Oh, Ranger!®

YOUR COMPLETE GUIDE TO THE PARKS

COMPLIMENTARY ~~$3.95~~

2019/2020

DEATH VALLEY NATIONAL PARK

ACTIVITIES • SIGHTSEEING • DINING • LODGING
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WELCOME

In 1994, Death Valley National Monument was expanded by 1.3 million acres and redesignated a national park by the California Desert Protection Act. The largest national park below Alaska, this designation helped focus protection on one the most iconic landscapes in the world. In 2018 nearly 1.7 million people visited the park, a new visitation record.

Death Valley is renowned for its colorful and complex geology. Its extremes of elevation support a great diversity of life and provide a natural geologic museum. This region is the ancestral homeland of the Timbisha Shoshone Tribe. The Timbisha established a life in concert with nature.

Ninety-three percent of the park is designated wilderness, providing unique opportunities for solitude, primitive adventure and uninterrupted views, though with extreme conditions.

The Furnace Creek Visitor Center is a great place to ask about the many historic properties in the park.

This guide to Death Valley is provided by Death Valley Lodging Company, Xanterra Parks & Resorts® and American Park Network, and aims to foster an appreciation and respect for the park, while also providing information needed to make your visit smooth and enjoyable. The National Park Service is charged with preserving this country's national spirit and we recruit you to help care for the places saved by the American people so that all may experience our heritage for many years to come.

FUN FACTS

Established: Death Valley became a national monument in 1933 and is famed for being the hottest, lowest and driest location in the country. The parched landscape rises into snow-capped mountains and is home to the Timbisha Shoshone people.

Land Area: The park's 3.4 million acres stretch across two states, California and Nevada.

Highest Elevation: The top of Telescope Peak is 11,049 feet high. The lowest is -282 feet at Badwater Basin.

Plants and Animals: Death Valley is home to 51 mammal species, 307 bird species, 36 reptile species, two amphibian species and five fish species. In a place with little water, smaller species tend to thrive over larger ones.

Popular Activities: Visitors can take a self-guided hike, go backpacking, birdwatching and rent a Jeep to explore the backcountry.

Bicycling: Bikes are allowed on all park roads that are open to public traffic.

Hiking: Constructed trails are rare in the park. There are 12 popular routes and three additional self-guided trails (see the Walking and Hiking chapter).

Camping: There are nine main established campgrounds run by the park. Many of the 800-plus miles of backcountry dirt roads are open to camping

Lodging: The Stovepipe Wells Lodging Company, Panamint Springs Resort and Xanterra Parks & Resorts offer multiple hotel options in the park.

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American Park Network® publishes OhRanger.com, Oh, Ranger! ParkFinder™ and Oh, Ranger!® guides—a collection of visitor guides for public lands all across America—and operates Oh, Ranger! Wi-Fi in parks and public lands. American Park Network is an official partner of the National Forest Foundation, National Parks Conservation Association, National Fish and Wildlife Foundation, American Hiking Society and the Student Conservation Association.

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For answers to all your questions, go to OhRanger.com

WHAT'S NEW!
WE'RE ALL CONNECTED

"When we try to pick out anything by itself, we find it hitched to everything else in the Universe."
–John Muir

Mark, Joel & Alex – connecting in parks!

As a young man, John Muir, the naturalist known as, "Father of the National Parks," had an accident that left him temporarily blinded. It changed his life forever. When he regained his sight, he emerged into the light ever-determined to pursue his dreams of exploration. Fortunately for the world, Muir's trials led him to help move Congress to set aside Yosemite, one of his many contributions to our nation's preservation movement.

When faced with adversity, we have but two choices. We can either rise above our circumstance or succumb to our demons of doubt, fear, resentment and apathy. While Muir was lucky to have his sight return, his subsequent efforts drew strength from hope, compassion, kindness and love to rise up from personal adversity.

Lately, it feels like we're all dealing with too many hurdles. Every hour, "breaking" news spews forth accounts of tragedy and divisiveness. It was with this backdrop that I was preparing to teach a restorative yoga class, to create a safe environment for my students and provide an hour's worth of peace and quiet to carry out into the world. What theme would capture their imagination and neatly underscore our human need for connectedness?

When teaching, I try to use examples that marry ancient tradition with contemporary science. I often find inspiration in parks. In its traditional form, yoga was about joining with the collective universe. So, too, is Muir's quote, best illustrated by an example from Yellowstone. When wolves were reintroduced there after a 70-year absence, the rampant elk population could no longer leisurely nibble on willows, graze in open meadows or congregate by the rivers. In a short period of time, the forests and meadows began to regenerate. Song birds appeared. Beavers flourished, building dams, which created habitats for otters, muskrats and ducks. Cooler waters, shaded by more trees, attracted different species of amphibians and fish. Tree roots stabilized the river banks, diminished erosion and even changed the geography of the park! Indeed, pick out anything by itself and we quickly find that *everything* is connected.

Now is the time to seek out connection—whether in a park, a yoga studio or anywhere you find inspiration—to find strength to rise up and overcome the obstacles that face us all…

mark@americanparknetwork.com

GET CONNECTED AT YOUR FAVORITE PARKS!

Parks are about enjoying nature, but what if you want to share a great picture or are awaiting an important email? If you're looking to add connectivity to your park, or if you already have Wi-Fi and would like help adding content or generating sponsor revenues, please let us know at **wifi@americanparknetwork.com.**

AT A GLANCE

Death Valley is the largest national park in the contiguous United States at nearly 3.4 million acres. The valley is bound on the west by the towering 11,049-foot **Telescope Peak**, and on the east by the 5,475-foot **Dantes View**. This fabled park features spectacular desert scenery, unusual wildlife and a rich human history. Also something for the record books: The Badwater Basin salt pan, at 282 feet below sea level, is the lowest point in North America.

A DIVERSE ECOSYSTEM

Death Valley National Park is open all year, but since summer temperatures frequently soar above 120°F (48.8° C), winter visits, November through April, are strongly encouraged. In fact, in 1913, **Furnace Creek** recorded a temperature of 134°F (56.6°C), the hottest temperature ever recorded in the world.

While most visitors come to Death Valley National Park to experience desert desolation and walk on North America's lowest point, the park also boasts a sparse, but thriving ecosystem. Careful examination will reveal that this seemingly barren landscape is home to a variety of remarkable plants and animals, a natural world that has adapted successfully to a land of brutal environmental extremes. In Death Valley, you will find—among other species—drought-resistant **desert holly**, stands of salt-resistant **pickleweed** and tiny **pupfish** that flourish in salt-encrusted streams.

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Death Valley's sailing stones at Racetrack Playa are a geological phenomenon caused by the combination of the formation of ice crystals with wind.

EARLY RESIDENTS

Anthropologists estimate that roaming humans first settled in Death Valley roughly 10,000 years ago. These early residents were hunters, and judging by the size of their tools, they hunted big game. Over 1,000 years ago, the Timbisha Shoshone lived along the edge of a 30-foot-deep lake, hunting smaller game and gathering seeds. In 1849, a group of **gold rush pioneers** entered the valley, thinking it was a shortcut to California. After barely surviving the trek across the area, these pioneers named the spot "Death Valley."

In the late 1880s, native peoples were increasingly pushed out of the area by mining companies who sought the riches of gold, silver and borax within the valley's parched hills. Most of Death Valley's mining operations failed within a few years of opening, leaving eerie ghost towns and crumbling mines in their wake. Despite briefly successful borax mines that used the famed "**20-mule teams**," low yields and a tumbling economy caused the industry to dwindle. By 1910, most mining operations had ceased.

Today, it is the uncompromising severity and extraordinary geology of the desert that continues to draw visitors to Death Valley. Within the park, you will find some of the most surreal landscapes on the globe, including sinuous sand dunes that ripple into the horizon, shimmering white salt flats, intricately contoured badlands carved by rushing water, striking copper-colored canyon walls, and even a massive hydrovolcanic blast crater. You can enjoy all these sights from the window of your automobile, or if you're more adventurous, get out of your car and explore the park on foot.

NPS HISTORY

Death Valley's outstanding natural beauty and scientific importance were first brought to the attention of the National Park Service in the 1920s. With the support of **Horace Albright**, Director of the National Park Service, the spot's national significance was recognized and the area was proclaimed a national monument on February 11, 1933, by President Herbert Hoover. With the passage of the California Desert Protection Act on October 31, 1994, Congress added 1.3 million acres and designated it a national park. Today, Death Valley National Park is made up of nearly 3.4 million acres, 91 percent of which is Congressionally-designated wilderness for visitors to explore.

Park rangers at Death Valley lead a variety of **tours** that explain the area's unusual landscape, as well as its colorful history. The park concessioner offers a variety of first-rate services in the valley that include gift shops, a pool, fine dining and more. And, when the rains cooperate, this seemingly barren landscape is transformed into an extraordinary knee-high carpet of **wildflowers**. Death Valley National Park—home to North America's highest temperatures and lowest point below sea level—offers plenty of adventure and a wealth of diversity.

In March 2019, approximately 35,000 acres of land from the Bureau of Land Management (BLM) was transferred to Death Valley National Park. Part of the transfer is a 6,369-acre lollipop-shaped section of land in the northern part of the park contaning the Crater Mine and the 28,923-acre "Bowling Alley", a long, narrow swath of land on the northern border of Fort Irwin National Training Center which includes a section of the Quail Mountains.

PLAN YOUR VISIT

Here's a quick rundown of the basics you need to know when planning a visit to Death Valley National Park.

SIZE AND VISITATION

Death Valley National Park is comprised of 3.4 million acres. Visitation is highest from February through mid-April and during the Thanksgiving and Christmas holidays. Visitation is generally lowest in October and January. The park regularly receives nearly 1.7 million visitors per year.

ENTRANCE FEES

Death Valley National Park is open every day of the year. Entrance fees vary. For $30 passengers in noncommercial vehicles (cars, trucks and vans) can leave and re-enter the park as many times as they wish for a seven-day period. The cost for the same seven-day pass per motorcycle is $25, and $12 for those traveling on bicycle or foot. Permanent U.S. residents over 62 may purchase a lifetime Senior Pass for $80 (admits only one motorcycle). For $55, frequent visitors may purchase the Death Valley Annual Pass and get unlimited entry of a noncommercial vehicle to the park for one year.

Check **nps.gov/deva** for up-to-date information. A popular attraction, Scotty's Castle, was severely damaged in a flood in October of 2015 and has closed as a result. The entire Grapevine Canyon area remains closed to the public, and reopening of the castle is not expected until 2020.

EVERY KID IN A PARK

To help engage and create our next generation of park visitors, supporters and advocates, the Obama Administration, in partnership with the Federal Land Management agencies, launched the Every Kid in a Park initiative. The immediate goal is to provide an opportunity for each and every 4th grade student across the country to experience their federal public lands and waters in person.

All kids in the fourth grade have access to their own Every Kid in a Park pass at **Everykidinapark.gov**. This pass admits the pass owner and any accompanying passengers in a private non-commercial vehicle to the park. You can obtain the pass by visiting **everykidinapark.gov** and you must print it and present it at the park. The Every Kid in a Park pass is valid until August 31, 2019.

FEDERAL RECREATIONAL LANDS PASSES

A federal recreation pass is helpful if you plan to visit many national parks, forests or other federal lands. For information, call (888) 275-8747 or visit **store.usgs.gov/pass**.

Type	Cost	Availability	Details
Annual Pass	$80	General Public	This one-year pass is available on site, by phone or online (see above).
Senior Pass	$80	U.S. residents age 62+	This lifetime pass is available on site or via mail order. ID required.
Military Pass	Free	U.S. military members and their dependents	This one-year pass is available on site. ID (CAC Card or DoD Form 1173) required.
Access Pass	Free	U.S. residents with permanent disabilities	This lifetime pass is available on site or via mail order. ID and documentation required.
Volunteer Pass	Free	250 cumulative volunteer service hours	Inquire locally to obtain information about this one-year pass.

PERMITS

Permits for commercial filming and other special uses are available at Death Valley National Park. There is a one-time application fee of $210 and other fees may apply. For further information, contact **(760) 786-3241.**

GETTING TO DEATH VALLEY

Car: Death Valley National Park is transected from east to west by California Highway 190.

On the east in Nevada, U.S. Route 95 parallels the park from north to south with connecting highways at Scotty's Junction (Nevada State Route 267), Beatty (Nevada State Route 374) and Lathrop Wells (State Route 373). At Lathrop Wells turn on to Nevada State Route 373 and then take California State Highway 190 at Death Valley Junction.

To the south of the park, Interstate 15 passes through Baker, California, on its way from Los Angeles to Las Vegas. State Route 127 travels north from Baker to Shoshone and Death Valley Junction with connections to the park on State Route 178 at Shoshone and California Highway 190 at Death Valley Junction.

Air: The closest major airport is Las Vegas McCarran International Airport, which is 120 miles southeast of the park. Call **(702) 261-5211** for flight and rental car information. There is a small airport at Furnace Creek (personal planes only), but it does not have a direct line, so please call the park service at **(760) 786-3200** for more information.

Public Transportation: Although there is no public transportation in the park, commercial airlines and interstate buses serve Las Vegas, Nevada. Amtrak and Greyhound service Barstow, California, as well. Cars may be rented in both cities, but advance reservations are advised, especially in the summer. Guided bus tour trips also depart from Las Vegas. Search online for bus tours.

TRANSPORTATION INSIDE THE PARK

The massive size of Death Valley National Park (about twice the size of the state of Delaware) and the vast distances between its major features make the use of a motor vehicle essential. Be sure your car is in good mechanical condition and that the fuel tank is full before each day's tour. More than 800 miles of roads provide access to wilderness hiking, camping and historical sites, but some are unpaved or four-wheel-drive only.

Within the park, gasoline is sold only at Furnace Creek, Panamint Springs Resort and Stovepipe Wells Village, so plan accordingly. Diesel is available only at Furnace Creek and Panamint Springs Resort. Carry extra drinking water, especially when hiking.

FURNACE CREEK VISITOR CENTER

The Furnace Creek Visitor Center is the main visitor information source for Death Valley. It provides general information and backcountry camping and hiking information and permits. Park entrance fees are collected here. The Death Valley Natural History Association updates

CLIMATE

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Death Valley is the hottest and driest place in the United States. A temperature of 134°F, the highest ever recorded in the world, occurred here. The valley receives less than two inches of rain per year.

WHY IS DEATH VALLEY SO DRY?

Winter storms moving inland from the Pacific Ocean must pass over a number of mountain ranges as they travel east. As the clouds rise with the mountains, they cool and the moisture falls as rain or snow on the western side of the mountains.

By the time the clouds reach the mountains' east side, most of the moisture has already been precipitated, leaving a dry "rainshadow." Four major mountain ranges lie between Death Valley and the ocean, each one adding to the intensity of the rainshadow effect. In total, rainfall averages less than two inches per year. During some years, there is no rain at all in the park.

WHY IS DEATH VALLEY SO HOT?

The depth and shape of Death Valley contribute to the hot summer temperatures. The valley is a long, narrow basin 282 feet below sea level, yet walled by high, steep mountain ranges. The clear, dry air and sparse plant life cover allow sunlight to continuously heat the desert surface. Heat radiates back from the rocks and soil and becomes trapped in the valley's depths. Summer nights provide little relief. Often, overnight lows may only dip to 90°F. Now that's toasty!

Heated air rises, but it is trapped by the high valley walls and is cooled and recycled back down to the valley floor. Those pockets of descending air are only slightly cooler than the surrounding hot air. As they descend, they are compressed and heated even more by low elevation air pressure. These moving masses of super-heated air blow through the valley—creating the extremely high temperatures, and contributing to areas of high wind.

WEATHER FACTS

- The ground temperature can be 80°F hotter than the air temperature. A ground temperature of **201°F** was once measured in Death Valley. Ground temperature on the valley floor is about 40 percent higher than the surrounding air temperature.
- The **lowest temperature** ever recorded on the valley floor was 15°F in 1913.
- Higher elevations are cooler than the low valley. Temperatures drop 3° to 5°F with every 1,000 vertical feet.
- Comfortable clothing that provides ample sun protection—along with a broad-rimmed hat to shield the face—are recommended in the summer months. Make sure to wear a sturdy pair of walking shoes year-round!
- On average, Death Valley is the hottest place in the world. July is characteristically the hottest month with an average temperature of 116°F.

a well-stocked bookstore curated toward the natural and cultural history of the locale. The park features displays about its geology, climate, wildlife and natural history, as well as orientation film *Seeing Death Valley*, narrated by Donald Sutherland; the film is shown every half hour, with the last screening at 4:00 P.M.

The visitor center is located in the Furnace Creek area on California Highway 190—30 miles from Death Valley Junction to the east, and 24 miles from Stovepipe Wells Village to the north and west.

During the winter season (November through mid-April), rangers present a wide variety of walks, talks and evening programs about Death Valley's cultural and natural history. This visitor center is open from 8 a.m to 5 p.m. For more information, call **(760) 786-3200**. Ranger programs are listed at **nps.gov/deva.**

SCOTTY'S CASTLE VISITOR CENTER

Scotty's Castle, a Spanish-style mansion built in the 1920s that was a favorite among tourists, is currently closed due to severe damage caused by floodwaters in October 2015. A series of powerful storms hit the area throughout October, washing out roads and damaging parts of the castle—worst of all the garage/longshed, which served as a visitor center. The powerful floodwaters moved part of a wall off the foundation and left the Grapevine Canyon area clogged with mud and debris up to 15 feet high in some places. *All entry to Scotty's Castle district is currently prohibited and the castle is not expeced to reopen until 2020.*

RANGER STATIONS

Stovepipe Wells Ranger Station: Stovepipe Wells Ranger Station provides general information and backcountry

camping and hiking information and permits. Park entrance fees are collected here; there is also a branch outlet of the Death Valley Natural History Association that provides useful informational books and maps. Hours are based on staff availability.

Stovepipe Wells is located in the center of Death Valley, 24 miles from The Oasis at Death Valley to the south and 80 miles from Lone Pine, California, on Highway 395. For more information, call **(760) 786-2342.**

PARK NEWSPAPER

Pick up the free park newspaper, ***Death Valley National Park Visitor Guide***, offers information on camping, hiking, backpacking, events, safety and other park news.

KIDS

There is plenty for kids to do, including the Junior Ranger program. For more information, please see the "Just for Kids" chapter.

VISITOR SERVICES

Despite Death Valley's fearsome reputation and famously barren landscape, the National Park Service, hotel operators and a number of recreation companies have taken steps to ensure that your trip is as smooth as it is inspiring. The Death Valley infrastructure includes all necessities that make planning a trip easy.

AUTOMOTIVE SERVICES

There are filling stations at Stovepipe Wells Village **(760) 786-7090,** The Oasis at Death Valley **(760) 786-2345,** Shoshone Village **(760) 852-4335** and Panamint Springs Resort **(775) 482-7680,** with the latter three stations selling diesel fuel.

BANKING SERVICES

ATMs are located in the general stores of The Oasis at Death Valley **(760) 786-2345**, Stovepipe Wells Village **(760) 786-7090,** Shoshone Village **(760) 852-4335** and the Panamint Springs Resort **(775) 482-7680**. For more information, call **(760) 786-2345.**

EMERGENCIES

Call **911** in case of emergency.

FOOD AND SUPPLIES

The Oasis at Death Valley**,** 7 a.m.–10 p.m and Shoshone Village **(760) 852-4335**; Panamint Springs Resort **(775) 482-7680**, 7 a.m. to 9:30 p.m.; and Stovepipe Wells Village **(760) 786-7090**, 7 a.m.–10 p.m; all have general stores with varying degrees of camping supplies and food. Call ahead.

FIRST AID

Call **911** or, for emergencies only, call (760) 786-2330 for 24-hour ranger dispatch.

GIFT SHOPS

The Oasis at Death Valley **(760) 786-2345**, Shoshone Village **(760) 852-4335,** Panamint Springs Resort **(775) 482-7680,** Stovepipe Wells Village **(760) 786-2387**, all have gift shops; the Furnace Creek Visitor Center and Museum **(760) 786-3244** does as well.

LAUNDROMAT

There is a 24-hour laundromat on Roadrunner Drive at The Oasis at Death Valley.

MEDICAL SERVICES

- Beatty Clinic: Beatty, NV **(775) 553-9111**
- Desert View Hospital: Pahrump, NV **(775) 751-7500**
- Death Valley Health Center: Shoshone, CA **(760) 852-4383**
- Southern Inyo Co. Hospital: Lone Pine, CA **(760) 876-5501**

PAY PHONES

Telephones are located at almost all of the park communities, resorts, contact stations, museums and the post office.

IMPORTANT NUMBERS

General Park Information	(760) 786-3200 or nps.gov/deva
Commercial Permits	(760) 786-3241
Lodging within the Park	
The Oasis at Death Valley	(760) 786-2345
Stovepipe Wells	(760) 786-2387
Panamint Springs	(775) 482-7680
Camping	(800) 444-6777 or recreation.gov
Emergencies	911
National Park Service (NPS)	(760) 786-3200
Cassell Enterprises LLC	(775) 482-7680
Death Valley '49ers	deathvalley49ers.org
Death Valley Lodging Company	(760) 786-2387
Death Valley Conservancy	dvconservancy.org
Death Valley Natural History Association	(800) 478-8564
Ridgecrest Area CVB	(760) 375-8202

PARK REGULATIONS & SAFETY

SAFETY TIPS

Water: Death Valley is extremely hot and dry. During the heat of summer, drink at least a gallon of water per day to replace loss from perspiration. Carry extra drinking water in your car and while hiking.

Heat and Dehydration: If you feel dizzy or nauseous or get a headache, get out of the sun immediately and drink plenty of water. Dampen clothing to lower your body temperature. Heat and dehydration can kill.

Hiking: Do not hike in the low elevations when temperatures are hot. The mountains are cooler in summer, but can have snow and ice in winter.

Desert Driving: Stay on paved roads in summer. If your car breaks down, stay with it until help arrives. Be prepared and carry plenty of extra water. Do not depend on GPS devices, as they can show roads that are not open. Always carry up-to-date road maps and get information from park staff before embarking for the day.

Flash Floods: Avoid canyons during rainstorms and be prepared to move to higher ground if necessary. While driving, be alert for water running in washes and across road dips.

Mine Hazards: STAY OUT—STAY ALIVE! Do not enter mine tunnels or shafts. Mines may be unstable, have hidden shafts, pockets of bad air and poisonous gas.

Drones are prohibited throughout the park.

In Case of Emergency: Dial **911** from any telephone or cell phone.

Note: Cell phones may not work in many parts of the park.

Dangerous Animals: Never place your hands or feet where you cannot see first.**Rattlesnakes, scorpions or black widow spiders** may be sheltered in hidden spots.See the "Nature & Wildlife" chapter for more information.

PACKING ESSENTIALS

Don't hit the trail without:

- Topographic Map and Compass + GPS
- Whistle
- Flashlight or Headlamp
- Sunglasses, Sunscreen and Hat
- High-energy Food and Plenty of Water
- Appropriate Clothing and Extra Layers
- Waterproof Matches
- Insect Repellent
- First-Aid Kit
- Sturdy Footwear

PARK RULES AND REGULATIONS

Overnight Camping: Camping is permitted in developed campgrounds and some backcountry areas. To obtain a permit, visit the Furnace Creek Visitor Center or any ranger station.

Driving of f roads: Off- road driving is str ictly forbidden to protect the extremely fragile desert ecosystems. Please help keep the park's wilderness free of vehicle tracks.

Fires: Campfires are allowed in fire pits in developed campgrounds. Backcountry fires are prohibited. Gathering wood is against the law. Anything you pack in you must pack out.

Weapons: Firearms regulations vary by state. Check with the National Park Service or the park you plan to visit before your trip for the most current information.

Pets: Pets are only permitted along roads and in developed areas. Because they may not be safe from predators and can spread disease to wildlife, pets must be leashed and restrained at all times, and pet waste must be removed.

Horses: Horses are not permitted in developed campgrounds or on many of the trails. Travel by horseback is not recommended in mountainous areas where steep terrain does not provide good footing. Travelers must carry certified weed-free feed.

Metal Detectors: Metal detectors may not be used in the park. The collection of historic objects is prohibited.

Private Property: Please respect all private property in the park.

Wildlife: Do not feed or disturb any of the park's wildlife. When wild animals are fed by humans, they tend to depend on this unnatural food source, rather than forage for their natural diet. Feeding animals also creates nuisance animals and can become a danger to drivers on the highway.

DESERT DRIVING TIPS

We recommend that you remain on paved roads, especially during the summer. If you do venture into the backcountry, heed these important tips:

- **Make sure your car is in good working order.** Service stations are few and far between. Carry a spare tire, a jack, flares and boards to place under the tires in case you hit a sandy trap.
- **Carry plenty of extra water.** Bring at least one gallon per person for each day. It is a good idea to have a two- or three-day stock of water in case of car trouble.
- **Bring a map so you'll always know where you are in the backcountry.** It's smart to carry a topographic map, compass and cell phone as well (although it is unlikely to work outside the Furnace Creek area). Always let someone know where you are going and when you plan to return.
- **Dress for desert success.** Shield yourself from the sun's glare by wearing a hat with a brim and light-colored, lightweight clothes. Make sure to pack a blanket, sunglasses, sunscreen and wind-proof clothes just in case you need to leave your car to seek help.
- **Wear a seatbelt** at all times and make sure it is properly adjusted.
- **Be on the lookout for washouts.** Unpaved roads are subject to washouts. Check for conditions before traveling on these roads.
- **Drive the posted speed limits.** The number one killer of visitors is single car rollover accidents. Narrow shoulders and speed are the primary causes.

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Bring a map and stay on improved roads. Check weather conditions to avoid washouts

PRESERVATION

Although the California Desert Protection Act of 1994 formally protected millions of acres in Death Valley National Park, its unique biologic and geologic assets continue to face degradation from numerous sources.

INVASIVE PLANTS

Plants imported from elsewhere in the world now flourish in Death Valley. The salt cedar tree, for example, is replacing the native cottonwood and willow trees and disrupting ecosystems. Tumbleweed has also traveled into the park to displace native vegetation. In Eureka Dunes and other places in the park, biologists are developing plans to control invasive species, while restoring native populations of plants.

AIR AND LIGHT POLLUTION

You might think that the remote location of Death Valley National Park would help keep its air pure and pristine, but winds still carry pollutants from metropolitan centers and industrial areas that lead to acid rain. The park has an air quality monitoring station near Furnace Creek that measures ozone, and a system for forecasting high ozone days is in development.

Death Valley is a huge expanse of undeveloped land, but it is still affected by noticeable glows from Las Vegas and central California. The National Park Service is trying to reduce local light pollution from within the park by changing current lighting techniques and studying night sky conditions. For their efforts, in 2013 Death Valley National Park was named an International Dark Sky Park and is one of only a few U.S. parks with this designation.

WATER MINING

Many of the larger cities within the boundary of Death Valley's regional ground water flow system are experiencing some of the fastest population growth in the United States. Today's climate is hotter and drier than it was thousands of years ago, and it does not provide enough precipitation to recharge the aquifer at the rate the water is being withdrawn.

DEVILS HOLE PUPFISH

These tiny inch-long fish have managed to survive in the high heat and warm, mineral-rich water with limited food sources for more than 20,000 years. Human interference has at times reduced their numbers to less than 50, but the pupfish has much to teach scientists about adaptation to adverse conditions. They continue to swim and breed within the turquoise aquifer that rises to the surface at Devils Hole.

OVERGRAZING BURROS

Beginning in the late 1800s, a small number of burros escaped or were turned loose by prospectors. The burros quickly adapted to the desert conditions and flourished, reaching a population of nearly 10,000. They gather in large herds and overgraze the scant plant resources, pushing out the native bighorn population. The National Park Service has embarked on a program to reduce burro populations, which now number more than 500.

SIGHTS TO SEE

There is a lot to do and see in Death Valley—just make sure you have access to a car because you will want to cover a lot of ground! The park's long list of attractions includes mysterious **sliding rocks**, a massive **blast crater**, **ghost towns**, remnants of gold and **borax mines** and other natural and historical points of interest. Nature lovers can savor stunning **wildflowers**, see fascinating wildlife and observe unusual desert ecosystems. Geology buffs can tromp through glistening **sand dunes**, brightly-colored badlands and eerie **salt deposits**. For history lovers, there are old charcoal **kilns** and interpretive exhibits about Death Valley's rough-and-tumble past. In the largest park in the contiguous United States, there is something for everybody.

FURNACE CREEK AREA

View aprons of pink, green, purple, brown and black rock at **Artist's Drive**, a visual feast and a geologic tour of one of Death Valley's most explosive volcanic periods. Artist's Drive is a dipping, diving, curving, one-way road that weaves through striking ravines and colorful rock formations. The highlight of the nine-mile loop occurs at the **Artist's Palette** where sea green, lemon yellow, periwinkle blue and salmon pink mineral deposits are splashed across the barren background like brilliant dabs of paint from a giant's brush. The effect is most intense during the evening as the colors change rapidly with the setting sun. Artist's Drive is off of the Badwater Road, 10 miles south of the Furnace Creek Visitor Center.

BADWATER BASIN

With the Black Mountains in the background, visitors can stroll through a shimmering expanse of nearly pure white table salt in **Badwater Basin**; at 282 feet below sea level, it is the **lowest point in North America**. Two to four thousand years ago the basin was the site of a 30-foot-deep

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Badwater Basin, the lowest point in the continental United States, is located only 84.6 miles away from Mount Whitney, the highest point in the continental 48 United States.

lake that evaporated and left a one- to five-foot layer of salt in its wake. A briny pond, four times saltier than the ocean, still remains in the basin during the winter, but during the hot summer months, it shrinks to little more than a puddle. Visitors are asked to stay on the boardwalk to avoid crushing the tiny Badwater snails, a species that lives under the salt crust and feeds on algae. Badwater basin is located 18 miles south of the Furnace Creek Visitor Center.

DANTES VIEW

Dante's View, a popular unworldly lookout point, offers a striking example of the distinctive basin and range topography that extends from Eastern California to central Utah. The steep, elongated mountain ranges alternate with flat, dry, desert valleys—the result of an intense stretching of the crust that has resulted in a series of north-south faults. These faults separate the basins from the ranges. Dante's View is more than **5,000 feet above the valley floor**; at this high altitude in the dry desert air you can see across most of 110-mile-long Death Valley. At Dante's Peak, a short hike north, the views up and down offer an unparalleled vantage point. The white salt flats far below make up Badwater Basin, at 282 feet below sea level. Dante's View is certainly one of the most extraordinary sights anywhere in California. It is located on Dante's View Road off Route 190, 26 miles southeast of Furnace Creek. Due to construction to improve parking and viewing platforms at Dante's View, the scenic viewpoint/road will be closed temporarily to public access past the Greenwater Valle Rd. junction through May 2018.

DEVIL'S GOLF COURSE

The floor of Death Valley is a vast evaporating dish covering more than 200 square miles. It is crusted over with a variety of salts, and nowhere is this more apparent than at **Devil's Golf Course**. Here, gnarled crystalline salt spires dot the landscape and look like a coral reef run amock. The lumpy salt pinnacles are the residue of Death Valley's last significant lake, which evaporated 2,000 years ago. Though there is no official hiking trail, visitors can tromp through this strange and rugged terrain for a closer look at the spectacular formations. As you do, however, be careful not to hurt yourself on the jagged structures and make sure not to damage the crystals. During the summer, listen for tiny pops and pings as billions of the salt crystals contract and expand due to fluctuations in temperature. Devil's Golf Course is located 15 miles south of the Furnace Creek Visitor Center. Note: The road leading to Devil's Golf Course is often closed after rain.

HARMONY BORAX WORKS

Wander between the rusting remains of buildings, machinery, tanks and piping at Harmony Borax Works, a mining operation that dates back more than 120 years. After prospectors found borax in 1881, **William Tell Coleman** built the Harmony plant and began to process ore in late 1883 or early 1884. Operating at capacity, the Harmony Borax Works employed 40 men who produced three tons of borax daily. Learn how early miners used those famed **20-mule teams** to haul borax 165 miles to the railroad town of Mojave. The teams averaged two miles an hour and required about 30 days to complete a round-trip. The Harmony plant went out of operation in 1888 after only five years of production when Coleman's financial empire collapsed. The Harmony Borax Works is located just off Highway 190, one mile north of the visitor center. The Borax Museum is

located at the Furnace Creek Ranch, two miles south of Harmony Borax Works.

ZABRISKIE POINT

Peer from one of the park's most popular lookouts at **Zabriskie Point** for an unforgettable view of Death Valley's wildly eroded and vibrantly colored badlands. A short uphill hike from the parking area is all that's required to enjoy a panoramic view of golden-brown mudstone hills riddled with rills and gullies from the occasional, but intense, times when water rushes down these bone-dry slopes. The desolate, unearthly landscape surrounding Zabriskie Point is ideal for viewing sunrises and sunsets, so bring your camera! Zabriskie Point is located five miles south of Furnace Creek on Highway 190.

STOVEPIPE WELLS AREA

Don't leave Death Valley until you have played on and explored the **Mesquite Flat Dunes**! Located near Stovepipe Wells Village, these 150-foot dunes are nearly surrounded by mountains on all sides. The primary source of the sands is the **Cottonwood Mountains**, which lie to the north and northwest. The tiny grains of quartz and feldspar that make up the dune field began as much larger pieces of solid rock, but through erosion, became sand-sized. The dunes can be explored on foot. Like many of Death Valley's geologic highlights, the colors and contours of the Mesquite Flat Dunes are especially spectacular at sunset. The most popular place to access the sand dunes is about two miles east of Stovepipe Wells Village—23 miles northwest of Furnace Creek—on Highway 190. Mosaic Canyon, which is located just west of Stovepipe Wells, is considered to be a geologic wonder and is a moderate one- to four-mile hike.

iStok

The uniquely shaped Wildrose Charcoal Kilns have stood in Death Valley since 1877.

PANAMINT SPRINGS AREA

Marvel at beehive-shaped kilns at the **Wildrose Charcoal Kilns**, erected by the Modock Consolidated Mining Company in 1877. The well-preserved kilns—each standing about 25 feet high with a diameter of approximately 30 feet across—were used to convert **pinyon** and **juniper logs** to charcoal for two silver mines located 25 miles away in the Argus Range. Each kiln held 42 cords of pinyon pine logs and, after burning for a week, would produce 2,000 bushels of charcoal. The Wildrose kilns are considered to be the best surviving examples of charcoal kilns found in the western states. They owe their longevity both to fine workmanship and to the fact that they were used for such a short time. The kilns can be reached via Wildrose Canyon Road and are four miles east of the intersection with Emigrant Canyon Road.

RACETRACK PLAYA

The mysterious sliding rocks of the famed **Racetrack Playa** are an amazing sight. This dried lakebed, which is nestled between the Cottonwood Mountains to the east and the Last Chance Range to the west, contains boulders that have puzzled geologists for

decades. Furrows in the mud indicate that these boulders have wiggled, jiggled, slipped and slid their way across the perfectly flat bed in what is truly one of the strangest rock dances of all time. Long-term studies of the "**sailing stones**" show that most move in a northeast direction. However, scientists have found some treading south and west, carving zigzag paths along the playa. Recent observations using GPS and time-lapse photography suggest that rocks move when razor-thin ice sheets start to melt during periods of light wind. These ice panels can move the rocks at up to five meters per minute. The Racetrack Playa is located 27 miles southwest of Ubehebe Crater on an unpaved road. High-clearance vehicles with heavy-duty tires are recommended. Ask about road conditions before visiting.

UBEHEBE CRATER

Hike to the heart of **Ubehebe Crater**, a 770-foot-deep steam-explosion crater and imagine the instant when water suddenly flashed to steam—shattering the rock above and ejecting a cloud of debris at speeds of up to 100 miles per hour! Remember to bring plenty of water along with you: The climb out is grueling. Ubehebe Crater is located eight miles west of Scotty's Castle.

GHOST TOWNS

No trip to Death Valley is complete without visiting one of the many ghost towns. The conditions of the towns themselves vary, but all are reminders of Death Valley's history. Every piece of rusting machinery and bit of wood represents a part of the past. Do not remove, burn or disturb any of the remains.

BALLARAT

A gold mine camp and home to 400 people in 1898, Ballarat is now the site of several adobe dwellings located off the Panamint Valley Road, west of Death Valley.

LEADFIELD

All that remains of Leadfield are the skeletons of wood and tin buildings, a dugout and cement foundations of the mill. Despite a brief influx of people in 1926, the town failed in 1927. This former lead mine is located on Titus Canyon Road (high-clearance vehicles recommended).

PANAMINT CITY

Called the "toughest, rawest, most hard-boiled little hellhole that ever passed for civilized," Panamint City boomed in 1874 with a population of 2,000 people. In 1876, a flash flood destroyed much of the town, leaving little more than the chimney from the mine's smelter. The town is accessible via a five-mile hike from **Chris Wicht's Camp**, located six miles northeast of the ghost town of Ballarat.

RHYOLITE

The largest ghost town near Death Valley, Rhyolite boasted a population of nearly 10,000 people during its peak between 1905–1911. At its height, the town contained two churches, 50 saloons, 18 stores, two undertakers, 19 lodging houses, eight doctors, two dentists, a stock exchange and an opera.

Many ruins of the town remain today, including the Bottle House, the train depot, the remains of a three-story bank building and the jail. Rhyolite is a great trip and located just four miles west of Beatty on Bureau of Land Management (BLM) property. The location is approximately 35 miles from the Furnace Creek Visitor Center and a nice place to visit outside the park.

HISTORY & CULTURE

Along with its stunning natural splendor, Death Valley can lay claim to a rich and colorful human tale that begins at least 10,000 years ago.

ARCHEOLOGY

The archeological record indicates that American Indians have lived in Death Valley for the last 10,000 years, a period known as the **Holocene**. Four distinct American Indian cultural stages emerged during this time frame.

Archeologists estimate the first stage occurred approximately 9,000 years ago. The **Nevares Spring** people hunted game and used scrapers and knives made of **chert**, a unique rock that flakes easily and could readily be fashioned into projectile points.

The next stage was a hot and dry period that lasted roughly 4,000 years; sometime during that era the **Mesquite Flat** people replaced the original inhabitants. The presence of grinding tools in their toolbox, however, suggests that human subsistence was shifting from hunting animals to the gathering of seeds, nuts and berries.

In the third stage, commencing about 2,000 years ago, the **Saratoga Spring** people evolved in what had become a dry, hot desert. These were more advanced hunters and gatherers who brought the

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There is an ADA accessible loop around the historic mining site where the famous 20-Mule-Team wagons hauling borax embarked on the 165 mile journey south to the Mojave Railroad Depot.

TIMBISHA SHOSHONE

Few people realize that an American Indian tribe currently lives and thrives in Death Valley National Park. For thousands of years, the Timbisha Shoshone have resided in Southeast California and Southwest Nevada. In 1936, the tribe established a tribal center on a 40-acre tract at Furnace Creek. The tribe achieved federal recognition in 1983 as the Death Valley Timbisha Shoshone Band of California, but did not have a land base until the passage of the Timbisha Shoshone Homeland Act on November 1, 2000. This act transferred over 7,000 acres of trust lands to the tribe both in the park and adjacent to its acreage.

The traditional ancestral homeland of the Timbisha covers approximately 11 million acres within the Mojave Desert. The Timbisha began to be displaced in the mid-19th century when miners, ranchers and homesteaders moved into the region. Between the mid-1920s and 1936, they were forced to move four times.

The Timbisha Shoshone Homeland Act also provides for the purchase of two areas currently held by private interests. At their Furnace Creek site, the tribe is developing new homes, some limited commercial activity and building single family residences, a tribal community center, an inn, a tribal museum and a cultural center with a gift shop. Although the legislation bans hunting and gaming, the Act does allow tribal access to traditional use resources and sacred sites. It also mandates park lands used for traditional practices be cooperatively managed under a plan mutually agreed upon by the tribe and the National Park Service.

bow and arrow and left mysterious, meticulously crafted stone patterns in the valley. The people of the fourth stage, which began around A.D. 500, were directly related to some of the Shoshone-speaking tribes who still inhabit the valley and introduced pottery to the region.

THE DEATH VALLEY WAGON TRAIL OF 1849

The first white men to enter Death Valley were a group of pioneers associated with the **Death Valley Wagon Train**. Many gold seeking pioneers arrived at Salt Lake City and were told not to continue on like the Donner Party as it was too late in the year and suggested they wait till spring. The pioneers became restless and organized a wagon train of over 125 wagons with **Capt. Jefferson Hunt** as their guide. The first two weeks of travel were slow and many impatient pioneers decided to take a shortcut toward **Walker Pass**, hoping to cut some 500 miles off the journey.

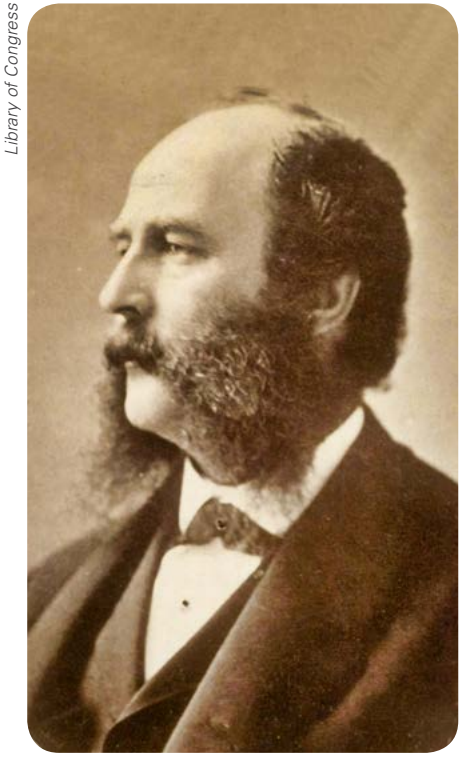
The point where these wagons left the trail is near the present-day town of **Enterprise**, **Utah**, where a monument commemorates the historic departure. Within a few days, the wagon train came upon a major cliff extending several miles in both directions. After about a month of slow progress through central Nevada, the pioneers reached the borders of Death Valley in December. They traveled along the same route followed by Highway 190 and in December 1849, arrived at Travertine Springs, located near Furnace Creek. The lost pioneers had now been traveling across the desert for about two months since leaving the trail. They sent two young men to look for help, and ended up waiting 26 days for them to return empty-handed. Once reunited, the group headed north near present-day Stovepipe Wells, but discovered it, too, was impassible. They decided to leave their belongings behind and walk to civilization, and used wood from their wagons to cook the meat of several slaughtered oxen. The place today is referred to as "**Burned Wagons Camp**" and is located near the Mesquite Flat sand dunes of Death Valley.

After crossing the mountains and down into Panamint Valley, they turned south and climbed a small pass into Searles Lake Valley before making their way into Indian Wells Valley near the present-day city of Ridgecrest. It was here that they got their first look at the Sierra Mountains, and turning south, followed a trail that brought them to Walker Pass, which would finally lead them back to civilization.

MINING

The most profitable and longest-sustained mining activities in the region centered on talc and borate. Borax deposits, discovered in 1873, were first successfully promoted by **W.T. Coleman.** He built the Harmony Borax Works and developed the famous system of 20-mule team wagons that hauled the mineral 165 miles across the desert to the railroad at Mojave. The Harmony plant went out of operation in 1888 when Coleman's financial empire collapsed, after only five years of production. By the early 20th century, most of the other mining operations followed suit.

Library of Congress



W.T. Coleman built Harmony Borax Works until its sale to the Pacific Coast Borax Company

TOURISM

The first tourist facilities in Death Valley were tent houses built in the 1920s at the site of today's Stovepipe Wells. **Herman (Bob) Eichbaum** began building a toll road in the 1920s and opened the Stovepipe Wells Hotel in 1926. In 1927, the Pacific Coast Borax Company opened the Inn at Furnace Creek which was inspired by the Spanish Missions that dotted Coastal California. Even though the Inn was in one of the hottest and lowest points in the hemisphere, it was an immediate success. In the early 1930s, they converted the working ranch into what is now the Furnace Creek Ranch.

NATURE & WILDLIFE

Surprisingly, Death Valley—the hottest and driest place in North America—is home to an abundance of uniquely adapted life forms. A total of 1,042 plant species, 51 species of native mammals, 346 types of birds, 36 classifications of reptiles, six types of fish and five species of amphibians live here.

DESERT ECOSYSTEM

If you were to travel from briny Badwater Basin to the tip of **Telescope Peak**, you would cross four distinct ecological zones, each determined by climate and elevation. At Furnace Creek on the valley floor, precipitation averages a mere 1.9 inches per year, while the highest peaks receive about 15 inches annually.

The **Lower Sonoran**, which covers the lowest 4,000 feet, is dominated by desert holly and creosote bush that grow in gravelly alluvial fans. The **Upper Sonoran** extends to an elevation of 8,500 feet and consists of sagebrush, other desert shrubs, and culminates with **pinyon pine** and **juniper**. Pinyon pine and juniper give way to sierra juniper and mountain mahogany in the transition zone. The **sub-alpine zone** begins at an elevation of 9,000 feet where limber pine and bristlecone dominate. Differences in vegetation are primarily due to the precipitation gradient.

Death Valley's plants supply themselves with water in one of two ways.**Xerophytes** generally have short roots and depend on ephemeral water that is above the water table; as a result, these plants are able to survive periods of protracted drought. **Phreatophytes** have longer roots and tap a perennial water source from the top of the underground saturated zone. Desert holly is a xerophyte and the most drought-resistant plant in Death Valley. It grows on the hottest, driest and saltiest parts of the gravel fans where the ground is too dry and salty even for **creosote bush**—another xerophyte and the most common plant in the lower Sonoran zone. **Desert holly** is more abundant on the east side of the park due to the dry, saline fans that are found there. **Pickleweed**, a curious sprawling succulent shrub, is a phreatophyte that is extremely salt-tolerant and grows near the edge of the salt flats. Other phreatophytes common in Death Valley include **salt grass**, **arrowweed** and **honey mesquite**.

WILDFLOWERS

Spring wildflowers are one of Death Valley's top attractions—when they come. Early abundant seasonal rains combined with warm, windless days yield **superblooms**, painting the land in color. These blooms are the exception, rather than the rule. If you are lucky enough to see wildflowers, remember that you are in a national park and must heed its rules and regulations. Picking flowers is strictly prohibited.

PEAK BLOOMING PERIODS

Rainfall: The best time to see a spring floral display is in years of high rainfall, when precipitation has exceeded the Death Valley annual average of only about 1.9 inches. Flowers usually begin blooming at the end of February and continue to impress through April. Be sure to call the park before visiting. In general, years that see heavy rains in late October with little rain through the winter months will not bring out the flowers as well as years that witness evenly-spaced precipitation throughout the winter and into the spring.

Valley Floor and Alluvial Fans: Best in mid-February to mid-April. Look for desert star, blazing star, desert gold, mimulus, encelia, poppies, verbena, evening primrose, phacelia and various species of cacti.

2,000 to 4,000 feet: Best in early April to early May. The prime spot for viewing is the Panamint Mountains. Look for desert paintbrush, Mojave Desert rue, lupine, Joshua tree, bear poppy, cacti and Panamint daisies.

Above 4,000 feet: Best in late April to early June; as with lower elevations, the ideal viewing area continues to be the Panamint Mountains. Look for **Mojave wildrose**, rabbitbrush, Panamint daisies, mariposa lilies and lupine. No matter what season you come to view the flowers, be sure to bring a camera!

SNAKE BITE PREVENTION TIPS

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Take caution while hiking and be aware that you are in snake country.

- Always wear shoes or boots and long pants.
- Stay on trails when possible.
- Be cautious when approaching rocks, bushes or other objects or areas where a snake may be hiding. Avoid old mining tunnels, a favorite place for snakes in the park, and heavy underbrush.
- Use a flashlight at night to avoid stepping on any snakes.
- Set up your campsite in an open area.

IF YOU ENCOUNTER A RATTLESNAKE:

- Stay calm and try to locate the snake's position before moving away quickly.
- Back away slowly, giving the snake plenty of room. They only can strike a distance equal to half their own length.
- Do not try to kill or move the snake; 75 percent of snakebites occur when people try to capture or kill snakes.

IF YOU ARE BITTEN BY A RATTLESNAKE:

- Stay calm. According to the FDA, of 8,000 people who suffer venomous bites in the U.S., only nine to 15 die. Furthermore, 25 percent of adult rattlesnake bites are dry (no venom is injected).
- Wash the bite with clean water and soap.
- Immobilize the bitten area and keep it lower than the heart.
- If the bite is on the hand or arm, remove any rings, watches or tight clothing.
- Seek immediate medical attention.

WATCHABLE WILDLIFE






1 BOBCAT *(LYNX RUFUS)*
Perhaps the bobcat's most recognizable feature is its ears, which are pointed with black hair tufts spiking upward. Named for its stubby, bobbed tail, the bobcat is most active at twilight and dawn. It keeps a diurnal schedule in the winter to sync with the activity of its prey. • **Weight** 20 pounds • **Length** 2-3.5 feet • **Tail** 4-7 inches • **Active** year-round. Photo: Shutterstock

2 DESERT BIGHORN SHEEP *(OVIS CANADENSIS NELSONI)*
These bighorns reside throughout the southwestern region of the country and have adapted to extended periods of time without water. They have unusual padded hooves, allowing them to climb steep, rocky terrain. Soon after birth, they develop horns that grow for life. • **Height** 3 feet (at shoulder) • **Weight** 150-200 pounds • **Active** year-round. Photo: Shutterstock

3 DESERT IGUANA *(DIPSOSAURUS DORSALIS)*
More heat tolerant than any other reptile in North America, this species is widely distributed throughout the Mojave, Sonoran and Colorado deserts. It's primarily an herbivore and eats flowers, buds, fruits and leaves (especially creosote!). It's found mostly on sandy flats and in rocky, hilly areas. • **Length** 16 inches • **Hibernates** in winter. Photo: Shutterstock

4 KANGAROO RAT *(DIPSOSAURUS DORSALIS)*
At first, the kangaroo rat appears to be like any number of small rodents with golden-brown fur, shiny bulbous black eyes and whiskers atop a tiny nose. With the right diet, it can go without water completely, due to kidney and metabolic processes structured to efficiently retain water. • **Weight** 2–5 oz. • **Length** 12–14 inches • **Active** year-round. Photo: US Fish & Wildlife Service

5 KIT FOX *(VULPES MACROTIS)*
The kit fox is adapted to the desert and semi-arid regions of the western U.S. They're nocturnal hunters, moving in irregular patterns through vegetated desert areas. They're primarily carnivores, but when food is scarce, kit foxes can be omnivores. They do not need to drink water, as their prey provides them with adequate hydration. • **Length** 2-2.8 feet, including tail • **Height** 1 foot at shoulders • **Weight** 3-4 pounds • **Active** year-round. Photo: Shutterstock

6 MULE DEER *(ODOCOILEUS HEMIONUS)*
The naturally timid mule deer can be found in the pinyon/juniper associations of the Grapevine, Cottonwood and Panamint Mountains. Mule deer may appear tame and even approach you, but they're wild animals and may charge if they feel threatened. Always keep a safe distance. • **Weight** 70-250 pounds • **Length** 4-7.5 feet • **Active** year-round. Photo: Shutterstock

THINGS TO DO

Regardless of the season, there's always a lot to do in Death Valley—not surprising when you consider the park includes a 156-mile stretch between two mountain ranges, numerous archeological and historical treasures, and the single lowest point in North America. Here are just some of the most popular activity options:

AUTO TOURING

If you like to drive—and if you enjoy desert landscapes and unusual geology—then pack up the car! Before venturing out into the park, stop at the visitor center or a ranger station to inquire about current road conditions, as well as any necessary directions. Always remember to bring lots of water in case your car breaks down.

SUNRISE AND SUNSET

For many, the most extraordinary time to experience the desert landscape is when the sun is close to the horizon. Bring a camera, tripod and arrive approximately one hour before sunset or sunrise. Enjoy the sunrise at Dante's View, Zabriskie Point and Badwater. Prime spots to see the sunset are Artist's Drive, Mesquite Flat Dunes and Ubehebe Crater.


Remember to ride on roads used by autos—never take bikes on hiking trails or off-road.

HORSEBACK RIDING

Many visitors enjoy the beauty of Death Valley from a saddle. Both one- and two-hour or moonlight horseback rides are available. For those who savor a truly romantic treat, you can even ride in a horse-drawn carriage while sipping champagne! For more information, call **(760) 614-1018**.

BIKING

Biking is permitted at Death Valley, and many seasoned riders enjoy the challenge of the park's rugged terrain and sizzling temperatures. When cycling, remember to always keep bikes on roads used by autos—never take them onto hiking trails or cross-country. During the warm-weather months from May through October, avoid biking in the lower levels of Death Valley during any hours other than early morning; the heat can be dangerously oppressive. If you do not bring your own bike, the Ranch at Furnace Creek offers rentals. Avoid biking in canyons if there is a storm approaching. Sunglasses, a first aid kit, proper clothing and extra food and water are recommended for a safe trip.

RANGER PROGRAMS

Throughout the year, park rangers offer a number of programs. Visitors can go stargazing, experience the desert environment or discover geology. Programs are presented at the Furnace Creek Visitor Center or in various locations throughout the park. For more information, visit **nps.gov/deva.**

BEYOND THE MAIN ROAD

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Rent a 4x4 to explore Death Valley's backcountry. Just remember to bring a detailed map.

Much of Death Valley's beautiful scenery is located beyond the park's main roads. More than 800 miles of unpaved, **backcountry roads** provide access to wilderness hiking, camping and historical sites. You'll need a licensed, street-legal vehicle with high clearance for all backcountry roads, some of which may also require four-wheel drive to traverse.

Be aware that **most vehicle rental agreements restrict vehicles to paved roads**. Check your contract and be aware that the rental company can charge you for damage to the vehicle outside of the contract agreement specifications. Be sure that your rental vehicle has a good spare tire, that the tire is accessible and not "locked" into a keyed holder, and that the tools to change the tire, including jacks and wrenches, are in the vehicle and accessible.

Farabee's Jeep Rentals, located across from the Inn at Furnace Creek, offers daily rentals of Jeeps outfitted for rugged backcountry road use. Visitors can take vehicles out and explore more remote areas of the park. For more information or to make reservations, please call **(877) 970-5337** or **(760) 786-9872**, or visit **farabeesjeeprentals.com.**

If you decide to travel into the backcountry on your own, make sure you have a detailed backcountry road map, as many remote roads do not appear on the official park map. Inquire at the visitor center about availability of maps. Backcountry roads are susceptible to washouts after storms and may close or require chains in the winter. Always check for current road conditions at the Furnace Creek Visitor Center or other ranger stations. Backcountry camping is restricted to certain areas, so please check in at a visitor center before planning an overnight trip and fill out a backcountry camping permit. Remember to carry plenty of water and never rely on backcountry water sources.

Do not depend on GPS devices, as they may show roads that have been closed in recent years.

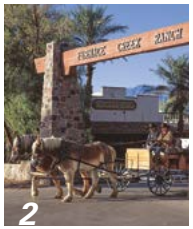
LODGING & DINING

There are a variety of dining and lodging options in Death Valley and beyond. Within the park, the Death Valley Lodging Company manages the park concession at Stovepipe Wells. Xanterra Parks & Resorts®, the nation's largest park management company, operates the historic The Inn at Death Valley, built in 1927, as well as The Oasis at Death Valley. Panamint Springs Resort is a private entity offering reasonably-priced services on the west side of the park.

1. **The Inn at Death Valley** Built in 1927, this AAA four-diamond resort is surrounded by the Panamint and Funeral Mountains and Death Valley National Park. The Inn at Furnace Creek features a natural spring-fed swimming pool, cascading palm gardens, tennis, massages, hiking, touring and fine dining. For more information or to make a reservation, call **(800) 236-7916** or visit **oasisatdeathvalley.com.** The **Inn Dining Room** features fireplaces, beamed ceilings and spectacular views which provide a visual feast to match the Inn's ambitious menu. Lunch entrées range from $13 to over $18. Dinner entrées range from $27 to over $50. Dress code for dinner. Shorts and T-shirts are not permitted. Reservations are strongly recommended. The Inn Dining Room is open mid-October to mid-May. Photo: Xanterra Parks & Resorts B L D

2. **The Ranch at Death Valley** 224-guest units are complemented by three restaurants, a saloon, a general store, the Borax Museum and airstrip. Recreational opportunities include a spring-fed swimming pool, golf course, putting green, shuffleboard, bocce ball, tennis, hiking, seasonal horseback riding, horse-drawn carriage rides and a 3,040-foot airstrip. Call **(800) 236-7916** or visit **oasisatdeathvalley.com**. B L D **The Last Kind Words Saloon brings the West of old to Death Valley. Featuring relics of the past such as movie posters, "Wanted!" fliers touting the misdeeds of outlaws, antique firearms, and taxidermied game animals, The Last Kind Words Saloon is a testimony to the days of a bygone era. Serving lunch and dinner.**

3. **Stovepipe Wells Village** Located in the heart of Death Valley National Park, Stovepipe Wells Village offers a relaxing and refreshing atmosphere. Accommodations can be somewhat pricey. The village boasts a pool, limited WiFi, a gift shop, general store, restaurant and saloon. It is a 30-minute walk or short drive to the sand dunes and within easy driving distance to Furnace Creek, Mosaic Canyon, Rhyolite ghost town, Aguereberry Point, the Charcoal Kilns, Dante's View and Badwater. Open year-round. Call **(760) 786-7090** or visit **deathvalleyhotels.com** to make a reservation. The **Toll Road Restaurant** and **Badwater Saloon** were built with timbers from an old Death Valley mining operation. Today, Stovepipe Wells serves a buffet breakfast and dinner. The restaurant offers a full-service menu featuring incomparable regional fare. The saloon offers a great selection of draft beer, cocktails and delicious appetizers in a unique western atmosphere.



Entrees range from $11 to $30. Call **(760) 786-7090** for more information. Photo: Mariusz S. Jurgielewicz Ⓑ Ⓛ Ⓓ

4. ❄ Panamint Springs Resort (PSR) is a rustic western-style resort located in Panamint Valley inside the western edge of Death Valley National Park. Outstanding views of distant sand dunes and the Panamint Mountains complete the setting for leisure, dining and relaxation. Panamint Springs offers a campground, motel, restaurant, gas station and small store (all open year-round). For more information, **panamintsprings.com** or call **(775) 482-7680**. Breakfast, lunch and dinner are served year-round. PSR features delicious 100 percent angus burgers and scrumptious gourmet pizzas. Catering is available for special groups upon request. Entrees cost about $15-$20; steak $30. For more information call **(775) 482-7680** or visit **panamintsprings.com**. Photo: Panamint Springs Resort Ⓑ Ⓛ Ⓓ

5. ❄ Amargosa Opera House and Hotel Located in Death Valley Junction, a few miles west of the California-Nevada border near Death Valley National Park, the Amargosa boasts a unique old-western/Spanish atmosphere with weekly shows at the on-site opera house from October–May. Many of the rooms are painted by Marta Beckett, the hotel's proprietor. For more information, call **(760) 852-4441** or visit **amargosa-opera-house.com**. Photo: Amargosa Opera House.

6. Stagecoach Hotel and Casino Located in nearby Beatty, Nevada, the Stagecoach has 80 rooms, all equipped with a refrigerator, satellite television and air-conditioning. The on-site restaurant offers 24 hour food service. For more information, call **(800) 424-4946**, **(702) 553-2419** or visit **stagecoachdeathvalley.com**. Ⓑ Ⓛ Ⓓ

7. Lodging Beyond the Park To the west of Death Valley National Park, lodging is available in the towns of Bishop, Big Pine, Independence, Lone Pine, Olancha, Ridgecrest and Inyokern. To the east, there are accommodations in Tonopah, Goldfield, Beatty, Amargosa Valley, Death Valley Junction, Pahrump, Shoshone and Tecopa.

SHARE PHOTOS OF YOUR FAVORITE MEMORIES WITH US! @OhRanger

KEY					
Ⓑ	Breakfast	Ⓛ	Lunch	Ⓓ	Dinner
📞	Reservations required	❄	Open in winter		

WALKING & HIKING

Hiking in Death Valley is uniquely rewarding, but harsh terrain and extreme temperatures demand careful preparation. Before venturing out on a hike, it is vital to pack sunscreen, food, foot protection and plentiful amounts of water. Be prepared for significantly cooler weather at higher elevations. Avoid hiking alone and always let someone else know your planned route.

THINGS TO KNOW BEFORE YOU GO

Water is a necessity. Bring at least two liters for a winter-day hike and four liters or more if you plan to venture out in summer. Always bring extra supplies.

Constructed trails are rare in the park. Trails are provided in places that are heavily used and sensitive to damage. If a trail is there, please use it. Most hiking routes in the park are cross-country, up canyons or along ridges. Footing will likely be rough and rocky.

Hiking the low elevations can be dangerous when it's hot. The best time to hike in Death Valley is October through April. Avoid the salt flats in hot weather. When temperatures are above 100°F, visitors are advised not to walk away from their vehicles onto the salt flats (or anywhere below sea level). There is no shade to protect hikers from blazing reflected sunlight, and summer ground temperatures can exceed 200°F.

Flash floods are a possibility at all times. In Death Valley, storms can form suddenly. Even if it's not raining where you happen to be hiking, torrential rain on higher ground can fill washes and canyons quickly. Be aware of weather conditions; if it begins to rain, get out of a wash or streambed and onto higher ground. Also be aware of flash flood channels when you park for a day hike to ensure that your car will remain where you left it.

Keep in mind that dogs and bicycles are not allowed on any of the trails or in the wilderness.

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Plenty of water is required to beat the desert heat on hikes in Death Valley.

Oh, Ranger! FUN FACTS

Q. WHAT IS A GOOD HIKE FOR WILDLIFE VIEWING?

Salt Creek Interpretive Trail is an easy one-mile hike along a boardwalk that overlooks a small stream. The trail is a good place to view rare pupfish and other wildlife and is best in late winter and early spring.

For answers to all your questions, go to OhRanger.com

HIKING TRAILS

Trail *Destination*	Description	Round Trip Distance *Time*	Difficulty *Elevation Gain*
BADWATER SALT FLAT			
Badwater parking area, 17 miles south of Hwy 190 on Badwater Road	Level walk across lowest place in North America. Temporary lake may cover salt crystal crust after rain. Don't hike here in hot months. No trail. Hiking the full length is strongly discouraged.	½ mile to edge. 5 miles across	easy *level*
DANTE'S RIDGE			
Dantes View parking area	Follow ridge north of Dantes View for spectacular vistas. First summit at ½ mile. No trail for last 4 miles, one way.	4 miles to Mt. Perry 2-3 hours	moderate 320 feet
DESOLATION CANYON			
Parking area at end of ½ mile dirt road off Badwater Road, 3.7 miles south of Hwy 190	Narrow canyon through colorful badlands. Follow old road and then main wash east continuing toward cliffs, then follow the wash draining from the south. Hike up canyon, keeping to the right at the forks.	3 miles 2 hours	moderate 165 feet
GOWER GULCH LOOP			
Golden Canyon parking area, 2 miles south of Hwy 190 on Badwater Road	Colorful badlands, canyon narrows, old borax mines. Hike up Golden Canyon, then follow trail over badlands to Zabriskie Point or down Gower Gulch (no trail).	5 miles *half day*	moderate 700 feet
LITTLE HEBE CRATER TRAIL			
Ubehebe Crater parking area, 8 miles west of Scotty's Castle	Volcanic craters and elaborate erosion. Hike along west rim of Ubehebe Crater to Little Hebe. Continue around Ubehebe's rim for 1.5-mile loop hike.	1 mile *1-2 hours*	moderate *300 feet*
MESQUITE FLAT AND DUNES			
2.2 miles east of Stovepipe Wells on Hwy 190	Graceful desert dunes, numerous animal tracks. Walk cross-country to 100 ft. high dunes. Good for full moon hikes. No trail.	2 miles to highest dune 2.5 hours	easy to moderate varies
MOSAIC CANYON			
Mosaic Canyon parking area, 2 miles from Stovepipe Wells Village	Popular walk up a narrow, polished marble-walled canyon, requires scaling some dry falls at the upper end.	1 to 4 miles 1 hour-half day	moderate 750 feet
TELESCOPE PEAK TRAIL			
Mahogany Flat Campground, 9 miles east of Wildrose Campground off Route 178, often impassable to passenger cars.	Steep trail winds through pinyon and juniper to the highest point in the park, Telescope Peak, which offers breathtaking views of Death Valley to the east and Panamint Valley to the west.	14-mile *all day*	**strenuous** *3,000 feet*
NATURAL BRIDGE CANYON			
Natural Bridge parking area, 1.5 miles off Badwater Road	Gradual uphill walk past unique geological features and a bridge.	½ mile 1 hour	moderate 185 feet
TITUS CANYON NARROWS			
Titus Canyon Mouth parking area, 3 miles off Scotty's Castle Road	Easy access to lower Titus Canyon. Follow gravel road up wash 1.5 miles through narrows or continue to Klare Springs petroglyphs at 6.5 miles.	2-11 miles *2 hours-all day*	easy to difficult 750 feet
WILDROSE CHARCOAL KILNS			
7 miles east of Wildrose Campground	Features beehive-shaped kilns formerly used to produce charcoal for ore smelters in the Argus Range.	1/8 mile *15 mins*	easy *level*
WILDROSE PEAK TRAIL			
Charcoal Kilns, 7 miles east of Wildrose Campground	Moderately steep trail winds through pinyon and juniper to sweeping views of Death Valley. Best in the afternoon.	8.2 miles 4-6 hours	moderate *2,200 feet*

SELF-GUIDED WALKS AND HIKES

Trail *Destination*	Description	Round Trip Distance *Time*	Difficulty *Elevation Gain*
HARMONY BORAX			
Highway 190, two miles north of the visitor center.	Hard-surfaced trail circles adobe dwellings, equipment and a 20-mule-team wagon from the 1880s.	¼ mile *20 mins*	easy *level*
SALT CREEK INTERPRETIVE TRAIL			
1 mile off Hwy 190, 13.5 miles north of Furnace Creek	Boardwalk along small stream. Good for viewing rare pupfish and other wildlife. Best in late winter/early spring.	½ mile *1 hour*	easy *level*
UBEHEBE CRATER LOOP			
The paved lot directly overlooks the crater and is large enough for buses and large RV's. 8 miles (13km) west of Scotty's Castle	The hike is commonly done in a counter clockwise direction where hikers begin with the uphill section first. Within 0.5 mi (0.8km) Little Hebe Crater comes into view and is a common destination for those looking for a shorter trip.	*1.5 miles* *1.5-2 hours*	Moderate
SIDEWINDER CANYON			
Open gravel area large enough for buses and RV's. Same location as Willow Canyon.	An unmarked gravel access road is located on Badwater Road 31.5 miles south of CA-190 between mile markers 31 & 32. The access road is less than 0.5 miles (0.8km) long and is typically passable to a sedan.	*5 miles* *2-3 hours*	*Moderate* *1,580 feet*

CAMPING

Visitors can experience desert grandeur up close in one of Death Valley National Park's public campgrounds. The park has nine public campgrounds that vary in size, specific amenities and price. Only one campground takes reservations, but the rest operate on a first-come, first-ser ved basis. For more adventurous visitors, Death Valley offers more than 3 million acres of pristine desert wilderness for backcountry camping. If you do stray from the public campgrounds, however, be sure to do so prudently. Plan ahead and consult with a ranger because desert conditions can be harsh.

BACKCOUNTRY CAMPING

At Death Valley National Park, there are more than **3 million acres** of wilderness and over 800 miles of backcountry dirt roads open to camping.

The park has implemented an optional permit system for all overnight camping. Permits for backcountry camping may be picked up at the visitor center or any ranger station. Backcountry camping is not permitted within one mile of any developed area, paved road or "day use only" area. Use preexisting campsites whenever possible to minimize impact. Due to rough dirt roads at Death Valley, backcountry roadside camping is generally only accessible to visitors with four-wheel-drive vehicles or vehicles that have a high clearance.

BACKCOUNTRY CAMPING TIPS & REGULATIONS

- Backcountry campsites must be more than 200 yards from any water source to protect these fragile areas for wildlife.
- Campfires are prohibited, except in designated fire pits in developed campgrounds. Gathering wood is unlawful and the burning of wood is not allowed in the backcountry. The use of a low-impact backpacking stove is encouraged.
- Since many springs may be dry or contaminated, don't count on collecting water. Plan to carry water or stash it ahead of time. Those who visit during the hot spring, summer and fall months should carry at least one gallon of water per person, per day. Be advised that very low humidity creates extreme dehydration potential during the summer. Do not hike in the low elevations of Death Valley National Park between May and October.
- Camping is not allowed on the following "day use only" dirt roads: West Side Road, Wildrose Road, Skidoo Road, Aguereberry Point Road, Cottonwood Canyon Road (first eight miles only), Racetrack Road (from Teakettle Junction to Homestake Dry Camp), Titus Canyon Road and Keane Wonder Mine Rd.
- Camping is not allowed at the following historic mining areas: Keane Wonder Mine, Lost Burro Mine and Ubehebe Lead Mine.
- Overnight group size is limited to 15 people and no more than six vehicles. Groups should plan to split into smaller units and camp at least one mile apart. For any groups larger than 15 people or for commercial groups, call the permit office for a special use permit at **(760) 786-3241.**

CAMPGROUNDS

Campground	Months of Operation	Elevation (ft)	# of Sites	Water	Tables	Fireplaces	Flush Toilets	Pit Toilets	Dump Station	Fee Per Night*
Emigrant	All Year	2,100	10	•	•		•			None
Furnace Creek**	All Year	-196	136	•	•	•	•		•	$16
Mahogany Flat	Mar.-Nov.	8,200	10		•	•		•		None
Mesquite Spring	Mar-Nov.	1,800	30	•	•	•	•		•	$14
Stovepipe Wells	Oct.-May 10	Sea Level	190	•	•	•	•	•	•	$14
Sunset	Oct.15-May 10	-196	270	•			•	•	•	$14
Texas Spring	Oct.15-May 10	Sea Level	92	•	•	•	•	•	•	$16
Thorndike	Mar.-Nov.	7,400	6		•	•		•		None
Wildrose	All Year	4,100	23	•	•	•		•		None

***All fees are half price for lifetime-pass holders**
**To make reservations during the winter months, call (877) 444-6777.
Space is available on a first-come, first-served basis and the fee changes to $12 per night from April 16 to Oct. 14. RV hook-up sites are $36 per night, lifetime pass-holders get a $11 discount.

MANZANAR NHS

Japan's attack on Pearl Harbor on December 7, 1941, led the United States into World War II and radically changed the lives of more than 110,000 men, women and children of Japanese ancestry living in the United States. The attack intensified racial prejudices and led to fear of potential sabotage and espionage by Japanese Americans among some in the government, military, news media and public.

On February 19, 1942, President Franklin D. Roosevelt signed Executive Order 9066 authorizing the secretary of war to establish military areas and to remove from those areas anyone who might threaten the war effort.

Without due process, the government gave everyone of Japanese ancestry living on the West Coast one week's notice to decide what to do with their houses, farms, businesses and other possessions. They did not know where they were going or for how long. Each family was assigned an identification number and loaded into cars, buses, trucks and trains, taking only what they could carry with them. Located at the foot of the Sierra Nevada Mountains in eastern California's Owens Valley, Manzanar War Relocation Center was one of 10 camps that confined Japanese Americans from 1942 to 1945.

A memorial for the fallen stands at Manzanar National Historic Site. *iStock*

Congress established Manzanar National Historic Site in 1992 to preserve the site and its stories. Archeological surveys and oral history interviews are ongoing.

THINGS TO DO

The Manzanar Visitor Center offers 8,000 square feet of exhibits with stories, photographs, artifacts, audiovisual presentations and opportunities for reflection.

Visit the reconstructed barracks, with newly installed exhibits that feature personal voices, diaries, photos and video clips from former inmates.

Take the 3.2-mile self-guided auto tour around the site to see rock gardens, foundations, historic orchards and the camp cemetery.

Although cars and bicycles are restricted to the tour road, you are free to explore the entire square-mile site on foot. Walking is one of the best ways to see everything. Remember, be careful while walking and do not disturb or collect anything.

VISITOR INFORMATION

The 814-acre Manzanar National Historic Site is open every day from dawn to dusk. The Visitor Center is open daily, from 9 a.m.–4:30 p.m. (closed December 25). For more information, call **(760) 878-2194** ext. 3310 or visit the park's website at **nps.gov/manz.**

JOSHUA TREE NATIONAL PARK

The twisted trees and intriguing rocky landscape give the impression that Joshua Tree National Park was ripped from the pages of a Dr. Seuss book. Though secluded, the park sits within a three-hour drive of more than 18 million people, including those living in Southern California.

HISTORY

Minerva Hamilton Hoyt, a Pasadena socialite who was extremely fond of cacti and desert plants, became concerned about the wanton removal and destruction of desert flora. Her tireless efforts to protect this area culminated in the preservation of 825,000 acres as Joshua Tree National Monument in 1936. The monument protected the unique assembly of natural resources convened by the junction of two of California's ecosystems: the Colorado Desert, a western extension of the vast **Sonoran Desert**, and the southern boundary of the **Mojave Desert**, which features critical habitat for the park's namesake, the **Joshua tree,** as well as the Little San Bernardino Mountains, which reach above 4,000 feet and provide habitat for California juniper and pinyon pine. The most extensive stands of Joshua trees—which may have been dubbed by pioneers who thought the tree's outstretched limbs resembled Joshua, the biblical figure, in supplication—are primarily found in the western half of the park.

The park's diverse flora is matched by its fauna, including herds of **desert bighorn** and seven species of **rattlesnakes**. Migratory birds fly along the Pacific flyway, which also transects the park. It was in part for this unusual diversity of plants and animals that Joshua Tree National Monument was created.

In 1976, Congress designated 420,000 acres within the monument as wilderness. Today, of the park's current 794,000 acres, 595,000 has this designation, allowing visitors to explore areas in relative solitude. Joshua Tree received national park status as part of the **Desert Protection Bill** on October 31, 1994.

The park encompasses some of the most interesting geologic features found in California's desert areas. Exposed granite monoliths attract rock climbers of all skill levels. **Monzogranite**, a molten liquid that was heated by the continuous movement of the Earth's crust, oozed upward and cooled while still below the surface. These plutonic intrusions then developed rectangular joints that went through a series of erosion forces that created the impressive rock formations present today.

The presence of water, that rarest of desert commodities, allows life to flourish. Five of North America's 158 desert fan palm oases are located in Joshua Tree National Park. The **Oasis of Mara**, a good example of the human history of the park, is a cornerstone of the Joshua Tree National Park story. The oasis was first settled by the **Serrano Indians** who called it Mara, "the place of little springs and much grass." Legend says they planted the palms to provide food, clothing, cooking implements and housing for themselves and as habitat for a variety of desert creatures. In 1850 the Chemehuevi tribe settled peacefully at the oasis with the Serrano. In the mid-1800s, prospectors

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Joshua Tree's rock formations, unique flora and fauna and diverse recreational opportunities make the park a popular destination for ecotourism.

brought by the gold rush started to siphon water and cut down trees. In 1880, cattleman moved into the area to take advantage of the high desert grasslands of the **Pinto and Little San Bernadino Mountains**. By 1913, the Serrano and Chemehuevi were gone. Their spirits are still with us in the archaeological sites they left behind. The Oasis Visitor Center and nature trail at the Oasis of Mara give visitors a peek of history.

THINGS TO DO

Joshua Tree offers endless hours of exploration for all skill and interest levels; rock climbing, biking, self-guided nature trails, birding, horseback riding and wildflower viewing (Rock-climbers must have a professional guide. Contact Mojave Guides at mojaveguides.com). Visitors can camp at one of nine developed backcountry campgrounds—you must register at a backcountry registration board. If planning to camp from October–April, arrive Sunday to Wednesday to assure you get a camping spot. The park's 10 mountains greater than 5,000 feet (1,524 m) in elevation will challenge **"peak baggers"** of all skill levels. Or make it your goal to hike to all five of the park's fan palm oases. Other trails lead you to remnants of the gold mining era, a part of the park's history.

For more park information, call **(760) 367-5522,** or stop by one of the visitor centers. For information online, visit **nps.gov/jotr.**

Oasis Visitor Center is located at park headquarters in Twentynine Palms; Joshua Tree Visitor Center, in the Village of Joshua Tree; Cottonwood Visitor Center is located eight miles north of Interstate 10 at Cottonwood Spring. All visitor centers are open year-round. The Black Rock Nature Center, located in Black Rock Campground, is open October through May.

MOJAVE NATIONAL PRESERVE

At 1.6 million acres, Mojave National Preserve is not only the third-largest National Park Service area outside of Alaska, but it also holds portions of three of the four major North American deserts: the Mojave and transitional elements of the Great Basin and Sonoran.

Established in 1994 by the **California Desert Protection Act**, the preserve is located between Los Angeles and Las Vegas, providing serenity and solitude from the crowds of these major metropolitan areas. Though many areas of Mojave appear barren, signs of life abound. There are hundreds of seeps and springs, cactus gardens, isolated communities of white fir and chaparral and the densest, largest Joshua tree forest in the world. Sand dunes, canyons, mountains, volcanic cinder cones, great mesas, domes and lava flows define the preserve. Rocks 2.5 billion years old have been discovered in the Clark Mountains, which rise to 7,929 feet, reinforcing Mojave's reputation as a land of extremes.

HISTORY

The Mojave American Indian tribe, namesake of the preserve, called this desert home. By the time the Spanish arrived in the territory in the 16th century, the Mojaves were the largest concentration of people per square mile in the Southwest. Additionally, the Chemehuevi lived on the land that is now the preserve. Before contact with new settlers, the Chemehuevi lived on prickly pear, mesquite and roasted agave blooms and hunted deer and bighorn sheep. Living near the Colorado River, these people were able to thrive in the Mojave Desert.

The Mojave were a fierce people willing to protect their land, and willing to venture far from it. They traveled to the Pacific Coast, becoming proficient traders and exchanged crops with coastal tribes for goods such as shells, and made pots, bowls, ladles and dishes decorated with geometric designs from sedimentary clay and crushed sandstone. The material was coiled, dried, painted and fired in either open pits or rudimentary kilns. The women took the crafts further by making unique pottery dolls for the children, dressing and decorating them complete with human hair.

The search for fortune brought the first white man, Fray Francisco Garces, to the land of the Mojave in 1775. His writings portrayed the Mojave as friendly and industrious. Trappers soon followed, but their interactions with the Mojaves were less peaceul and resulted in years of fighting, distrust and death. In 1865, almost a hundred years and a docket full of Indian wars later, the federal government created the Colorado Indian Reservation near Parker, the southern range of the Mojave.

Ranching has played a vital role in the region over the past 150 years. A hearty group raised cattle and lived throughout the land that is the current preserve. Today, few ranchers are left and the area and the places in the preserve are only meant to serve as a vivid reminder of the activities that used to take place. Mojave National Preserve is in the process of creating the largest historical ranching district recorded in the National Register of Historic Places.

In 1872, the General Mining Act permitted individuals to stake a claim on a plot of land where a mineral deposit was discovered. This resulted in a gold rush in the area, while in later years others tried to profit off of silver (1883) and iron ore (1940s). As western expansion marched forward, so did the railroads. In 1902, the Union Pacific made its presence known on the West Coast with the construction of the Salt Lake Route between Salt Lake and Los Angeles. Construction began at the two endpoints and met in the Mojave Desert. The preserve's visitor center, **Kelso Depot**, was once an essential stop on the line. Kelso Depot received its name when three warehousemen put their names into a hat, and the winner was John Kelso.

ACTIVITIES AT MOJAVE NATIONAL PRESERVE

Up to 650 feet in height, Kelso Dunes in Mojave National Preserve are the third tallest in North America. When conditions are right, as sand grains move over one another, they sometimes create a booming sound. Try running down the slopes to make the dunes boom. The preserve is great for backpacking, horseback riding, hiking, four-wheeling (on designated roads; all vehicles must be street-legal) and wildflower viewing.

- Backpacking is allowed. Since there is no registration system and few established trails, make sure you have a map and **let someone know your itinerary**. Remember to camp at least a quarter mile from any paved road and half a mile from developed areas. Your campsite must also be 200 yards from any water sources.
- Three national park campgrounds are available inside the preserve: Hole-in-the Wall and Mid Hills Campgrounds are first-come, first-served. Black Canyon Equestrian & Group Campground is reservation only. Call **(760) 252-6108** or **(760) 928-2572.**
- Four-wheel drive routes are popular in the preserve. One of the most recommended is the Mojave Road, which runs across the entire park from east to west. Driving off established roads is prohibited.
- Horseback riding is welcome, but there are no horses for rent.
- Although there are few established hiking trails, abandoned dirt roads, washes and ridgelines offer an abundance of cross-country hiking opportunities. A map can be found at **nps.gov/moja/planyourvisit/hiking.htm.**

For more information, contact Mojave National Preserve Headquarters at **(760) 252-6100,** Kelso Depot Visitor Center at **(760) 252-6108,** or visit **nps.gov/moja.**

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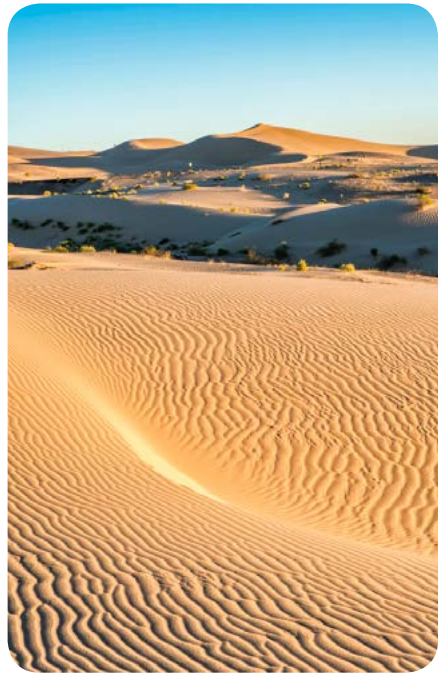

Explore Mojave in early morning or late afternoon, when temperatures are comfortable

JUST FOR KIDS

Death Valley National Park has a host of activities to entice visitors of all ages—including programs just for kids. Visiting the park presents a great opportunity to have fun and learn something about the biology, geology and history that's all around you. If you want to learn all you can about Death Valley National Park, you can...

BECOME A JUNIOR RANGER

Young people are eligible to become junior rangers. You can pick up the junior ranger packet at the front desk of the visitor center, complete the fun activities inside and receive a free Death Valley junior ranger badge. The badge is a replica of the National Park Service badge with features specific to Death Valley. Junior ranger patches are also available upon completion of the junior ranger activities at park bookstores for a small fee.

EXPLORE DEATH VALLEY

Death Valley National Park is full of vast and incredible geology. Convince mom and dad to take you on an extraordinary tour that you'll never forget. You'll find colorful cliffs, sliding stones and eerie salt flats. See the "Sights to See" chapter for ideas and directions. Remember to take only pictures and leave only footprints.

SLIDE DOWN A SAND DUNE

Although sand dunes make up only a small percentage of this desert, the ones you find at Death Valley will put any sandbox you've played in to shame! Don't leave the park until you have tromped and tumbled down the 100-foot dunes at Mesquite Flat. Tell your parents the sand dunes are about two miles east of Stovepipe Wells Village—23 miles northwest of the Furnace Creek Visitor Center—on Highway 190.

BECOME A WEB RANGER

Bring national park fun to your computer! Learn more about national parks and get help to plan your trip by visiting nps.gov/webrangers. Explore the parks in a whole new way as you play interactive and educational games online.

PEER INTO OUTER SPACE

Explore the desert at night when the moon is full and all the nocturnal creatures venture out to hunt! Look for kangaroo rats and kit foxes with your family, or go on a guided hike with a ranger and stargaze. Look at the night sky through a telescope and see the heavens like you never have before!

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Kids will get a kick out of Death Valley's landscape; it's like a huge, beautiful sandbox.

PHOTOGRAPHY

For millennia, we've looked towards the heavens and contemplated what's beyond our orbit and universe. More recently, stargazing has become increasingly difficult for millions of people living in developed areas. If you live you in a populated area east of the Mississippi or along the Pacific coast, odds are that you can count the number of stars you see on your hands. National and state parks—remote and minimally developed—not only protect our land, but also our dark skies which are ideal for astrophotography.

There are two primary types of astrophotography shots that yield different, but stellar compositions. A long exposure setting will show stars trailing across the sky, while a shorter exposure will show pinpoints of light—objects that a camera can capture that the unaided eye cannot. Both require a camera with interchangeable lenses and manual controls to set aperture, ISO, and exposure settings. Here's what you'll need to start:

- **A sturdy tripod:** Simply put, a shaky tripod will yield blurry photos.
- **A cable release or remote control or intervalometer:** You'll want to avoid touching your camera to minimize shake. The addition of an intervalometer will allow you to take sequential long exposures
- **Batteries:** Your aperture may be open for several hours, so it's important to have multiple fresh and fully charged batteries.
- **A wide lens:** Use the fastest, widest lens available.
- **A head lamp:** It'll be useful to set up your equipment and illuminate your foreground.

Check the cloud cover; if there's too much wait until you have a clearer night. Before you start, set your focus to infinity and turn off your autofocus and high ISO noise reduction. Next, set your white balance to daylight settings (5500k) and turn on your mirror lock to avoid mirror shake. Wait until the moon is out, too, as it'll illuminate and add detail to your foreground. Make sure that it's behind you. To capture star trails:

- Set your ISO at 200 to reduce digital noise.
- Compose your image, making sure you have interesting features in the foreground.
- Choose your focal length. The longer the focal length, the quicker your star trails will start to form.
- Set your camera to manual mode so that you can select your shutter speed and aperture.
- Set your aperture between f/2.8 and f/4 for best results.
- Select "bulb mode" as your shutter speed.
- Use your cable release or remote to open the shutter or set your timer for two to four minutes.

Check your results. If your picture is too dark, increase the exposure time. If your trails are to short, increase the exposure time. Keep playing around with your settings to get the results you desire. To learn how to take photos of the milky way and millions of points of light, visit **ohranger.com/brightskies.**

Shutterstock

Photographing the night sky is as close as many of us will get to exploring space.

IF YOU ONLY HAVE A DAY

Since Death Valley is so large, packing all your sightseeing into a single day can be a challenge. Plan carefully and **start early** to get a true flavor of what the park has to offer in a short period.

Ultimately, what you see depends on where you enter the park. If you begin the day in Furnace Creek, many of the most impressive sights are nearby. Get up early and drive 17 miles south to **Badwater**, the lowest point in North America and a great place to watch the sunrise over the mountains.

Returning north, stop at **Natural Bridge**, a medium-sized conglomerate rock formation that has been hollowed at its base to form a span across the canyon walls. Then proceed to **Devil's Golf Course**. From Devil's Golf Course, take a short detour to the right onto **Artist's Drive**, a nine-mile route that passes **Artist's Palette**. The striking array of colors here are brilliant reminders of the minerals in the rocks and the earth. Four miles north, you'll come to the Golden Canyon Trail, a two-mile trip that winds through a canyon of colorful rock walls.

Just before **Furnace Creek**, take a short side-trip on Highway 190 east three miles to **Zabriskie Point** and see the 20-Mule Team Canyon. Return to Furnace Creek for lunch and visit the Furnace Creek Visitor Center. Heading north from Furnace Creek, stop off and see the **Harmony Borax Works**.

Twenty miles up the road is Stovepipe Wells where **Mosaic Canyon** and the sand dunes are located, a great place to watch the sunset.

iStock

Artist's Palette, made of volcanic rocks with multicolored hues, is best viewed in afternoon light.

NATURE VALLEY

HAVE SOME FAMILY FUN

CLIMB A MOUNTAIN

REFLECT

SLEEP UNDER THE STARS

RECHARGE

EAT A NATURE VALLEY BAR

CAST A LINE

RUN A RIVER

REFRESH

FIND YOUR HAPPY PLACE

HIT THE TRAIL

TAKE A HIKE WHERE THE WIFI IS WEAK!

You're not going to remember the time you spent surfing the web. Get back to nature and and see why you'll find the best tweets outside, not online.

#NatureGives