

California Naturalist Course at Calaveras Big Trees State Park

June 2017

Course Syllabus and Information

Sponsors: Calaveras Big Trees Association, Calaveras Big Trees State Park, University of California Agriculture and Natural Resources

Lead Instructors/Course Facilitators

Wendy Harrison wandw1@comcast.net

Wendy is a retired CA State Park Interpreter and Environmental Educator. She worked at Calaveras Big Trees State Park for 30 years, as well as for local County Offices of Education.

Dexter Hardcastle, Ph.D greenhornd@comcast.net

Dexter is a retired Clinical Psychologist, Docent at Calaveras Big Trees State Park, Calaveras Big Trees Association Board Member, and certified California Naturalist.

Course Content Instructors

Wayne Harrison wandw2@comcast.net

Wayne is a retired California State Parks Senior Environmental Scientist.

Joe Harvey joe.harvey@parks.ca.gov

Joe is an Environmental Scientist at Calaveras Big Trees State Park who works on forest restoration projects in the park.

Susie Kocher sdkocher@ucanr.edu

Susie is a Natural Resources Advisor with UC Cooperative Extension in the Central Sierra (El Dorado, Amador, Tuolumne and Calaveras Counties) and a registered Professional Forester.

Fadzayi E. Mashiri, Ph.D fmashiri@ucanr.edu

Fadzayi (Fadzie) is a County Director and Livestock and Natural Resources Advisor with UC Cooperative Extension in Mariposa and Merced counties.

Tapan Pathak, Ph.D tpathak@ucanr.edu

Tapan is a Climate Change Adaptation Specialist at UC Merced, Sierra Nevada Research Institute.

Christy Sherr christysherr@johnmuirproject.org

Christy is a retired CA State Park Ranger and an educator with the John Muir Project.

Lynn Sullivan lsullivan3@ucmerced.edu

Lynn is a hydrologist who has conducted surface-groundwater interactions in the Sierra. She is also a lecturer at UC Merced.

Paul Ustach Ph.D pustach@deltacollege.edu

Paul is a professor of Biology at San Joaquin Delta College.

Fred Velasquez velasquez@volcano.net

Fred is an educator that specializes in teaching about Native American culture.

Glenn White GWhite@tcsos.us

Glenn is the project director for STEM-Tracks, Tuolumne County Superintendent of Schools Office and adjunct faculty member at Columbia College.

Keep going... there's more below!

CA Naturalist Summer 2017 Schedule
Calaveras Big Trees State Park

Thursday June 1 5:30 PM – 8:30 PM

Introductions, California Naturalist Course overview and details
Class requirements: Capstone Project, Field Journal, iNaturalist, Volunteer Management System, Citizen Science Project, reading and assignments, attendance
Discuss chapters 1, 2, and 3

Friday June 2 8:00 AM – 4:00 PM

Stations: iNaturalist and Field Journals: Wendy and Dexter
Soils and Geology Lecture: Glen White
Review Water Cycle: Wendy
Hydrology Lecture: Lynn Sullivan
Geology/Hydrology Field Trip to N. Fork Stanislaus River

Thursday June 8 5:30 PM – 8:30 PM

Discuss Chapters 5, 6, 7 and 8
Discuss Capstone projects – Students should have identified a project of interest
Interpretation and Communication Lecture/Activity: Wendy and Dexter

Friday June 9 8:00 AM – 4:00 PM

Wildlife Lecture and Field Trip: Paul Ustach
Climate change in the Sierra Nevada: Tapan Pathak
Fire Ecology, fire/land management – lecture and walk: Wayne Harrison

Thursday June 15 5:30 PM – 8:30 PM

Discuss Chapter 4
Current restoration work at Big Trees/prepare for Citizen Science Project:
Joe Harvey
Mixed intensity fire impacts in SN forests/Sequoia groves: Christy Sherr

Friday June 16 8:00 AM to 4:00 PM

Citizen Science Group Project in North Grove
Range Management: Fadzayi E. Mashiri
Forestry and Tree Mortality Across the Sierra Nevada: Susie Kocher

Thursday June 22 5:30 PM – 8:30 PM

The First Naturalists: Fred Velasquez
Capstone Presentations

Friday June 23 8:00 AM to 4:00 PM

Capstone Presentations and Potluck lunch

Course Description:

The California Naturalist Program was developed by the University of California Cooperative Extension to improve environmental literacy and to foster a committed corps of volunteer naturalists and citizen scientists trained and ready to take an active role in natural resource conservation, education, and restoration.

Our goals are to provide training for adult environmental stewards through an adaptable outdoor and in-class curriculum that can be easily applied in a variety of settings, and engage adults in interactive learning that provides them with scientific literacy and critical thinking skills, a science curriculum, hands-on learning, communication training, and community service.

The California Naturalist course will introduce you to the wonders of our local ecology and engage you in the stewardship of California's natural communities. The course will combine a science curriculum with guest presenters, field trips and project-based learning to immerse you in the natural world of the central Sierra Nevada and Calaveras Big Trees State Park.

By the end of this course, participants will be able to:

Understand what it means to be a naturalist

Understand the abiotic, biotic and cultural factors that make California, mixed conifer, and sequoia natural history and ecology unique

Demonstrate skills in making and recording natural history observations in a field notebook and on iNaturalist.org

Demonstrate skills in communicating and interpreting natural resource information

Apply knowledge of Central Sierra ecosystems to local and global environmental issues.

Course Components and Guiding Philosophy

The UCANR/ Calaveras Big Trees State Park California Naturalist Course is an integrated program with classroom lecture and discussion intertwined with field experiences.

Course & Readings

The course will be held on Thursday evenings and Friday days, over a period of four weeks. The course will be hosted at Calaveras Big Trees State Park, unless otherwise noted. In preparation for lectures, all assigned readings from the California Naturalist Handbook should be completed before each course session where they appear on the syllabus. Each session will be a mix of lecture, discussion, eating and outdoor exploration. Dress appropriately for the weather—you never know when the instructor may send everyone outside!

Field Trips

Field trips will be integrated into the Friday sessions. We will meet at Calaveras Big Trees State Park, unless otherwise noted. Participants may not bring guests, animals or children to any course meeting or field trip. Field trip instructions will be provided the week prior to the scheduled trip.

Field Notebooks

All participants are required to keep a field notebook during the course. Field notebooks may be checked by the instructor periodically during the course or at the end. We will be using these notebooks during

course, on field trips and hopefully on your own time. Keeping a field notebook is one of the best ways to foster continued learning and get to know a place intimately.

iNaturalist

Each participant will be responsible for registering for an iNaturalist account (<http://www.inaturalist.org/>) and adding at least 3 observations. We will introduce the iNaturalist web tool during the first week of the course.

Capstone Project

Participants are required to complete an 8-hour volunteer service project in one of four areas: Stewardship, Education/Interpretation, Citizen Science and Program Support. The Capstone project provides an opportunity for participants to integrate the in-course material with an applied work project that is done in conjunction with a natural resource agency or organization. Participants are encouraged to work in teams when appropriate. Participants will share their individual or group project the last evening or on graduation day. Presentations will be 5 minutes long per person (15 minutes for a 3 person group). A capstone project proposal form will be provided along with a list of approved project ideas park staff. Participants who would like to propose a Capstone project that is not on the list may do so with approval of the instructor.

Attendance

Due to the condensed schedule of the course, participants must attend all course sessions. If a session is missed, the participant must complete make-up activities on their own time at the direction of the instructor. Please talk with the Lead Instructor if you must miss a course session.

Homework

Reading and homework questions are assigned for each course meeting, based on the topics to be covered that day. Check the schedule for the reading assignments. Participants are expected to read the chapters and answer questions assigned for that day before the course meeting times, so that the material is more relevant as it is presented. There may be short quizzes or group exercises to reinforce the material in course.

Volunteer Management System (VMS):

Participants will be provided an on-line account to track their volunteer hours, including hours spent on their Capstone project. Tracking volunteer hours is an essential way to prove the need for and impact of a program like the California Naturalist Program.

Other Information

Participants may opt to pay an additional \$80 to receive four UC Davis Extension undergraduate academic credits upon course completion and certification. More information will be provided.

Thursday session begin at 5:30 PM and end at 8:30 PM. Friday sessions begin at 8:00 AM and end at 4:00 PM. We will start promptly at those times, as we are required to cover a lot of material. Please plan extra travel time to get to the park as there is often road work, traffic, and a line at the entrance that may add extra time.

It is advisable to pack a small backpack for each class with: lunch, water, snacks, insect repellent, sunscreen, field notebook, writing tool, binoculars, hand lens, and any personal items you may need. Always dress in layers and wear comfortable walking/hiking shoes. The weather can vary wildly at park during early summer, so always check the weather before coming to class and bring appropriate clothing.

Required Items:

The California Naturalist Handbook by Greg de Nevers, Deborah Stanger Edelman and Adina Merenlender (available at Epilog Books, or online)

An e-mail account

A field notebook for nature observations and drawings, pencil(s)

Digital device for iNaturalist observations (iphone, ipad, etc)

Suggested, but not required:

hand lens (10x), binoculars

Recommended supplemental reading (many of these are in our library):

Management of Giant Sequoias at Calaveras Big Trees State Park, Wayne Harrison: 1986

Field Guides

An Island called California, Bakker, E., University of California Press: 1984

A Natural History of California, Schoenherr, A.A., University of California Press: 1992

Environmental Interpretation, Ham, North American Press: 1992.

Interpretation, Making a Difference on Purpose, Ham, Fulcrum Publishing: 2016

Introduction to California Plant Life (California Natural History Guides, 69), Ornduff et al., UC Press: 2003

Trees and Shrubs of California (Calif. Natural History Guides 62), Stuart, Sawyer, UC Press: 2001

California Insects, Powell and Hogue, University of California Press: 1980

Mammals of California (California Natural History Guides, 66), Jameson and Peters, UC Press: 2004

The Sibley Field Guide to Birds of Western North America, Sibley, D.A., Knopf Publishing: 2003

Ecological Perspectives:

The Song of the Dodo: Island Biogeography in an Age of Extinction, Quammen, D., Scribner: 1997

The Big Burn: Teddy Roosevelt and the Fire that Saved America, Egan, T., Mariner Books: 2009

Fire in America: A Cultural History of Wildland and Rural Fire, Stephen Pyne 1997

Tending the Wild: Native American Knowledge and the Management of California's Natural Resources, Anderson, M.K., University of California Press: 2005

In Full View: Three Ways of Seeing California Plants: Keator, G., Yamane, L., Lewis, A. Heyday Books & Headlands Cenger for the Arts: 2001

The Climate Fix, Pielke, R. Basic Books: 2011

