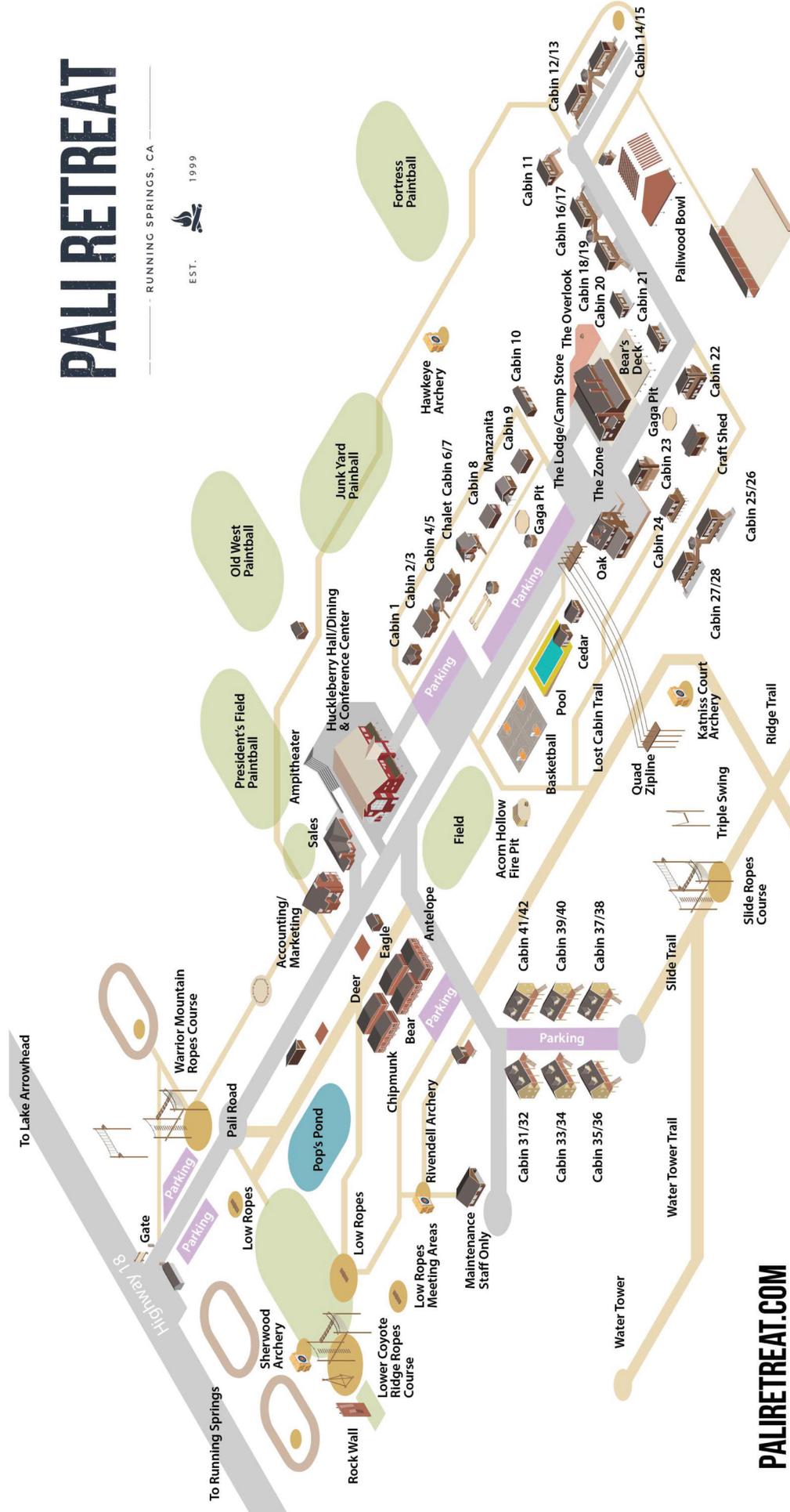


PALI RETREAT

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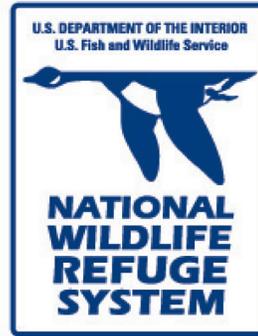
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