

# Natural Sciences

“Earth and sky, woods  
and fields, lakes and  
rivers, the  
mountain and the  
sea...teach some of us  
more than we can  
ever learn from  
books.”

John Lubbock

For certificate programs and contact information, see this page.

## Department Contacts:

**Jon W. Kindschy**

**Director**

**(951) 827-5804**

**sciences@ucx.ucr.edu**

To Enroll: See page 92.

**Certificates in:**

**Desert Ecology**

**Field Ecology**

**Specialized Study in Field Botany,  
Field Geology, and Field Ornithology**

Contact: Linda Coco

(951) 827-5804

sciences@ucx.ucr.edu

## Field/Desert Ecology

### Wildlife of the San Jacinto Mountains: The Upper Plateau

Natural history and identification of the common arthropods, amphibians, reptiles, birds and mammals of the San Jacinto Mountains. Animal adaptations to the cold climatic conditions of the mountain environment.

*Vertebrate course for Certificate in Field Ecology*

**James W. Cornett**, M.S., Ecological Consultant, Palm Springs. One of Southern California's best known naturalists, Cornett is the author of 22 books, numerous scientific and popular articles, and a weekly newspaper column.

**Credit:** 2 units

**Date/Time:** Fri. 5-8 p.m., Sat. 8 a.m.-5 p.m. & Sun. 8 a.m.-4 p.m., Jun. 19, 20 & 21 (3 meetings)

**Location:** PALM DESERT: UCR Palm Desert, 75-080 Frank Sinatra Dr.

**Fee:** \$219 / \$199 each for couples and family members \$185 each with PINE discount (includes parking)

**Biology X425.21**

**Reg #084-SCF-F46**

“I came away from my Field Nature Study course with insight, enthusiasm, and a feeling of accomplishment simply by following my instructor's lead and absorbing his instruction and experience. Kurt Leuschner is a fabulous teacher and field trip guide. Every detail becomes an element of a holistic educational experience.”

Shawn Bronzli

Rising Star  
Shawn Bronzli



## Field Nature Study

### Certificate and Specialized Study Programs

You may earn a UC Riverside Extension diploma by completing a prescribed combination of courses. See the course descriptions in this section to determine applicability. The basic completion requirements for the:

**Certificate in Field Ecology or Certificate in Desert Ecology are...**

...completion of 21 quarter units within these study tracks:

- Ecology and Natural History (7 units)
- Vertebrates (3 units)
- Invertebrates (2 units)
- Botany (3 units)
- Physical Sciences (3 units)
- Electives (3 units)

Specialized Study Program diplomas are available in Botany, Ornithology and Geology. Each requires 12 quarter units of applicable elective courses.

Details and full program requirements are available on our Web site.



## Improving Nature Education

### PINE (Partners in Nature Education)

UC Riverside Extension recognizes and applauds the following PINE organizations for their activities in providing and improving nature education throughout the Inland Empire:

- Anza-Borrego Desert National History Association
- Desert Institute of the Joshua Tree National Park Association
- Hidden Valley Wildlife Area
- Idyllwild Nature Center
- Natural Science Collaborative of the Desert Region
- Rancho Santa Ana Botanic Garden
- Rim of the World Interpretive Association
- Riverside-Corona Resource Conservation District
- San Bernardino County Museum Association
- San Bernardino National Forest Association
- San Bernardino Valley Audubon Society
- San Geronio Wilderness Association
- Sierra Club, San Geronio Chapter
- Theodore Payne Foundation for Wild Flowers and Native Plants
- Volunteers of the Angeles National Forest

If your organization promotes nature education and you would like it to become a PINE member, please call Jon Kindschy at (951) 827-5804 or e-mail [sciences@ucx.ucr.edu](mailto:sciences@ucx.ucr.edu).

Members of PINE organizations are entitled to discounts on the outdoor courses on page 74.

June 22-26, 2009

### Geology and Natural History of Hawaii

An Explosively Hot Adventure on the Big Island!

#### Geology and Natural History of Hawaii, June 22-26, 2009

Explore active volcanoes, living coral reefs, black sand beaches and the fascinating human history of the Hawaiian Islands. Investigate how volcanism, earthquakes, tsunamis and human habitation continue to shape this tropical wonderland. Emphasis is on Hawaii Volcanoes National Park and to the Kilauea Volcano.

**Note:** Travel, car rental and accommodations are the responsibility of the student. No previous background in geology is required.

- Snorkeling at Honaunau Bay
- Hawaii Volcanoes National Park
- Hiking through Thurston Lava Tube
- Tour Chain of Craters Road
- Stop at the summit of Mauna Kea

*Physical Science course for Certificate in Field Ecology*

**Instructor:** Gary Arce, M.S., Geology, Victor Valley College and Mentor Teacher, Apple Valley High School

**Credit:** 3 units

**Fee:** \$745.00

**Preregistration:** Requested by June 8.

Geosciences X460.6

Reg #091-SCF-F20

For additional details, visit [www.extension.ucr.edu/sciences/ns/fns.html](http://www.extension.ucr.edu/sciences/ns/fns.html)

## Weekend classes

# The Desert Institute at Joshua Tree National Park

Explore firsthand the history and natural wonders of this nearby desert park. These field classes are led by experts on various facets of the park – a perfect and fascinating format for teachers, volunteer interpreters, park visitors and others interested in the desert environment.

To register for these courses, contact the Desert Institute. The Desert Institute also offers many noncredit courses in natural science, history and art. To register for a class or to receive a brochure, e-mail [desertinstitute@zippnet.net](mailto:desertinstitute@zippnet.net) or visit [www.joshuatree.org](http://www.joshuatree.org) or call (760) 367-5535.

### Requirements/Information for Field Study Courses

For courses offered at both The Desert Studies Center and The Desert Institute, the minimum age requirement is 14 years with an adult present. Overnight accommodations, maps and further details regarding the courses will be provided. Visitors are not permitted. If you have questions, please call (951) 827-5804.

### Coming for Fall:

#### Insects and Other Arthropods of the Morongo Basin

(Entomology X405.1, 1.5 units)

Fri. 6-8 p.m., Sept. 28; Sat. & Sun. 8 a.m.-4 p.m., Sept. 26 & 27

**Kurt Leuschner, M.S.**, Wildlife Biology, Associate Professor, College of the Desert

#### Archeology of Joshua Tree National Park

Archeology X490 (1 unit)

Sat. 8 a.m.-5 p.m., Oct. 24; Sun. 9 a.m. - 2:30 p.m., Oct. 25

**Joan S. Schneider, Ph.D.**, Acting Executive Director of the Western Center for Archaeology & Paleontology and Assistant Research Anthropologist, Department of Anthropology, UC Riverside  
**Claude N. Warren, Ph.D.**, Professor Emeritus, Department of Anthropology, University of Nevada, Las Vegas

#### Geology: Creation of the Joshua Tree Landscape

Geosciences X 460.4 (1 unit)

Sat. 8 a.m.-5 p.m., November 14 & Sun. 8 a.m.-1 p.m., Nov. 15

**D.D. "Dee" Trent, Ph.D.**, Retired Geology Professor, Claremont



## Weekend classes

# The Desert Studies Center adjacent to the Mojave National Preserve



UC Riverside Extension is pleased to partner with The Desert Studies Center and offer weekend classes in science, nature studies and arts and humanities. Course fees include meals and lodging.

Indulge your interest in the desert's natural world while staying in the Center's comfortable facilities.

The Desert Studies Center is located on Zzyzx Road in Soda Springs, California (60 miles east of Barstow, eight miles southeast of Baker).

For information, contact [sciences@ucx.ucr.edu](mailto:sciences@ucx.ucr.edu) or call (951) 827-5804.

## Register now!

- Lizards & Snakes of the East Mojave
- Insects and Other Arthropods of the East Mojave Desert

### Coming for Fall:

- Birds of the Mojave
- Desert Natural History: The High Country



**Note:** These field study courses are based at The Desert Studies Center (of California State University), about a three-hour drive from Riverside. The fees include: two nights' lodging at the Center (dormitory rooms & some couples rooms), and meals starting with breakfast Saturday through lunch on Sunday. Upon enrollment, participants will be sent information about the Center and what to bring with them. High clearance or 4WD vehicles are desirable but not required.