

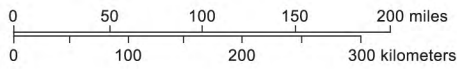
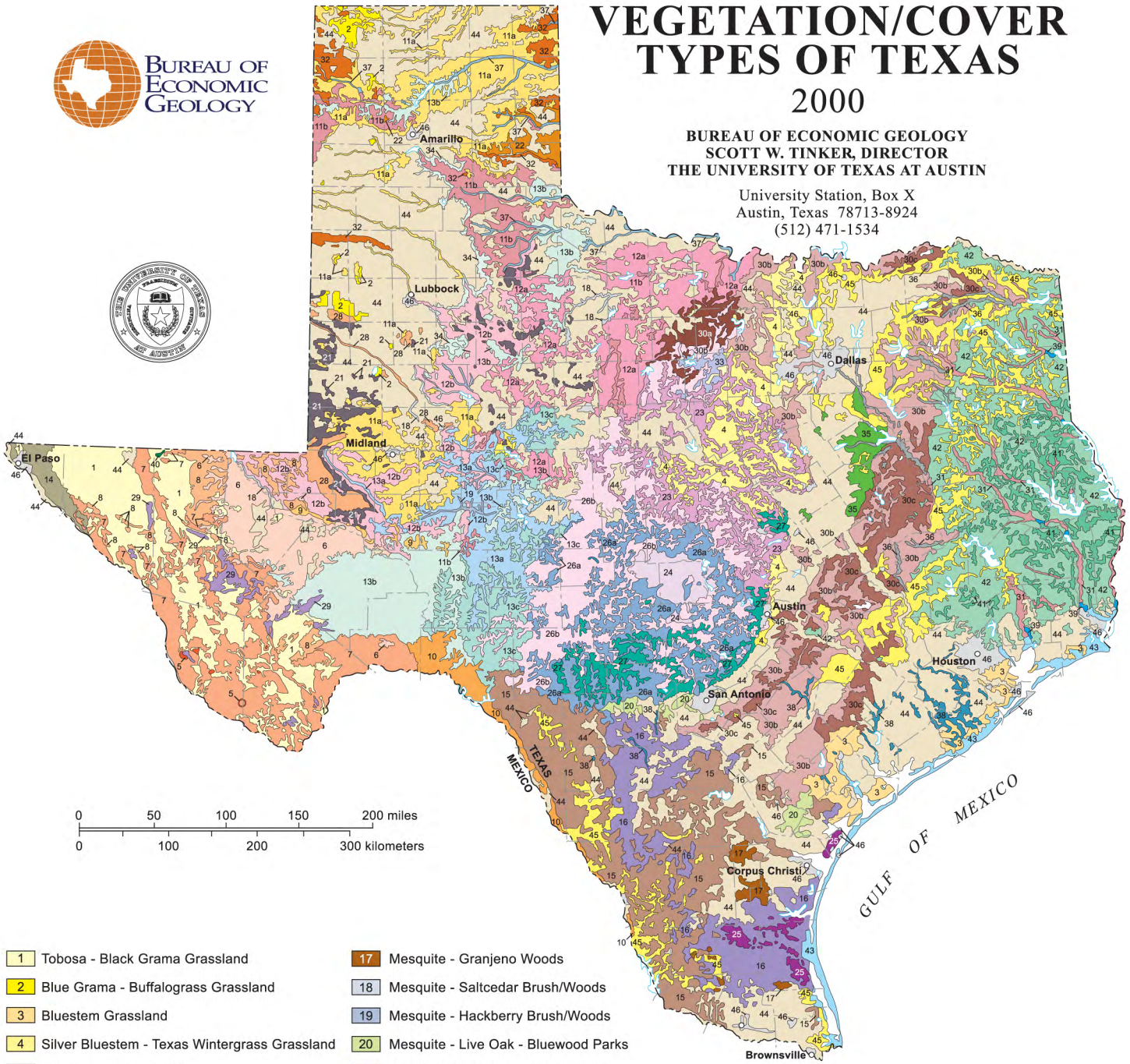


BUREAU OF
ECONOMIC
GEOLOGY

VEGETATION/COVER TYPES OF TEXAS 2000

BUREAU OF ECONOMIC GEOLOGY
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|---|---|---|
| 1 Tobosa - Black Grama Grassland | 17 Mesquite - Granjeno Woods | 34 Juniper - Mixed Brush |
| 2 Blue Grama - Buffalograss Grassland | 18 Mesquite - Saltcedar Brush/Woods | 35 Elm - Hackberry Parks/Woods |
| 3 Bluestem Grassland | 19 Mesquite - Hackberry Brush/Woods | 36 Water Oak - Elm - Hackberry Forest |
| 4 Silver Bluestem - Texas Wintergrass Grassland | 20 Mesquite - Live Oak - Bluewood Parks | 37 Cottonwood - Hackberry - Saltcedar Brush/Woods |
| 5 Yucca - Ocotillo Shrub | 21 Harvard Shin Oak - Mesquite Brush | 38 Pecan - Elm Forest |
| 6 Creosotebush - Tarbush Shrub | 22 Sandsage - Mesquite Brush | 39 Bald Cypress - Water Tupelo Swamp |
| 7 Creosotebush - Lechuguilla Shrub | 23 Oak - Mesquite - Juniper Parks/Woods | 40 Ponderosa Pine - Douglas Fir Parks/Forest |
| 8 Creosotebush - Mesquite Shrub | 24 Live Oak - Mesquite Parks | 41 Young Forest/Grassland |
| 9 Fourwing Saltbush - Creosotebush Shrub | 25 Live Oak Woods/Parks | 42 Pine - Hardwood Forest |
| 10 Ceniza - Blackbrush - Creosotebush Brush | 26a Live Oak - Ashe Juniper Parks | 43 Marsh/Barrier Island |
| 11a Mesquite Shrub/Grassland | 26b Live Oak - Mesquite - Ashe Juniper Parks | 44 Crops |
| 11b Mesquite Brush | 27 Live Oak - Ashe Juniper Woods | 45 Other Native and/or Introduced Grasses |
| 12a Mesquite - Lotebush Shrub | 28 Harvard Shin Oak Brush | 46 Urban |
| 12b Mesquite - Lotebush Brush | 29 Gray Oak - Pinyon Pine - Alligator Juniper Parks/Woods | |
| 13a Mesquite - Juniper Shrub | 30a Post Oak Parks/Woods | |
| 13b Mesquite - Juniper Brush | 30b Post Oak Woods, Forest, and Grassland Mosaic | |
| 13c Mesquite - Juniper - Live Oak Brush | 30c Post Oak Woods/Forest | |
| 14 Mesquite - Sandsage Shrub | 31 Willow Oak - Water Oak - Blackgum Forest | |
| 15 Mesquite - Blackbrush Brush | 32 Sandsage - Harvard Shin Oak Brush | |
| 16 Mesquite - Granjeno Parks | 33 Ashe Juniper Parks/Woods | |

Map units are derived from the 1984 map
The Vegetation Types of Texas published
by the Texas Parks and Wildlife Department.



Vegetation/Cover Types of Texas

This vegetation/cover-type map of Texas is a result of efforts by the Texas Parks and Wildlife Department to delineate and categorize existing vegetation and land-cover types statewide using Landsat data (1972 to 1980), computer classification analysis, and systematic accuracy verification procedures. It represents information summarized from a mosaic of larger scale vegetation maps published by the Texas Parks and Wildlife Department. These maps (1:300,000) portray detailed vegetation and land-cover information at 80-meter resolution.

Texas comprises 10 broad natural regions differentiated on the basis of physiography, rainfall, and other climatic factors, as well as vegetation and fauna. Herein, the vegetation of Texas has been divided into a total of 53 cover types, including 47 plant associations of 2 or 3 characteristic dominant or codominant species. Plant association names are followed by a term that describes the structure of the dominant species, such as forest or grassland. Units shown on the map include naturally occurring vegetation as well as cover types, which are the result of land use.

Texas is located at the crossroads of four major natural subdivisions of North America—Gulf Coastal Forests and Prairies, Great Western Lower Plains, Great Western High Plains, and the Rocky Mountain Region. Topographically, excluding the mountainous region west of the Pecos River, Texas is a series of plains and prairies that descend in elevation from northwest to southeast. There are three prominent topographic features: the Basin and Range physiographic province in the Trans-Pecos, the north-south Caprock Escarpment of the High Plains in the Panhandle, and the arc-shaped Balcones Escarpment in the central area of the state. The 367 miles of coastline is extensive and biologically diverse.

Before Texas was settled by European immigrants, changes in vegetation boundaries occurred slowly in response to gradual

long-term changes in climate. Major localized changes to established vegetation also occurred as a result of natural wildfires and storms, but such changes did not affect the overall boundaries of the major vegetation communities. Prior to settlement and profound land-use conversion in the 1880's, the central 80 percent of Texas was short to tall grassland, the 10 percent of Texas that lies west of the Pecos River was desert grassland, and the eastern 10 percent of the state was forest land.

Much of the Texas landscape has been extensively modified by land use. Among these changes are rapid urbanization and continued exploitation of natural resources that include water resource development, conversion of wildlands to agricultural and forestry practices, mineral and energy production, urban and industrial expansion, recreational or leisure developments, and transportation infrastructure. Unfortunately, these land-use conversions have extensively modified the natural vegetation of entire regions. For example, of the original Blackland Prairie, only about 0.04 percent of the native grasslands remains in small, scattered tracts, making such remnants unique and valuable. Similarly, 95 percent of the native brush in the lower Rio Grande Delta has been lost to agricultural and urban development, increasing the value of the remaining brush as a habitat for wildlife, including many endangered species. Although most of the eastern forested region is still timbered, about 66 percent of the bottomland hardwood forest has been cleared or replaced by reservoirs, tame pasture, and crops; much of the upland hardwood forest has been converted to pine plantations for commercial timber products.

Not only have native plants been displaced, but many have been replaced by alien species. Consequently, boundaries of many of the vegetation types are now changing rapidly—not as a result of natural changes in climate but because of human-induced landscape-scale modification.

The great plant diversity and complex patterns of plant distribution in Texas developed in response to a matrix of complex environmental factors including geology, topography, climatic zones, rainfall belts, and soil types. There are more than 5,000 species of vascular plants (trees, shrubs, vines, wildflowers, grasses, and grasslike plants such as sedges and rushes). Of this number, about 400 are endemic. Nearly half (523) of the grass species indigenous to the United States occur in Texas. More than 500 species of vascular plants are introduced. Unfortunately, many of these alien species have degraded or destroyed habitat for native plant species.

The greatest number of plant species occurs in the Trans-Pecos and eastern forest regions. The areas of least diversity are the Texas Panhandle, the Southern High Plains, and the Rolling Plains. The largest number of endemic species occurs in Trans-Pecos Texas and on the Edwards Plateau and Rio Grande Plains. This pattern of floral diversity directly affects wildlife diversity and abundance. The occurrence and distribution of plants in Texas support more than 1,200 native vertebrate species and countless invertebrates that are dependent upon vegetation for food and cover.

This vegetation and cover-type map represents a snapshot at an instant in time of the dynamic landscape at a regional level. Increased application of cover-type analysis for land-use decisions could improve the probability of achieving a long-term balance between socioeconomic considerations and natural resource needs.

Additional information concerning this map, such as detailed descriptions of each of the mapped plant associations and photographs of each association, is available on the Internet by accessing the Nature Section, Plant Life Unit of the Texas Parks and Wildlife Department home page (<http://www.tpwd.state.tx.us>).

—Text by Roy G. Frye,
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Bureau of Economic Geology

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