

Desert Institute



Course Catalog Spring 2022



Welcome to the Desert Institute

Spring will bring many enhancements to the Desert Institute, which include adding more classes to our new venue, California State University's Desert Studies Center at Zzyzx.

The Desert Studies Center is a 1200-acre field station established for the better understanding and appreciation of the Mojave Desert. Its location on Chemehuevi territory within Mojave National Preserve provides access to the broad range of habitats and landscapes of the unique Mojave Desert, from alkali salt flats to Joshua tree forest, from sand dunes to recent lava flows. Established in 1976 in partnership with the Bureau of Land Management, the Center is operated by seven Southern California CSU campuses: Dominguez Hills, Fullerton, Long Beach, Los Angeles, Northridge, Pomona, and San Bernardino. The Desert Studies Center was placed into Mojave National Preserve with the passage of the California Desert Protection Act of 1994. This location provides overnight accommodations, meals and access to fuel, which allows our classes to have extended forays into the Mojave Desert.

We are offering five classes at the Desert Studies Center for the spring season: Art and Science of Flintknapping with Dr. Jeannie Binning, Birds of the Eastern Mojave and Insects and Arthropods of the Eastern Mojave with Kurt Leuschner, Lizards and Snakes of the Eastern Mojave with Jason Wallace. These classes offer credit options through our partner, UC Riverside Extension. In addition, we have the class Photographing Soda Springs and the Mojave National Preserve with Craig Fucile.

These classes all have limited enrollment, so sign up now!



Aerial view of the Desert Studies Center



Photo by Craig Fucile



Photo by Bill Marchese

Dr. Jeannie Binning demonstrating flintknapping at Archaeopalooza. She will teach the class Art and Science of Flintknapping.



Jason Wallace is the site manager of the Desert Studies Center and he will teach the class Lizards and Snakes of the Eastern Mojave.

Spring 2022 Calendar

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| April 30 | Keys Ranch Nightscape Photography | pg. 15 |
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| May 17/21 - 22 | Insects and Arthropods of the Eastern Mojave* NEW | pg. 11 |
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| May 28 | Keys Ranch Nightscape Photography | pg. 15 |
| June 18 | Hike: Fare Thee Well To Spring! NEW | pg. 11 |

* Offered for university credit

CAMPING OPTION

Registration Information

How Fit Do You Need To Be?

If you take part in a guided hike in Joshua Tree National Park, you will need to carry a backpack - with food, clothing, water, and other essentials - that generally weighs up to 15 pounds. You will be exercising in either hot or cold weather, typical of the Mojave desert and elevation gain. And, you may need to scramble over large boulders along the route. To help you decide on which course is best for you, please take into account the "Hike Level" ratings and note that these ratings are only guidelines. What is labeled "strenuous" might be routine for a very fit visitor. For the most precise information about each activity or the effects of the desert environment, please call us at **760-819-4714**.

Registration

The Desert Institute accepts registrations year-round for special programming. Registrations for fall field classes start in June and registrations for spring field classes start in November. Of course, you can contact the Desert Institute for enrollment and for any questions about our programs:

Phone: 760-819-4714

Email: desertinstitute@joshuatree.org

On-line: joshuatree.org

Please honestly assess your fitness level by reviewing the hiking level descriptions on this page and in the course descriptions.

 **EASY** - Leisurely to moderate pace up to 3 miles per day through relatively flat terrain with frequent stops.

 **MODERATE** - Moderate, steady pace up to 6 miles per day with some elevation gain and loss through some loose, rocky or uneven terrain.

 **STRENUOUS** - Longer rigorous hikes at a moderate to brisk pace up to 12 miles per day with significant elevation gain and loss up to 3,000 feet through steep terrain, with possible rock scrambling.

 **EXTREME** - Course includes rock scrambling throughout a significant portion of route. Good balance, full range of motion, and three points of contact while scrambling are necessary.

Photos by Kevin Wong, unless credited otherwise.



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Course dates, instructors, and class content are subject to change. Contact the Desert Institute for the most up-to-date information.

SIGN UP ONLINE
Click On Class Name

"How-To" Courses

How-to's and step-by-step advice from the experts. Taking a clue from our course participants for more classes on "how-to" explore and enjoy Joshua Tree National Park, we are offering the following programs for those who want to develop new skills.

"How-To" Navigate with Map and Compass

Date/Time: Saturday, March 5, 8 am - 4 pm
Sunday, March 6, 8 am - 1 pm
Meet at: Black Rock Nature Center
Fee: \$110 JTNPA member, \$120 non member
Instructor: Misha Askren, Sierra Club Outings Leader
Hike Level: Moderate



Do you want the confidence to explore the desert without getting lost, even when you leave the trail? Misha Askren will teach participants how to navigate using a map and compass in this two-day field class. Participants will learn the basics of topography, map reading, using a compass, and the history of navigation during classroom and field exercises on Saturday. On Sunday, participants will put all their skills together in a route-finding adventure in the wilderness of Joshua Tree National Park, going to interesting spots and finding caches. These map and compass skills will allow participants to explore the wilderness and find their way back home. They also can be potentially lifesaving, in the event someone does get lost. No previous experience with compass or topo maps is needed. Participants will need to provide their own compass. Maps will be provided.

Wilderness Cooking School: Campsite Cooking

Date/Time: Saturday, March 26, 8 am - midnight
Sunday, March 27, 7:30 am - 2 pm
Meet at: Joshua Tree Visitor Center
Fee: \$220 JTNPA member, \$230 non member
Instructors: Emily Nielson and Mai-yan Kwan, Dirty Gourmet Camp Cooking Instructors
Scott Klinger, Photography Instructor
Lew Kingman, Hike Leader
Hike Level: Easy



Have you ever noticed that when you are out in the wilderness, everything tastes better? Back in the days of the Wild West, Dutch ovens were like gold. They were that important. Nowadays, the mere thought of trying to survive in the wild sends shivers down people's spines. The thing is, pretty much anything you make at home in the traditional oven, and on the stovetop can be made in the wild in a Dutch oven. Bread? No problem. Pie? Absolutely. Stew? A no-brainer. The curriculum includes lessons on meal planning and culinary techniques with an emphasis on cast iron, campfire, and propane stove/oven cooking. You will also learn basic baking, grilling, and survival food preparation skills. Meal ingredients for Saturday dinner and Sunday breakfast are included in the course fee. Learn how rewarding it is to cook in the refreshing air of Joshua Tree National Park. After dinner, professional photographer Scott Klinger will cover the basics of night photography to enable you to document your campfire creations and outdoor adventures. To help create appetites, Lew Kingman will lead several hikes.

Beginning Backpacking for Women in Mission Creek Preserve

Date/Time: Friday, March 18, 5 pm
Saturday, March 19, all day
Sunday, March 20, back to car by 3 pm
Meet at: Mission Creek Preserve
Fee: \$120 JTNPA member, \$130 non member
Instructors: Pam Kersey, Hiking & Backpacking Instructor
Robin Balch, Hiking & Backpacking Instructor
Hike Level: Moderate



Spend a weekend in the Mission Creek Preserve back country! This is a perfect opportunity for women who want to learn how to backpack and camp overnight to get away from the noise of car camping, but may be afraid to go backpacking alone. This class is for women interested in backpacking. We will carry everything we need for an overnight adventure in our backpacks. You will enjoy the company of other women who love exploring the outdoors. You will learn new ideas for what to eat while camping on the trail. Your instructors will also go over trail safety, backpacking gear, and how to set up and tear down camp efficiently. You must be able to carry approximately 30 pounds of weight in your backpack while hiking approximately 5 miles per day in the desert with the group. If you are able to hike up to 7 miles with a daypack then you should be fine. The class will include two days of hiking and one night on the trail. We will camp near our cars on Friday night then start the overnight backpacking trip on Saturday morning and hike out on Sunday. There will be an intermediate level backpacking class in the future for those who want more experience and may want to move at a faster pace than this beginning class. **Class size limited to 6**, so sign up early!

Mammal Tracking in Joshua Tree National Park

Date/Time: Saturday, April 30 8:15 am - 5:30 pm
Sunday, May 1, 8:30 am - 2 pm
Meet at: Joshua Tree Visitor Center
Fee: \$145 JTNPA member, \$155 non member
Instructor: Jim Lowery, Primitive Skills Teacher, Author of *The Tracker's Field Guide*
Hike Level: Easy



Join Jim Lowery to learn and refine fundamental tracking skills. This class will explore the natural world through animal tracking, sign identification, and awareness techniques. Lowery will explain how to translate patterns found in the desert sand into animal stories. This class will be entirely field-based in order to provide abundant "dirt time" focusing on following trails, interpreting tracks and signs and even learning to read mood and body language of desert animals through their trails. Wildlife behavior, biology, and ecological relationships will also be examined by investigating the signs animals leave behind.

Camping option available on Saturday evening for participants at the Lost Horse Campground, a beautiful location that is perfect for this program!

Natural Science Courses

SIGN UP ONLINE
Click On Class Name

Beginning Bird Banding

(Biology x404.4, 1 unit)

NEW

Date/Time: Wednesday, January 19, 6 pm - 8 pm
Saturday, January 22, 7:30 am - 1:30 pm
Sunday, January 23, 7:30 am - 1:30 pm
Meet at: Whitewater Preserve
Noncredit Fee: \$145 JTNPA member, \$155 non member
Credit Fee: \$195 JTNPA member, \$205 non member
Instructor: Stephen Myers, Wildlife Biologist and Ornithologist
Hike Level: Easy/Moderate



This course is a basic introduction to banding birds, a valuable tool in ornithological research and monitoring.

An evening class session at Whitewater Preserve on Wednesday, January 19 will briefly discuss the history, purpose, goals, and methods of banding. Among the topics will be the federal and state permits required of bird banders, the submittal of data to the Bird Banding Laboratory, capture methods, the handling of wild birds, banding birds, the collection of morphological data, and the sexing and ageing of birds. This evening class session will be followed by two days of hands-on experience capturing, handling, and banding birds in the field. The banding location will be in Riverside (directions will be included in the enrollment confirmation). All banding equipment will be provided.

manufacture is also covered. Rock samples and different types of debitage are available for students to study during the class. This field study is based at the Desert Studies Center (of California State University) located within the Preserve at Soda Springs (Zzyzx), about a three-hour drive from Joshua Tree. The course fee includes two nights' lodging at the Center and meals starting with breakfast Saturday through breakfast on Sunday. Before the class, you will sent detailed information about the Center and what to bring.



Photo by Bill Marchese

Art and Science of Flintknapping

(Biology x412.19, 1 unit)

NEW

Date/Time: Friday, February 25, 7 pm - 9 pm
Saturday, March 26, 8 am - 5 pm
Sunday, March 27, 8 am - 12 pm
Meet at: Desert Studies Center
Noncredit Fee: \$310 JTNPA member, \$320 non member
Credit Fee: \$410 JTNPA member, \$420 non member
Instructors: Jeanne Binning, Ph.D., Archaeologist
Brian Barbier, M.A.
Charles (Chuck) Bouscaren, B.A.
Hike Level: Easy/Moderate



This is a weekend learning experience for those who want to make stone tools using traditional techniques and/or want to understand the waste products of the flintknapping process. This anthropology class is taught by Jeanne Day Binning, Ph.D., Brian Barbier, M.A., and Charles (Chuck) Bouscaren, B.A. at the California State University Desert Studies Center in Zzyzx, near Baker. Students stay in a dormitory setting and five cafeteria-style meals are provided. Most of the class time is spent doing hands-on activities with lectures on Friday and Saturday evenings.

Planned activities include heat treatment of siliceous rocks, basic percussion biface reduction, basic pressure flaking (including notching), the use of an atlatl, and the use of a single-stave, self bow. Each participant has the opportunity to haft what he or she manufactures (arrow point, dart point, or knife). Groundstone

Flora of Joshua Tree National Park

(Botany x420.5, 1.5 units)

Date/Time: Tuesday, March 8, 7 pm, Zoom meeting
Saturday, March 12, 8 am - 5 pm
Sunday, March 13, 8 am - 1 pm
Meet at: Joshua Tree National Park
Noncredit Fee: \$160 JTNPA member, \$170 non member
Credit Fee: \$260 JTNPA member, \$270 non member
Instructors: Kurt Leuschner, M.S., Wildlife Ecology
Hike Level: Moderate



Students in this informal but purposeful class will have the opportunity to observe many of the flowering plants in Joshua Tree National Park, learn their names and something about their different places in the park's greater plant community. In addition, students will gain familiarity with the tools necessary to identify plants on their own. Tuesday's Zoom class will include a basic botany lecture, with emphasis on desert plants wherever possible and as appropriate. This will be followed by an introduction to basic field guides, and to the use of plant keys in identification. A lab session will give students the opportunity to examine plant and, especially, flower parts in close detail with instructor prompts and guidance. Saturday and Sunday are field days and will be spent in the park. With instructor assistance, students, in pairs or small groups, will practice identifying flowering plants. Walking distances for this class are minimal.

Natural Science Courses

SIGN UP ONLINE
Click On Class Name

Desert Invertebrates: A Macro Photography and Microscopy Primer*

(Biology x412.19, 1 unit)

Date/Time: Saturday, March 5, 9 am - 4:30 pm
Sunday, March 6, 9 am - 4 pm
Meet at: Oasis Visitor Center
Noncredit Fee: \$160 JTNPA member, \$170 non member
Credit Fee: \$210 JTNPA member, \$220 non member
Instructor: Paul DeLey, Ph.D., Zoology, UC Riverside
Hike Level: Easy/Moderate



Participants will be introduced to the major groups of, respectively, macroscopic and microscopic invertebrates found in Southern California's deserts, where and when to find them, and how to observe and identify them with the aid of online tools after taking digital macro photographs in the field (in the case of insects and other animals visible to the naked eye), or with the aid of a compound microscope in the lab (for smaller animals). The first part will include an outline of basic techniques for approaching and photographing different macro subjects with a compact camera or an interchangeable lens/SLR camera. In the second part, we will demonstrate simple techniques for isolating microscopic invertebrates from different materials, how to transfer them to microscope slides, and how to operate a compound microscope to observe them.

Class size is limited to 6, please sign up early!

Mosses In Motion: Desert Moss Ecology and Diversity

NEW

Date/Time: Saturday, March 12, 8 am - 5 pm
Sunday, March 13, 8 am - 5 pm
Meet at: Oasis Visitor Center
Noncredit Fee: \$145 JTNPA member, \$155 non member
Credit Fee: \$220 JTNPA member, \$230 non member
Instructors: Theresa Clark, M.S. Biology
Hike Level: Moderate



Moss in the desert? Why yes! Come learn the many important roles mosses play in desert ecosystems! This introductory course will familiarize students to this mysterious and beautiful group of tiny, overlooked plants with the resiliency to survive most of the year dry and dormant! We will use microscopes to learn what features (macro & microscopic) define mosses evolutionarily and how to distinguish them from commonly confused lichens, algae, ferns, and low-lying herbs. A "Mosses in Motion" hydration activity will teach students the unique adaptive relationship of mosses to water and how this compares to the survival strategies of other desert plants. In the field, students will become keen "moss hunters" gaining first-hand experience with mosses on rock, soil, and riparian areas in the Mojave Desert. Students will learn to differentiate moss from the "other tinies" encountered, such as lichens, while characterizing the protective features of microhabitats and how they may help shelter mosses from the brunt of future climate change.

Geology and Natural History of of Anza Borrego State Park

NEW

Date/Time: Saturday, March 19, 9 am - 5 pm
Sunday, March 20, 9 am - 4 pm
Meet at: Anza Borrego State Park
Fee: \$160 JTNPA member, \$170 non member
Plus campground fees (optional)
Instructor: Ted Reeves, Instructor, University of the Pacific
Hike Level: Moderate



This two-day weekend field class explores the Anza-Borrego State Park which is the largest state park in California. At 600,000 acres, it includes ecosystems of the Colorado Desert and the Peninsular Mountain Range. The region is one of the most active seismic areas in North America. The Salton Trough contains two of the three major plate boundaries. The northern end of the East Pacific rise, a diverging plate boundary, is responsible for the -280-foot elevation at the bottom of the Salton Trough, second only to Death Valley. The second boundary type is represented by the San Andreas Transform fault system. The plate interaction here has exposed rocks from 1.5 billion years old to recent sediments 2 million years old. Our field trip will include a walk through a slot canyon, visits to Palm Canyon and Fonts Point, and a drive through the "World Class" geologic site of Split Mountain. Participants will need to make their own weekend accommodations. We have acquired a few campsites at Anza Borrego State Park for those who wish to camp. Contact us for information on the campsites and fees. For those that wish to reserve a motel room, please contact us for a list of accommodations in Borrego Springs. **Class size is limited to 12 participants.**



It's your turn to fall in love with the outdoors,
and we're here to help.

Wildflower Wanderings

Date/Time: Sunday, March 27, 9 am - 4 pm
 Meet at: Oasis Visitor Center
 Fee: \$85 JTNPA member, \$95 non member
 Instructor: Darrell Shade, Botanist, Desert Naturalist
 Hike Level: Easy/Moderate



Saturate your senses with the beauty of a wildflower bloom in Joshua Tree National Park. Darrell Shade will lead this all-day field class on a tour through the colorful flowers of a desert spring. Shade will entertain participants with descriptions of the flora, their botanical characteristics, and show how to identify the unique blossoms of the park. Shade will identify the flowers of the park by scientific and common names, allowing the participants to get to know these amazing plants.

This class will repeat again on **Sunday, April 24** at the same times. The focus of the second class will be on higher elevation plants. Please be sure to enroll in the correct class date!



Geology of the Mojave National Preserve

Date/Time: Saturday, April 9, 9 am - 5 pm
 Sunday, April 10, 9 am - 4 pm
 Meet at: Hole in the Wall Campground, MNP
 Fee: \$130 JTNPA member, \$140 non member
 Plus campground fees
 Instructor: Ted Reeves, Instructor, University of the Pacific
 Hike Level: Moderate

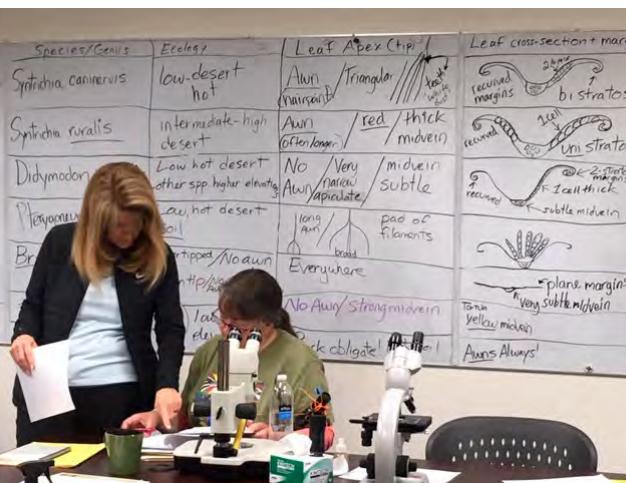


From the swirling sands of Kelso Dunes to Hole-in-the-Wall's violent volcanic remnants, Mojave National Preserve serves as a showcase of ancient and modern geologic processes. Rocks here reveal the stories of prehistoric landscapes as old as 2.7 billion years - over half the age of the Earth! Explore and learn about the geology of the vast Mojave National Preserve with Ted Reeves, on this overnight camping excursion with a base camp at the Hole-in-The-Wall campground. You will need to provide your own camping equipment, food, and drinks as there are few facilities in this national preserve. This class will take you to spectacular locations within the Mojave National Preserve including the newly re-opened Mitchell Caverns. Course fee includes the entrance fee for the caverns. Don't miss out on this opportunity! **Class size is limited to 12 participants.**

Teachers

Credit courses meet the professional development needs of educators for career and salary advancement. Course credit is offered through UC Riverside Extension.

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|--|-----------|
| The Art and Science of Flintknapping | 2 unit |
| Beginning Bird Banding | 1 unit |
| Advanced Bird Banding | 1 unit |
| Birds of the Eastern Mojave | 1.5 units |
| Birds of Joshua Tree National Park | 1 unit |
| Desert Invertebrates | 1 unit |
| Flora of Joshua Tree National Park | 1.5 units |
| Insects and Arthropods of the Eastern Mojave | 2 units |
| Lizards and Snakes of the Eastern Mojave | 2 units |
| Phenological Monitoring in Joshua Tree National Park | 1 unit |



YOUR MEMBERSHIP MATTERS!

Your support is critical to maintaining the beauty and integrity of Joshua Tree National Park's unique ecosystems. Programs and projects that cannot be achieved through federal funds and personnel are made possible through JTNPA. We offer several ways for friends of Joshua Tree National Park to get involved and make a valuable contribution toward preserving this national treasure for future generations. Our members are a committed group of supporters whose contributions each year help the park fulfill its educational, interpretive, and research plans. As a member, you'll have the satisfaction of knowing that you are supporting youth programs, scientific research, and the park's historical collections, and you will assist in the preservation of our fragile desert environment for generations to come.

Become a member today.



Mammal Tracking in Joshua Tree National Park

Date/Time: Saturday, April 30, 8:15 am - 5:30 pm
 Sunday, May 1, 8:30 am - 2 pm
 Meet at: Joshua Tree Visitor Center
 Fee: \$160 JTNPA member, \$170 non member
 Instructor: Jim Lowery, Primitive Skills Teacher, Author of *The Tracker's Field Guide*
 Hike Level: Easy



Join Jim Lowery to learn and refine fundamental tracking skills. This class will explore the natural world through animal tracking, sign identification, and awareness techniques. Lowery will explain how to translate patterns found in the desert sand into animal stories. This class will be entirely field-based in order to provide abundant "dirt time" focusing on following trails, interpreting tracks and signs, and even learning to read mood and body language of desert animals through their trails. Wildlife behavior, biology, and ecological relationships will also be examined by investigating the signs animals leave behind.

Camping option available on Saturday evening for participants at the Lost Horse Campground, a beautiful location that is perfect for this program!

Geology of the Marble Mountains

Date/Time: Saturday, May 7, 9 am - 3 pm
 Meet at: Roy's Cafe and Gas Station, Amboy
 Fee: \$100 JTNPA member, \$110 non member
 Instructor: Alessandro Grippo, Ph.D., Geological Sciences
 Hike Level: Moderate



The Marble Mountains are a rather small mountain range located in one of the harshest, driest parts of the Mojave Desert, in southeastern California near the tiny towns of Chambless and Cadiz. What makes the Marble Mountains especially attractive to paleontologists is the comparatively rich Cambrian fossil biota which can be found in a particular rock unit, the Latham Shale, that is well-exposed in the southern part of the range, as well as in some nearby ranges such as the Bristol Mountains. The Latham Shale and the rock layers below and above it comprise a well-studied section of Lower and Middle Cambrian strata, which extends, with some variation, over a large part of the southern Mojave Desert. The dominant fossils in the Latham Shale are trilobites. Trilobites form one of the earliest known groups of arthropods. Join Professor Alessandro Grippo on this all-day field trip.

I have been thrilled with the quality of classes from the Desert Institute. The Biological Soil Crusts class really stretched me and I felt new worlds open. What an experience. I need several more lifetimes to pursue all my interests. Thank you for providing these quality experiences!

Natural Science Courses

SIGN UP ONLINE
Click On Class Name

Birds of Joshua Tree National Park

(Biology x404, 1 unit)

Date/Time: Tuesday, April 26, 7 pm - 9 pm, Zoom meeting
Saturday, April 30, 7:30 am - 4:30 pm
Sunday, May 1, 7:15 am - 1:15 pm
Noncredit Fee: \$145 JTNPA member, \$155 non member
Credit Fee: \$210 JTNPA member, \$220 non member
Instructor: Kurt Leuschner, M. S., Wildlife Ecology Professor, College of the Desert
Hike Level: Easy/Moderate



The deceptively barren Mojave Desert landscape is home and resting grounds for numerous endemic and migratory bird species. Joshua trees do not make a typical forest; the landscape is open, the climate dry, and vegetation relatively sparse. Despite this, over 240 species of birds have been recorded in Joshua Tree National Park! Kurt Leuschner, Professor at College of the Desert, Palm Desert, will guide this two-day field class through the Mojave and Colorado Deserts to identify common and rare birds. Leuschner's focus will be on identifying individual species and separating summer and winter residents from true migrants. He will discuss nesting and feeding habits, interactions with plant life, and adaptive strategies. Participants will have the thrill of identifying the park's common spring bird species, better understand the role each plays in the high desert ecosystem, and have the chance of sighting rare species like the Pinyon Jay, Prairie Falcon, or Lawrence's Goldfinch.

Advanced Bird Banding

(Biology X404.5, 1 unit)

NEW

Date/Time: Wednesday, April 27 6 pm - 8 pm
Saturday, April 30, 7:00 am - 1:30 pm
Sunday, May 14, 7:00 am - 1:30 pm
Meet at: Whitewater Preserve
Noncredit Fee: \$145 JTNPA member, \$155 non member
Credit Fee: \$195 JTNPA member, \$205 non member
Instructor: Stephen Myers, Wildlife Biologist and Ornithologist
Hike Level: Easy/Moderate



This course builds on the information presented in the introduction to bird banding class. Advanced Bird Banding will focus on molt limits and other characteristics in North American birds as they relate to accurately determining their ages. We will cover plumage topography, molt terminology, and molt strategies among songbirds and their close relatives. We will discuss additional ageing techniques such as skulling and morphometrics, and how to determine skull, fat, and molt scores. Time will also be spent on banding ethics, safe handling of birds, prevention and treatment of stress and injuries, color banding, blood and feather sampling, and MAPS banding.

Stephen Myers will lecture Wednesday, April 27 at the Whitewater Preserve. Field activities will take place on Saturday, May 7 and Sunday, May 14 for two days of hands-on experience capturing, handling, and banding birds at the Whitewater Preserve. All banding equipment will be provided.

Birds of the Eastern Mojave: Spring Migration

(Biology x404.21, 1.5 units)

Date/Time: Tuesday, May 3, 7 pm - 8:30 pm, Zoom meeting
Saturday, May 7, 7:30 am - 4:30 pm
Sunday, May 8, 7:30 am - 12:30 pm
Noncredit Fee: \$310 JTNPA member, \$320 non member
Credit Fee: \$410 JTNPA member, \$420 non member
Instructor: Kurt Leuschner, M. S., Wildlife Ecology, Professor, College of the Desert
Hike Level: Easy/Moderate



Oases in the Mojave Desert are used by a wide variety of bird species every fall as stopping points during their southward migration. You will be amazed by the numbers and kinds of species we will encounter at this time of year. Beginning on Tuesday evening's Zoom meeting, we will examine the important role of these stopover areas in the conservation of neotropical migrant birds and learn the techniques used to identify the common families of birds found in the vicinity of the Desert Studies Center. On Saturday we will travel by car to nearby sites in Death Valley, Tecopa, Baker, and Soda Springs that serve as migrant "traps." Some of these sites are marshes and others are merely small islands of green in a sea of desert. As we observe both migrant and resident birds in their natural habitats, we will learn about their ecology, natural history, and special adaptations to the harsh desert environment. Sunday's activities will center around the Desert Studies Center where over 240 bird species have already been recorded.



Photo by Bob Grubbs

This was hands down the best class I have ever taken. That was due to your thorough knowledge of the subject and willingness to share. Thank you!

Natural Science Courses

SIGN UP ONLINE
Click On Class Name

Citizen Science: Phenological Monitoring in Joshua Tree National Park

(Biology x413, 1 unit)

Date/Time: Saturday, May 7, 5 pm - 7 pm
Sunday, May 8, 8 am - 5 pm
Meet at: Black Rock Nature Center
Noncredit Fee: \$160 JTNPA member, \$170 non member
Credit Fee: \$240 JTNPA member, \$250 non member
Instructor: Monica Gorman, Ph.D., Biology, Professor, Los Angeles City College
Hike Level: Moderate/Strenuous



Climate change is on everyone's mind these days! We are all aware of the more visible consequences of rising temperatures, like drought and hot-burning, fast-moving wildfires. But plants, and the animals that depend on them, are being affected in many other ways as well. Learn more about how a hotter world is changing ecosystems, both in Joshua Tree National Park and where you live, and how citizen scientists are helping collect data on these changes. We will spend Saturday night in the classroom, where you will be introduced to some of the plants in Joshua Tree and to the National Phenology Project, a citizen science project that is collecting data on the effects of climate change. We will then spend Saturday monitoring plants on Ryan Mountain in Joshua Tree National Park. The hike up Ryan is 1.5 miles (3.0 miles round-trip) with an elevation gain of about 1000 feet and will end with fantastic views of the Park from the summit. Come be part of the solution, not the problem!

Insects and Arthropods of the Eastern Mojave

(Entomology x405, 2 units)

NEW

Date/Time: Tuesday, May 17, 7 pm - 8:30 pm, Zoom meeting
Saturday, May 21, 7:30 am - 4:30 pm
Sunday, May 22, 7:30 am - 12:30 pm
Meet at: Desert Studies Center, Zzyzx
Noncredit Fee: \$310 JTNPA member, \$320 non member
Credit Fee: \$440 JTNPA member, \$450 non member
Instructor: Kurt Leuschner, M. S., Wildlife Ecology
Hike Level: Easy/Moderate



In this course, students will learn about the basic anatomy of insects, and how to tell them apart from other desert arthropods. We will also review the many insect orders and families found in the East Mojave Desert region. Mimicry, the use of pheromones, fluorescence, and other important survival traits will be discussed. We will spend time in the field to observe diurnal (day-active) insects and examine them up close, using a variety of different catch-and-release collecting methods such as pit traps, light traps, and aerial nets. As we walk around the Desert Studies Center and explore a local Joshua Tree ecosystem during a Saturday field trip, we will examine the different habitats and behaviors of insects that we encounter and discuss the various adaptations that enable insects to survive in this harsh desert environment. After dark, we will move outside and examine insects that are attracted to the lights that we set up earlier. Ultraviolet lights and mercury vapor lamps will be used on the border of two different habitats: riparian and desert.

Lizards & Snakes of the Eastern Mojave

(Biology X414.5 - 2 units)

NEW

Date/Time: Friday, May 20, 7:30 pm - 9 pm
Saturday, May 21, 7 am - 3 pm, 8 - 10 pm
Sunday, May 22, 7:30 am - noon
Meet at: Desert Studies Center, Zzyzx
Noncredit Fee: \$310 JTNPA member, \$320 non member
Credit Fee: \$440 JTNPA member, \$450 non member
Instructor: Jason Wallace, Field Station Manager, CSU Desert Studies Center
Hike Level: Easy/Moderate



Do you love reptiles? Do you love the desert? You are not alone. Reptiles are among the most interesting and diverse vertebrates that inhabit the desert southwest. The goal of this course is to familiarize students with the identification and natural history of the lizard and snake species found in the Eastern Mojave Desert. Over three days we will explore the Mojave National Preserve, visiting several different ecological habitats including Sand dunes, Joshua tree woodland, Creosote scrub, and ancient Volcanic lava fields and flows. The course fee includes two nights lodging at the Desert Studies Center along with meals starting with breakfast Saturday through breakfast on Sunday. This is an experience you don't want to miss.



Course Instructor and Desert Studies Center Manager, Jason Wallace

Joshua Tree Master Naturalist Certificate

IF YOU LOVE observing nature and learning about Joshua Tree National Park, expand your knowledge through the Joshua Tree Master Naturalist Series. Comprehensive courses on key Joshua Tree topics are designed to broaden your understanding of the ecology, plants, geology, wildlife, and history of the park. Through field-based excursions and lectures, you'll cultivate observation skills that are the hallmark of a good naturalist. When you complete eight courses, of your choice, you will receive your "Joshua Tree Master Naturalist" certification. Certification may be completed over time. These courses are approved for credit from UC Riverside Extension, but credit is not required for the certificate.

Complete eight courses to receive your Joshua Tree Master Naturalist certification.

| Course Name | Spring | Fall | Comment |
|---|--------|------|-------------|
| Biological Soil Crusts in Joshua Tree National Park | | ✓ | |
| Birds of Joshua Tree National Park | ✓ | | |
| Birds of the Eastern Mojave: Spring Migration | ✓ | | |
| Citizen Science: Phenological Monitoring in Joshua Tree National Park | ✓ | | |
| Desert Invertebrates: Diversity Great and Small - a Macro Photography and Microscopy Primer | ✓ | | |
| Desert Snakes: Mystery and Intrigue | | ✓ | |
| Desert Tortoise Conservation Biology | | | unavailable |
| Flora of Joshua Tree National Park | ✓ | | |
| Geology and Geomorphology of Death Valley | | ✓ | |
| Geology: Creation of the Joshua Tree Landscape | ✓ | | |
| Insects and Arthropods of the Eastern Mojave | ✓ | | |
| Insects and Arthropods of the Morongo Basin | | ✓ | |
| Lizards and Snakes of the Eastern Mojave | ✓ | | New in 2022 |
| Rocks and Minerals of Joshua Tree National Park | | ✓ | |

SIGN UP ONLINE
Click On Class Name

Cultural History

Art and Science of Flintknapping

NEW

(Anth X436.5 1.5 units)

Date/Time: Friday, February 25, 7 pm – 9 pm
Saturday, February 26, 9 am – 5 pm
Sunday, February 27, 9 am – 12 pm
Meet At: Desert Studies Center
Noncredit Fee: \$310 JTNPA member, \$320 non member
Credit Fee: \$410 JTNPA member, \$420 non member
Instructors: Jeanne Binning, Ph.D., Archaeologist
Brian Barbier, M.A.
Charles (Chuck) Bouscaren, B.A.
Hike Level: Easy/Moderate



This is a weekend learning experience for those who want to make stone tools using traditional techniques and/or want to understand the waste products of the flintknapping process. This anthropology class is taught by Jeanne Day Binning, Ph.D., Brian Barbier, M.A., and Charles (Chuck) Bouscaren, B.A. at the California State University Desert Studies Center in Zzyzx, near Baker. Students stay in a dormitory setting and five cafeteria-style meals are provided. Most of the class time is spent doing hands-on activities with lectures on Friday and Saturday evenings.

Planned activities include heat treatment of siliceous rocks, basic percussion biface reduction, basic pressure flaking (including notching), the use of an atlatl, and the use of a single-stave, self bow. Each participant has the opportunity to haft what he or she manufactures (arrow point, dart point, or knife). Groundstone manufacture is also covered. Rock samples and different types of debitage are available for students to study during the class.

The class is limited to 12 students.



Art History of the Coachella Valley

Date/Time: Saturday, March 5, 9 am - 5:30 pm
Meet at: TBD, Palm Desert
Fee: \$120 JTNPA member, \$130 non member
Instructor: Steven Biller, Editor-In-Chief, Palm Springs Life
Hike Level: Easy



The opening of Southern Pacific Railroad service in the desert in the late 1800s brought with it a steady flow of artists from the East Coast who rode in exchange for their paintings and drawings of Western landscapes, which the railroad used to entice travelers to explore beyond the Mississippi River. By the 1920s, American and European impressionist painters were fixtures in Southern California's deserts, mountains, canyons, forests, and coastlines—and especially in artist colonies like the one that emerged in the Coachella Valley. The workshop begins in this early California period, surveying the painters who came through the valley—and in some cases remained and became influential in the area. Next, the trajectory leads to modern art and artists who pioneered the movement in the desert—as well as key events, such as the opening of Palm Springs Desert Museum. The contemporary art segment introduces artists whose work is inspired by the conditions and culture of the Coachella Valley and has gained an international audience. This segment also covers the proliferation and contributions of commercial art galleries, fairs/festivals, and studio/gallery districts as well as public art and events such as Desert X and the Bombay Beach Biennale.

Contemporary Art of Joshua Tree

Date/Time: Sunday, March 27, 9 am - 5 pm
Meet at: Joshua Tree Community Center
Fee: \$130 JTNPA member, \$140 non member
Instructors: Bernard Leibov, Director of BoxoPROJECTS
Maria Myrick, Noah Purifoy Foundation
Hike Level: Easy



Joshua Tree and environs are well known for the burgeoning artist community that has been drawn here. The local contemporary art scene is vibrant and a healthy companion to the music community that has flourished in the area. Bernard Leibov, Director of BoxoPROJECTS, takes us through his highlights of the local cultural scene. After an introduction and orientation in the classroom, Bernard will take us on the road to visit several of the interesting art sites in the area, including:

- a special docent-led tour of Noah Purifoy Outdoor Museum
- a visit to the public sculptures at A-Z West, the experiment in living by Andrea Zittel
- lunch and a tour at BoxoPROJECTS, home to a residency program
- as well as the Joshua Treenial
- studio visits with local artists
- experience one or two of the High Desert Test Sites projects being presented

Hikes With A Naturalist

SIGN UP ONLINE
Click On Class Name

Summit Joshua Mountain

NEW

Date/Time: Saturday, January 29, 8 am - 5 pm
Meet at: California Riding and Hiking Trail Wilderness Board, Twentynine Palms
Fee: \$45 JTNPA member, \$55 non member
Instructor: Travis Puglisi, Hike Leader
Hike Level: Strenuous



Looking west when approaching the north entrance to Joshua Tree National Park in Twentynine Palms you'll notice a Quartz monzonite formation that juts out against the more gently sloping peaks. This proud countenance, known by some as "Indian Head", is officially named Joshua Mountain. The approach for this hike will commence from the southeast in the lower-lying hills, where evidence of bighorn sheep is possible. A majority of the elevation gain will take place in a canyon that terminates due south of the peak and features excellent examples of alkali-feldspar megacrysts that can measure as much as 10cm across. Once attained, the peak provides panoramic views of the surrounding mountains and excellent views of the alluvial fans exiting the park at the north entrance.

Summit Mary Peak

Date/Time: Saturday, March 6, 8 am - 5:15 pm
Meet at: Oasis Visitor Center
Fee: \$45 JTNPA member, \$55 non member
Instructor: Travis Puglisi, Hike Leader
Hike Level: Strenuous/Extreme



Of the six sub-ranges contained within Joshua Tree National Park, the Hexie Mountains sit squarely within the park's geographic center. At 3,820' above sea level, Mary Peak affords terrific views of the vast Pinto Basin, the Pinto Mountains to the north, and the Coxcomb Mountains which make up the farthest eastern boundary of JTNP. Apart from the unique vantage point it provides, Mary Peak allows participants to hike along one of the most severe-looking cliff faces in the park. Between the mileage and elevation gain/loss, this will be the most challenging hike in the Spring 2022 Catalog.

Night Dunes: Camping in the Backcountry

NEW

Date/Time: Saturday, April 2, 4 pm
Sunday, April 3, 6 pm (ending)
Meet at: Turkey Flats Wilderness Board
Fee: \$90 JTNPA member, \$100 non member
Instructor: Travis Puglisi, Hike Leader
Hike Level: Easy/Moderate



All experience levels are welcome on this 26-hour excursion to the Pinto Basin Sand Dunes. While not actually dunes at all, but rather a thin layer of sand covering a low-lying ridge, this location within the Colorado Desert portion of Joshua Tree National Park. If conditions are right there might also be an array of spring flora to observe. The New Moon will have just occurred on April 1, which means that the already superbly dark skies of the Pinto Basin will be in optimal dark sky conditions. Emphasis will be given to best practices when backcountry camping, including but not limited

to: meal planning, water management, camp setup, and the minimization of impact on wilderness areas.



Photo by Bob Grubbs

Emory's Garden: Camping in the Backcountry

Date/Time: Saturday, April 23, 4:30 pm
Sunday, April 24, 6:00 pm (ending)
Meet at: California Riding and Hiking Trail Wilderness Board, Twentynine Palms
Fee: \$90 JTNPA member, \$100 non member
Instructor: Travis Puglisi, Hike Leader
Hike Level: Easy/Moderate

NEW



All experience levels are welcome on this 26-hour excursion to the a part of Joshua Tree National Park that I like to call "Emory's Garden." I take this name for the high density of Desert Lavender (Hyptis emoryii) that grows in the flood planes extending to the southwest from the Contact Mine Trailhead. The presence of the lavender, along with Desert Senna (Senna armata) make this a particularly fragrant zone that presents much more like the Colorado Desert than the Mojave. The three day hikes will feature massive channels cut into the flood plane, a stunning variety of cactus, and an exploration of one of the principal canyons feeding the watershed. Emphasis will be given to best practices when backcountry camping, including but not limited to: meal planning, water management, camp setup, and the minimization of impact on wilderness areas.

Fare Thee Well, Spring!

NEW

Date/Time: Saturday, June 18, 8 am - 5 pm
Meet at: Hike Leader's Home in Yucca Valley
Fee: \$45 JTNPA member, \$55 non member
Instructor: Travis Puglisi, Hike Leader
Hike Level: Easy/Moderate



Say "Goodbye," to the spring season with this hike in of the most accessible yet beautiful canyons in Joshua Tree National Park. This hike will explore the upper ranges of the Smith Water Canyon watershed between Lower and Upper Covington Flats. This area features beautifully foliated granitic rock from the Late Cretaceous in addition to xenoliths that are much older (Jurassic Period). The quality of the rock and the nature of the watershed contributes to a very "kinetic" sense of the rock being in motion. Encounters with blooming Desert Willow and Mojave Mound cactus are likely.

SIGN UP ONLINE
Click On Class Name

Creative Arts Courses

Route 66 Photography Workshop

Date/Time: Saturday, February 26, 9 am - sunset
Meet at: BLM Office in Needles
Fee: \$120 JTNPA member, \$130 non member
Instructor: Sandi Wheaton, Photographer, Instructor
Hike Level: Easy/Moderate



Route 66 through the Mojave Desert provides for great photographic images. During this workshop, you will explore Route 66 from Needles to Amboy, capturing storied abandoned sites, iconic vintage landmarks and sweeping desert landscapes. Join photography instructor Sandi Wheaton, who drove and photographed the entire length of Route 66 in 2009. Sandi has been photographing this stretch of Route 66 for years, and will share her knowledge of the many great shooting locations along this historic stretch of highway. This workshop is an opportunity for you to improve your photography and add to your skill set. Sandi will be offering suggestions for taking advantage of each location.

The workshop will begin in Needles and it will end in Amboy with a sunset shoot. The driving distance is approximately 75 miles from Needles to Amboy.

Cyanotype Processing Workshop

NEW

Date/Time: Saturday, February 26, 10 am - 1 pm
Meet at: Desert Rose Studio (shared with Mojave WiFi)
61884 Commercial St., Joshua Tree
Fee: \$95 JTNPA member, \$105 non member
Instructor: Rose Cefalu, Photographer, Alternative Process Artist, Instructor
Hike Level: Easy



Join Joshua Tree based photographer & artist Rose Cefalu for a half day of experimental printmaking, known as Cyanotype printing. You will learn about the history of the process along with hands-on work producing fine art prints. Your images will be enlarged to 8 x 10 negatives and will be contacted printed, harnessing the Sun's UV light, and developed in water. You will also do the same process as a photogram, where the image is made without a camera by placing objects directly onto the surface of the light-sensitive cyanotype paper and then exposing it to light. The usual result is a negative shadow image that shows variations in tone that depends upon the transparency of the objects used. Sharing her wealth of knowledge, Rose will start each morning with a brief overview of the process followed by paper coating and a walk a private location in search of the objects and plant flora students can use in later in the day for photograms. Students will explore the power of image making using this 20th century photograph technique in conventional and unconventional ways. No prior photography experience is needed, all levels welcome. All development materials and supplies are included in the course fee. **Class size is limited to 6, please sign up early!**

This class will repeat on [Saturday, April 2](#). Be sure to register for the correct session.



Keys Ranch Nightscape Photography Workshop

Date/Time: Saturday, January 29, 3:30 pm - midnight
Meet at: Oasis Visitor Center
Fee: \$160 JTNPA member, \$170 non member
Instructor: Scott Klinger, Nightscape Photography Instructor
Hike Level: Easy



With new digital camera technologies, nighttime has become the right time to make spectacular images! Unlock your creativity and take your photography to a new place in this one-night workshop with professional photographer and professor Scott Klinger. The course will cover photographic techniques after dark including wide-field astro-photography, light painting, and light drawing. Learn how to photograph the night sky with your DSLR camera. Light painting and light drawing are photographic techniques in which images are made using long shutter speeds as the photographer uses a hand-held light source, such as a flashlight, to create the exposure. The photographer either points the light source directly at the camera to "draw with light" or "paints with light" by shining the light source on an object or scene to create the illumination. From Ansel Adams to Pablo Picasso, these seemingly magical techniques have long inspired photographers and artists alike with their ability to make visible the invisible and to play with time.

This class will take place in the access restricted historic Keys Ranch and participants have the opportunity to photograph the cosmos among the historic ranch buildings and artifacts. This class is **limited to 8 participants**, so sign up early!

This class will be repeated again on [Saturday, March 5, April 30, and May 28](#). Please sign up for the correct class.

Photographing Soda Springs and the Mojave National Preserve

NEW

Date/Time: Friday, February 18, 1:00 pm - 9:30 pm
Saturday, February 19, 6:30 am - 9:00 pm
Sunday, February 20, 6:30 am - 11:30 am

Meet at: Desert Studies Center, Zzyzx

Noncredit Fee: \$310 JTNPA member, \$320 non member

Instructor: Craig Fucile, Artist, Instructor

Hike Level: Easy/Moderate



Join us for an opportunity to stay in an exceptional part of the California Desert and devote three days to making new photographs. The class is based at the Desert Studies Center, south of Baker, CA. The Center—also known as Zzyzx (zy-zix)—lies inside in the Mojave National Preserve and is a former health spa with interesting buildings, palms, ponds and springs, plus fine views of Soda Dry Lake, and desert mountains. Special emphasis is placed on photography in the field to allow students to work with color, light, shapes, and textures of the desert at an unhurried pace. On one half-day field session we'll photograph lava beds and a Joshua tree forest. Two night photography sessions are scheduled to take advantage of dark skies over Zzyzx. Instructional topics include: exposure, making panoramic photographs, HDR photography, controlling image sharpness. Hiking on field sessions is easy – to moderate. Participants are encouraged to bring a tripod with their cameras. The course fee includes two nights' lodging at the Desert Studies Center and five meals beginning with dinner on Friday.

Enrollment is limited to 12.

Salton Sea Photography Workshop

Date/Time: Sunday, February 12, 9 am - sunset North Shore, Salton Sea

Meet at: Shore, Salton Sea

Fee: \$85 JTNPA member, \$95 non member

Instructor: Sandi Wheaton, Photographer, Instructor

Hike Level: Easy/Moderate



The Salton Sea, California's largest lake, was formed by accident in 1905 by an engineering mishap during irrigation of the Imperial Valley. Over time, it has been a hotbed for sports fishing, a recreational area boasting more visitors than Yosemite, and an important wetland for migratory birds. Currently, the sea is lined with dead fish and is shrinking fast, and its decaying ruins, plentiful birdlife, intriguing off-the-grid culture, and gorgeous light have made it something of a Mecca for photographers. Sandi Wheaton has been traveling to the Salton Sea annually to document its constantly changing landscape and knows exactly where the great places are for interesting photographs. In this workshop, you will explore the east shores and discover inspiring art sites like Leonard Knight's Salvation Mountain (featured in the movie "Into the Wild") and East Jesus sculpture garden, as well as spend time capturing beautiful natural landscapes and seascapes along the southeast shores of the Salton Sea. Be sure to bring rubber boots, as some of the best locations are muddy near the water's edge (but that's where the best photos are!). Please note that the Salton Sea is constantly changing, and some of the iconic structures that have been popular to photograph are rapidly disappearing – but new great photo locations are revealing themselves as well!

Joshua Tree Through the Lens

Date/Time: Saturday, March 12, 6:30 am - 5:30 pm

Meet at: Joshua Tree Visitor Center

Fee: \$120 JTNPA member, \$130 non member

Instructor: Craig Fucile, Photography Instructor

Hike Level: Moderate



Grab your camera and put on your hiking boots for this intensive all-day photo shoot in Joshua Tree National Park! Craig Fucile will guide the class in seeing the natural beauty of the park through the camera lens. The class will begin with a special "photographers only" session at Keys Ranch, focusing on how to capture the buildings and historic remnants at this remarkable homestead. Mid-morning the focus will shift to desert landscape. Fucile will share tips on how to record unique rock formations and vast views of the park. Participants are encouraged to bring a tripod with their camera.



Photo by Craig Fucile

Photographing Joshua Tree by Moonlight

Date/Time: Friday, March 18, 6 pm - 10 pm

Meet at: Joshua Tree Visitor Center

Fee: \$120 JTNPA member, \$130 non member

Instructor: Craig Fucile, Photography Instructor

Hike Level: Easy/Moderate



Seeing the desert illuminated by moonlight is an experience not to be missed. It's a chance to encounter a quiet world of deep shadows and pale highlights, perceived by the eye as a soft-edged, nearly black and white landscape, where a familiar scene in daytime can start to look mysterious. The sky, absent all but the brightest stars and planets, attains a steely darkness. Yet as our eyes adapt to the dim light, we can notice the subtle beauty of the desert under moonlight. In this evening field class, you'll learn useful photographic techniques such as camera placement, focusing, exposure, lens settings, and composing the photograph. Craig Fucile, photography instructor at University of California Riverside Extension, will guide and assist participants in making moonlight photographs at two locations in the Park, away from city lights. Participants should bring a tripod and remote (or wireless) switch for their camera. Don't miss this opportunity to find new ways to focus on Joshua Tree National Park.

Fine Art Photography in Joshua Tree National Park

Date/Time: Friday, March 18, 7 pm - 9 pm
Saturday, March 19, 5 am - 9 pm
Sunday, March 20, 5 am - 3 pm

Meet at: Oasis Visitor Center

Fee: \$185 JTNPA member, \$195 non member

Instructor: Ralph Nordstrom, Photographer, Instructor



There is no longer any doubt that photography is an art form that stands shoulder to shoulder with every other art form. That issue was settled by photography's great pioneers in the late 1800s and early 1900s, Ansel Adams being the most widely known and loved. Any one of us can create art with our photographs, especially in Joshua Tree's magnificent natural surroundings. However, to achieve this, it's helpful to have an understanding of art itself, especially from a photography perspective. And that begins with the most obvious question, "What is art?" We will begin by exploring this question, not from the perspective of art historians, psychologists, or other artists. Rather, our approach is more practical. We will seek a definition that provides guidance that we can use to grow as an artist. There will be three classroom sessions - an orientation Friday night, the discussion on "The Essence of Fine Art" Saturday and an opportunity to share your photographs Sunday afternoon. Our experience of this marvelous land will be enhanced by camping in the secluded Lost Horse Campground away from the public campgrounds, from Friday through Sunday. This is an "action packed" workshop, so, bring your camera equipment, camping gear and enthusiasm and watch your creativity soar!



Painting by Janis Commentz

Capturing Joshua Tree Landscapes with Acrylics

Date/Time: Saturday, April 16, 8:30 am - 4 pm

Meet at: Black Rock Nature Center, Yucca Valley

Fee: \$100 JTNPA member, \$110 non member

Instructor: Janis Commentz, Artist, Instructor

Hike Level: Easy



Spend a day painting in beautiful Joshua Tree. Few destinations offer a landscape as unique as Joshua Tree National Park. In this one-day outdoor class, you will focus on observation, setting an intention for the day, and learning the process of acrylic landscape painting. Janis Commentz is known for her color-intense palette and loose brush strokes. The morning will begin with basic introduction to materials and the painting process. Topics include laying out your palette, color mixing, translating your observations into a painted image, tips for lights and darks, and planning a successful composition. Both group and individual instruction will help you develop your painting and explore new techniques.

The desert is a fragile environment and eco painting techniques will be used. Please note that the class will follow Leave No Trace principles.





Painting by Jessica Schiffman

Plein Air Painting Workshop with Oils **NEW**

Date/Time: Saturday, April 9, 9 am - 4 pm
Sunday, April 10, 9 am - 3 pm
Meet at: Joshua Tree Visitor Center
Fee: \$145 JTNPA member, \$155 non member
Instructor: Jessica Schiffman, Artist, Instructor
Hike Level: Easy



Painting the landscape from life is thrilling and can be challenging as well. The world is filled with an infinite variety of color and value, and an overwhelming amount of detail. Patterns of shadow and light are changing constantly. This workshop will help you to simplify and organize what you see, and go on to create satisfying, dynamic paintings with strong, logical dark and light patterns. Topics will include composition, focal point, perspective, value (dark and light), underpainting, painting ala prima (layering wet paint without making mud), color theory, mixing paint, and more. Each session will start with a demo painting as Jessica explains her step-by-step method. Students will be given individual feedback and guidance. Some previous drawing experience will be helpful but not required.

This class will be conducted at the reserved Lost Horse Campground with the option to "car camp" with the instructor on Saturday night. Class registration includes camp site reservations (optional). For more information on camping with this class or a list of local accommodations, please contact us at 760-819-4714.



Paintings by Elizabeth Sampson



Discovering Color in the Desert Landscape: Creating Vibrant Oil Paintings **NEW**

Date/Time: Saturday, April 16, 5 am - 6 pm
Sunday, April 17, 5 am - 3 pm
Meet at: Joshua Tree Visitor Center
Fee: \$145 JTNPA member, \$155 non member
Instructor: Elizabeth Sampson, Artist, Instructor
Hike Level: Easy/Moderate



By beginning each class with short walks focusing on close looking, we will search for colors and color relationships in the landscape. After choosing a painting site, we will translate these colors into vibrant palette choices for oil painting in situ. Then we will discuss color harmony, cool/warm colors, dynamic grays, how to layout your palette and mix complex colors, and how to paint directly using observed colors. Each class will end with a mini-critique and reflection on the day's learnings.

Skill level: An understanding of oil painting will help, but beginners are always welcome!

This class will be conducted at the reserved Lost Horse campground. Camping with the instructor is offered, but is not required. Please let us know if you wish to camp by calling 760-819-4714.



Field Sketching for Non-Artists

Date/Time: Saturday, April 23, 8:30 am - 3:30 pm
Meet at: Joshua Tree Visitor Center
Fee: \$100 JTNPA member, \$110 non member
Instructor: Fran Calvert, Artist, Instructor
Hike Level: Easy



Would you like to enjoy the beauty of Joshua Tree National Park more fully? Are you a person who "could never draw?" This class will teach you the basics of field sketching, focusing on using the simplest most light-weight tools, methods, and materials to streamline the process for non-artists. You will learn how to focus your natural powers of observation to complete a finished sketch that is accurate in detail, scale, and proportion using easy-to-learn skills that you can practice anytime and anywhere. All materials are provided.



Cyanotype image by Rose Cefalu

Night Sky Photography

Date/Time: Saturday, May 7, 1 pm - 10 pm
Sunday, May 8, 9:30 am - 12:30 pm
Meet at: Oasis Visitor Center
Fee: \$120 JTNPA member, \$130 non member
Instructor: Dennis Mammana, M.S., Astronomy, Night Sky Photographer, Syndicated Columnist
Hike Level: Easy



If you enjoy photography and are fascinated by the desert night sky, this two-day hands-on workshop is for you! Noted TWAN sky photographer Dennis Mammana will teach participants how to use even the simplest of cameras to create magnificent celestial portraits without resorting to composites and fakery. The class will begin with tips for setting up and shooting the night sky including a few personal tricks of the trade. That evening, participants will head to the Hidden Valley Picnic Area to try out their new knowledge under the real night sky. The next morning, the class will look at images from the previous night, discuss their pros and cons, and try out some basic image processing techniques in Adobe Lightroom that will make your photos pop. Any camera, digital or film, will work, if it can be adjusted manually, used with a tripod, remote control, and can take exposures of 15, 30, or more seconds. Students should have a good working knowledge of their equipment prior to taking this class. Students need to provide their own camera, tripod, camera equipment, and dress in layers as the nights can be cold. Please bring a flash drive to share a field class image or two with the class on Sunday, if you'd like to get some personal tips.

Class size is limited to 12 participants.

I began taking Desert Institute classes for professional development purposes. I immediately fell in love with every aspect from the expertise of the instructors, to the attentiveness of the volunteers and the high quality and variety of subjects the classes cover! Every class has exceeded my expectations. I have a new found appreciation and sense of wonder for not only Joshua Tree National Park, but also the desert. These classes continue to inspire me to share with my students some of the wonders and wildlife that JTNP and the desert have to offer. There are many classes I have yet to take and I look forward to the adventures that are yet to come!

Community Lectures



Second Friday Old Schoolhouse Lecture Series

Fall 2021 and Spring 2022



- September 10 **California Indian Basketry: Ikons of the Florescence**
Alan Garfinkel, Author
- October 8 **African American Homesteaders of Lanfair Valley**
Barbara Gothard, Artist
- November 12 **Willie Boy & The Last Western Manhunt**
Clifford Trafzer, Author, Professor of History, UC Riverside
- December 10 **The History of Hi Jolly and the Great Camel Experiment in the Southwest**
Steve Brown, Writer, Executive Producer and Co-Host: Southwest Stories
- January 14 **Nevada Test Site**
Kim Stringfellow, Author, Professor, San Diego State University School of Art + Design.
- February 11 **A Natural History of Anza Borrego**
Mike Wells, Author
- March 11 **Can't Live Without You: Ocotillos and Hummingbirds**
Jim Cornett, Author, Biologist
- April 8 **A History of Condor Field in 29 Palms**
John Hale, Historian
- May 13 **Artists and the Desert Light: A History**
Steven Biller, Editor In Chief, Palm Springs Life
- June 10 **Cultural Resources of the Mojave National Preserve**
David Nichols, Archaeologist, Mojave National Preserve

Lectures begin at 7 pm, \$5 at the door
Old Schoolhouse Museum
6760 National Park Drive, Twentynine Palms
760-819-4714/desertinstitute@joshuatree.org



Special Programs

If your group, large or small, is searching for a special Joshua Tree National Park experience tailored to your interests, the Desert Institute will design an educational class just for you. We'll ensure that the activity level and optional field component will perfectly match your needs for one-day or multi-day excursions.

Day with a Desert Naturalist

Learn the secrets of Joshua Tree National Park in an all-day field class with a desert naturalist. Groups will explore the unique landscape of the park focusing on an area of interest to them. Common topics to be covered are geology, cultural history, flora, and ecology found in the vast valleys, rock mazes, desert cactus gardens, and Joshua tree forests. Most programs cover eight miles at a moderate pace with uneven terrain and moderate elevation gain. A sample day with a Desert Naturalist could include **Discover the Wonderland of Rocks**.

Sunrise or Sunset Photographic Workshops with a Master Photographer

Let us show you where and how to take stunning sunrise or sunset images in Joshua Tree National Park! We can create a customized program to spend four hours in the morning or evening photographing the iconic boulders and Joshua trees. This workshop is perfect for those photographers looking to improve on composition and create unique and original imagery. Working with our instructors will help you make sense of the landscape and begin to understand how to make effective images in this truly bizarre and wonderful terrain. If you're just a beginner, no problem! This workshop will provide you with beginning instruction in landscape photography, filter use, and sunset or sunrise silhouettes.



The park has some of the darkest night skies in Southern California, making Joshua Tree a stargazer's paradise. We now offer star gazing programs for small groups.

| PROGRAM COST | |
|-----------------------------------|--|
| 1/2 Day (up to 4 hours) | \$300 for the first 4 people; \$30 per person thereafter |
| Full day (7-8 hours) | \$475 for the first 4 people; \$45 per person thereafter |
| Rates effective through June 2022 | |

Joshua Tree National Park Association

Your support is critical to maintaining the beauty and integrity of Joshua Tree National Park's unique ecosystems. The Joshua Tree National Park Association has been the park's non-profit cooperating partner since 1962, with a mission to assist with natural and cultural resource preservation and educational activities of Joshua Tree National Park. Programs and projects that cannot be achieved through federal funds and personnel are made possible through the Joshua Tree National Park Association. We offer several ways for friends of Joshua Tree National Park to get involved and make a valuable contribution toward preserving this national treasure for future generations.

MEMBERSHIP

As a member of the Joshua Tree National Park Association, you will help the park achieve its education, interpretive, and research goals. Your membership supports education materials for students, the park's library and historical collection, and scientific research.

Membership benefits include:

- 15% off merchandise at Joshua Tree National Park Association Visitor Center bookstores
- \$10 off Desert Institute classes
- Invitations to special events
- Reciprocal discounts at association bookstores at most other National Parks
- Membership sticker to show your support
- **Keys Views** newsletter

Additional premiums come with our appreciation for your support at Supporting, Patron, Contributing, Sustaining, and Benefactor levels. Full details are available on our website and membership brochure, or by calling our membership office at 760-367-5535.

VISITOR CENTER BOOKSTORES

Joshua Tree National Park Association operates bookstores in each of the Park's four Visitor Centers. Sales in our stores account for a significant portion of the Association's revenues, and our non-profit mission means that proceeds from our sales support natural and cultural resource preservation and educational activities of Joshua Tree National Park.



Joshua Tree Visitor Center



Oasis of Mara Visitor Center



Cottonwood Visitor Center



Black Rock Visitor Center



Desert Institute Volunteer Training

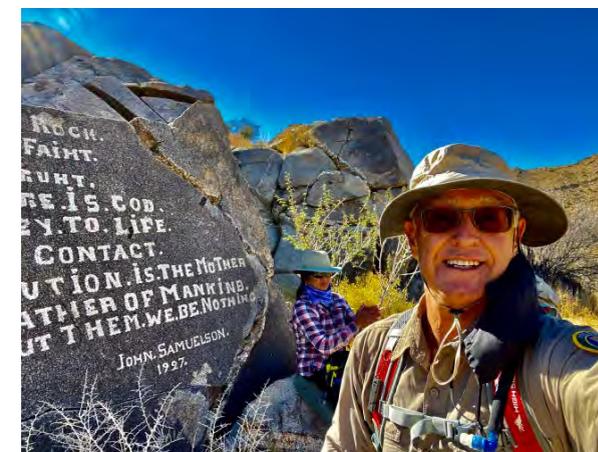
Desert Institute volunteers are the "heart and soul" of our outdoor education program. If you are interested in joining this large and dedicated team, you can take part in our next volunteer training program on January 29 - 30, 2022. Topics include:

- Joshua Tree National Park Association and Desert Institute overview
- Role of the volunteer in the Desert Institute program
- Volunteer responsibilities
- Job descriptions
- Pre-course/during/post-course checklists
- Emergency call guide/action plans/incident report
- Desert Institute program needs
- Risk minimization, group management, and safety management
- National Park Service emergency radio use and satellite radio use
- National Park Service volunteer protocols and guidelines
- Uniforms and ID badges
- First aid and CPR training



Photo by Richard Arnold

For more information, please contact: desertinstitute@joshuatree.org



Photos by Bob Grubbs

Volunteering with the Desert Institute is a fulfilling experience in many ways.

I am a retired Park Ranger and I take my position as a lead volunteer very seriously because we are the right hand of the Desert Institute, and our student guests rely on us for their safety, our experience, and our knowledge of the Mojave Desert. I volunteer on many of the natural science classes, which gives me a chance to expand on my knowledge with our excellent teachers, and share my enthusiasm for the beauty of our amazing desert with all the students. I find volunteering with the Desert Institute incredibly rewarding.

I like the positive energy that I feel from both the participants and volunteers in our classes. We all have chosen to be there to enjoy our National Park's beauty and learn something in the process.



Photo by Travis Puglisi



Painting by Janis Commentz

"Sunset Descent" by Travis Puglisi

The Desert Institute is committed to providing a rich, inclusive learning environment aimed at inspiring people of all ages and backgrounds to appreciate and preserve cultural resources and natural places associated with Joshua Tree National Park and surrounding public lands.

