Modern Techniques Preserve the Past

Melanie Yeager
Museum Registrar

Numerous articles and stories have been written and told about the legendary life of William F. Keys, his family, and the ranch, in the Hidden Valley area, on which they lived. Hundreds of visitors take the guided tour of the family’s Desert Queen Ranch, but few will notice the rehabilitation efforts taking place in and around the ranch complex.

After Mr. Keys’ death in 1969 the park’s management of the ranch was based on “benign neglect,” and for two decades the ranch remained as Mr. Keys left it.

Benign neglect is a management tool used in areas where the park’s administrative plan calls for non-intervention. Natural forces are allowed to reclaim the area, and the desert ecosystem is permitted to reestablish itself. Over the years, the ranch structures have been buffeted by the wind, rain has melted adobe, wood rot and termites have weakened structural supports, and desert vegetation has overtaken the garden.

Because the Desert Queen Ranch is considered a significant example of subsistence living in an arid environment and is listed on the National Register of Historic Places, the National Park Service has renewed its interest in interpreting the ranch.

Funds have been made available for building stabilization. Maintenance staff trained in historic structure stabilization/restoration and volunteer caretakers have been working miracles at the ranch, with professional assistance from the National Park Service’s Western Region Division of Historic Preservation.

Sagging buildings are being straightened and reinforced, floors and leaking roofs are being replaced or repaired, and encroaching vegetation is being removed. Since the Keys family built the ranch with odds and ends and salvaged materials, care is being taken to replace with similar materials and to brace the structures internally, leaving the exterior as original as possible.

Dick Capps, maintenance crew project leader, says the challenge is to “make the structures sturdier, but not change the building,” and to know when to stop because “there’s always another problem farther back. But you have to stop somewhere before you totally change everything.” Dick and his crew have mainly used new materials, but they have found some of the boards they have used in old woodpiles. The materials used are as close to the original as possible and then artificially “distressed” to get the old and weathered appearance. Each newly placed piece is carefully marked with the day’s date to ensure that it is never confused with the original boards, and careful notes and photographs are taken to document the work.

Both the maintenance crew and the volunteers agree—you never know what you’re going to find while working on the ranch. While removing wall and ceiling boards in the main house, the maintenance crew found paper cutouts of Campbell’s Soup dolls behind the baseboards. Harmon and Nelda King, the Desert Queen Ranch volunteer caretakers, found lead bullets in the dead tree trunk which was removed from the main house area and a pair of women’s glasses in the garden.

The Kings have spent two winters at the ranch as volunteer caretakers. They say that many visitors don’t realize at that time a lot of people lived under conditions similar to those found at the Desert Queen Ranch. They should know—in 1936 Harmon’s parents bought a house in Oregon very similar to the Keys’ ranch house but in worse shape. They fixed it up, and a family member still lives in it. When commenting on the mix of building materials used at the ranch, Harmon says that “if you didn’t have it you did the best you could.”

The Kings’ experience repairing their own home is now helping them improvise and work out rehabilitation problems. To “age” new wood, the Kings have found that by using a metal brush to make grooves, and then using a propane torch, they can get the wood to look darker and weathered. The Kings are responsible for, among other things, camouflaging modern conveyances such as pit toilets and garbage cans, making new signs look old, and cleaning out buildings and clearing brush.

The work at the Desert Queen Ranch is ongoing. Future projects may include rebuilding the windmill, reroofing the schoolteacher’s house, reactivating the garden, repairing the interior of the main house, and developing living history programs.

Plan a visit to the Keys’ Desert Queen Ranch while you are at Joshua Tree National Monument. The public is only allowed to visit the ranch on guided walks. Tours are held on Saturdays and Sundays from mid-February through May and from mid-October through mid-December. For current tour times check at a visitor center, call (619)367-7511, or look on a park bulletin board.
What to See and Do

For the first-time visitor the desert may appear bleak and drab. On closer examination the desert is actually full of fascinating and unique living systems interwoven together. A rich cultural history and surreal geologic features add allure to the desert. The monument offers the visitor endless attractions and opportunities for exploration and discovery. Depending on the number of hours you want to spend and your interest, here are some ideas to help you plan your visit.

IF YOU HAVE FOUR HOURS OR LESS, begin your visit at a park visitor center. The Oasis Visitor Center in Twentynine Palms is open 8 a.m. to 4:30 p.m. daily except Christmas. The Black Rock Canyon and Cottonwood visitor centers are open daily 8 a.m. to 4 p.m. except for Christmas and occasional closures due to staff shortages. Park brochures and newspapers, cultural and natural history exhibits, and specific information are available at the visitor centers.

With limited time you may want to confine your sightseeing to the main park roads. Many pullouts with wayside exhibits dot the park roads. Another article on page 4 lists nature trails and short walks located throughout the monument. Consider experiencing at least one of these walks during a short park visit.

IF YOUR PLAN TO SPEND AN ENTIRE DAY, be sure to include several nature trails in your schedule. If you are in the park mid-October to mid-December or mid-February through mid-May, plan to participate in ranger-led programs Fridays through Sundays. Check at the visitor centers and the bulletin boards in the campgrounds for program listings. These presentations will add enjoyment and understanding to your visit.

If solitude is what you are after, plan an all-day hike. Obtain hiking maps and trail information from the visitor centers. The desert, fascinating as it is, can be life-threatening for those unfamiliar with its potential dangers. Be sure to review “Desert Safety Check List” on page 8 before you go hiking.

Remember, dogs are not allowed more than 100 yards (90 meters) from any road, campground, or picnic area. Some visitors like to experience the desert from the seat of a mountain bike. Bicycles are considered vehicles and are not allowed anywhere off roads. They are not allowed on trails, service roads, or any other roads closed to vehicle traffic. Refer to mountain biking article on page 8 for more information.

Joshua Tree National Monument has gained international attention as a superb rock-climbing area. Many visitors flock to the park to climb or to watch the rock climbers in action.

Some Park Regulations And Why

National parks and monuments are protected.

Plants and animals removed from their unique environments soon perish. Removal, disturbance, destruction, and disfigurement of anything is prohibited. This will permit those who come in the future to enjoy this park as you have.

Feeding of wildlife is prohibited.

Feeding coyotes, ground squirrels, and other animals means them from their natural food supplies, causes over-population problems, and turns them into dangerous creatures as they lose their fear of humans. Keep the wildlife wild.

State and federal vehicle laws apply in the monument.

Park roads are narrow and winding. Some areas are congested. The vehicle laws and speed limits are there for your own safety and well being. Pets cannot be left unattended. They must be on a leash at all times. They are prohibited on trails and beyond 100 yards (90 meters) from any road, campground, and picnic area.

The sight of your pet, the noises it makes, and the scents and waste products it leaves behind, can disrupt the natural wildlife community and reduce the survival of some of its inhabitants. Some pets are considered delicacies by local predators. Your pet may also be an annoyance to other visitors.

All vehicles, including bicycles, are prohibited off established roads.

The desert ecosystem is fragile. Vehicle tires destroy vegetation. Off-road driving or riding creates ruts, upsets the delicate drainage patterns, compacting the soil, and leaving visual scars for years. Plants are crushed and uprooted. Wildlife homes and shelters are destroyed and their food and water supplies are altered or obliterated.

Collecting any vegetation, living or dead, is prohibited. Fires are limited to campground and picnic area fireplaces. Gathering native vegetation or building fires outside designated fireplaces creates fire hazards and radically alters the appearance and life cycle of the desert. Desert vegetation grows slowly and depends on recycling decomposed organic material for survival. Ashes remaining from a fire take years to disappear, meanwhile spoiling the sight other visitors may have traveled a thousand miles to enjoy.

Dispose of your trash properly. The dry desert climate cannot quickly decompose paper, aluminum, glass, and other litter.

Certain areas within the monument are designated as restricted or day use only. Entering restricted areas is prohibited. Some areas are privately owned; others protect wildlife or historical sites. Day use areas are set aside to protect sensitive populations of wildlife. They are closed from dusk to dawn.

Prospecting, including the use of metal detectors, is prohibited. These practices remove formations other visitors would enjoy seeing, disturb plants and animals, and scar the landscape.

Firearms, fireworks, traps, bows and arrows, BB guns, slingshots are not allowed.
### Campgrounds

<table>
<thead>
<tr>
<th>Campground</th>
<th>Elevation</th>
<th>Number of Sites</th>
<th>Number of Sites - Individual/Family</th>
<th>Group Reservation Required</th>
<th>Fee/Group Site(s)</th>
<th>Fee/Individual/Family Site(s)</th>
<th>Water</th>
<th>Chemical Toilets</th>
<th>Flush Toilets</th>
<th>Fireplaces</th>
<th>Dump Station</th>
<th>Horses Permitted</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belle</td>
<td>3,800'</td>
<td>17</td>
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<td></td>
<td>Campsite No.62 is wheelchair accessible</td>
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<tr>
<td>Black Rock Canyon</td>
<td>4,000'</td>
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</tr>
<tr>
<td>Cottonwood</td>
<td>3,000'</td>
<td>62</td>
<td>3 $8/i $15/g</td>
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<td>Group site No.2 is wheelchair accessible</td>
</tr>
<tr>
<td>Hidden Valley</td>
<td>4,200'</td>
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<tr>
<td>Indian Cove</td>
<td>3,200'</td>
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<td>13 $15/g</td>
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<td>Group sites 1-2 $30/night Group sites 3-13 $15/night</td>
</tr>
<tr>
<td>Jumbo Rocks</td>
<td>4,400'</td>
<td>125</td>
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<td>Campsite No.11 is wheelchair accessible</td>
</tr>
<tr>
<td>Ryan</td>
<td>4,300'</td>
<td>29</td>
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<tr>
<td>Sheep Pass</td>
<td>4,500'</td>
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<td>$10/g</td>
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<tr>
<td>White Tank</td>
<td>3,800'</td>
<td>15</td>
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</tbody>
</table>

- Showers are not available. There are no hookups for recreational vehicles.
- Quiet hours are from 8 p.m. to 7 a.m. This includes generators and motors.
- Bring your own water. If you run out of water, it is available at the Oasis Visitor Center in Twentynine Palms, Indian Cove Ranger Station, and Black Rock Canyon and Cottonwood campgrounds.
- Obtain reservations for individual/family sites at Black Rock Canyon and all group sites by calling 1-800-365-2267. All other campgrounds are first come, first served—it is wise to arrive as early as possible.
- Bring your own firewood and kindling. All vegetation in the monument is protected.
- There is a 14-day camping limit from September through May and a 30-day limit from June through August.
- Campfires are allowed in designated firepits only.
- Belle and Ryan campgrounds are usually closed during the summer when the park is less crowded.
- When in doubt, ask a ranger.

Be an inspiration to the others. Leave your campsite as clean or cleaner than when you found it.

### HIKING TRAILS IN JOSHUA TREE NATIONAL MONUMENT

**FOR INFORMATION ON OTHER HIKES IN THE PARK PLEASE REFER TO PUBLICATIONS AVAILABLE AT PARK SALES AREAS**

<table>
<thead>
<tr>
<th>Trail</th>
<th>Round-trip Mileage</th>
<th>Time</th>
<th>Starting Point</th>
<th>Trail Description/Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boy Scout</td>
<td>16 miles (25.8 km)</td>
<td>1-2 days</td>
<td>Indian Cove backcountry board or Keys West backcountry board 0.5 miles (0.8 km) east of Keys Springs picnic area</td>
<td>Scenic Trail through the westernmost edge of the Wonderland of Rocks. See backcountry article on page 5 for information on overnight use. Moderate.</td>
</tr>
<tr>
<td>49 Palms Oasis</td>
<td>3 miles (4.8 km)</td>
<td>2-3 hours</td>
<td>Parking area at end of Canyon Road, 4 miles (6.4 km) east of Twentynine Palms off Highway 62</td>
<td>Several stands of fan palms, evidence of past fires, and pools of water are found at the oasis. Moderately strenuous.</td>
</tr>
<tr>
<td>Lost Horse Mine/ Mountain</td>
<td>4 miles (6.4 km)</td>
<td>3-4 hours</td>
<td>Parking area 1.2 miles (1.9 km) east of Keys View Road</td>
<td>Site of ten-stamp mill and foundations. Summit elevation, 5278 feet (1,583 meters). Moderately strenuous.</td>
</tr>
<tr>
<td>Lost Palms Oasis</td>
<td>7.5 miles (11.2 km)</td>
<td>4-6 hours</td>
<td>Cottonwood Springs Oasis or Campground</td>
<td>A canyon with numerous palm stands. A side trip to Victory Palms and Munsen Canyon involves boulder scrambling. Moderate to oasis overlook, then strenuous.</td>
</tr>
<tr>
<td>Mastodon Peak</td>
<td>3 miles (4.8 km)</td>
<td>2 hours</td>
<td>Cottonwood Springs Oasis or Campground</td>
<td>Excellent views of the Eagle Mountains and Salton Sea. Summit elevation, 3,371 feet (1,011 meters). Moderate.</td>
</tr>
<tr>
<td>Ryan Mountain</td>
<td>3 miles (4.8 km)</td>
<td>2-3 hours</td>
<td>Ryan Mountain parking area or Sheep Pass Campground</td>
<td>Excellent views of Lost Horse, Queen, and Pleasant valleys. Summit elevation, 5461 feet (1,638 meters). Strenuous.</td>
</tr>
</tbody>
</table>

Thirty-five miles of the California Riding and Hiking Trail pass through the monument. Access to the trail is at its junction with Covington Flats, Keys View, and Squaw Tank (Geology Tour) roads; at Ryan Campground; south of Belle Campground; and near the north entrance to the monument. This allows for shorter hikes of 4, 6.7, or 11 miles (6.4, 10.7, or 17.6 km). Two to three days are required to hike the entire length of the trail.
NATURE TRAILS
Short walks, most with informational signing
Watch for sign shown at left

<table>
<thead>
<tr>
<th>Trail</th>
<th>Mileage</th>
<th>Starting Point</th>
<th>Trail Highlights</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arch Rock</td>
<td>0.3-mile (0.5-km) loop</td>
<td>White Tank Campground, opposite site 9</td>
<td>Signs along the trail interpret the geology of the area and the natural creation of an arch.</td>
</tr>
<tr>
<td>Barker Dam</td>
<td>1.1-mile (1.8-km) loop</td>
<td>Hidden Valley Campground and follow the dirt road that goes off to the right. Follow the signs to the parking area.</td>
<td>The loop trail brings you to Barker Dam, built to collect water for the cattle of early ranchers. The trail back to the parking lot takes you past Native American petroglyphs. These authentic carvings were unfortunately painted over by a film crew in an attempt to make them more visible.</td>
</tr>
<tr>
<td>Cap Rock</td>
<td>0.4-mile (0.6-km) loop</td>
<td>Cap Rock parking area, southeast of Hidden Valley Campground at the junction with Keys View Road.</td>
<td>The paved trail leads you past fascinating rock formations, with signs interpreting the geology and plants of the Mojave Desert.</td>
</tr>
<tr>
<td>Cholla Cactus Garden</td>
<td>0.25-mile (0.4-km) loop</td>
<td>Point of interest 9 on the park brochure map. On the main park road, 20 miles (32.0 km) north of the Cottonwood Visitor Center.</td>
<td>The trail travels through an unusually dense concentration of Bigelow cholla. A brochure, available at the start of the trail, helps you pick out the well-camouflaged homes of pack rats inhabiting the garden, as well as other wildlife and vegetation characterizing the Colorado Desert.</td>
</tr>
<tr>
<td>Cottonwood Springs</td>
<td>1-mile (1.6-km)</td>
<td>Cottonwood Campground, sites 13A and 13B (north end) or Oasis parking lot (south end).</td>
<td>Signs interpret the plants and animals of the Colorado Desert as the trail travels through rolling hills on its way to the Cottonwood Springs Oasis.</td>
</tr>
<tr>
<td>Hidden Valley</td>
<td>1-mile (1.6-km) loop</td>
<td>Hidden Valley picnic area, point of interest 9 on the park brochure map.</td>
<td>The trail, which involves some easy boulder scrambling, takes you into a rock-enclosed valley rumored to have been used as a hideout for cattle and horse rustlers in the late 1800's.</td>
</tr>
<tr>
<td>High View</td>
<td>1.3-mile (2.1-km) loop</td>
<td>South Park parking area, to the northwest of Black Rock Canyon Campground.</td>
<td>The view from the top, near Summit Peak (elevation 4,500 feet or 1,372 meters), makes this hike well worth its moderately steep, 300-foot (90-meter) elevation gain. A brochure, describing the flora and scenery along the trail, is available at the Black Rock Canyon Visitor Center.</td>
</tr>
<tr>
<td>Indian Cove</td>
<td>0.6-mile (1.0-km) loop</td>
<td>West end of Indian Cove Campground.</td>
<td>This easy trail follows a wash for most of the walk. Watch for desert tortoises, as Indian Cove is a favorite habitat area. If you do spot one, please observe it quietly from a distance. Tortoises are protected by state and federal law.</td>
</tr>
<tr>
<td>Keys View</td>
<td>0.25-mile (0.4-km) loop</td>
<td>Keys View, point of interest 6 on park brochure map.</td>
<td>This outstanding scenic point gives a superb sweeping view of the valley, mountains, and desert from its elevation of 5195 feet (1,558 meters).</td>
</tr>
<tr>
<td>Oasis of Mara</td>
<td>0.5-mile (0.8-km) loop</td>
<td>Oasis Visitor Center, Twentynine Palms.</td>
<td>The Oasis was once a popular gathering place for several tribes of Native Americans, including the Serrano, Cahuilla and Chemehuevi. This easy, paved trail is a good introduction to the monument.</td>
</tr>
<tr>
<td>Skull Rock</td>
<td>1.7-mile (2.7-km) loop</td>
<td>Jumbo Rocks Campground, beyond Loop E entrance.</td>
<td>Interpretive signs guide you through boulder piles, desert washes, and a rocky alleyway. The trail crosses the road and loops back to the campground entrance.</td>
</tr>
</tbody>
</table>

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[Map 1: Hidden Valley Campground, Barker Dam, Cap Rock, Cholla Cactus Garden, Cottonwood Springs, Hidden Valley Picnic Area, South Park, Indian Cove, Keys View, Oasis of Mara, Skull Rock]

[Map 2: Cap Rock, Barker Dam, Hidden Valley Picnic Area, Keys View, Oasis of Mara, Skull Rock]

[Map 3: Jumbo Rocks Campground, To Joshua Tree, To Keys View, To 29 Palms]
Joshua Tree National Monument is a backpacker's dream with its mild fall-winter climate and interesting life and earth forms. It embraces 558,000 acres (223,200 hectares) of land of which 467,000 (186,800) have been designated wilderness. By observing the guidelines below, your venture into the backcountry should be safe and enjoyable. It is your responsibility to know and abide by the park regulations. If you have any questions, ask a ranger.

All overnight users must register at a backcountry board before entering the backcountry.

The map on this page indicates the location of the twelve backcountry boards. Follow the instructions for self-registration. Unregistered vehicles or vehicles left overnight anywhere other than at a backcountry board are subject to citation and/or towing.

All wilderness camping must be at least one mile (1.6 km) from any road and 500 feet (150 meters) from trails. Camping is prohibited in day-use areas and at any natural or man-made water source, including springs, seeps, dams, and tanks.

Campsites must be 1/4 mile (400 meters) from water sources.

The same map shows the general location of each day-use area. It is your responsibility to know the exact day-use area boundaries. Contact a ranger if in doubt. Camping in washes is not recommended because of potential flash flood dangers.

All pets are prohibited on trails and in backcountry.

All bicycles are prohibited on trails and roads closed to motor vehicle traffic.

All open fires are prohibited. Camp stoves only.

All weapons, traps, and nets are prohibited. This includes possessing, using, discharging, or carrying.

Pack out all garbage.

Buried trash will be dug up by animals and scattered by the wind creating an unappetizing sight. Bury human waste in holes at least six inches (15 cm) deep and pack out toilet papers in a zip-lock bag.

CARRY A MINIMUM OF ONE GALLON (3.8 LITERS) OF WATER PER PERSON PER DAY

CARRY TWO GALLONS (7.6 LITERS) PER PERSON IN HOT WEATHER OR IF PLANNING A STRENUOUS TRIP. CARRY ADDITIONAL WATER FOR COOKING AND PERSONAL HYGIENE.

CARRY A TOPOGRAPHIC MAP AND COMPASS. KNOW HOW TO USE THEM.

Include in your gear plastic garbage bags or raincoat, flashlight, mirror, whistle, first-aid kit, pencil and paper, pocket knife, and extra food. Do not use freeze-dried food unless you plan to carry extra water to use for cooking.

Dress for the weather.

Temperature drops of 40°F (22°C) in a 24-hour period are common in the desert. Wear a hat, sunglasses, and sturdy boots. Use sunblocking lotion liberally.

Bring warm clothes, including a wool sweater, that can be layered for best protection against sudden changes in weather condition.

Pay close attention to the weather.

Flash floods do occur. Be prepared for rain and/or snowstorms in winter.

Do not attempt to climb cliffs or any steep terrain without adequate equipment and training. Accidents can be fatal.

The following is prohibited:

- Possessing, destroying, disturbing, injuring, defacing, removing, and digging from its natural state
  - a. Living or dead wildlife
  - b. Plant or plant parts, both living and dead
  - c. Non-fossilized or fossilized specimens
  - d. Mineral resources such as stones, sand, rock formations, and mineral elements
  - e. Any archaeological or historic site or structure, including mines and mining areas

- All stock animals are subject to the following restrictions for resource preservation and the enjoyment of others:
  - a. No overnight backcountry camping without special permit
  - b. No grazing permitted
  - c. No stock animals within 1/4 mile (400 meters) of any natural or man-made water sources, including springs, seeps, dams, or tanks

- Road Mileage

  - Oasis Visitor Center to Point 1 = 8 miles (12.9 km)
  - Point 1 to Cottonwood Visitor Center = 30 miles (48.3 km)
  - Point 1 to Point 2 = 11 miles (17.7 km)
  - Point 2 to Keys View = 5.6 miles (9.0 km)
  - Point 2 to West Entrance = 10.5 miles (16.8 km)
  - Oasis Visitor Center to Indian Cove = 10 miles (16.1 km)
  - Oasis Visitor Center to Black Rock Canyon = 28 miles (45.1 km)
Spring and Summer Birding at Joshua Tree

An increase in bird activity signals the approach of spring in the desert. If the rains of winter have been good, birds will have a better than average nesting season. These rains will increase the plant life which produces the seeds that are the fuel for many birds. The plants also provide food for the insects and rodents which are food sources for many other birds. Even seed-eating birds need insects to feed their nestlings.

About sixty species of birds are known to nest in the monument. Some of these are year-round residents, while others spend the winter months south of the United States, returning north each year for the nesting season.

Records of bird observations are kept at the monument in an effort to gain more knowledge of nesting habits. These records have led to the publication of a bird checklist which can be purchased at the visitor center for twenty-five cents. This list is a handy guide to birds you might see in a particular season and to how common they may be. With the help of visitors, the park staff continues to update these records. If you see any birds that are not on the checklist, please report them.

By the time spring arrives several birds have nests under way or have raised young already. In some areas Anna’s hummingbirds may nest in January and then again in early spring. The best places to see these hummingbirds are probably near the visitor center at Twentynine Palms or around Cottonwood Spring near the south entrance to the park.

The only other resident hummingbirds are the Costa’s. They nest a little later in the season than the Anna’s. Costa’s hummingbirds are found throughout the monument, especially near washes with flowering bushes and trees. Several other species, such as the rufous and black-chinned hummingbirds, are seen in the area during migration.

Most birds of prey nest early in the season and have young in the nest by March. Red-tailed hawks and American kestrels are the most common of this group. Less common, but resident in the area, are prairie falcons, golden eagles, and Cooper’s hawks. At night owls take over the duty of prey hunting from the hawks. The most common owls seen or heard in the monument are barn owls, screech owls, and great-horned owls. Since birds of prey require a large area for hunting, they are widely scattered throughout the park.

As spring progresses and plants blossom, more birds begin to nest. Washes are good places to look for birds. These water courses contain the most plants. Birds to look for are ash-throated flycatchers, Say’s phoebes, verdins, cactus wrens, and rock wrens. You may also find northern mockingbirds, LeConte’s thrashers, black-tailed gnatcatchers, phainopeplas, and loggerhead shrikes.

Some of the most visible washes are on either side of Indian Cove Campground, in the area below the oasis at Cottonwood Spring, and around the Pinto Basin. In the Yucca Valley area, a good spot is Black Rock Canyon Campground. In Twentynine Palms, check the trail around the oasis behind the visitor center.

Since many birds have specific relationships with certain plants, you need to be in the right habitat for the species of bird you’re interested in finding. Some plants fit the needs of more than one species. For example, Joshua trees provide nesting sites for red-tailed hawks, Scott’s orioles, ladder-backed woodpeckers, and northern flickers. Hooded orioles prefer California fan palms, sowing their nests under the fronds. Northern orioles weave their nests high in cottonwood trees. Some birds in the monument, such as California thrashers, scrub jays, rufous-sided towhees, and pinyon jays, range over plants such as junipers and pinyon pines.

Other birds that breed in the monument are not bound by a particular habitat, although they do need to be close to food and especially water. House finches stay within a mile or two of water but nest almost anywhere. Mourning doves also need water daily but will fly five or more miles to reach it.

On the other hand, this arid country we call desert has evolved some species of birds that need little or no water. Black-throated sparrows, verdins, and LeConte’s thrashers can get the moisture they need from food.

But humans need water on a regular basis. If you are out hiking, take your canteen along. Also wear proper shoes, a hat, and some sunscreen. Be aware there are snakes out during this season. Watch where you put your hands and feet. Use common sense. Go out and enjoy all the treasures of our parks and monuments.

Exploring the Night Sky

Roger A. Howell
Volunteer

This spring and summer there will be many evenings of astronomical delights for you to gaze skyward at while visiting Joshua Tree National Monument. The planets Venus, Jupiter, and Saturn will be visible along with several meteor showers. The Big Dipper, the Gemini Twins, and Leo the Lion will also be easy to spot in the spring skies. These “delights” are a great reason to join one of Joshua Tree’s star programs. (see schedule in this article)

First on the agenda this spring is the appearance of the spectacular planet, Jupiter, with its beautiful moons. Jupiter is the biggest planet in our solar system and will be visible in the constellation Virgo. You’ll be able to find Jupiter just after sunset by following the curvature of the handle of the Big Dipper toward the southeast. A good telescope will usually show more detail on Jupiter than any other planet—you’ll be able to see several cloud belts, dark patches, ovals, and even moons in orbit.

It is very easy to tell the difference between a planet and a star. Planets shine with a steady light, whereas stars have a tendency to twinkle. The Earth’s sister planet, Venus, can be seen this spring in the eastern dawn skies. Saturn will be a late night object rising in the east in the constellation Aquarius. In 1610, Galileo gazed at Saturn with his telescope and discovered that the planet wasn’t round—it appeared to have “ears.” Of course, the “ears” were the stunning rings of Saturn that you can view through a small telescope thanks to the clear skies at Joshua Tree.

The best views of celestial objects like galaxies, nebulae, and meteors come from dark sky areas like Joshua Tree. Galaxies are large collections of stars. The Milky Way, the galaxy we live in, is spectacular when viewed from the desert. It can be found in the night sky by drawing a line from the constellation Cassiopeia the Queen through Auriga the Charioteer.

In the early spring you will be able to spot the Orion Nebula in the west just after sunset. It can be seen as the middle “star” in the sword of the hunter Orion. The Orion Nebula is the birthplace of stars, literally a stellar nursery. A nebula is a large cloud of hydrogen gas in outer space that is collapsing and forming new baby stars. Stars are made mostly of hydrogen gas and create energy by “squeezing” hydrogen into the next heaviest element—helium. Meteors are dirty particles, better known as “shooting stars,” that burn up in the atmosphere. Meteors are what is left of comets like Halley’s Comet. A comet is a giant dirty frozen snowball. When a comet gets close to the sun it melts and leaves a fuzzy trail of debris which is known as the comet’s tail.

Meteors are some of this cometary debris entering the atmosphere.

This spring and summer at Joshua Tree you may witness several meteor showers. Meteor showers are named after the constellation from which they appear in the evening sky. The Lyrids in mid-April will come from the constellation Lyra. The Aquarids will be visible in early May and then again in late July. There will also be the Perseids in August.

If you would like to learn more about the dark skies over Joshua Tree National Monument, plan on attending a star program this spring. There will be a star talk on May 22, 8 PM, at Cottonwood Spring Campground campfire circle. The lecture includes a colorful astronomy slide show, a free star chart, and a chance to gaze through a telescope at the wonders of the cosmos. The Andromeda Astronomical Society will offer “star parties” in the Hidden Valley area on March 27, April 24, and May 22. Check at a visitor center or on park bulletin boards for the latest information on these programs.

As you gaze up at the heavens, be thankful that you have a beautiful place like Joshua Tree within just a few hours of the big city. You can escape here to dark skies to behold the wonders of the universe. Let us all help preserve Joshua Tree National Monument so that it may delight our children as it has brought joy into all our lives for so many years.
Fire Danger in Joshua Tree National Monument

Tom Patterson
Fire Management Officer

Joshua Tree National Monument offers the avid outdoor enthusiast a wide variety of recreational pursuits, including backpacking, rock climbing, camping, and picnicking. Although the National Park Service strives to provide the visitor a quality wilderness experience in the backcountry, certain restrictions are necessary in order to preserve this pristine desert environment for public enjoyment.

Perhaps the single most destructive force which would alter the desert landscape is human-caused fire. Prevention of all human-caused fires is a priority consideration of the park staff. The visitor is cautioned to be careful with fire, not only in wilderness areas of the monument, but also in developed campgrounds and picnic areas. Conditions for a major wildfire exist this summer due to the natural fuel buildup caused by above normal precipitation this past winter.

By February of this year, over 8 inches of rainfall had been recorded at the monument’s Lost Horse weather station. By comparison, that area’s annual average is 6 to 8 inches. The increased moisture has resulted in more grass to fuel a fire than has occurred in over six years.

During the last period of large fires, 1976-1988, rainfall averaged 7.4 inches and the monument experienced one 6,142-acre fire, one 4,463-acre fire, one 1,250-acre fire and, numerous smaller fires. More than 13,400 acres burned.

Park visitors are reminded that open fires are prohibited in the backcountry. The use of lightweight campstoves are far more efficient for cooking. Cool all stoves and lanterns before refueling. Place them on the ground in a cleared area to fill them. If fuel spills, move the appliance to a new clearing before lighting it. Never light stoves or lanterns inside a tent, trailer, or camper. Always read the instructions provided by the manufacturer prior to use.

While smoking is permitted outdoors, visitors should be careful to grind out cigarettes, cigars, or pipe tobacco and deposit the remains in a trash receptacle. Several wildfires have been caused by hikers burning their used toilet paper. This is an extremely unsafe practice, especially on windy days.

Half an hour before breaking camp in the developed areas, extinguish your fire completely by pouring water on it, and check by feeling the ashes with the back of your hand. Once you are assured that the fire is cold, you can leave knowing that your campfire will not cause any future problems.

By following these simple common sense fire safety tips your visit to Joshua Tree National Monument should be a happy memory.

JOIN THE JOSHUA TREE NATURAL HISTORY ASSOCIATION

The Joshua Tree Natural History Association, a non-profit support group, was established in 1960 to provide much needed financial and volunteer support to Joshua Tree National Monument. The association assists the National Park Service in the area of visitor assistance, environmental education programs for children, and outdoor classes and tours. The membership fees and the proceeds from sales of maps and publications enable the association to purchase equipment and supplies for the park interpretive programs. As an association member you will receive:

- A membership card
- A 10% discount on all publications sold by the association

To join the association, fill out and mail this form with a check or money order for $8.00 or a $5.00 renewal fee to:

JOSHUA TREE NATURAL HISTORY ASSOCIATION
74485 National Monument Drive
Twentynine Palms, CA 92277-3597

Name ____________________________
Address ___________________________
City ________________________________
State __________________ Zip _________

BOOKS FOR SALE

All profits go to the support of interpretive programs at Joshua Tree National Monument

- Joshua Tree National Monument: A Visitor's Guide ........................................... $5.50
- Trails Illustrated Topo Map .................................................................................. $7.95
- Joshua Tree: Desert Reflections ............................................................................ $3.00
- Hikes & Walks, 25 Trails In Joshua Tree National Monument ......................... $3.25
- Desert Survival Handbook ................................................................................... $4.50

Prices subject to change

Association members receive a 10% discount

Check the books you wish to order and mail with a check or money order to:

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74485 National Monument Drive
Twentynine Palms, CA 92277-3597

Make checks or money orders payable to Joshua Tree Natural History Association. Include 7.75% sales tax and $3.00 for shipping and handling.

More Than a Monument?

Bill Truesdell
Chief Naturalist

As of this writing, it is not known whether Joshua Tree National Monument will remain a monument or will become one of our newest national parks. Over the past seven years, several pieces of legislation have been introduced in the Senate and the House of Representatives under such titles as the Desert Protection Bill and the Desert Conservation Act. The initial bill, introduced by former California Senator Alan Cranston, called for greater protection of the California desert regions. It recommended expansion of Joshua Tree and Death Valley national monuments and proposed changing these monuments to national parks.

Currently, legislation is again before the Senate and the House of Representatives. These are differing pieces of legislation; one asks for greater protection of the desert than the other. Both, however, include a change of status to Joshua Tree National Park and Death Valley National Park. So it seems likely that before the end of spring there will be some form of legislation passed creating new national parks in Southern California.

What is the difference? A national monument is a land area set aside to preserve and protect significant historic or scientific resources. In 1906, in response to increased amounts of vandalism and theft of archeological and natural resources, Congress passed the Antiquities Act, authorizing the president to establish a national monument by proclamation. In 1936, President Franklin Roosevelt established Joshua Tree National Monument.

Creation of a national park requires legislation to pass in both houses of Congress and to be signed by the president. Legislation to establish the Joshua Tree area as a national park, initially called Desert Plants National Park, had been introduced in Congress in 1936 but failed to pass. So to protect the area’s native cacti and important archeological sites, which were being stripped and vandalized, the Antiquities Act was invoked by President Roosevelt to set aside a preserve—Joshua Tree National Monument.

Now, in 1993, we may still see a “desert park” bill pass both houses of Congress and be signed into law by President Clinton. If you arrive in Joshua Tree National Monument on the right day this year, you could be one of the first visitors to Joshua Tree National Park.

**Desert Safety ✓ List**

1. **Always** be sure that someone knows where you are going and when you expect to return. This is especially important if you travel or hike alone. However, hiking or traveling alone is NOT recommended.

2. **Always** carry plenty of water, at least 1 gallon (3.8 liters) per person per day; 2 gallons (7.6 liters) when it is hot or you are performing strenuous activity. Drink the water and do not economize. When the water is half gone, it is time to turn back.

3. Wear sturdy shoes, sunglasses, and a wide-brimmed hat. Apply sun screen. Wear layered clothing. Remember that the desert temperatures can reach over 90°F (32°C) and drop below 50°F (10°C) in one day, depending on the weather and where you are going.

4. Know how to use a topographic map and a compass if you hike cross-country or on trails that are not well defined. It is easy to become disoriented in the desert where many landmarks and rock formations look similar. Know your physical limitations in the heat and rugged desert terrain.

5. **Do Not Enter** mine shafts or associated buildings. They are extremely hazardous.

6. Keep your vehicle well-maintained. Carry extra water and non-protein food, shovel, tools, flares, and blankets. Check road conditions and beware of flash floods.

7. If you are stranded or lost in the desert, stay with your vehicle. It is much easier to spot a vehicle than a wandering person. If you must leave your vehicle, travel when it is cool. Carry all the water available and eat little or no food. Save your sweat by wearing clothing. Mark your routes with stones, notes, or whatever you can find. THINK AND DON'T PANIC. If you have followed the above steps, the park will begin a search immediately when you are reported missing.

8. Watch where you put your hands and feet especially during hot summer months. Snakes are active during this time of year.

9. Again, hiking or traveling alone is not recommended.

Mountain bikes and four-wheel drive vehicles are welcome in Joshua Tree National Monument. For your own safety and for the protection of the natural features of the monument please keep the following in mind:

- Bikes and all other vehicles must stay on established roads. Tire tracks on the open desert can last for years and will spoil the wilderness experience of future hikers.
- Paved roads in the monument are narrow without paved shoulders. Curves, boulder piles, and Joshua trees often restrict the vision of bikers and motorists.
- Helmets are highly recommended.

The unpaved roads in the monument are safer for bikes and offer many opportunities to explore the area. The following dirt roads are open to mountain bikes and four-wheel drive vehicles:

**Pinkham Canyon Road.** This challenging 20-mile (32.4-km) road begins at Cottonwood Visitor Center, travels along Smoke Tree Wash, then cuts down Pinkham Canyon. Sections of the road run through soft sand and rocky flood plains. The road ends at a service road next to Interstate 10.

**Black Eagle Mine Road.** Beginning 6.5 miles (10.5 km) north of Cottonwood Visitor Center, this dead-end dirt road runs along the edge of Pinto Basin, crosses several dry washes, then winds up through canyons in the Eagle Mountains. The first 6 miles (9.7 km) of the road are within the monument boundary. Beyond that point is Bureau of Land Management land and a number of side roads. Several old mines are located near these roads but may be dangerous to approach.

**Old Dale Road.** This 23-mile (37.3-km) road starts at the same point as the Black Eagle Road. For the first 11 miles (17.8 km), the road runs across Pinto Basin, a flat, sandy dry lake bed. Shortly after leaving the basin, the road climbs up a steep hill, then crosses the monument boundary. Near that point a number of side roads veer off toward old mines and private residences. If you stay on the main road you will come out on Highway 62, 15 miles (24.3 km) east of Twenty Nine Palms.

**Queen Valley Roads.** A network of roads, totaling 13.4 miles (21.7 km), crisscross this valley of boulder piles and Joshua trees. A bike trip can begin at Hidden Valley campground or at the dirt road opposite the Geology Tour road. Several bike racks have been placed in this area so that visitors can lock their bikes and go hiking.

**Geology Tour Road.** The road runs south from the paved road 2 miles (3.2 km) west of Jumbo Rocks. The distance from the junction to Squaw Tank is 5.4 miles (8.8 km). This section is mostly downhill but bumpy and sandy. Starting at Squaw Tank a 6-mile (9.7-km) circular route can be taken that explores Pleasant Valley. A guide to the road is available at the beginning of the road.

**Covington Flats.** The dirt roads in Covington Flats offer access to some of the monument's largest Joshua trees, as well as to junipers, pinon pines, and some of the lushest vegetation in the high desert. A nice trip is from the Covington Flats picnic area to Eureka Peak, 3.8 miles (6.2 km) one way. The dirt road is steep near the end, but the tops offers views of Palm Springs, the surrounding mountains, and the Morongo Basin. Your trip will be 6.5 miles (10.5 km) longer round-trip if you ride or drive over to the backcountry board, where some excellent hiking is available.

**Entrance Fees**

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<tr>
<td>Bus, Walk-in, motorcycle</td>
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**Joshua Tree Journal**

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