

THE CHIHUAHUAN DESERT

510 The Chihuahuan Desert occurs in the United States as a band
 across west Texas (from between 102° to 103° westward),
 including the Big Bend area and the area between the cities of
 Pecos and El Paso. In New Mexico, the Chihuahuan is
 represented as four fingerlike projections. The smallest is the
 easternmost portion, which lies just west of Carlsbad and
 extends to slightly northwest of Artesia. The second finger
 includes White Sands National Monument near Alamogordo,
 and continues to north of Tularosa. The third area extends the
 farthest north, covering the valleys from Las Cruces to a point
 just north of Socorro. Each of these extensions runs from north
 to south between mountain ranges. The fourth finger,
 interrupted by mountains, extends in a northwest direction to
 Clifton, Arizona, and to areas near Benson. Several sites
 farther into Arizona have isolated patches of Chihuahuan
 Desert vegetation, especially on limestone outcrops, but
 because these sites are so remote from the main body of the
 Chihuahuan, they lack the characteristic vertebrate species
 found in areas closer to the Arizona-New Mexico border.
 Limestone outcrops in the Santa Catalina Mountains just
 outside of Tucson contain some of these vegetation patches.
 In Mexico, where the Chihuahuan Desert is much more
 extensive, it occupies considerable portions of the states of
 Chihuahua, Coahuila, Zacatecas, and San Luis Potosí. Smaller
 sections of Durango, Nuevo León, and Hidalgo are also a part
 of this desert.

The Chihuahuan Desert is an area of high elevations. The
 lowest portions, at about 1000 feet, are on the Rio Grande
 River, and the highest portions, in Mexico, may exceed 6500
 feet. A more typical limit in the United States is 5000 feet,
 and 3500- to 4200-foot elevations represent a characteristic
 range. These high elevations are related to the cool winters
 experienced in the Chihuahuan Desert, especially in the
 portions that lie in the United States, where nighttime
 temperatures drop below freezing at least one hundred times
 per year. Do not let the cool winters mislead you, however:
 Summer temperatures are high, and the climate overall is
 moderate compared to those of continental nondesert areas.
 Rainfall varies from 7.8 inches a year to nearly twelve,
 particularly at high sites. Areas with more than ten inches per
 year are often those that, while currently supporting desert
 vegetation, were desert grasslands at one time until
 overgrazing turned them into deserts. While rainfall is
 characteristically a summer phenomenon, winter rains and
 snow do occur, although snow never remains on the ground
 for long. The winter precipitation is sufficient in some areas
 for winter annuals to occur.

The Chihuahuan lies within an area surrounded by the Rocky
 Mountains, the Sierra Madre Oriental, and the Sierra Madre
 Occidental. Like other North American deserts, it consists of
 alluvial plains, bajadas, and scattered mountains. Nearly
 eighty percent of the entire area is dominated by soils that are
 derived from calcareous parent materials. Such desert areas
 may also contain volcanic materials, generally of Eocene-

