



Death Valley National Park

NATIONAL PARK SERVICE
US Department of the Interior
Death Valley, California, 92328

Dear Student,

Thank you for your interest in Death Valley National Park, a land of extremes! From the lowest point at Badwater Basin to snow-covered peaks, Death Valley is full of life and mystery. Hopefully this letter will assist you in your studies of this fascinating place. We've answered some of the most common questions we receive from students.

When and how was Death Valley National Park established?

Death Valley National Park is one of over 410 park units in the National Park Service. The mission of the National Park Service is to preserve and protect natural and cultural resources for the enjoyment of future generations. In 1933, President Herbert Hoover signed a proclamation that created Death Valley National Monument. In 1994, the California Desert Protection Act established Death Valley National Park, adding 1.3 million acres to the park.

How big is Death Valley National Park?

Death Valley National Park is 3.4 million acres and includes many valleys, mountain ranges, springs, sand dunes, and salt flats. Death Valley itself is 140 miles long.

How did Death Valley get its name? What brought people to Death Valley?

In 1849, pioneers were heading across the West to find gold in California. One group of wagons realized that the map they had was wrong and that they were lost. It was wintertime, and they wandered the area looking for a way out. Two men in the group found a way out of the area and returned with help. Legend has it that as the group was being rescued, one member of the party turned back and said "Goodbye Death Valley!" However, only one man in the group had died. But, the name stuck anyways!

As gold, silver, borax, and other minerals were discovered in Death Valley, the stories no longer scared people away, and miners came to the area to "strike it rich." Mines can be found throughout Death Valley. One of the area's most famous characters, Death Valley Scotty, claimed that he had a gold mine in Death Valley that made him a rich man. Death Valley became known for the twenty mule teams that would transport borax from mines in the area. In the mid-1900's, the twenty mule teams were featured in television advertisements for laundry detergent, one of the many household products that used borax.

The Timbisha Shoshone Indians lived in Death Valley for centuries before the first white man entered the valley. They hunted and followed seasonal migrations for harvesting of pinyon pine nuts and mesquite beans with their families. To them, the land provided everything they needed and many areas were, and are, considered to be sacred places.

What is the weather like in Death Valley?

The world record, highest air temperature of 134°F (57°C) was recorded in Death Valley on July 10, 1913 at Furnace Creek Ranch. Annual precipitation (rain and snow) varies from 1.9 inches in the valley to over 15 inches in the surrounding mountains.

What makes Death Valley special?

Death Valley is the driest and lowest place in North America and the hottest place on Earth. It rains less than 2 inches per year in Death Valley. Badwater Basin, the lowest point in Death Valley and in North America, is 282 feet below sea level. Badwater Basin is the 8th lowest place in the world. It is surrounded by mountain ranges that are 5,000 to 11,000 feet above sea level. Death Valley is also the hottest place on Earth, with a record 134°F (57°C) in 1913.

What are some other interesting landforms in Death Valley?

Some of Death Valley's oldest rocks formed 1.7 billion years ago! Death Valley continues to sink lower as the Earth's crust pulls apart. Canyons are formed by water carving through the rocky mountains in Death Valley National Park. Dunes that are over 600 feet tall were formed by wind moving the sand into wave-like mounds. Death Valley National Park also has volcanoes—some may have erupted just 300 years ago!

What plants live in Death Valley National Park? Any endangered species?

There are over 1,000 plant species in Death Valley National Park, including over 13 species of cactus and over 23 plants that are only known to grow in the Death Valley area. The Eureka Valley Evening Primrose and Eureka Dune grass are two of many plants that are only found in Death Valley and are on the endangered species list. These plants grow on the Eureka Dunes, in the northern section of the park. The park protects these plants by not allowing vehicles or sleds on the dunes, which can crush the plants. Since banning vehicles and sleds, park scientists have observed more plants growing in this area.

If it is so hot and dry, how do plants live in Death Valley National Park?

Thousands of plants live in Death Valley and are able to thrive in dry, hot conditions. These adaptations can be grouped into three categories: escapers, resisters, and evaders.

"Escaper plants" wait for favorable growing conditions (such as rain and cool temperatures) and avoid growing during the extreme heat and dry periods. Death Valley's famous wildflower bloom in the spring is a great example of

this. These wildflower seeds lie dormant in the soil throughout the year. These seeds sprout when enough rain falls in the winter months to wash off a protective coating on the seed. The plants bloom and produce seeds before the extreme heat and dryness returns.

“Resister plants” are able to resist the extreme temperatures and dryness of Death Valley and live year round. Mesquite trees have extremely long roots that allow them to reach water deep underground. Mesquite trees roots can be 80 feet deep! Creosote bushes have small leaves which help the plant keep water. Cacti are able to store water in their stems and have a waxy skin to keep in moisture.

“Evader plants” evade the extreme conditions by living near water sources, such as springs. Cottonwood trees need lots of water and grow near springs in Death Valley. Pickleweed is able to live near salty springs and stores the salt in its stems. When too much salt is in a part of the stem, the plant can allow that part of the stem die.

What animals live in Death Valley National Park? Any endangered species?

Death Valley is home to 56 mammals, 36 reptiles, 5 amphibians, 6 fish, and nearly 400 bird species that have been found in the park. One endangered species is the Devil’s Hole Pupfish, which is found in the top 80 feet of a water-filled cavern. These inch-long fish are at the greatest risk of extinction because the fish cannot change locations to adapt to a changing environment.

A threatened species in the park is the Mojave Desert Tortoise. Illegal tortoise hunting (poaching), off-road driving, and the spread of weeds and diseases threaten tortoise populations. Tortoises can also eat trash, such as popped balloons, thinking that it is food. This can make the tortoise sick and lead to starvation.

If it is so hot and dry, how do animals live in Death Valley National Park?

Animals have many different adaptations for living in the desert, including ways of avoiding heat, releasing heat, and gaining and storing water.

Some desert animals (like kangaroo rats and kit foxes) avoid the heat of the day by being active at night. These animals are nocturnal. In the summer, other animals (like bighorn sheep) migrate higher up the mountains where it is cooler. Desert tortoises spend 95% of their life in a burrow or den to escape the heat.

Animals in the desert have adaptations to help keep their bodies cool. Jackrabbits and kit foxes have large ears that help keep them cool. When a jackrabbit is in a shady area, the cooler air around their ears helps release the heat in their bodies. Animals such as the white-tailed antelope squirrel and the bighorn sheep have light colored fur to reflect the sun’s rays. The zebra-tailed lizard has long legs to help keep its body away from the hot ground and rocks and allow cooling air to move around its body.

Desert animals also have unique adaptations for gaining and storing water. Adult desert tortoises can go years without water. They can do this by getting water from the grasses and wildflowers they eat and can store that water in their bladder. Kangaroo rats can also live without drinking water. Kangaroo rats get water from the seeds that they eat. Their kidneys also concentrate their urine, which is more dry and crystal-like. This helps the kangaroo rat’s body conserve water. Roadrunners, a large bird, absorb extra water in their feces before excreting it. Roadrunners also have glands near their eyes that remove salt from their bodies. Removing the salt helps them stay hydrated, since most of the water they get is through the prey (lizards, snakes, and insects) that they eat.

What do rangers do in Death Valley?

It takes many people with many different skills to operate Death Valley National Park. The park is managed by people who care about the plants, wildlife, culture, and history here. Park rangers also want every visitor to have a safe and enjoyable visit. Law enforcement rangers uphold special laws that protect the birds, animals, history, and visitors in the park. Park guides take visitors on hikes to explore the beautiful surroundings. Scientist rangers study plants and animals and explore historical sites to learn more and help protect the park. Maintenance rangers repair roads after flooding, restore buildings, and keep the park clean. Rangers who are mechanics, accountants, computer specialists, and plumbers (just to name a few!) all help run Death Valley National Park.

Need more information?

Explore our website at:
www.nps.gov/deva

Thank you for writing us to learn more about Death Valley National Park! National parks are for all of us to enjoy! It is also up to all of us to help protect them! One way you can help protect them is to learn more about them and share what you learn with your classmates, teachers, friends, and family! If you have any more questions, please feel free to write us again.

Sincerely,