

# NATIONAL MONUMENT

N E W M E X I C O



United States Department of the Interior, J. A. Krug, Secretary National Park Service, Newton B. Drury, Director

One of the world's strangest and most spectacular deserts, with huge gypsum dunes of purest white, some of them more than 50 feet high

A portion of the largest of rare gypsum deserts, the White Sands in Tularosa Basin, N. Mex., is included in White Sands National Monument. Its snowwhite glistening "sands," deposits of wind-blown gypsum, drift into huge dunes. Sparsely covered with a variety of plant growth at its fringes, much of this wide sea of dunes is almost bare of vegetation. A few species of plants, exhibiting remarkable adaptability to their peculiar surroundings, have been able to resist burial under the ever-shifting dunes, and several types of animals demonstrate protective coloration in the pale, bleached appearance which renders them unnoticeable in their strange environment.

"Here is a unique bit of America. The loveliness of its white and green, the cleanliness of its vast expanse, and its appeal to the lover of the unexplored mark it as an area which attracts those discerning travelers who would see Nature's masterpieces."

Sand dunes of pure gypsum encroaching upon the flats.



White Sands National Monument is one of the areas of the National Park System owned by the people of the United States and administered for them by the National Park Service of the Department of the Interior. In these areas the scenery and objects of historic, prehistoric, and scientific interest are carefully preserved and displayed for public enjoyment.

## Sands Result of Ancient Earth Movements

Stretching north and south between two mountain ranges, the Tularosa Basin slopes gently from all directions, forming a great natural basin with Lake Lucero, at the southwestern extremity of the White Sands, constituting its focal point.

Geologists say that, perhaps millions of years ago, this basin was formed by the settling of a huge block of a high plateau. This condition is indicated by the occurrence of thick beds of gypsum beneath the floor of the basin. Remnants of the same beds are found high above the valley floor, in the parts of the plateau that did not settle and which are now the mountain ranges flanking the valley. Gypsum is the mineral from which plaster-of-Paris is made. Its massive translucent form is called alabaster. Percolating waters from rains and melting snows carry tons of gypsum in solution from the mountains into Lake Lucero each winter, while underground waters dissolve gypsum from the beds beneath the valley floor. For months each year, cloudless skies and warm winds evaporate the water.

Lake Lucero shrinks to a crystal-encrusted marsh, and the gypsum-impreg-



Yucca plant in bloom.

nated underground waters are drawn to the surface where they deposit their burden, forming extensive alkali flats. The ever active southwest wind picks up the particles of gypsum left by the evaporating water and whirls them away to join the accumulations of centuries—the dunes of snow-white sand. Thus the dunes are ever growing, ever moving, ever changing.

# Plants and Animals Adapted to Strange Conditions

Because of the almost constant wind and the consequent gradual movement of the dunes, such plants as are able to establish themselves in the open spaces between the dunes eventually become covered. Of the many species of plants found in the area, only a few are able to survive the irresistible march of the sand. Through a rapid elongation of their stems, the crowns ride the crest of the rising dune. Plants with stems more than 40 feet long have been found. As the dune, continuing onward, gradually recedes in height, occasional plants are left behind elevated on pillars of hardened gypsum bound by the adventitious roots.

Animals, as well as plants, have become altered in the long process of accommodation to the unique surroundings. Such small creatures as lizards and mice would be, if of normal coloration, so conspicuous against their white background that they would be picked off easily by their enemies. Through many centuries, only the lighter colored individuals have survived, and in this manner pale forms have evolved. The white pocket mice of the sands are of especial interest to scientists because, in the nearby red hills, pocket mice of reddish pelage are found, while in the beds of black lava, a few miles north, the pocket mice have dark, almost black fur.

## Region Rich in Indian, Spanish, and Early American Lore

Near the sand dunes, camp sites of prehistoric Indians, identified by arrowpoints and other artifacts, have been found.

Remains of an ancient two-wheeled wooden cart, probably an early Spanish carreta, were laid bare by the shifting of a dune.

Fights between renegade Apache Indians and United States Army troops occurred in Dog Canyon, about 20 miles east of the monument.

Several historical novels have been written about early-day events in the Tularosa Basin. Eugene Manlove Rhodes, author of many popular westerns, based his stories on his experiences in this part of New Mexico.

#### The Monument Museum

The fascinating tale of the White Sands and how they originated is told through the use of photographs, paintings, and models in the small museum in the monument headquarters building.

Monument headquarters and museum.



### Location and Facilities

Located in south-central New Mexico, the monument is on United States Highway No. 70, 15 miles from Alamogordo and 54 miles from Las Cruces. It is a little less than 100 miles from El Paso, Tex. Although neither meals nor accommodations are available at the monument, excellent facilities may be found in both Las Cruces and Alamogordo.

A concession at headquarters provides cold drinks, candies, souvenirs, and supplies at popular prices.

A picnic ground, with tables and fire grills, is provided for persons wishing to bring lunches.

#### Administration

White Sands National Monument,

comprising 140,247 acres of Federally owned lands, was established by Presidential proclamation in January 1933.

A permit fee of 50 cents for each automobile, motorcycle, and house trailer is collected at the monument entrance. This permit remains good throughout the entire calendar year in which it is purchased.

All plants and animals in the monument are protected and must not be disturbed or harmed. Help to keep the sands clean by using the fireplaces and refuse containers. VEHICLES ARE RESTRICTED TO ROADS AND PARKING AREAS. DO NOT DRIVE ON THE SAND DUNES—IT IS DAN-GEROUS.

Inquiries and communications regarding the monument should be addressed to the Custodian, White Sands National Monument, Alamogordo, N. Mex.

An Indian exhibit in the museum.



