

RARE PLANT SURVEY AND GENERAL PLANT INVENTORY
OF MARY QUINLAN PARK, TRAVIS COUNTY, TEXAS,
SUMMER 1996

23 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. Mary Quinlan County Park was visited for approximately 1 hour on 24 July 1996.

Location/Physical Setting

Mary Quinlan County Park is a tiny tract along the northern shoreline of Lake Austin (the impounded Colorado River) at the village of Lakeland Park, roughly 6 rivermiles downstream from Mansfield Dam, accessible terrestrially via Quinlan Park Road. The principal attraction at Mary Quinlan Park is a boat ramp, although other developments, including picnicking facilities and a basketball court, receive some weekend usage.

Topographically the park consists of a narrow, mostly paved lower terrace along the shoreline of Lake Austin, north of which is a short but moderately steep slope leading to a flat upper terrace. A steep-sided ravine parallels the western fenceline, eventually entering the park at its southwest corner. The stream in its bottom is normally dry, and there is no surface water, other than that of the lake, within the park. According to the Bee Cave Quadrangle (USGS, 1986), elevation ranges from a little over 540 feet down to 483 feet, the normal pool level of Lake Austin.

This park is underlain primarily by sandy Pleistocene terrace deposits of the Colorado River (Garner et al., 1976; Proctor et al., 1981); some unmapped Recent deposits are probably also present. All of these deposits mantle bedrock of the Glen Rose Limestone (Cretaceous), apparently to such a depth that the latter has little or no direct influence on the park's vegetation and flora.

Three soil mapping units are indicated on pertinent portions of sheet 42 of the Travis County soil survey (Werchan et al., 1974). Soils of the lower terrace are mapped as Lincoln loamy fine sand. Lincoln soils are deep, somewhat excessively drained calcareous sands of flood plains. The surface layer is very pale brown loamy fine sand; the underlying layer is pale brown stratified fine sand and sandy loam. These soils are calcareous, mildly alkaline Typic Ustifluvents and are assigned to the Loamy Bottomland range site. Soils on the slope to the north are mapped as Hardeman fine sandy loam, 5 to 12 percent slopes while those of the upper terrace are mapped as Hardeman fine sandy loam, 2 to 5 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.

Vegetation

The vegetation of Mary Quinlan Park could be said to be composed of three components. The first, a deciduous woodland dominated by black willow (*Salix nigra*) is restricted to saturated soils along the shoreline of Lake Austin. Conspicuous within this community is a thicket of roughleaf dogwood (*Cornus drummondii*) shrubs, various tree saplings, and herbaceous weeds such as Johnsongrass (*Sorghum halepense*), all covered by a tangle of Mustang grape (*Vitis mustangensis*). Due to development and recreational use, few of the county's interesting emergent aquatic and riparian sedges and forbs are present.

The second community, a deciduous woodland dominated by hackberry (*Celtis reticulata* and/or *Celtis laevigata*) and the occasional plateau live oak (*Quercus fusiformis*), is found on slopes of the ravine in the southwest corner of the park. Canopy coverage is nearly complete, while the shrub layer is very open. Ground layer vegetation consists largely of Virginia wildrye (*Elymus virginicus*), Turk's-cap mallow (*Malvaviscus arboreus*) and a few other shade-tolerant species.

The last community covers the majority of the park, including portions of the lower terrace and slope as well as all of the upper terrace. It consists of a regularly mown lawn and a few shade trees and as such could be considered a "savanna." Principal trees are mesquite (*Prosopis glandulosa*) and pecan (*Carya illinoensis*). Most of the shrub components of this community are restricted to fencelines. The composition of the lawn could not be determined in July 1996, in part because of mowing but also because of severe drought conditions. Non-native grasses, particularly King Ranch bluestem (*Bothriochloa ischaemum*) and, particularly on the slope and lower terrace, bermudagrass (*Cynodon dactylon*) may be principal constituents. Also present are a few forbs that in Travis County are essentially restricted to deep alluvial sands, including radiant copperleaf (*Acalypha radians*), denseflower bladderpod (*Lesquerella densiflora*), mat bluets (*Houstonia humifusa*), and redflower scurfpea (*Pediomelum rhombifolium*).

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 amorpha (*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

Mary Quinlan Park contains no suitable habitat for any of the seven target rare plant species mentioned above. During the visit of 24 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

Only about 56 plant species have been observed to date at Mary Quinlan Park, surely a mere fraction of the total number that will be found within the park during more productive years. This flora includes one species endemic to (found only in) Texas: denseflower bladderpod (*Lesquerella densiflora*). This ephemeral, spring-blooming annual was collected on the lawn of the upper terrace west of the entrance road on 3 May 1986; it was not observed on 24 July 1996 but will probably be found in small numbers if sought during appropriate spring months. It is not 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.