

Brazoria Palms

By Neal McLain

The Palm Unit of San Bernard National Wildlife Refuge is home to a stand of palms known as Brazoria Palm. This stand has been well-known locally among members of the naturalist community, including some members of the Cradle of Texas Chapter. The plant has been studied for years by various botanists in an effort to determine its proper taxonomic identity.

Douglas A. Goldman et al, writing in the August 25, 2011 issue of *Phytotaxa*, have identified the plant as *Sabal x brazoriensis*, a hybrid nothospecies between *S. minor* and *S. palmetto*. In the article, Goldman notes:

Robust plants with large trunks, they are morphologically dissimilar to the much smaller and [trunkless] plants of S. minor, with which they co-occur. The only other large Sabal species in the USA are S. mexicana and S. palmetto, with S. mexicana native only to Texas. ... We sampled several plants of the putative hybrid and its possible parents in order to evaluate its possible hybrid origin. [The plant] seems to be a hybrid, but an old one, with clear genetic distinctiveness. However, these results also suggest a closer affinity of the putative hybrid with S. minor and S. palmetto than with S. mexicana, excluding the latter species from possible parentage.^[1]

Goldman's article also states that, of the two parents, only *S. minor* presently co-exists with *S. x brazoriensis*. The nearest representatives of the other parent, *S. palmetto*, are 1000 km east. Thus, the authors conclude, *S. x brazoriensis* is indeed a very old hybrid, dating back perhaps as long as 1000 years.

Glossary

acaulescent (of plants). *adjective*. Having no apparent stem above ground.

nothospecies. *noun*. In botany, a hybrid which is formed by direct hybridization of two species.

putative *adjective*. Commonly regarded as such; commonly accepted as true on inconclusive grounds.

x ("cross," between the genus and species name). *symbol*. Indicates that the plant is a nothospecies. If further research determines that the plant is a true species, the "x" may be removed.



Photo: Neal McLain

Brazoria Palm, Palm Unit of San Bernard National Wildlife Refuge, July 2009.

Much of the early research related to the Brazoria Palm was the work of Landon Lockett, a former University of Texas linguist-turned-botanist. Although a polio victim confined to a wheelchair for most of his adult life, Lockett wrote extensively about the speciation of palms throughout Central and North America.

In one publication, Lockett states that the existence of the Brazoria Palm was known as early as 1941, noting it to be "taller by far than any *S. minor*, hidden in a thick forest in Brazoria County, south of Houston."^[2]

That "thick forest in Brazoria County" is now part of the Palm Unit of San Bernard National Wildlife Refuge. Lockett himself was instrumental in saving the property.

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According to Mike Lange, a wildlife biologist with the Mid-coast National Wildlife Refuge Complex, Lockett contacted him about the property sometime back in early 1990s. Mike and Ron Bisbee, then the Project Leader for the Complex, took up the cause, After extensive negotiations, a 23-acre parcel was acquired by the United States Government in 1996, and was named the Palm Unit of the San Bernard NWR. Subsequent purchases of adjacent lands, and a conservation easement donation by a neighboring landowner, enlarged the unit to its present size.

In the years since these acquisitions, the Palm Unit has remained essentially unchanged. It is fenced behind a locked gate, and its location is not publicized.

The Brazoria Palms themselves have continued to grow and reseed. Mike Lange has collected some of the seeds for cultivation. He has planted Brazoria Palms elsewhere in the Refuge Complex including the Hudson Woods Unit and the SBNWR headquarters campus.

As for Landon Lockett, he died in 2010 without ever having published a formal description of the plant for which he had devoted so much of his life. That job fell a University of Texas graduate student, the aforementioned Douglas Goldman. Goldman is

now associated with the USDA Natural Resources Conservation Service National Plant Data Team, based in Greensboro, North Carolina.

My thanks to Mike Lange for his advice during the preparation of this article.



Photo: Neal McLain
Brazoria Palm, Palm Unit of San Bernard National Wildlife Refuge, July 2009.



Brazoria Palm, San Bernard National Wildlife Refuge August 2011. Mike Lange grew this 12-year-old plant from seed, nurturing it in a pot before planting it at the refuge.
Photo: Neal McLain

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Works cited

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