

Desert Tortoise Conservation Biology



Information

Date/ Time: **Saturday, March 21 2020, 8 am – 6 pm**

Meet at: **Copper Mountain College, [Community Room at the Bell Center](#), Joshua Tree CA 92252**

Instructors:

1. Kristin H. Berry Ph.D., Western Ecological Research Center, United States Geological Survey
2. Edward L. LaRue Jr. M.S., Desert Tortoise Council & Circle Mountain Biological Consultants Inc.
3. Michael Vamstad M.S., Wildlife Ecologist, Joshua Tree National Park
4. Kerry L. Holcomb, Wildlife Biologist, United States Fish and Wildlife Service
5. Paul M. Delaney Ph.D., Biology Professor, Copper Mountain College

Overview

The desert tortoise *Gopherus agassizii* is a fascinating species whose existence is threatened. This class will highlight critical issues in desert tortoise conservation, and the unique morphological, physiological, and behavioral traits essential for these reptiles to survive. In the morning participants will explore the tortoise preserve at Copper Mountain College (CMC). Moving to the classroom, Kristin Berry Ph.D. will explain the ecology, life history and current threats to this species. Edward LaRue Jr. M.S., will then show how to detect tortoises in the field, and discuss their occurrence in the Morongo Basin. Michael Vamstad M.S. will discuss tortoise conservation and education activities in Joshua Tree National Park. Kerry L. Holcomb, U.S. Fish and Wildlife Service, will describe Common Raven impacts to desert ecosystems. Paul Delaney Ph.D. will summarize preserve management, and the remarkable variety of adaptations exhibited by these amazing animals. Participants then return outside to practice detecting tortoises, scat, tracks and burrows using field equipment in the Tortoise Preserve.

Itinerary

- Morning and afternoon field sessions in CMC Tortoise Preserve
- Lectures and Lunch (provided)

What to Bring to the Course

- | | | |
|---------------------|--------------------|-------------------|
| • 2 quarts of water | • Hat & sunglasses | • Notebook & pen |
| • Hiking shoes | • Sunscreen | • Clothing layers |

Fitness Requirements

Participants must be in good physical condition for courses/activities in a desert that may be hot, dry, windy, and sometimes surprisingly cold. The Desert Institute staff/instructors will attempt to accommodate participant's needs; however we reserve the right to deny a student participation in the course due to concerns regarding health and safety issues.

Hike Level -- Easy to Moderate

Guidelines

- You are responsible for your safety. Park your car in designated areas only.
- Rattlesnakes are present on campus. Put your hands and feet only where you can see.
- Drink plenty of water. Stay with the group. If you get lost, stay put.
- Before leaving the class, check out with Desert Institute Representative.

Suggested Reading

1. *Biology and Conservation of North American Tortoises*. 2014. David Rostal, Earl McCoy and H. Mushinsky, editors. Johns Hopkins University Press, Baltimore: 190 p.
2. *Desert Tortoise Council Annual Symposia*, <https://deserttortoise.org/annual-symposium/symposium-proceedings/>

Instructor Biographies

Kristin H. Berry, Ph.D. is Supervisory Research Wildlife Biologist at the Western Ecological Research Center of the United States Geological Survey, and a founding board member of the Desert Tortoise Council. Dr. Berry has studied desert tortoises for more than forty years, and published over fifty scientific articles about tortoises, as well as numerous technical reports, magazine articles and books. Dr. Berry has organized and instructed a great variety of scientific symposia and workshops, and received numerous awards for her conservation work with desert tortoises.



Left photo: Kristin Berry (front row next to podium) with a recent Desert Institute class. Center: Ed LaRue teaching participants to identify tortoise sign. Right: Paul Delaney with tortoise in Joshua Tree National Park.

Edward L. LaRue Jr., M.S. is a current board member of the Desert Tortoise Council (DTC), and specializes in California desert biota for Circle Mountain Biological Consultants, Inc. He edited the DTC’s “Guidelines for Handling Desert Tortoises During Construction Projects”. From 1998-2004, LaRue served as Bureau of Land Management lead biologist for the desert tortoise in the *West Mojave Coordinated Management Plan*. In 2007 LaRue coordinated a multi-agency effort to establish a tortoise conservation area in the Morongo Basin, and has received numerous awards for his conservation work.

Michael Vamstad M.S. began working at Joshua Tree National Park (JTNP) as a restoration ecologist in 2004, and transitioned to wildlife ecologist in 2007. He received his undergraduate degree in field biology and for eight years worked on many bird research projects in California, Arizona, Rhode Island, Guam and Baja California, Mexico. In 2009 he received his M.S. in Ecology from the University of California, Riverside with a thesis on small mammal and vegetation responses from wildfire. Michael recently served as an Embassy Science Fellow to Peru assisting their National Park Service equivalent on research and conservation issues.

Scott L. Hoffman, M.S. is a wildlife biologist with the U.S. Fish and Wildlife Service. His passion for the conservation of the Mojave Desert Tortoise began as a field biologist, where he gained expertise in surveying, telemetry, animal husbandry, managing translocation, and conducting health assessments. His current work focuses on the management and recovery of federally-listed species, and involves collaboration with a broad spectrum of partners (from federal agencies to grassroots organizations) to develop and implement conservation priorities for many different species in our California deserts.

Paul M. Delaney Ph.D., a biology professor at Copper Mountain College (CMC), had been monitoring the effects of urbanization on desert tortoises in the CMC preserve. A 10 year summary, “Issues Facing Tortoise Translocation in Urbanizing Areas”, is available at https://deserttortoise.org/wp-content/uploads/ABSTRACTS_2019-DTC-27Jan.pdf. Delaney and CMC’s Desert Studies group have provided educational outreach to local communities since 2007, including programs in species conservation (<http://www.cmccd.edu/Tortoise-Awareness>) and internships in JTNP for academic credit towards a Desert Studies Certificate and A.S. degree in Environmental Studies.

