

Chihuahuan Desert Gardens

OF THE CENTENNIAL MUSEUM AT
THE UNIVERSITY OF TEXAS AT EL PASO

Welcome to the Chihuahuan Desert Gardens (CDG), which display the flora of the Chihuahuan Desert and adjacent regions in the United States and Mexico. Creation of the Gardens began in 1994, during the 75th anniversary of the University, and they were formally dedicated in September 1999. Today they contain over 625 different species of plants, one of the largest Chihuahuan Desert collections in the world. As you explore the Gardens, please remember that fruits and other parts of native plants may be quite toxic, and don't taste, or allow children to taste, any parts of the plants. Numbers given next to individual garden names are keyed to the attached map.

Your tour begins at the front entrance of the Museum Building where some of the first plantings were established. Here you see a Torrey's honey mesquite tree above lechuguilla, one of the main important "indicator plants" of the Chihuahuan Desert. The yellow-flowered groundcover is Baja evening primrose, a favorite nectar source of the 5-lined Hawkmoth, which can be mistaken for baby hummingbirds in late afternoon!

The walkway to the right at the base of the stairs leads to a Cactus Garden. As you go down the stairs, you'll see an Apache pine straight ahead - the needles of this pine are among the longest of any of the pine trees in North America, and have been used to weave baskets since pre-conquest times. The Cactus Garden has some 80 different species, some of which are rare or even endangered; the US Government recognizes the CDG as one of only 64 Plant Rescue Centers that may hold protected plants confiscated from illegal importation into the US.

On the right is another planting bed dating to 1994. Across the parking lot you will see a distinctive wooden structure containing an authentic **Bhutanese Prayer Wheel** presented to the CDG in 2004 as a gift from the people of Bhutan. The protective structure for the Prayer Wheel was created by local master carpenter, Bruce Thacker, without use of nails or bolts; instead, interlocking oak pegs that are mostly hidden make a tight hold, in traditional Himalayan style.

Continuing down the parking lot brings you to the **Desert Shrub Garden (1)**, featuring plants native to the scrublands of the northern Chihuahuan Desert of western Texas and southern New Mexico. Here you can note the sticky resins of tarbush and viscid acacia and inhale the rainy-afternoon scent of creosote and the piney smell of turpentine bush. Several local cacti are also featured. Under the shrub canopy, look for unusual alicoche cactus, sometimes called strawberry or prostrate hedgehog cactus, snaking across the ground.

Please turn around now and walk to the staircase next to the Prayer Wheel; at the bottom of the first, short, flight of steps, turn left and walk to the **Amphitheater Garden (5)**, a shaded concrete structure for audiences of up to 100 persons for lectures and music events. Following around the seating area, descend a short flight of stairs after you pass large pots of Texas false agave, candelilla and leatherstem on the left. Candelilla, which means 'little candle' in Spanish, is a native of the Big Bend and northern Mexico; the waxy coating on its virtually leafless stems has made it the target for extensive harvesting in the wild, as this wax is sought after for a variety of uses - hence its name; a quick look at the leatherstem will tell you how it got its name!

Entering the Undergraduate Learning Center's **Plaza Garden** below, you will note Torrey mesquite and cherry sage shrubs on the left, center planters of Mexican plum and, to the far right, bigtooth maples footed by lavender-flowered Mexican rosemary mint, sometimes called lavender spice. In 1998, the new UGLC building became the largest state building in Texas landscaped with native plants. The 43 different species on its grounds include many not seen in the Gardens.

Turning right you will pass a large planter that forms the back, or stage area, of the **Amphitheater Garden (5)** with plantings of lemon dalea, Arizona rosewood, a western soapberry tree, and Texas hog plum. As you pass this planter and head toward another set of stairs, you may inspect the lower beds of the **Terrace Garden (4)**, which contain several species of acacias; then ascend the stairs to return to the main Gardens. Note the small size of the leaflets called pinnae, which together comprise a single pinnately compound leaf on these acacias, and on other members of the Legume family in the Gardens. A small leaf surface is a water-saving desert adaptation seen on many plants.

Once back in the center of the **Terrace Garden**, turn left onto the main walkway. This area features plants of the eastern and central Chihuahuan Desert region. Proceed ahead into the **Contemplative Garden (3)**, a flower-filled oasis that honors the memory of Emil and Bernice Dittmer - whose generous contribution financed it. The centerpiece is a unique fountain fashioned by UTEP Metallurgy students; listen to the music of water droplets falling onto bell-shaped resonators and then into a pool in the copper pan. *This garden is protected by massive circular walls and shaded by an overhead lattice of sustainably-harvested cedar, reducing evaporation and holding cooling humidity released by the recirculating fountain.*

Leaving this sheltered area, you enter the **Wall Garden (6)** to the left of a colorful dividing wall. Here visitors can relax under a shady pergola. *The garden walls overlook the Undergraduate Learning Center, with its traditional Bhutanese-style architecture, first inspired on the UTEP campus in 1916 from a 1914 issue of National Geographic Magazine featuring an article on the far-away Himalayan Kingdom of Bhutan.* Across the central walkway is the **Succulent Garden (2)**, filled with various stem succulents such as lechuguilla, yucca, beargrass and sotol - all plants that store precious moisture and have a sculptural appeal. *Yucca, agave, and sotol are often mistaken for cacti, but they are more closely related to grasses and lilies than cactus.*

Next, as you head north, you enter the habitat gardens. First, on the right, is the **Sand Garden (7)**, typifying El Paso's arid sand-dune landscape, with a catclaw acacia tree, desert rosemary mint, sand sage, and winterfat shrubs. Sand-adapted wildflowers such as desert marigolds provide perennial color. To the left is the **Arroyo Garden (8)**, which mirrors this region's many watercourses. *Rainfall is passively harvested throughout the CDG using lipped planters, sloped walkways, berms and swales, and extensive underground perforated drains with no outlets.*

Back to the right of the walkway, a **Grass Garden (9)** exhibits several grasses that thrive in desert and upland grasslands, including sideoats grama, little bluestem, and bush muhly. Wildflowers such as sundrops, winecups, blue flax, and Mexican coneflowers also thrive here. *The Chihuahuan Desert was once famous for great expanses of short grass prairie, in contrast with the tall grass prairies of the eastern Great Plains. These grasslands and the plant and animals they support are now largely reduced to scattered patches threatened by continued overgrazing, oil and gas drilling, and speculative land developments.*

To many home gardeners, the residential **Patio Garden (10)** will be of special interest. This garden demonstrates an uncut meadow of blue grama and alkali sacaton grasses, bordered by a full-sun bed of wildflowers, all well suited to our desert climate. Texas clematis twines through the goldenball leadtree that shades the bench seating below. *The meadow area is irrigated by a continuous underground Netafim drip system.*

The **Sensory Garden (11)** is designed to delight the senses of the many visiting hummingbirds and butterflies, along with those of their human counterparts. The recirculating fountain provides flat shallow trickles to maximize bird use. Gaillardia, white beebrush, Texas kidneywood, chocolate daisies, and white sagewort are just a few of the fragrant plants found here. Feathergrass, velvetleaf senna, and rough-leaved lantana also provide tactile sensations. *The Chihuahuan Desert Gardens are a certified Texas Wildscape site and are largely chemical free, being managed as organically as possible to protect wildlife. Watch out for bees and ants, for this is their home too!*

A flagstone walkway, shaded by a Mexican redbud and flowering ash, leads into the **Assembly Garden (12)**. Built with generous contributions from Phi Kappa Tau alumni, the Assembly Garden has a large covered-patio area complete with banquette seats. Across the way, you can see massive andesite boulders that create a dramatic backdrop to the **Water Garden (13)**, with a runoff catchment area or *hueco*, and a muddy mountain-seep spring filled with cattails and scouring rush. The low planters contain frogfruit, yerba mansa, and blueweed groundcovers under the buttonbush, coyote willow, and canyon hackberry trees that shade the small pond. Native gambusia minnows consume the ample mosquito larvae population. *"Hueco" means cavity or hole in Spanish, and such sheltered rocky basins of collected rainwater are a principal source of moisture for wildlife and man in the Desert. Hueco Tanks State Park gets its name from them.*

On leaving the Assembly Garden, a series of planters points in the direction of the **Sierra Garden (14)**, which features some of the plants from the western Chihuahuan Desert region. On the left, a dry watercourse is tucked alongside the walkway, sheltered by plastered walls that block noise and buffer the winds. Exiting the Sierra Garden, you may detour into the **Point Garden (15)** by crossing the small wooden bridge, a sturdy construction that mysteriously shows no nails or visible fasteners. Plants here include white and purple-flowering desert willows, whiteball acacia, pink-flowering velvetpod mimosa, juniper trees, yuccas, agaves, and a very rare dwarf Havard's oak.

Before you exit into the parking lot, immediately to your right is the **Thornless Garden**, another demonstration of sand-loving plants. This garden is most notable in the early spring and late fall when winter and summer annuals are in their glory, under the canopy of a special thornless selection of honey mesquite.

Once in the parking lot, note the three small planting areas, two of which were part of the original 1994 plantings: a triangular planter tucked between the nearby parking areas, and a raised planter just outside the University Avenue entrance to the Museum (where an elevator provides main floor access for the handicapped or the just plain weary). A tiny third planter next to a stately ocotillo and a 50-year-old southern barrel cactus marks another entrance to the Gardens (beside the utility enclosure).

Continuing the tour, go up the stairs along the north side of the Museum building to enter the **Upland Garden**, dominated by a Chisos red oak tree and a number of perennial grasses and wildflowers found in the mountains of the Trans-Pecos region of Texas. The second, higher, tier showcases plants of southeastern Arizona and southwestern New Mexico, where the Chihuahuan and Sonoran deserts meet and mingle with the mountainous spine of western Mexico's Sierra Madre Occidental. See if you can spot the small plastic emitters that provide irrigation throughout the Gardens from underground distribution pipes. On automatic timers, they efficiently deliver water to the root zone with low volume output compared to an ordinary water-wasting sprinkler head.

The empty half-circle wall on the left of the walkway will serve as the foundation for the planned **El Fortin Garden**, a partial replica of the circular adobe and stone fort-like towers that served as havens from hostile marauders of all types in the early Southwest. A sandstone and glass sculpture by nationally-known artist Otto Rigan will be installed here on the now-empty concrete pedestal.

On the right, the **Escarpment Garden** highlights plants of the Sacramento-Guadalupe escarpment in south-central New Mexico and adjacent western Texas. The Chihuahuan Desert region is both the largest and the least-explored desert area in North America. It is estimated to contain nearly 4000 species of plants.

The walkway now winds back to where the tour began, at the main entrance to the Museum, which we hope you will visit if you are here during the Museum's opening hours.

¡Hasta Luego!; Come Again!

We hope you enjoyed your tour. The Chihuahuan Desert Gardens are open everyday from dawn to dusk, without admission charge. Guided tours for groups may be arranged by calling 915-747-5565. A more detailed description of the Gardens and a current list of plants are available; please ask at the front reception desk of the Museum, which is open from 10:30 am to 4:30 pm, Tuesday through Saturday.

Information on opportunities for provision of meaningful and lasting memorial or honorary tributes for family, friends, or mentors in the Gardens can be obtained by calling the Botanical Curator or Director of the Centennial Museum at the number above. The Chihuahuan Desert Gardens are funded entirely from private donations and plant sale income; your support, in any amount, will be sincerely appreciated.

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The Chihuahuan Desert Gardens
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