

Great Sand Dunes

National Monument
Colorado

National Park Service
U.S. Department of the Interior

Official Map and Guide



Medano Creek



Gary Hasty

Dune crest



Grass, tracks, ripples



Sunflowers on the dunes

The Great Sand Dunes—the tallest sand dunes in North America—rise in a corner of the high-mountain San Luis Valley in the Colorado Rockies. These dunes have built to heights of nearly 750 feet from billions of grains of sand blown across the valley by wind. The dunes cover about 39 square miles. But to understand the immensity of the dunes, you don't need facts and figures. Just walk in the dunes for awhile. There seems to be no end to them—and no end to their beauty.

Seeing the Great Sand Dunes for the first time can be unsettling, for they seem out of place. Dunes belong on the shores of oceans or lakes, or in great deserts, not here. What did the Utes and other American Indians who hunted in this valley think? What were the impressions of the explorers, miners, stagecoach travelers, and ranchers who passed this way? Probably they were puzzled. Although the dunes seem misplaced, they are here because the key ingredients for making dunes—sand, wind, and time—existed here. The Rio Grande, the main river in the San Luis Valley, and the 14,000-foot mountain ranges that border the valley—the San Juans to the west and the Sangre de Cristos to the east—also played a part in the creation of the Great Sand Dunes.

For centuries the Rio Grande River meandered through the valley, much as it does today, carrying sand and other sediments and depositing them in its riverbed and along its shores. Most of the sand was eroded pieces of the San Juan Mountains brought to the Rio Grande by tributary streams. Some particles were rock eroded

by alpine glaciers during the Ice Age and left in the valley. In time, the Rio Grande changed its course, and these great deposits of sand were exposed to the winds that swept across the broad, flat valley. These winds, blowing northeast, pushed and bounced the grains of sand until the steep Sangre de Cristo Mountains barred the way. Seeking a way over this barrier, winds surged upward through low mountain passes, carrying the lighter particles but leaving the heavier sand at the foot of the mountains. In this way, over thousands of years, the Great Sand Dunes were created.

Today the winds still blow, sometimes gently, sometimes at velocities of 40 miles per hour or more. The winds shape and reshape the dunes into their giant sculptured forms. Overall, the

dunes are remarkably stable. Geologists say that one reason the dunes do not move much is due to their moisture content, which comes from rain and snow. Surface sand dries out and moves freely. As if never quite satisfied, the winds return day after day, adding new delicate patterns in the sand and erasing others. There is a saying, "Leave only footprints, take only pictures," meant to encourage visitors to treat natural areas with respect. Here at Great Sand Dunes you can't leave your footprints, at least not for very long. For tomorrow, they will be gone with the wind. The dunes—ever-changing, ever-fascinating—will remain.

Top photo: The dunes against the Sangre de Cristos Mountains
Stephen Trimble

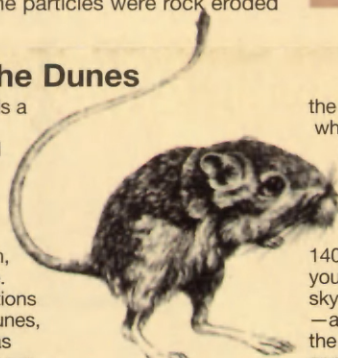
Creation of the Dunes

The Great Sand Dunes were created by winds blowing toward the northeast across the San Luis Valley. Sands carried by the winds were deposited at the foot of the high Sangre de Cristo Mountains.



Exploring the Dunes

Great Sand Dunes is a great place to hike, discover plants and animals, seek solitude, take photos, ride a horse, wilderness camp, and, if you like—run, jump, roll, and slide. Begin your explorations at the foot of the dunes, and climb as high as you like on these mountains of sand. Distances in the dunes are deceiving—often your destinations farther away than it looks. Your efforts will be rewarded with experiencing the dunes firsthand and seeing spectacular views of the San Luis Valley and surrounding mountains.



Kangaroo rat
Gene Dieckhoner

Safety

Please observe these safety regulations.

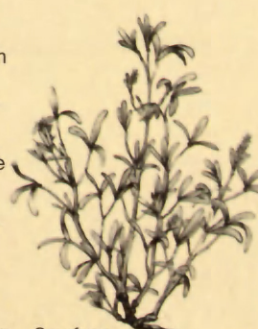
- The sand is hot, and shade is scarce. Carry ample water. Wear a hat and use a sunscreen.
- Walking in the dunes is strenuous. Pace yourself and rest as needed. Consider starting out in

the morning or evening when it is cooler, especially in summer.

- Always wear shoes. The surface temperature of the dunes can reach 140° F and can burn your feet.
- Watch the sky for thunderstorms—and get away from the dunes when a storm approaches. Lightning strikes the dunes often, and you don't want to be the highest point when it does.
- Pets are allowed on the dunes, but they must be on a leash at all times. Never leave pets in a vehicle; summer temperatures can reach more than 100° F within minutes. Pets left in vehicles even for a short time may suf-

fer heat stroke and die.

- For children the dunes are a treat. Please keep a close eye on them so they don't get lost in this giant sand pile.



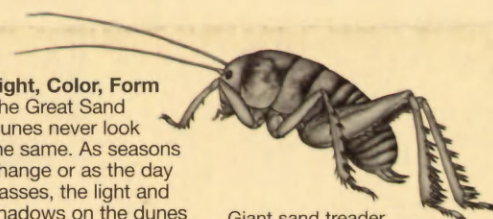
Scurfpea
Byron Alexander

Light, Color, Form

The Great Sand Dunes never look the same. As seasons change or as the day passes, the light and shadows on the dunes change, too. Variations in light turn the dunes many shades of brown, pink, cream, and gray. Patterns in the sand can change before your eyes.

Plants and Animals

The dunes are a tough environment to survive in, but a few plants and animals live here. Plants include blowout grass, Indian ricegrass, scurfpea, and, especially in late summer, bright yellow prairie sunflower. These are hardy plants that have adapted to life



Giant sand treater camel cricket
Byron Alexander

in the shifting sands. Animals are even more scarce. Kangaroo rats—masters of water conservation—live here, as do six insects found nowhere else on Earth. The giant sand treater camel cricket lives in the sand. Other animals, such as mule deer, elk, bobcats, coyotes, rabbits, ravens, and magpies, live near dunes. Watch for their tracks in the sand.

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About Your Visit

Visitor Center The visitor center has publications, maps, exhibits, and information about the dunes and other area features. Rangers can help you plan your visit. Schedules of activities, such as hikes and campfire programs, are posted. The center is open daily, except federal holidays in winter.

Camping/Picnicking The Pinyon Flats Campground is open all year (first-come, first-served) with tables, grills, water,

and restrooms. Backcountry camping is permitted at the designated sites and in the dune wilderness; a permit is required. Open fires and wood gathering are prohibited; firewood is sold in the park. A picnic area (charcoal fires only) at the edge of the dunes has tables, grills, water, and restrooms.

Trails A few park trails let you hike or horseback ride in the world away from the dunes—into the grasslands, the

pinyon-juniper woodlands, and the forests.

4-Wheel-Drive Use The 4-wheel-drive Medano Pass Primitive Road, which begins in the park and goes north to Medano Pass and the Rio Grande National Forest, offers spectacular views of the dunes. Primitive picnic areas (no water or restrooms) are located along the road. Soft sand may require reduced tire pressure. Air is available near the campground.

A concessioner operates tours on the Medano Pass road from May through September.

All off-road driving, including driving on the dunes, is prohibited.

More Information Write: Superintendent, Great Sand Dunes National Monument, 11999 Highway 150, Mosca, CO 81146-9798. Call: 719-378-2312. Internet: www.nps.gov/grsa.

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Great Sand Dunes National Monument is 38 miles northeast of Alamosa, Colorado. Main travel routes are shown on the map above.

