



CALIFORNIA NATURALIST  
DISCOVERY • ACTION • STEWARDSHIP



# Inland Empire California Naturalist (w/ PLT) Syllabus

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## Instructors

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**Course Start & End**  
Start Wed. June 6, 2018  
End Wed. July 25, 2018

**Class Location**  
RCRCD  
4500 Glenwood Dr. Bldg. F.  
Riverside 92501

**Class Schedule**  
Wednesdays 6-9pm.  
Saturday Field Trips:  
9am-3pm  
June 16 & 30  
July 14

## Course Overview

The UC California Naturalist Program seeks 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. The UC 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 lecturers, field trips and project-based learning to immerse you in the natural world of inland Southern California and the Santa Ana River Watershed.

**Special Project Learning Tree Options.** Participants to this course can opt-in to receive the PLT EDUCATOR certificate and activity guide by simply choosing to complete a PLT focused capstone project (a template is provided for those choosing this route) and participating in an additional 2-hour workshop. An additional option of pursuing PLT FACILITATOR training and status may also be available if the participant joins a local PLT workshop as a co-facilitator.

## Registration and Fees

The course fee will be \$375. This does not include the required textbook. Space is limited and a small number of partial scholarships are available. To reserve your space in the course or be placed on an interest list for scholarships, please contact one of the instructors please contact one of instructors listed above.\

## Course Requirements

1. **Contact Time:** Each California Naturalist course consists of a minimum of 40 educational hours (classroom hours and field time).

**CalNat Website**

[http://calnat.ucanr.edu/Take\\_a\\_class/Inland\\_Empire/](http://calnat.ucanr.edu/Take_a_class/Inland_Empire/)

2. **Required Reading:** Read the entire book “The California Naturalist Handbook,” read the relevant bioregional or topical publication as part of the UCANR 8000 online publication series, and complete assigned homework.
3. **Field Trips:** Participants must attend all three field trips. If field trip is missed, the participant will be expected to complete make-up activities on their own time at the direction of the instructor.
4. **Capstone Project:** Participants are required to complete a 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-class material with an applied work project that is done in conjunction with a natural resource agency or organization. Participants should expect to spend about 8 hours each on their projects during the course. Participants are encouraged to work in teams when appropriate. You will deliver an individual or group presentation on the projects on graduation day. Presentations will be 5 minutes long per person (so 15 minutes for a 3 person group).
5. **Using a Field Notebook and Journal:** All participants are required to keep a field notebook during the course. Create a field notebook with entries from all field days and preferably more. Field notebooks may be checked by the instructor periodically during the class or at the end.
6. **iNaturalist Observation:** Over the course of the California Naturalist class, each participant will be responsible for registering for an iNaturalist account (<http://www.inaturalist.org/>) and adding at least 3 observations to our class iNaturalist project, <https://www.inaturalist.org/projects/inland-empire-uc-california-naturalist-project>
7. **Class Citizen Science Project:** Each participant must contribute to the class citizen science project. The class project for this course will be contributing to the *Santa Ana Watershed Community Science Networks* iNaturalist project. Participants will be required to make observations during each class and field trip. This project will engage participants in observing and comparing different habitats and ecosystems throughout the Santa Ana Watershed while contributing to the Networks iNaturalist project.
8. **Attendance:** In order to get the most out of the course and preserve the cohesiveness of our learning community, participants are required to attend all class sessions and field days (one absence is permitted with make-up work).
9. **Evaluation:** Complete the post-course evaluation survey.
10. **Volunteer and Volunteer Portal (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 need and impact of a program like the California Naturalist Program. Participants are strongly encouraged and hopefully committed to volunteering at least 40 hours a year in environmental stewardship, education, program support, or citizen science and recording all hours of service in the Volunteer Portal.

11. **PLT Educator Integration.** This course includes all the requirements for the participant to use Project Learning Tree when the participant chooses the PLT Capstone Template Option.
12. **PLT Facilitator Training Option.** In addition to becoming a PLT educator (as outlined above), course participants may also choose to become a PLT facilitator by participating as a co-facilitator in the delivery of a PLT workshop within

### Required Text

- The California Naturalist Handbook, *Greg de Nevers, Deborah Stranger Edelman, Adina Merenlender.* (must be purchased by the participants)
- Pre K-8 Environmental Education Activity Guide, *Project Learning Tree* (The guide will be provided to participants for free during course).

### Course Materials

The following course materials are **required** and should be brought to each class.

- ***The California Naturalist Handbook* by Greg de Nevers, Barbara Stanger Edelman & Adina Merenlender (2013) \*\*\***
- **Field Notebook & Journal**
- **Pencil(s)**

These materials are strongly **recommended** but not required.

- **Hand lens (10x)**
- **Binoculars**
- **Access to internet connected computer or smart phone**

In addition, please make sure that you have a working email account for class communications, access to California Naturalist Volunteer Portal, and iNaturalist.

**\*\*\* A 30% discount is available from [ucpress.com](http://ucpress.com) on the purchase of *The California Naturalist Handbook*. Use the code: 15M4426**

### Resources

Additional resources, that participants might find useful during the course, can be found online at the California Naturalist website. <http://calnat.ucanr.edu/Resources/>

**Class Schedule**

<b>Week (Date)</b>	<b>Subject (Readings and Activities)</b>	<b>Speaker (Title &amp; Affiliation)</b>
Wednesday June 6, 2018	<b>Chapter 1 Introduction</b> California Naturalist Program California Bioregions <b>Homework-Chapter 8</b>	Erin Snyder , RCRC Erika Presley, RCRC Arlee Montalvo, RCRC
Wednesday June 13, 2018	<b>Chapter 8</b> Journaling/Field Notebooks Interpretation Citizen Science <b>Homework-Chapter 2 &amp; 3</b>	Erika Presley, RCRC Erin Snyder, RCRC Tania Marien, Art Plantae
Wednesday June 20, 2018	<b>Chapter 2 &amp; 3</b> Geology, Soils and Climate Water and Watersheds (PLT Activity 23) <b>Homework-Chapter 4</b>	Peter Fahnestock, NRCS Heather Dyer, San Bernardino Valley Municipal Water District
Wednesday June 27, 2018	<b>Chapter 4</b> Botany 101 California Plant Communities Plants and People (PLT Activity 12) <b>Homework-Chapter 6</b>	Chris McDonald, UCR Extension
<b>July 4<sup>th</sup>, 2018</b>	<b>NO CLASS! HOLIDAY!</b>	
July 11, 2018	<b>Chapter 6</b> Native Animals <b>Homework-Chapter 5</b>	Brian Shomo, RCA Kerwin Russell, RCRC
Wednesday July 18, 2018	<b>Chapter 5</b> Forest, Woodland and Range PLT Activity 81 & 77 <b>Homework-Chapter 3</b>	Dustin McLain, Riverside County Parks Bonni Corcoran, US Forest Service- Pacific Southwest Research Station
July 25, 2018	<b>Chapter 3</b> Sustainability, Energy & Global Environmental Issues (Ch. 7) Our Choices and Impacts <b>Homework-Complete Capstone Projects</b>	Justin Scott-Coe, RPU Jane Block Olivia Sanchez, City of Riverside UCR Office of Sustainability

<b>Week (Date)</b>	<b>Subject (Readings and Activities)</b>	<b>Speaker (Title &amp; Affiliation)</b>
<b>Saturday</b> July 28, 2018	<b>Course Wrap-Up</b> Capstone Projects and Graduation Course Evaluations	Erika Presley, RCRC Erin Snyder, RCRC

### Field Trip Schedule

<b>Week (date)</b>	<b>Topic/Activities</b>	<b>Location</b>	<b>Speaker (title, affiliation)</b>
June 16	<ul style="list-style-type: none"> <li>Birding</li> <li>Animal Tracking</li> <li>iNaturalist</li> <li>Citizen Science Class Project Intro</li> <li>PLT Activity 48</li> </ul>	<b>Upper SAR Watershed</b> -San Jacinto Wildlife Area -Western Science Center -Idyllwild Nature Center	Bob Packard, MSHCP or San Bernardino Audubon Society  Margie Valdez, RivCo Parks
June 30	<ul style="list-style-type: none"> <li>Water and Watersheds</li> <li>Native Wildlife</li> <li>Citizen Science Class Project</li> <li>PLT Activity 45</li> </ul>	<b>Middle SAR Watershed</b> -Martha McLean Anza Narrows -Hidden Valley Nature Center -Prado Dam	Megan Brousseau, Inland Empire Water Keepers SAWPA? Samantha Dempster, RivCO Parks.
July 14	<ul style="list-style-type: none"> <li>Urban watersheds</li> <li>California Coast</li> <li>Citizen Science Class Project</li> </ul>	<b>Lower Santa Ana River Watershed</b> Muth Interpretive Center Bolsa Chica Interpretive Center Huntington Beach (mouth of watershed)	Molly Stallcup, OC County Parks
July 21	Optional: PLT Mini-Workshop	RCRC Land Use Learning Center	PLT Facilitator

**Homework Policy**

Homework will be assigned, quizzes may be given and work checked by instructors.

**Cancellation Policy**

Registrants may cancel up to two weeks before the first day of instruction for a full refund, minus a \$50 administrative fee. Registrants that can successfully refer another student to replace their spot in the course prior to the first day of class will receive a full refund. Registrants that experience a verifiable medical emergency personally, or in their family, between the two weeks of class before and after instruction has begun may re-enroll in the following year's course at a 50% discounted rate, with priority for early registration. No other cancellations, for any other reason, will result in a refund.

**Course Credit**

Upon completing certification requirements, participants are eligible for four academic credits through UC Davis Extension for an additional nominal fee.

**Project Learning Tree Educator & Facilitator Options**

**PLT EDUCATOR (teacher) Workshop Requirements.** Participants to this course have the option of completing the requirements to become a Project Learning Tree educator. Instead of the traditional 6 hour PLT workshop, the participants will be exposed to 5 PLT activities that have been integrated into the course, complete a special PLT capstone project that emphasizes individual planning on how they will use PLT after the course, and finally, they will participate in a mini-PLT workshop (in person or online) during the gap week where they will cover the following: Welcome and Overview; A brief history of PLT and acknowledgment of national and state sponsors; Hike through the PLT Guide; PLT Conceptual Framework; PLT Resources and Other Resources; Discussion of how the PLT activities meet standards (national, state, local, and/or school); Evaluation, Feedback, and Certificates; Discussion of ongoing or follow-up support. For a complete agenda for the mini workshop, see Appendix 1.

**PLT activities integrated into the CalNat course.** Five of the following activities (or others identified by the course instructor) will be integrated into the CalNat course.

<b>PLT Activity</b>	<b>CalNat Topic/Chapter</b>
Activity #12: Invasive Species	Plants
Activity #23: The Fallen Log	Geology, Soils, and Climate
Activity #45: Web of Life	iNaturalist
Activity #48: Field Forest and Stream	Watersheds
Activity #77: Trees in Trouble	Forests, Woodland and Range
Activity #81: Living with Fire	Forests, Woodland and Range

**PLT FACILITATOR (trainer) Requirements.** In addition, those interested in becoming a PLT Facilitator will have the added option to co-facilitate a PLT workshop within 3 months of completing their CalNat course and attend a PLT training.

**PLT EDUCATOR focused Capstone Template**

**Title of Capstone Project: Planning efforts to deliver a PLT workshop**

**Names of Participants Working on Project:**

- 1) Name
- 2) Name
- 3) Name

**Description:**

This capstone project proposal focuses on the completion of the Project Learning Tree educator requirements. In addition to completing five PLT activities in class, the participant will also attend a mini- PLT workshop during the course gap week, and present an individual plan for implementing PLT after completing the course.

**Volunteer Service Category:**

Environmental Education (PLT)

**How does the project utilize naturalist skills?**

The project builds on the naturalist knowledge and skills gained during the course and through may additional capstone project training and planning activities. Special emphasis is placed on directing the new knowledge and skills to a formal/non-formal education setting using activities from the PLT activity guide.

**Who is the audience?**

The audience for the project is . . .

**How will the audiences benefit?**

The audience will benefit from . . .

**Presentation plan:**

The Capstone presentation will focus on the plans for delivering PLT activities to . . .

**Project Assumptions**

- 1. PLT activities are relevant to the audience being served.

**Procedure**

- Actively participate in the PLT activities during the CalNat class
- Participate in the optional Gap Week PLT mini-workshop
- Complete my 8 hour capstone project with a focus on learning, planning and practicing the activities for in preparation of delivering a PLT workshop

**How participation as a PLT educator be sustained.**



**PLT FACILITATOR focused Capstone Template**

**Title of Capstone Project: Planning efforts to deliver a PL**

**Names of Participants Working on Project:**

- 4) Name
- 5) Name
- 6) Name

**Description:**

This capstone project proposal focuses on the completion of the Project Learning Tree educator requirements. In addition to completing five PLT activities in class, the participant will also attend a mini- PLT workshop during the course gap week, and present an individual plan for implementing PLT after completing the course.

**Volunteer Service Category:**

Environmental Education (PLT)

**How does the project utilize naturalist skills?**

The project builds on the naturalist knowledge and skills gained during the course and through may additional capstone project training and planning activities. Special emphasis is placed on directing the new knowledge and skills to a formal/non-formal education setting using activities from the PLT activity guide.

**Who is the audience?**

The audience for the project is . . .

**How will the audiences benefit?**

The audience will benefit from . . .

**Presentation plan:**

The Capstone presentation will focus on the plans for delivering PLT activities to . . .

**Project Assumptions**

- 2. PLT activities are relevant to the audience being served.

**Procedure**

- Actively participate in the PLT activities during the CalNat class
- Participate in the optional Gap Week PLT mini-workshop
- Complete my 8 hour capstone project with a focus on learning, planning and practicing the activities for in preparation of delivering a PLT workshop
- Co-Facilitate a PLT workshop

**How participation as a PLT educator be sustained.**

Registration as a PLT Facilitator/Trainer and commitment to continue to offer a course annually.

Appendix 1: Agenda for Gap Week PLT Mini-Workshop



Mini K-8 Teacher Workshop for CalNat Participants

Sponsored by [insert CalNat partner organization]

July 21
8:45-11am



- 8:45 A.M. Breakfast & sign-in
9:00 A.M. Welcome & getting acquainted
• The Closer You Look (#61)
9:15 A.M. Overview & goal-setting (AWARENESS)
9:30 AM. Presentation: History and Mission of PLT (KNOWLEDGE)
9:50 A.M. "Hike through the Guide" curriculum guide orientation (CHALLENGE)
• Hike the Guide
• Themes
• PLT Storylines
• Activity Unpack
10:10 A.M. Capstone Projects: Planning your first workshop (ACTION)
11:00 P.M. Concluding activity:
• Web of Life (#45)

Leading a Group Activity Using the Experiential/Learning Cycle

Learning is a cyclical process that builds on the learner's previous experiences and knowledge. Consider modeling this cycle (as depicted below) when leading a Project Learning Tree activity:

Experiencing. The learning process usually starts with experiencing: the learner becomes engaged by doing, observing, or saying something. Start the activity by involving participants, rather than "telling" what will happen.

Processing. The processing phase involves learners in thinking about and sharing what happened. Use questions to help participants process their experiences: What was \_\_\_ like for you? What did you feel when \_\_\_ happened? What do you think the consequences of \_\_\_ were?

Generalizing. In this phase learners explore what they learned from the experience and abstract generalizations from it. Ask participants question such as: What did you learn from this activity and what would your students learn? What was the most difficult part? What would you do differently another time?

Applying. This phase helps the learner confer personal meaning into the generalization. In your workshop, ask questions such as: How will you use this with your students? What will you do with the information gained in this workshop?