

RARE PLANT SURVEY AND GENERAL PLANT INVENTORY  
OF SELMA HUGHES PARK, TRAVIS COUNTY, TEXAS,  
SUMMER 1996

25 September 1996 Draft

During the summer of 1996, botanical surveys were conducted on all Travis County parks west of the Balcones Escarpment. The goals of these surveys were to locate populations of rare, unusual, or management-sensitive plant species and, at each park, to conduct a general inventory resulting in an annotated checklist of all plant species observed. Selma Hughes County Park was visited for approximately 1 hour on 22 July 1996 and 1 hour on 25 September 1996.

**Location/Physical Setting**

Selma Hughes Park is a tiny tract along the northern shoreline of Lake Austin (the impounded Colorado River) about two rivermiles downstream from (east of) the village of Lakeland Park. Lake Austin is the principal attraction at Selma Hughes, drawing swimmers and picnickers primarily on weekends. Development to service the needs of these users includes two paved parking lots, several picnic tables, and restroom facilities. Vehicular access is via Selma Hughes Park Road east from Quinlan Park Road.

Most of this tract is underlain by Pleistocene terrace deposits of the Colorado River (Garner et al., 1976; Proctor et al., 1981). These sandy deposits cover a low terrace in the southeastern half of the park as well as a moderately steep slope in the central and northern parts of the park. Bedrock of the Glen Rose Limestone (Cretaceous) is exposed only in the highest parts of the park along the northwestern fenceline. Elevation within the park ranges from a little over 540 feet down to 483 feet, the normal pool level of Lake Austin.

Three soil mapping units are indicated on pertinent portions of sheet 42 of the Travis County soil survey (Werchan et al., 1974). Soils associated with terrace deposits include Hardeman fine sandy loam, 2 to 5 percent slopes and Hardeman fine sandy loam, 5 to 12 percent slopes. Hardeman soils are deep, well drained sandy loams that developed over old alluvium. The surface layer is brown fine sandy loam; the underlying layer is light brown fine sandy loam. These soils are calcareous, mildly alkaline Typic Ustochrepts and are assigned to the Sandy Loam range site. Soils over the Glen Rose formation are mapped as Brackett soils, rolling. Brackett soils are shallow, well drained soils of with a surface layer of light brownish-gray gravelly clay loam or gravelly loam about 4 inches thick; the next layer, about 10 inches thick, is pale-brown clay loam. These soils are calcareous, moderately alkaline Typic Ustochrepts and are assigned to the Steep Adobe range site.

## Vegetation

The vegetation of Selma Hughes Park, although largely mown lawn dotted with shade trees, might be considered to consist of four plant associations or communities. The highest parts of the park, where soils are influenced by Glen Rose Limestone, support a bit of the plateau live oak (*Quercus fusiformis*) savanna that is better expressed upslope beyond the park boundary. The non-native King Ranch bluestem (*Bothriochloa ischaemum*) may be the most common component of the associated grassland, but in patches of extremely shallow soil native shortgrasses, such as purple threeawn (*Aristida purpurea*), red grama (*Bouteloua trifida*), Texas grama (*Bouteloua rigidiseta*), and hairy tridens (*Erioneuron pilosum*) are common along with forbs of open limestone uplands such as stemless bitterweed (*Hymenoxys scaposa*) and plateau nerveray (*Tetragonathea texana*).

The slope on the eastern side of the park supports a band of deciduous woodland that is bisected by two steep-sided gullies. Cedar elm (*Ulmus crassifolia*) and hackberry (*Celtis reticulata* and/or *Celtis laevigata*) may be the most common species, with tangles of Mustang grape (*Vitis mustangensis*) and poison ivy (*Rhus toxicodendron*) conspicuous in the somewhat weedy western gully.

On sandy soils downslope on the western side of the park and on the lower terrace, a few large mesquite (*Prosopis glandulosa*) help define a third community. More interesting is the composition of the associated grassland, which includes a number of areniphilic grasses and forbs (see plant list) not often encountered on clay soils over limestone. However, non-natives such as King Ranch bluestem and Bermudagrass (*Cynodon dactylon*) may be more important components.

The fourth community is essentially riparian, consisting of a strip of black willow (*Salix nigra*) trees rooted in moist soils along the shoreline and a host of emergent forbs and grasses, including switchgrass (*Panicum virgatum*) and eastern gamagrass (*Tripsacum dactyloides*), both of which were probably introduced to the park during revegetation. Much of the low but steep dry sandy bank just above the shoreline supports a weedy thicket of common sunflower (*Helianthus annuus*) and Johnsongrass (*Sorghum halepense*) covered in places by a tangle of Mustang grape.

## Target Rare Plant Species

Six rare plant species were sought in appropriate habitat at all of the sixteen parks included for survey during this project: Texas amorphia (*Amorpha roemerana*), Texabama croton (*Croton alabamensis* var. *texensis*), Glass Mountains coral-root (*Hexalectris nitida*), Heller marbleseed (*Onosmodium helleri*), canyon mock-orange (*Philadelphus ernestii*), and Buckley tridens (*Tridens buckleyanus*). A seventh rare plant species, bracted twistflower (*Streptanthus bracteatus*), cannot be detected during summer of a drought year and was essentially omitted from this project. Information about the relative rarity, distribution, habitat, etc., of each of these species will be provided in a separate appendix at the end of the set of park reports.

## **Results of Rare Plant Surveys**

Selma Hughes Park contains no suitable habitat for any of the seven target rare plant species mentioned above. During the visit of 22 July 1996 virtually all of this small park was examined, and no freak occurrences of any rare plant species came to light.

## **Results of General Plant Inventory**

About 104 plant species have been observed to date at Selma Hughes Park, a fraction of the total number that will be found within the park during more productive years. This flora includes two species endemic to (found only in) Texas: blackfoot spurge (*Chamaesyce angusta*) and Drummond wild-petunia (*Ruellia drummondiana*). The former is rare in the mown grassland on shallow gravelly soils on the limestone upland north and east of the upper parking lot; the latter is locally abundant in the deciduous woodland on the slope between the two terraces. Neither is considered a species of management concern. Information about all species observed within the park is provided in the preliminary checklist attached to this report. Information about Texas endemics will be presented in a separate appendix at the end of the set of park reports.