

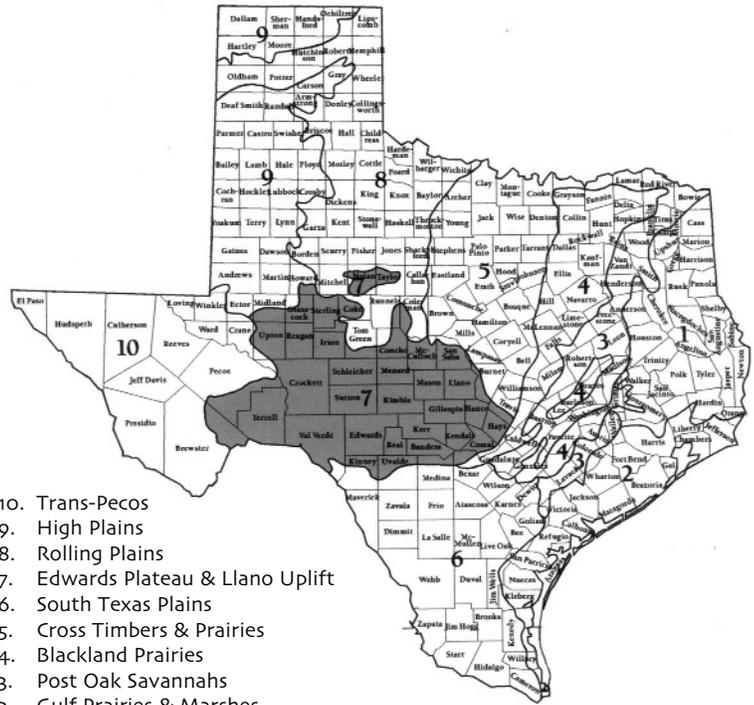
Discover Your Place: The Edwards Plateau

by Susan Sander, Riverside Nature Center, 150 Francisco Lemos Street, Kerrville, Texas ~ April 2004

It helps to know where you are.

“Location, Location, Location” isn’t just a mantra for real estate agents — it’s an important clue for understanding how an ecosystem functions.

Texas is a large state with a wide range of landforms as well as soil, rain and temperature zones. (For example, rainfall ranges from less than 8 inches a year in the west to more than 50 inches in the east.) Plants are a direct reflection on the combination of these factors, and in turn determine the type of wildlife that can be supported.



Welcome to the Edwards Plateau

To understand the plant communities of Texas you need to know your place or ecoregion. The Hill Country makes up roughly half of the the Edwards Plateau, a distinct ecoregion characterized by shallow alkaline limestone soils, canyon topography, and an average rainfall of 32 inches. Rain, or its absence, can radically change the make-up of a plant community. When rain occurs is just as important as the quantity. Winter rains foster spring wildflowers. A late summer rain can spark a second bloom of spring perennials. Summer showers extend bloom times.

Many rain events in the Hill Country amount to less than a 1/2 inch. Yet sometimes a storm may dump 10 inches in one day, resulting in flash floods. Native plants are well-adapted to the wide extremes between times of plenty and drought. Afterall, we live next to the Chihuahuan Desert.

Due to its location the Edwards Plateau is also a combination of the neighboring ecosystems, resulting in a greater diversity of plants. Hence, you will find isolated pockets of plants that may be more common elsewhere in the state, or separated from the same species found in other states.

Plants growing in canyons can not jump canyons when the climate changes, hence, the Big-toothed Maple became a relic population, indicative of a time when the climate was wetter and cooler.

Location also is a factor on a smaller scale: plant communities can vary depending on the elevation and the orientation of a canyon wall. Western facing slopes tend to be hotter and drier than north facing slopes (called aspect). Degree of slope impacts the amount of run-off from rain which can rinse away any organic matter, making soil build-up a futile process. Composition of the limestone also varies depending on the strata. Canyons with perennial streams will favor different plants than dry canyons. River bottoms have deeper soils than upland. And so on.

All create varied growing conditions, and make the Edwards Plateau a unique eco-region due to the myriad of plants that fill the different niches. Although 10% of the area’s species are endemic plants (restricted to a particular area), many of these are threatened or endangered. And since the other eco-regions bleed off into adjoining states, the Edwards Plateau may just be the truly Texan region.

What's so special about the Edwards Plateau?

Approximately 2,300 indigenous species of plants can be found in the Edwards Plateau, including an endangered cactus and tree. Approximately 10% are considered endemic (found nowhere else in the world) which often gains them a threatened or endangered status as well.

TREES & SHRUBS: endemics & special plants (subspecies of more common species)

Acacia, Roemer's (*Acacia roemeriana*): small shrub with "cat claws", creamy white pompom flowers
Alabama Croton (*Croton alabamensis*): shrub, only other population is in Alabama
Anacacho Orchid-tree (*Bauhinia congesta*): found only in the hills outside Uvalde
Big-toothed Maple (*Acer grandidentatum*): relic species of deep canyons of Bandera & Real County
Buckeye, Pale Yellow (*Aesculus pavia flavescens*): small understory tree
Canyon Mock-orange (*Philadelphus texanus*): a rare, small shrub with tiny white flowers
Elbowbush (*Forestiera reticulata*): understory shrub
Escarpment Black Cherry (*Prunus serotina eximia*): provides berries for wildlife, fall color
Evergreen Sumac (*Rhus virens*): shrub with glossy green leaves, small white flowers, red berries
Indigo bush Amorpha (*Amporpha texana*): shrub found along waterways, blue spikes
Lindheimer Cassia (*Cassia lindheimeriana*): small shrub with yellow flowers
Mulberry, Texas (*Morus microphylla*): uncommon, small tree
Silktassel, Lindheimer (*Garrya lindheimeri*): evergreen shrub often along roadsides
Oak, Lacey (*Quercus Laceyi* / *Q. glaucoides*): named for Kerr County rancher, Dr. Howard Lacey
Oak, Plateau Live (*Quercus fusiformis*): evergreen tree, slightly different from Live Oak at coast
Oak, Texas Red (*Quercus buckleyi*): brilliant red fall color, hard hit by oak wilt
Sycamore-leaf Snowbell (*Styrax platanifolia*): a rare, small tree with white bell flowers
Texas Barberry (*Berberis swaseyi*): evergreen shrub similar to agarita, in eastern Hill Country
Wand Butterfly-weed (*Buddleja racemosa*): small shrub found on rocky slopes Bandera-Real

From the west:

Pinyon Pine (*Pinus remota*): the only native pine tree of Hill Country (western Kerr County)
Texas Pistache (*Pistacia texana*): small tree with evergreen leaves

From the East:

Basswood, Carolina (*Tilia caroliniana*): uncommon large tree
Dwarf Palmetto (*Sabal minor*): small populations along slow streams in Kendall County & east
Witch-hazel (*Hamamelis virginiana*): understory shrub found in a few wet canyons

Only in the Hill Country:

Although found elsewhere in the United States, in Texas these plants grow only in the Hill Country:
American Smoketree (*Cotinus obovatus*): found in Ozarks
Blanco Crabapple (*Malus ioensis*): a subspecies of the more common Prairie crabapple

A Word about Conservation:

Due to the high number of deer and exotic animals, many hardwood species are nipped in the bud (as sprouts). This is especially hard for rare plants whose populations are low in number naturally due to the restricted range of their habitat. Over time the composition of the plant community will change due to lack of regeneration. Putting up fence enclosures under mature trees will help the seedlings escape browsing so they can grow to "teenage" height, and in time replace the mature trees that succumb to old age. Thus, the future plant community can continue to look like the Edwards Plateau.