



# California Naturalist Training 2018

## Syllabus



### Course Description

The Coastal Naturalist Training will introduce you to wonders of our local ecology and engage you in stewardship of California's natural communities. The course will combine a junior college level introductory science course curriculum with classroom and field experiences, guest lecturers, and project based learning to immerse you in the natural world of the Humboldt Bay region and coastal dune ecosystem. Guest lecturers and field instructors include professors, geologists, botanists, biologists, long-time naturalists and other local experts.

### UC California Naturalist Program Goals

- Foster a committed corps of volunteer naturalist and citizen scientists trained and ready to take an active role in natural resource conservation, education, and restoration.
- Provide training in collaboration with local partnering institutions for adult environmental stewards through an adaptable outdoor and in class curriculum that can be easily applied in a variety of settings.
- Engage adults in interactive learning that provides them with scientific literacy and critical thinking skills (science curriculum, hands-on learning, communication training, community service)

### Participant Learning Outcomes

*By the end of this course, participants will:*

- Understand what it means to be a naturalist.
- Have increased knowledge of the natural history of the Humboldt Bay region.
- Have integrated knowledge of the interconnectedness of abiotic, biotic and cultural factors and their influence on the natural history of the Humboldt Bay region and coastal ecosystems.
- Demonstrate skills in making and recording natural history observations in a field notebook and on iNaturalist.
- Demonstrate skills in communicating and interpreting natural science information.
- Be able to apply knowledge of the Humboldt Bay region and coastal ecosystems to local and global environmental issues.
- Be prepared to become active volunteers with Friends of the Dunes or other local environmental or educational organizations. Naturalists might lead guided walks, participate in restoration projects, assist with school education programs, participate in community outreach at tabling events, help plan special events and fundraisers, provide visitor services at local nature centers, and more.

### Course Requirements

In order to receive a California Naturalist certificate, participants are expected to attend all scheduled classroom and field sessions. If a session is missed, it can be made up by attending any special topic walk, workshop, lecture, or service learning opportunity and writing up a brief description for the course instructor. These make-up sessions can be, but do not need to be through Friends of the Dunes. Any educational program focused on local coastal natural history will qualify. Please check with instructor first to confirm the make-up session will be acceptable.

### Required Course Materials

- *The California Naturalist Handbook* by Greg Nevers, Deborah Stanger Edelman & Adina Merenlender
- *Coastal Naturalist Manual* published by Friends of the Dunes (available at a discounted price at Humboldt Coastal Nature Center)
- Field notebook for nature observations (optional: colored pencils)
- An email account



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### Recommended Supplemental Reading

\*Local Authors

#### Field Guides

- *All That The Rain Promised and More: A Hip Pocket Guide to Western Mushrooms*, David Arora, Top Speed Press, 1991
- *California Insects*, Jerry A. Powell and Charles L. Hogue, University of California Press, 1980
- *Common Bees of California*, Gretchen LeBuhn & Noel Badges Pugh, University of California Press, 2013
- \**Common Birds of Northwest California, Humboldt, Del Norte, and Trinity Counties*, Kenneth M. Burton & Leslie Scopes Anderson, Redwood Region Audubon Society, 2016
- \**Conifer Country: A natural history and hiking guide to 35 conifers of the Klamath Mountain region*, Michael Edward Kauffmann, Backcountry Press, 2012
- \**Conifers of the Pacific Slope: A field guide to the conifers of California, Oregon, and Washington*, Michael Edward Kauffmann, Backcountry Press, 2013
- *Grasses of California*, James P. Smith Jr. & Kathy Simpson, University of California Press, 2014
- *Introduction to California Plant Life*, Robert Ornduff et al., University of California Press, 2003
- \**Insects of the Pacific Northwest*, Peter Haggard & Judy Haggard, Timber Press Field Guide, 2006
- *Macrolichens of the Pacific Northwest*, Bruce McCune and Linda Geiser, OSU Press, 2009
- *Mammals of California*, E. W. Jameson and Hans J. Peeters, University of California Press, 2004
- *Mushrooms Demystified*, David Arora, Ten Speed Press, 1986
- *Plant Identification Terminology: An Illustrated Glossary*, James G. Harris and Melinda Woolf Harris, Spring Lake Publishing, 1997
- *The Sibley Field Guide to Birds of Western North America*, David Allen Sibley, D.A., Knopf Publishing, 2003
- \**Trees and Shrubs of California*, John D. Stuart & John O. Sawyer, University of California Press, 2001

#### Ecological Perspectives

- *A Natural History of California*, Allan A. Schoenherr, University of California Press, 1992
- *An Island called California*, Elna Bakker, University of California Press, 1985
- *A Sand County Almanac*, Aldo Leopold, Oxford University Press, 1968
- *Ecosystems of California*, Harold Mooney & Erika Zavaleta (editors), University of California Press, 2016
- *Gathering Moss: A Natural and Cultural History of Mosses*, Robin Wall Kimmerer, Oregon State University Press, 2003
- *In Full View: Three Ways of Seeing California Plants*, Glenn Keator & Linda Yamane, Heyday Books, 2001
- \**Northwest California: A Natural History*, John O. Sawyer, University of California Press, 2006
- *Tending the Wild: Native American Knowledge and the Management of California's Natural Resources*, M. Kat Anderson., University of California Press, 2005
- *The Big Burn: Teddy Roosevelt and the Fire that Saved America*, Egan, T., Mariner Books: 2009
- \**The Earth Moved: On the Remarkable Achievements of Earthworms*, Amy Stewart, Algonquin Books, 2005
- *The Klamath Knot: Explorations of Myth and Evolution*, David Rains Wallace, Sierra Club Books, 1984
- *The Song of the Dodo: Island Biogeography in an Age of Extinction*, David Quammen, Scribner, 1997



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### Program Cost

The program fee is \$375, or \$350 for Friends of the Dunes members, Samoa Peninsula residents & students.

Additional Fees: \$30 kayak rental for an optional Mad River Slough paddle on October 21. You are welcome to bring your own kayak or canoe.

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 in class.

### Field Sessions

**Field notebooks-** All participants are required to keep a field notebook during the course. The instructor may check field notebooks periodically during the class. Participants will be using their notebooks during class on field trips and on their own time. Keeping a field notebook is one of the best ways of fostering continued learning and getting to know a place intimately.

Participants must be able to walk in soft sand, up steep dunes, and along uneven trails. Please bring a lunch, drinking water, sunscreen/hat, comfortable walking shoes, layers, and note taking materials. Field sessions are rain or shine, only extreme weather conditions will cause a field session to be canceled. If any sessions are canceled, we will do our best to reschedule. Participants may not bring guests, children or pets on any field sessions.

### Time and Location

The course will be held on Thursday evenings and Sundays for six weeks beginning on September 6, 2018 and ending with Graduation on October 25, 2018. The course will not meet the week of October 8-14. Thursday evening lecture sessions will take place from 6:00-8:30 p.m. at the Humboldt Coastal Nature Center, 220 Stamps Lane in Manila. Sunday field sessions will generally be held from 8:30 a.m. to 1:30 p.m. at various coastal sites. A full schedule with specific details will be provided at least 1 week before the course begins. Please let the course instructor know in advance if you will be missing a class or field session.

### Homework

Reading is assigned for each class meeting (check syllabus), based on the topic to be covered that week. Participants are expected to read the assigned reading prior to coming to class. Other homework assignments include field notebook entries, registration with volunteer management system (VMS), downloading the iNaturalist app and working on Capstone projects.

### iNaturalist

Throughout the Coastal Naturalist Training, participants are expected to record at least 2 observations on iNaturalist. Mobile phone apps are available for free on both Android phones and iPhones. Observations can also be uploaded to iNaturalist.org. Having a smartphone is not required for this course, participants without a smartphone or can share with others who do have one.

### Capstone Project

Participants are required to complete a project in one of four areas: Stewardship, Education/Interpretation, Citizen Science, or Program Support. The Capstone provides an opportunity for participants to integrate the course content with an applied work project that is done in conjunction with a natural resource agency or organization. Capstone projects should be completed in a relatively short time (not to exceed 8 hours). Participants are encouraged to work in teams when appropriate. On graduation day, all participants will present their capstone projects. Presentations will be 5-7 minutes in length. The course instructor will provide a Capstone Project proposal form, project ideas and feedback as necessary.



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### **Volunteering**

Participants are expected to take part in **at least 10 hours of volunteer service** with Friends of the Dunes or other local group. Volunteer hours should be completed before graduation day (October 25), hours can be incorporated into capstone project with instructor approval. Please note that although we are only requiring 10 volunteer hours for this course, the California Naturalist program recommends at least 40 hours of volunteering and offers incentives to reach this goal, including a 14k gold lapel pin. Examples of volunteer service include, but are not limited to: restoration or trail maintenance, coastal clean-ups, visitor services in the Nature Center, leading field trips for school groups, and leading or assisting with guided walks, workshops and lectures. Examples of other organizations that offer coastal education programs and volunteer opportunities include: Friends of the Arcata Marsh, Humboldt Baykeeper, California Native Plant Society, Northcoast Regional Land Trust, Trinidad Coastal Land Trust, Sequoia Park Zoo, Redwood Region Audubon Society, PacOut Green Team, Humboldt Fish Action Council, Humboldt Surfrider, Northcoast Environmental Center, Trail Stewards, California State Parks, HSU Natural History Museum, and HSU Natural Resources Club.

### **Volunteer Management System (VMS)**

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

### **Graduation Day**

Graduation day will be a potluck with Capstone Presentations on Thursday, October 25 from 5:30-8:30 p.m. at the Humboldt Coastal Nature Center. Participants are encouraged to invite friends and family to celebrate.

### **Zero-Waste/Leave No Trace**

This is, as best we can manage, a zero waste class. Participants may wish to take turns bringing snacks to evening class meetings. Please bring reusable cups, plates, silverware and cloth napkins to avoid single use items or excessive packaging. When packing lunches, snacks, and water for field sessions, participants are encouraged to avoid single-use packaging. Any waste created during lunch breaks must be packed out and disposed of properly.

### **Meet your instructor**

Jennifer Ortega, Humboldt State University, has a variety of environmental education experience beginning as a middle school science teacher to education ranger for Redwood National & State Parks to coordinator of education programs at Humboldt State University's Natural History Museum. Currently, Jen is a faculty member at Humboldt State University teaching Environmental Education and Interpretation. She is a Master Certified Environmental Educator and Project Learning Tree, WET and WILD facilitator. Her favorite place to be is in the outdoors with family and friends.

### **Contact information**

Jennifer Ortega (Course Instructor)

[jen@friendsofthedunes.org](mailto:jen@friendsofthedunes.org)

**“Office Hours”:** On Tuesdays & Thursdays Jen will be available to answer emails for this course. In person meetings will need to be arranged in advance.

Suzie Fortner (FOD Program Director)

[suzie@friendsofthedunes.org](mailto:suzie@friendsofthedunes.org)

(707) 444-1397

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