

# EUREKA DUNES

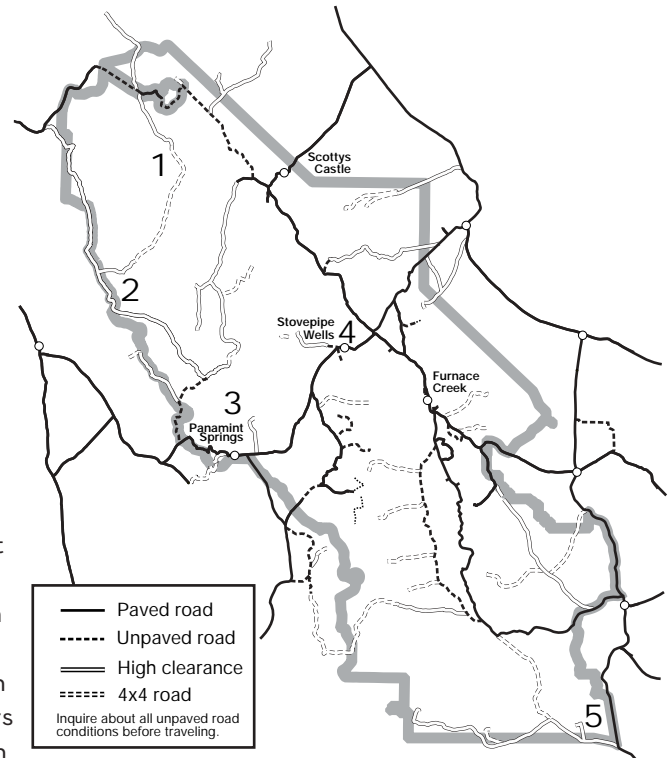
A pale mountain of sand appears to hover over the flat valley floor. Rugged cliffs loom high above, boldly striped with pink, gray, and black. The distant yipping of a coyote is interrupted by a mysterious rumbling sound emitting from the dune itself. Welcome to Eureka Dunes, one of the newest additions to Death Valley National Park.

## The Highest Dunes

The Eureka Dunes lie in the remote Eureka Valley, an enclosed basin at 3000 foot elevation located northwest of Death Valley. The dunes cover an area only 3 miles long and 1 mile wide, yet they are the tallest sand dunes in California, possibly the tallest in all of North America. They rise suddenly more than 680 feet above the dry lakebed at their western base. As tall as these dunes are, they are dwarfed by the impressive limestone wall of the Last Chance Mountains which rises another 4000 feet above the valley floor.

## Singing Sand

The climb to the summit of the dunes is not an easy walk. All the slopes are steep and the loose sand gives way beneath your feet. At the top, the sweeping view seems reward enough for your efforts, yet if the sand is completely dry you may experience one of the strangest phenomena to be found in the desert, singing sand. When the sand avalanches down the steepest face of the highest dune, a sound like a bass note of a pipe organ or the distant drone of an airplane can be heard emanating from the sand. If the dune is at all damp (even though it may not feel so to the touch) no sound will be made. Why this occurs is not fully understood, but may have something to do with the smooth texture of the sand grains and the friction of those grains sliding against each other.



## An Island in the Desert

At first glance the Eureka Dunes appear desolate. What could possibly survive the hardships of this area? Plants and animals must endure the shifting sands, as a windstorm could bury them alive or expose them to the drying sun. The dry surface is deceptive, for dunes can hold water like a sponge. The Eureka Dunes receive more rainfall than others in the Death Valley area because their location at the western base of a mountain range that captures precipitation from passing storms. For perhaps 10,000 years these dunes have existed, providing a unique habitat for specialized lifeforms to evolve. The isolation of Eureka Dunes from other dune fields has led to the development of endemic species of plants and animals that are found nowhere else in the world. Besides 5 species of endemic beetles, 3 special plants have their entire range limited to this island of sand.

**Eureka Dunegrass** (*Swallenia alexandrae*) is often the only plant found on the higher slopes of the dunes. Its dense root system catches and holds drifting sand, forming stable hum-mocks. Stiff, spiny leaftips protect the plant from being disturbed by herbivores and careless hikers. *Federally listed as an endangered species.* **Eureka Dunes Evening**

**Primrose** (*Oenothera avita eurekaensis*) has large, white, night-blooming flowers to take advantage of pollinators such as moths that avoid the heat of day. When the leafy flower shoot is covered by windblown sand, roots sprout from the sides and a new rosette of leaves forms at the tip. Federally listed as an endangered species.

**Shining Milkvetch** (*Astragalus lentiginosus micans*) reflects excess light and heat with a covering of silvery hairs to conserve moisture. This is a hummock-forming plant like the dune grass. Nodules on the roots gather nitrogen from the air, an important nutrient not available in the sand. Candidate for the Endangered Species List.

## A Special Place

Eureka Dunes are clearly a special place. Please have respect when you visit. Lifeforms here may not be able to survive our carelessness. Try to choose activities that have the least impact on the land. Recreational activities such as **SANDBOARDING** are not allowed on these delicate dunes. Camp away from the base of the dunes where most of the endemic plants and animals live. Most importantly, **OFF ROAD VEHICLE TRAVEL IS NOT PERMITTED ON THE DUNES**, or anywhere else in Death Valley National Park for that matter. Please keep your vehicle on established roadways.

# SAND DUNES

Many first time visitors to Death Valley are surprised it is not covered with a sea of sand. Less than one percent of the desert is covered with dunes, yet the shadowed ripples and stark, graceful curves define "desert" in our imaginations. For dunes to exist there must be a source of sand, prevailing winds to move the sand, and a place for the sand to collect. The eroded canyons and washes provide plenty of sand, the wind seems to always blow (especially in the springtime), but there are only a few areas in the park where the sand is "trapped" by geographic features. The sand dunes of Death Valley National Park are excellent places for nature study and recreation, but off-road vehicle travel is not permitted and sandboarding is not allowed on the Eureka Dunes.

---

## 1 Eureka Dunes

Eureka Dunes are accessible by most standard vehicles via the Death Valley /Big Pine Road. From the Ubehebe Crater Road you must travel 44 miles of graded dirt to the dunes. From the town of Big Pine there are 28 miles of paved road and 21 miles of graded dirt to the dunes. The final 10 miles of both routes is the narrow South Eureka Road. During inclement weather, all access to Eureka Dunes can be closed or limited. No water or services are available along this route. To protect this delicate ecosystem do not SANDBOARD on the dunes!



*Eureka Dunes. Photo Courtesy of NPS.*

## 2 Saline Valley Dunes

Gently rippling up from the edge of salt flats, these low dunes cover a large area, yet go unnoticed by most visitors to this remote valley. The Inyo Mountains tower nearly 10,000 feet above. The long, rough drive into Saline Valley limits casual visits, so come prepared. Winter snows and flashfloods can temporarily limit access.

## 3 Panamint Dunes

Travelers crossing Panamint Valley on Hwy.190 may view these dunes as a distant, pale smudge to the north. Those wanting a closer look must drive 5 miles down the unmarked dirt road leading past Lake Hill, then hike cross-country 3 miles. The other dunes of Death Valley are all situated on flat valley floors, but these are perched on a slope. The view from the summit of these dunes reveals their star shape and an impressive view down the valley.



*Panamint Dunes.  
Photo Courtesy of NPS.*

## 4 Mesquite Flat Dunes

These dunes are the best known and easiest to visit in the national park. Located in central Death Valley near Stovepipe Wells, access is from Hwy. 190 or from the unpaved Sand Dunes Road. Although the highest dune rises only about 100 feet, the dunes actually cover a vast area. This dune field includes three types of dunes: crescent, linear, and star shaped. Polygon-cracked clay of an ancient lakebed forms the floor. Mesquite trees have created large hummocks that provide stable habitats for wildlife.



*Stovepipe Wells Dunes.  
Photo Credit Natasha Kessler.*

## 5 Ibex

Visitors to Saratoga Springs may notice these dunes, but they are shielded from paved roads by rocky desert hills. Hike about one mile from the Saratoga Springs Road for access. An old talc mine at the base of the Saddle Peak Hills overlooks the dunes from the east. The Mojave fringe-toed lizard lives on these dunes.