

1993

## Biology of the Palo Alto Battlefield Site: A Summary

Norman L. Richard

*The University of Texas Rio Grande Valley*

Alfred Richardson

*The University of Texas Rio Grande Valley*

Follow this and additional works at: [https://scholarworks.utrgv.edu/bio\\_fac](https://scholarworks.utrgv.edu/bio_fac)



Part of the [Biology Commons](#)

---

### Recommended Citation

Richard, N. L., & Richardson, A. (1993). Biology of the Palo Alto Battlefield Site Summary. Papers of the Second Palo Alto Conference, 134–135. [https://scholarworks.utrgv.edu/hist\\_fac/92](https://scholarworks.utrgv.edu/hist_fac/92)

This Conference Proceeding is brought to you for free and open access by the College of Sciences at ScholarWorks @ UTRGV. It has been accepted for inclusion in Biology Faculty Publications and Presentations by an authorized administrator of ScholarWorks @ UTRGV. For more information, please contact [justin.white@utrgv.edu](mailto:justin.white@utrgv.edu), [william.flores01@utrgv.edu](mailto:william.flores01@utrgv.edu).

## BIOLOGY OF THE PALO ALTO BATTLEFIELD SITE SUMMARY

NORMAN L. RICHARD AND ALFRED RICHARDSON  
Texas Southmost College/The University of Texas at Brownsville

The Palo Alto Battlefield Site comprises some 3,400 acres with six types of natural vegetation (Tamaulipan Brush, Coastal Prairie, Sacatal, Borrighia Prairie, Wetlands/Tanks, Huisachal, and Mesquital) and two types of vegetation resulting from disturbance. The vegetation types are influenced by elevation and salt content.

The Tamaulipan Brush occupies the highest elevations and has the most fertile soil; hence, it is more desirable land for farming and has been the most affected by clearing. It is by far the richest in number of plant species. Typical plants are *Prosopis glandulosa* (mesquite), *Yucca treculeana* (Spanish dagger), *Parkinsonia aculeata* (retama), *Phaulothamnus spinescens* (snake eyes), *Bumelia celestrina* (la coma), *Acleisanthes obtusifolia* (vine four-o'clock), *Jatropha cathartica* (Jicamilla), *Opuntia engelmannii* (prickly pear) and other cacti.

The Coastal Prairie appears generally to occupy the lowest elevations with the highest saline content. Characteristic plants are *suaeda* sp., *Monanthochloe littoralis* (shoregrass), *Salicornia bigelovii*, *Batis maritima* (vidrillos), and *Machaeranthera phyllocephala* (camphor daisy). It is probably the least disturbed because of the infertile soils.

The Sacatal consists principally of *Spartina spartinae* (gulf cordgrass) with scattered *Borrighia frutescens* (sea ox eye).

The Borrighia Prairie occupies old resaca beds which are almost completely filled in by erosion. *Borrighia frutescens* (sea ox eye) is the dominant plant species. The plants grow so densely crowded together that there appears to be only the single species present. Closer inspection reveals some inconspicuous herbaceous plants interspersed among the sea ox eye.

The Wetlands/Tanks have a number of hydrophilic plants such as *Typha domingensis* (cat tail), *Marsilea macropoda* (water clover), *Nymphae elegans* (blue water lily), *Heteranthera liebmannii* (water stargrass), and various sedges.

The Huisachal consists of *Acacia farnesiana* (huisache) with some low-growing herbaceous plants. It usually occupies elevations slightly lower than the Tamaulipan Brush, in indentations which tend to stay moist for longer periods of time.

The Mesquital contains *Prosopis glandulosa* (mesquite) as the only woody plant. Grasses and other small herbaceous plants grow among the mesquites. The Mesquital is clearly regrown from cleared



## Tamaulipan Brush.

Various types of cleared land are present, from row crops to fallow ground with small mesquite and other woody plants beginning to grow.

The fauna of Palo Alto is truly "crossroads" in nature. Representatives of the Chihuahuan Desert Biome enter from the west, and both temperate and tropical species are present. Fiddler crabs associated with the marine influences are dispersed throughout.

Some of the other animal species are associates of Tamaulipan Brush and others are of Salt Prairie associations which interdigitate at this site. The Eastern Cottontail Rabbit is common within the brush, and the Black-tailed Jack Rabbit inhabits the Salt Prairies.

The diversity of species, some of which are either threatened species or species which are candidates for classification, mandates that Palo Alto be managed as a wildlife sanctuary. The endangered Aplomado Falcon in Texas had its population center concentrated at Palo Alto but was extirpated during the 1950s. This species is particularly adapted to Tamaulipan Brush for perch sites and roosting, and grassy or salt flats for hunting birds or insects. The combination at Palo Alto seems ideal and consideration must be given to cooperation with the United States Fish and Wildlife Service, which is currently reintroducing the species at Laguna Atascosa National Wildlife Refuge.

Two weeks of live trapping did not reveal either the endangered ocelot or jaguarundi, but suitable habitat for both species seems to exist. Studies done on wetland sites did not inventory any threatened or endangered fish or amphibians.

Species on either Texas Parks and Wildlife or U.S. Fish and Wildlife Threatened Lists which exist at Palo Alto are Texas Tortoise, Texas Indigo Snake, Horned Lizard, White-faced Ibis, White-tailed Hawk, and Texas Botteri's Sparrow.

Wild Boar (feral hog) and Nilgai (antelope) are exotic species which have been seen at Palo Alto. Efforts to eliminate the Wild Boar should be considered in the management plan.

Continued surveillance for additions to the floral and faunal lists should be conducted.