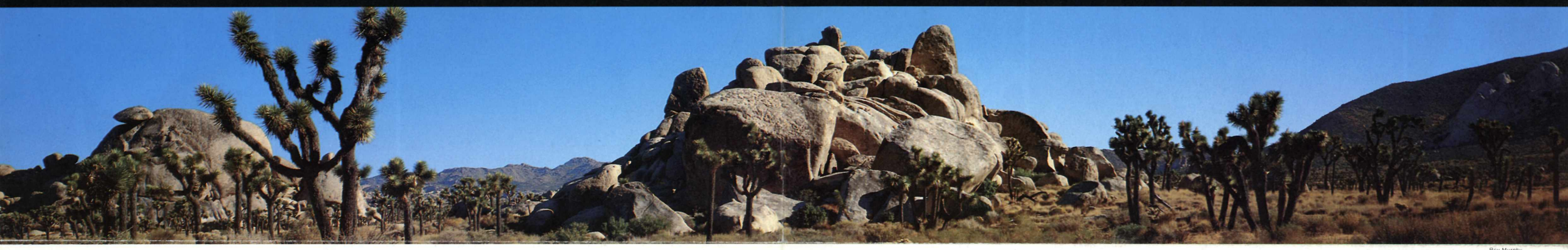
Joshua Tree

Joshua Tree National Park
California

National Park Service
U.S. Department of the Interior

Official Map and Guide



Roy Murphy

The desert is immense and infinitely variable, yet delicate and fragile. It is a land shaped by sudden torrents of rain and climatic extremes. Rainfall is sparse and unpredictable. Streambeds are usually dry and water holes are few. This land may appear lifeless, but within its parched environment are intricate living systems, each fragment performing a slightly different function, and each fragment depending upon the whole system for survival.

Two deserts, two large ecosystems whose characteristics are determined primarily by elevation, come together at Joshua Tree National Park. Few areas more vividly illustrate the contrast between high and low desert. Below 3,000 feet, the Colorado Desert, occupying the eastern half of the park, is dominated by the abundant creosote bush. Adding interest to this arid land are small stands of spidery ocotillo and jumping cholla cactus. The higher, moister, and slightly cooler Mojave Desert is the special habitat of the undisciplined-looking Joshua tree, extensive stands of which occur throughout the western half of the park. Standing like islands in a desolate sea, the oases provide dramatic contrast to their arid surroundings. Five fan palm oases dot the park, indicating those few areas where water occurs naturally at or near the surface to meet the life requirements of these stately trees. Oases once serving earlier desert visitors now abound in wildlife.

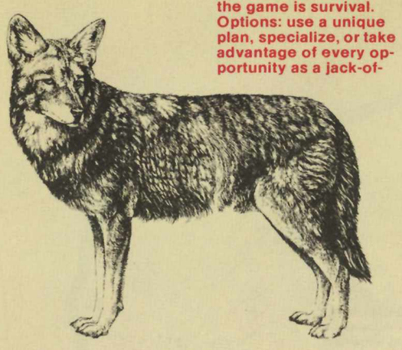
The park encompasses some of the most interesting geologic displays found in California's deserts. Exposed granite monoliths and rugged mountains of twisted rock testify to the power of the earth forces that shaped this land. Washes, playas, alluvial fans, bajadas, pediments, desert varnish, granites, aplite, and gneiss interact to form a giant desert mosaic of immense beauty and complexity.

As old as the desert may look, it is but a temporary phenomenon in the incomprehensible time-scale of geology. During the Pleistocene, one of the Southwest's earliest cultures, the Pinto people, lived here, hunting and gathering along a slow-moving river that ran through the now-dry Pinto Basin. Later, other American Indian groups traveled through this area in tune with harvests of pinyon nuts, mesquite beans, acorns, and cactus fruit, leaving behind rock paintings and pottery ollas as reminders of their passing. In the late 1800s explorers, cattlemen, and miners came to the desert. They built dams to create water tanks and dug up and tunneled the earth in search of gold. They are gone now, and left behind are their remnants: the Lost Horse and Desert Queen mines and the Desert Queen Ranch. In the 1930s homesteaders came seeking free land and the chance to start new lives. Today many people come to the park's nearly 800,000 acres of open space seeking the clear skies and clean air, the peace and tranquility, the quietude and beauty that only deserts offer.

The life force is patient here. Desert vegetation, oftentimes appearing to have succumbed to a harsh and unforgiving environment, lies dormant, anxiously awaiting the rainfall and mild weather that will trigger its growth, painting a profusion of colors. At the edges of daylight and under clear night stars is a fascinating multitude of generally unfamiliar desert wildlife. Waiting out daytime heat, these animals run, hop, crawl, and burrow in the slow rhythm of desert life. Under bright sun and blue sky, when the night creatures have long since sought shelter, bighorn sheep and golden eagles add an air of unfettered majesty to this land.

The desert. Some think it wretched and seemingly useless. For all its harshness, the desert is a land of surprising variety and complexity, a land of extreme fragility. Today's moment of carelessness may leave lasting scars or disrupt an intricate system of life that has existed for eons. Viewed from the roadside, the desert only hints at its hidden vitality. To the close observer, however, a tiny flower bud or a lizard's frantic dash reveals Joshua Tree as a place of beauty and life. Take your time as you travel through this area. Joshua Tree National Park provides a space for finding freedom from everyday routines, space for self-discovery, and a refuge for the human spirit. Let the desert take hold of you.

Faces and Forms of Life Within the Desert



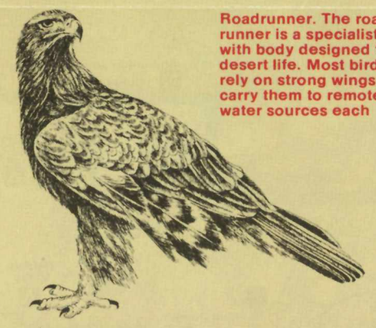
Coyote. The name of the game is survival. Options: use a unique plan, specialize, or take advantage of every opportunity as a jack-of-all-trades. The desert's most successful opportunist is the coyote. Its skill as a hunter, and its appetite for anything swallowable, ensures this desert carnivore's success. Its diet may include insects, lizards, snakes, birds, rodents, rabbits, carrion, fruit, nuts, grass, tennis shoes, or young tortoises. Coyotes are renowned for howling, but they also bark playfully.



Burrowing Owl. *Coo-c-o-o.* Hear the mellow, rolling call of the burrowing owl at evening. Vacant rodent burrows in open areas provide ready-made, well insulated homes for this small owl. Feeding on insects, reptiles, and rodents at dusk, it spends the warm daylight hours basking at the burrow entrance. Agitated, it bobs and bows, and cackles to ward off intruders.



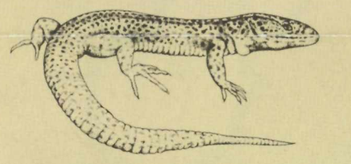
Bobcat. The short, powerful bobcat body is adapted to pounce from ambush on birds, rodents, and rabbits. Keen senses, patience, and night shadows aid this shy cat.



Golden Eagle. The rabbits and squirrels that evade the night hunters must still search the daytime skies for the silhouette of the stately golden eagle. Its keen eyes scan the landscape for the slightest motion as it soars from the mountain heights out over the valleys and desert floor. Its golden nape is visible only at close range. Its soft voice is rarely ever heard.



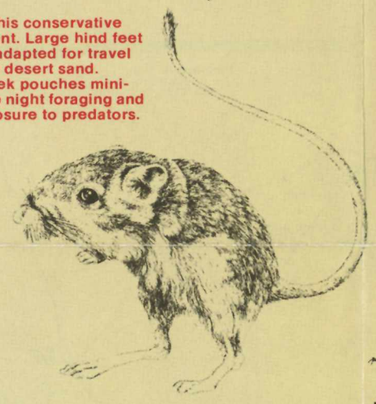
Roadrunner. The roadrunner is a specialist with body designed for desert life. Most birds rely on strong wings to carry them to remote water sources each day. Roadrunners get moisture from their prey: reptiles, insects, rodents, and young birds. Powerful legs, rather than wings, serve the bird well.



Yucca Night Lizard. This lizard may live its entire life under the protective bark of a decaying Joshua tree. Its narrow body fits in small crevices where it feeds on ants and termites attracted by the host tree's shelter from predators and climate.



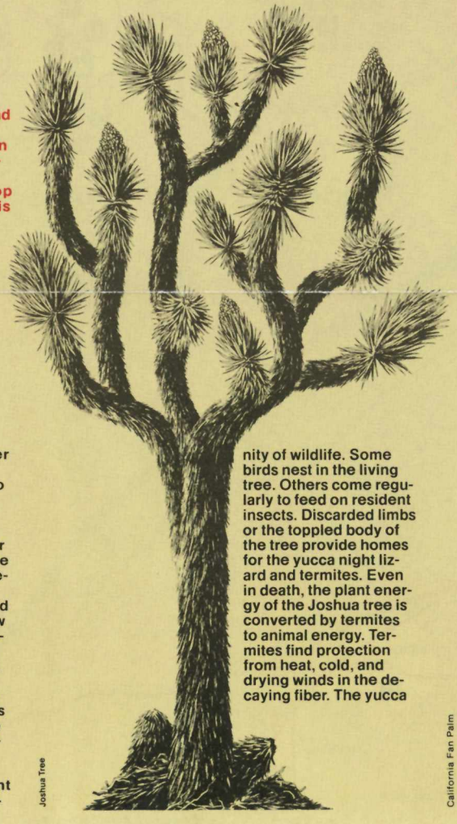
Jackrabbit. Muted jackrabbit fur colors provide a motionless defense from the searching eyes of many predators: coyote, bobcat, and eagle. Strong eyes and keen hearing send powerful legs into motion. Young are born well furred.



Kangaroo Rat. To survive in the desert on seeds alone is a challenge few can meet. Seed metabolism produces nutrients and minimal water, enough for this conservative rodent. Large hind feet are adapted for travel over desert sand. Cheek pouches minimize night foraging and exposure to predators.



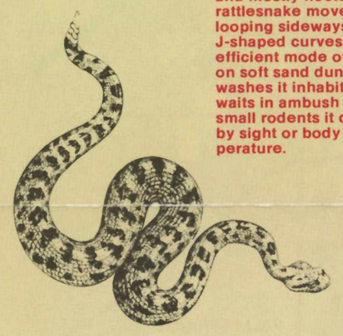
Stinkbug. Stilting across the sand, this large black beetle freezes in a handstand pose at the slightest disturbance. Emission of a pungent odor repels predators. The pose is enough to stop those familiar with this scavenger.



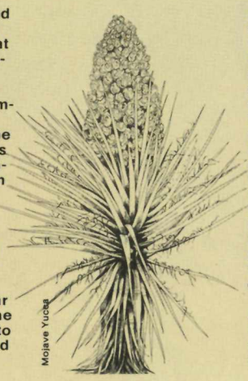
Joshua Tree



Tarantula. This largest desert spider is not poisonous to humans but bites painfully if provoked. It feeds on insects, but may fall victim to the large, colorful tarantula hawk wasp. A tarantula may inhabit a burrow for years.



Sidewinder. This small and mostly nocturnal rattlesnake moves by looping sideways in J-shaped curves, an efficient mode of travel on soft sand dunes and washes it inhabits. It waits in ambush for small rodents it detects by sight or body temperature.

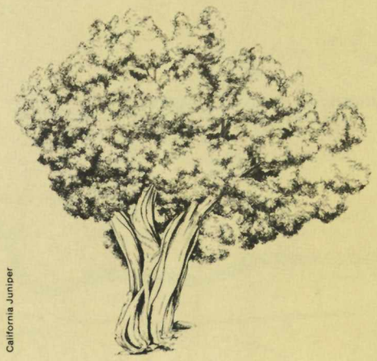


Mojave Yucca

Deserts are composed of plants and animals living together in what seems like an oppressive environment. Living and nonliving elements interact complexly, forming the desert ecosystem. The lifeblood, of course, is the sun's energy, converted to a living form by green plants.

Unlike most ecosystems, in which plants compete for space in the sun, the desert's sparsity is created in part by too much solar energy. Plants use one of two life strategies to survive. Annuals avoid the extremes, compress their life cycle, and exist while the environment is favorable. Sudden carpets of spring wildflowers are displays of awakened dormancy as seeds, like time travelers, revive to sprout, flower, and renew their kind. The alternate strategy is that of the patient perrenial. Conservative year-round residents like the Joshua tree flourish during the moist periods and bide their time during long droughts.

Many animals derive their energy from plants, but desert plants give up the fruits of their production only reluctantly. Sharp spines and chemical-laden leaves complicate the lives of plant-eaters. The kangaroo rat avoids these obstacles by eating seeds. While safe to eat, seeds can be hard to find. Many are small, looking surprisingly like the sand grains that offer them sanctuary. The kangaroo rat uses sensitive front paws to sift through sand, discovering seeds by smell as well as touch. Seeds consumed by the kangaroo rat are converted into animal tissue. Energy continues to flow through the web as kangaroo rats and other plant-eaters, such as jackrabbits, fall prey to meat-eaters. It takes many rabbits and rodents to feed a single owl, coyote, bobcat, or eagle, so there must be far more prey than predators. The original solar energy converted to plant tissue has now been transformed several times as it moves through the food web.

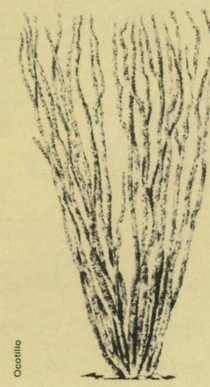


California Juniper

As the original source of living energy, plants fulfill a vital role in the food web. A large productive plant such as the Joshua tree (right) represents a focal point for a complex community of wildlife. Some birds nest in the living tree. Others come regularly to feed on resident insects. Discarded limbs or the toppled body of the tree provide homes for the yucca night lizard and termites. Even in death, the plant energy of the Joshua tree is converted by termites to animal energy. Termites find protection from heat, cold, and drying winds in the decaying fiber. The yucca night lizard finds the same environmental sanctuary along with its preferred food, termites. Energy continues to flow in the web as an owl or snake feeds on an unwary night lizard. As the Joshua tree continues to decompose, stinkbugs may nibble on the fiber, helping termites consume their home! Eventually all the plant's nutrients and energy have been transformed into another living form or released to the soil for use by other plants. The web is fragile, no stronger than its weakest link, yet it endures.



California Fan Palm



Ocotillo

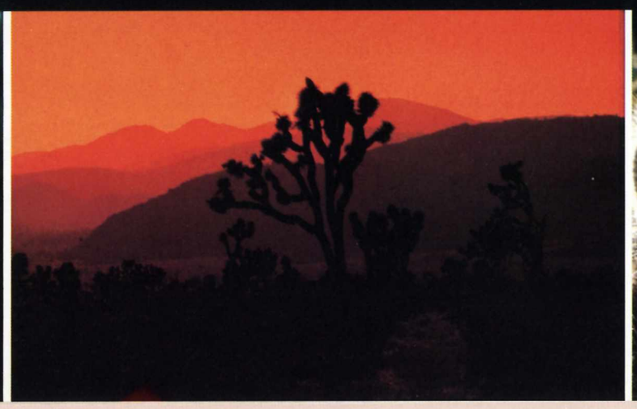
Illustrations by Gene Dieckhoner

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Cactus photos courtesy of Penny Knuckles

Enjoying Your Visit to Joshua Tree

Hours and facilities
You may visit the park year-round. Each season adds its signature qualities to the desert's character. Oasis Visitor Center is open daily from 8 a.m. to 5 p.m. Cottonwood Visitor Center is open daily from 8 a.m. to 4 p.m. The visitor centers, ranger stations, entrance stations, and outdoor exhibits are located along the main roads leading into and through the park. These provide information on what the park has to offer, as do publications sold by the Joshua Tree National Park Association at the visitor centers and at Black Rock Canyon.

Detailed information on weather, road conditions, backcountry use, campgrounds, and regulations may be obtained at visitor centers or entrance stations. Ranger-conducted activities—walks, hikes, and campfire talks—are conducted in the spring and fall. Check for activity schedules at campground bulletin boards, ranger stations, and visitor centers.

There are nine campgrounds with tables, fireplaces, and toilets. Several picnic areas for day use are available. You must bring your own water and firewood. Motels, stores, restaurants, dump stations, and vehicle services are located in nearby towns.

Getting to the Park
Joshua Tree National Park is about 140 miles east of downtown Los Angeles via I-10. The west and north entrances to the park are off Cal. 62 (Twentynine Palms Highway), at the towns of Joshua Tree and Twentynine Palms. The south entrance is at Cottonwood Spring, about 25 miles east of Indio off I-10.

Regulations
Please help us preserve and protect the park. So that future generations may enjoy it, too, we ask that you follow these regulations: Pets must be leashed at all times; pets are prohibited on trails and beyond 100 yards from any road, campground, or picnic area in the park. ● Motorized vehicles must stay on established roads. OFF-ROAD DRIVING IS PROHIBITED. ● Camping is permitted only in designated areas or with backcountry registration. ● Wildlife, plants, and natural, cultural, and archeological features are protected by federal laws, with fines and possible imprisonment for violations. Do not disturb, mutilate, deface, or remove natural or cultural objects. ● Firearms and explosives are prohibited. ● Obey posted speed limits. ● A Special Use Permit is required to conduct business in the park.

For Your Safety
Joshua Tree contains abandoned mines and associated structures that are potentially dangerous. Use extreme caution in driving or walking in the vicinity of all mine workings. Watch for open shafts and prospect holes. Supervise children closely and never enter abandoned mines. STAY OUT AND STAY ALIVE. ● Always carry enough water, at least 1 gallon per person per day, 2 gallons when it is hot or if you are performing strenuous activity. ● Because of the danger of flash floods, avoid drainage areas after thunderstorms or severe weather. ● When climbing, be sure you are properly trained and equipped. ● Watch where you put your hands and feet, especially in summer when snakes are active. ● IN AN EMERGENCY, CONTACT ANY RANGER, OR CALL 911 OR 909-383-5651.

More Information
Joshua Tree National Park is a unit of the National Park System, one of more than 370 parks that are important examples of our nation's natural and cultural heritage. Write: Superintendent, Joshua Tree National Park, 74485 National Park Drive, Twentynine Palms, CA 92277-3597. Call: 760-367-5500. Or, www.nps.gov/jotr. Additional information on California desert recreation can be found at www.californiadesert.gov.

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Exploring the Park (Numbered sites are keyed to the map.)

1 Oasis of Mara
Inhabited first by American Indian peoples and later by prospectors and homesteaders, the oasis today provides a home for park headquarters and the Oasis Visitor Center.

2 Fortynine Palms Oasis
This oasis, where water-loving plants thrive and thirsty animals come to drink, is accessible by a 1.5-mile, moderately strenuous trail.

3 Hidden Valley
A trail winding between massive boulders leads you through this legendary cattle rustler's hideout.

4 Barker Dam
Built about the turn of the 20th century to hold water for cattle and mining use, the dam today forms a small rain-fed reservoir used by park wildlife.

5 Lost Horse Mine
This historic site, representative of the park's gold prospecting and mining history, is accessible by a 2-mile trail.

6 Keys View
This outstanding scenic point overlooks an expanse of valley, mountain, and desert from its elevation of 5,185 feet.

7 Ryan Mountain
A 1.5-mile, moderately strenuous trail to the 5,461-foot summit offers several lookout points with fine views of Queen, Lost Horse, and Pleasant valleys.

8 Geology Tour Road
This 18-mile, self-guiding driving tour along a dirt road winds through some of the park's most fascinating rockscape. Four-wheel drive vehicles are recommended.

9 Cholla Cactus Garden
Bigelow cactus concentrate to form this desert "garden." A short, self-guiding nature trail, featuring plants and animals of the Colorado Desert, winds through this area.

10 Cottonwood Spring
Noted for its birdlife, this palm oasis is easily accessible by road. A small visitor center with exhibits is located about 1 mile away.

11 Lost Palms Oasis
This oasis, representing the largest group of palms in the park, may be reached by a 4-mile trail through interesting desert landscape.

12 Transition Zone
In this ecological melting pot, two great deserts, the Mojave and the Colorado, meet to create a zone that contains plants and animals representative of each.

