The Sabal

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In this issue:

Plant species page #s in the Sabal refer to:
"Plants of Deep South Texas" (PDST).

Editor:
Christina Mild
<mild.christina@gmail.com>
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"Wildflower Design" —*by Carol Goolsby and Ann Vacek,*
Tues., March 28th, at 7:30pm

The Native Plant Project will present "Wildflower Design" by Carol Goolsby and Ann Vacek. Carol Goolsby is an environmental educator at Quinta Mazatlan and a very entertaining speaker. Ann has been studying the native plants of the LRGV for many years. She is one of NPP's native plant experts and a wonderful photographer. Both Ann and Carol are long-time NPP Board members. Come see this interesting, fun program about the Rio Grande Valley native wildflowers.

The meeting is at:

Valley Nature Center, 301 S Border, (in Gibson Park), Weslaco. 956-969-2475.

Wheatspike Scaly Stem. *Elytraria bromoides* PDST 50. Acanthaceae family.
See more on page 4.

The Sabal *is the newsletter of the Native Plant Project.*
It conveys information on native plants, habitats and environment of the Lower Rio Grande Valley, Texas.

Previous **Sabal** issues are posted on our website [**www.NativePlantProject.org**].
Electronic versions of our **Handbooks** on recommended natives for landscaping are also posted there.

Change of address, missing issue, or membership: **<bwessling@rgv.rr.com>**
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Texas Ebony (Ébano) and Its Role in Deep South Texas

— by Christina Mild

Family: Fabaceae. Bloom type: Mimosoideae. *Ebenopsis ebano*. (*Chloroleucon ebano).* PDST 242-3. Synonyms: *Mimosa ebano, Pithecellobium ebano, Pithecellobium flexicaule.*

The first confusion in reading about Ebony in botanical literature is that Texas Ebony, Ébano, is not related to the ebony most people think of (black piano keys), nor is it in the Ebony family, Ebenaceae.

Texas Persimmon, Chapote, *Diospyros texana,* is a member of the Ebony Family, Ebenaceae. (PDST 205)

Texas Ebony also has marvelous, beautiful wood and has been widely used in areas where the tree grows.

Over several years of rescuing native species from future building sites, I realize that an Ebony tree is often what I seek out first for examination of what grows around and beneath it. When people in Harlingen question me about "what was here" before land was cleared, I often picture the kind of woodland where mature ebony trees occur. I've enjoyed the experience to probe such woodland at Gloor Woods in Brownsville, C.B.Wood Park in Harlingen, and the Mackey property across from Ramsey Nature Park. Much of the diversity present in Ramsey Park at this time came from "rescues" at those locations.

Ebony forests were described to me in years past as "climax" vegetation. Being unable to find a good definition of that term, I consulted several botanists. Chris Best, State Botanist, U.S. Fish & Wildlife Service, supplied extensive and detailed answers to my questions about Texas Ebony.

Fortunately, he also summarized as follows:

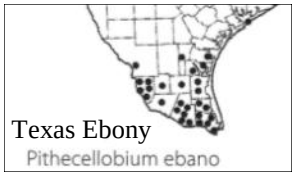
Some folks say that the exact composition of every plant community on earth was carved on stone tablets guarded by angels in heaven. We have learned from reliable sources that the angels were fired and the stone tablets were smashed, and the myriad pieces with all their species have been gathered together in infinite combinations in as many different places and have never stopped changing.

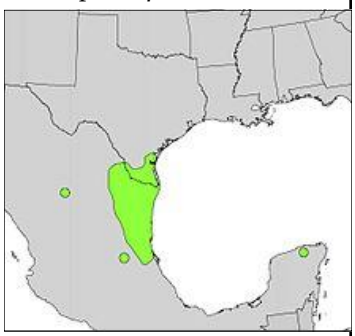
In recent decades many ecologists now favor "old-growth" versus "climax". The former term accurately describes what is demonstrable; the latter term suggests stone tablets.

In regards to where Texas Ebony occurs, Chris offers this summary:

Many revegetated wildlife tracts include Ebony as intended nesting sites for the Whitewing Dove. This Great Kiskadee beat them to it! Photo by Anna Manuel of Harlingen, taken at Llano Grande State Park.

Texas ebony occurs in many old-growth vegetation communities in the Rio Grande delta region. These communities are distinct in their extremes, but have fuzzy boundaries that blend into each other like watercolor paintings. These range from salt-pruned shrublands on coastal "lomas", in association with Phaulothamnus spinescens (Snake Eyes) *and other spiny shrubs, to forests on riparian terraces, 15 to 20 m tall, in association with* Ehretia anacua (Anacua), Sabal mexicana, *etc., back to spiny shrublands on caliche outcrops in the company of* Acacia berlandieri (Guajillo) *and* Parkinsonia texana (Palo Verde), *and everything in between. TX Ebony is "co-dominant" with* Esenbeckia runyonii *along arroyos and canyons of the Sierra Madre Oriental; I use the term co-dominant loosely, because the most abundant species might not exceed 5% cover. It is found in deciduous tropical forest in northern Veracruz as well as northern Yucatán, in each place associated with different species.*





Above: An excerpt from Billie Turner's atlas of Texas plants shows more specifically in which Texas counties Ébano occurs and where it exists in higher concentrations.

Above right: A range map from Wikipedia shows Ébano's approximate distribution.

The value of Ébano has been passed down through the ages by Amerindians and early settlers. In many yards where a mixed forest of native species once stood, the only trees which have been protected over time are Ébano.

In other areas, Ébano has been planted. Native nurseryman Mike Heep recalls Ebony hedges planted in the vicinity of McAllen years ago.

I am always hopeful that a mix of native species might be found beneath and around Ébano. Deep shade of a mature Texas Ebony is not the ideal location for the many small cacti I have found there, but untrimmed Ebony has many low and well-armed branches to offer protection, especially from human traffic.

Excellent topsoil and mulch are contributing factors to the diversity found in the vicinity of undisturbed Ebony. Not all leaves are equal in the formation of topsoil and mulch. Ebony's tiny leaflets decompose quickly and all parts of the tree are high in nitrogen.

Gardeners in the valley have long gathered topsoil and mulch from beneath the Ebony to use in vegetable and flower gardens.

The large, thick and hardened Ebony seedpods and seeds might seem unlikely to decompose quickly, but this is not the case. A number of insects quickly bore into the pods and seeds, causing them to decompose rather quickly, especially when moisture is adequate for the growth of molds and fungi.

Here are just a few of the plants one may find in the vicinity of an Ebony wood. These and many other natives will persist over time if the area isn't turfed over or mown too frequently and too low.

Above: David's Milkberry, *Chiocca alba,* PDST 369. Aromatic blooms. Birds eat the white fruits.

Barbados Cherry, Manzanita, *Malpighia glabra*, PDST 301. Fruits are high in vitamin C and birds adore them.

Below: Pink Mint, *Stachys drummondii*, PDST 291. Thrives in rich Ebony topsoil. Southern Broken-Dash Butterfly nectaring.

Texas Torchwood, *Amyris texana*. PDST 375. Edible fruit.

Stinging Nettle, *Urtica chamaedryoides,* PDST 410. Butterfly host plant. Requires moist, rich topsoil. Often found near Ebony.

Elytraria bromoides (photo right) PDST 50. Wheatspike Scaly Stem. Family Acanthaceae.

This is one of the tiny wildflowers which persist beneath old ebony trees located adjacent to C. B. Wood Park in Harlingen. The area beneath those trees is mown within an inch of existence throughout the year. If one is lucky enough to visit after a warm rain and before mowers have returned, this small and delicate species might be observed in bloom.

In the U.S., *Elytraria bromoides* occurs only in south Texas, primarily in sandy soils in coastal counties.

(A similar tiny wildflower found at the same location is Sweet Shaggy Tuft, *Stenandrium dulce.*, PDST 54, also Acanthaceae.)

One tends to forget how many botanical explorers have collected plant specimens in deep south Texas and just what detailed work has been required to amass the botanical information available at our fingertips.

The excerpts below are from Lundell's 3-volume ***Flora of Texas*** last published in 1967. This indicates the first collected specimen of *Elytraria bromoides* to have been in 1854.

Of special interest is the last paragraph, in which each collected specimen of *Elytraria bromoides* is listed with details including location, date, name of collector and specimen number.

It is amazing to me that such a small plant was noticed and collected by so many people, from so many locations, and ranging from dates in March through October. Pressed and dried botanical specimens are kept in Herbariums throughout the world, where they must be protected from insects and mechanical damage.

Botany departments in universities are shifting from these endeavors to analyzing plant genetics.

Dr. Alfred Richardson, Professor Emeritus in Botany at UTRGV-Brownsville, no longer has the privilege of office space at the university. He continues to identify previously-unencountered species in conditions which are less than ideal: "It's harder to do here at home, with no microscope." He writes. "There is also no bench space, so I have to work with books etc. scattered on the floor in a circle around me." He deserves our admiration.

1. ELYTRARIA BROMOIDES Oerst., Nat. For. Kjöbenhavn Vid. Medd., 155. 1854; Coult., Contrib. U. S. Nat. Herb. 2: 221. 1891.

Tubiflora acuminata Small, Fl. Southeast. U. S., 1082, 1338. 1903.
Elytraria acuminata (Small) Cory, Rhodora 38: 407. 1936.

Cameron Co., Brownsville, April 3, 1938, *V. L. Cory 28321*, Clay Dunes, LAFWR., June 1952, *Marshall C. Johnston 266-19*, 8 mi. W of Boca Chica, May 2, 1940, *C. L. Lundell & Amelia A. Lundell 8646*, Santa Maria, 1889, *G. C. Nealley 169*, Nesaea de la Palma, Oct. 10, 1923, *Robert Runyon 563*, Loma Alto, Oct. 20, 1924, *Runyon 682*, near Brownsville, April 29, 1895, *C. H. Tyler Townsend 35*, near Fresnos, July 15, 1930, *Simon E. Wolff 2375;* Hidalgo Co., ½ mi. N of Hidalgo, April 2, 1938, *Cory 28223;* Kleberg Co., Kingsville, March 24, 1920, *M. M. High 103*, Kingsville, 1929, *Reed s.n.*, Kingsville, summer 1940, *J. F. Sinclair s.n.*, Kingsville, April 20, 1905, *S. M. Tracy 9059, 9453*, Kingsville, April 15, 1906, *Tracy 9437;* Nueces Co., Corpus Christi, *Edwards 719b*, Corpus Christi, June 1892, *Nealley 72*, Corpus Christi, May 10, 1894, *Nealley s.n.;* San Patricio Co., 7 mi. S of Taft, April 12, 1950, *Fred B. Jones 213;* Starr Co., eastern part of county, May 14, 1933, *Elzada U. Clover 652;* Willacy Co., 4 mi. N-NW of headquarters, Sauz Ranch, July 30, 1953, *Johnston 53266.5*.

Diversity in an old-growth Ebony wood ranges from woody shrubs found in no other location in Texas to hardy wildflowers found on the sunny periphery and a multitude of vine species, including the highly-irritating Noseburn.

Vara Blanca, *Capparis incana*, PDST 174. (More commonly found in Florida.) Only one specimen found in Texas, at Gloor Woods in Brownsville. Cultivated elsewhere locally.

Sanvitalia ocymoides, PDST 122. (drought-tolerant, full-sun species) Range is primarily deep South Texas.

Brush Noseburn Vine, *Tragia glanduligera,* PDST 229. Butterfly Hostplant for: Blue-Eyed Sailor, Common Mestra, Gray Cracker and Red Rim.

A Literary Return to Deep South Texas of 1932-33. *Elzada Clover's Vegetational Survey of the LRGV.*

One of the earliest and most comprehensive studies of our native vegetation was made by a female botanist working virtually alone, driving into the most remote parts of the valley in a 1930's automobile, and probably not the best vehicle available.

Elzada Clover was truly remarkable. She studied botany at the University of Michigan and apparently fell in love with "the valley", as she returned here at the end of her long and daring life.

Elzada published her work in the botanical journal Madroño in 1937. She begins by summarizing previous botanical expeditions, describes the climate with specific measurements, describes the topographic features, details the geology, and describes drainage.

Included in her vegetational survey are geologic maps of the area, drainage maps, and vegetational maps which roughly describe the primary species present. She discusses the impact of geology and drainage on species present.

She became well-acquainted with local Spanish nomenclature used to describe various types of vegetation and found that nomenclature to be apt. Such terms as *mesquital, zacatal, sacahuital* and a host of other local descriptors of plant communities and geologic features are employed in Elzada's comprehensive work.

Her work indicates the wide diversity of native grass species which were still present in the 1930's. Elzada states that her botanical surveys were limited to very dry periods, yet she lists 82 grass species in her vegetational survey. Guinea grass, Bufflegrass and Kleberg Bluestem were yet to be introduced here. The diversity of native grass present now in Harlingen's Ramsey Nature Park is due primarily to species rescued from old growth Ebony woods, especially Gloor Woods in Brownsville. Species which tolerate shade have been especially important for adding diversity to a park where woody species were already established, while understory and herbaceous diversity was lacking.

To those who wonder at claims that buffalo once roamed the valley and that diverse grasslands were present before overgrazing and precipitous drought, one might consider examining Elzada's list of grass species. The fact that so many species were present and recognizable during dry seasons is worth note.

Elzada Clover's Vegetational Survey is recommended for anyone seeking a better understanding of Deep South Texas' diverse habitats.

Left: *Leptochloa dubia,* Green sprangletop grass.

Native perennial warm season bunchgrass with fibrous roots. Mature plants are short-lived; they appear when soil moisture is adequate. Good forage.
This species persists in the Mild's yard from specimens collected in Gloor Woods. Elzada Clover collected this species in Alamo.

Photo from the web.

Botanical Field Studies Aren't Easy...

The Chigger

by Chris Best

Consider the chigger, or *pinolillo*
as she's known from Tuxpán to Hermosillo
A ferocious mite, though hardly bigger
than a microbe, yet full of vigor
is this bloodthirsty skin-digger chigger.

She waits upon a blade of grass
and hopes that someday you will pass
and furtively she'll hitch and rise
and crawl right in between your thighs
And bite, harass, alas! Don't ask!

Before the chigger lays her eggs
she must drink blood between your legs
A score of sisters come to taste
the tender skin about your waist
Dozens more are what rankles
behind your knees, your feet and ankles
Still yet more have spread their harms
by burrowing beneath your arms.

Grown men bemoan the very parts
that made them men, once she starts
to fester them with itching warts.
Though women are the fairer sex
The chigger prefers her parts to vex
She searches in immodest hunt
from backside of a lass, to front.

The chigger, scientists agree
belongs to Trombiculidae.
This larva feeds where it has bit
some flesh dissolved with drops of spit.
and if your butt she gets to bite
she'll grow into a Harvest Mite.

Contributed by:
Chris Best, State Botanist
U.S. Fish and Wildlife Service
10711 Burnet Rd., Suite 200
Austin, Texas 78758
Tel: 512-490-0057 x 225
chris_best@fws.gov

More About Chiggers. From Wikipedia:
After crawling onto their hosts, chiggers inject digestive enzymes into the skin that break down skin cells. They do not actually "bite", but instead form a hole in the skin called a stylostome and chew up tiny parts of the inner skin, thus causing severe irritation and swelling.
In the U.S., chiggers usually do not transmit diseases. However, severe scratching of the bites can lead to infection.

For more on chiggers and how to deal with them, see [http://infinitespider.com/introduction-chiggers/]

Beware of Ticks: Tick season is well underway, and anyone venturing into nature should be on the lookout for them. Unlike chiggers, ticks may transmit an infectious disease which is very difficult to treat and cure.

Left: Tube Tongue, *Justicia pilosella,* PDST 50. Fragile stems and tiny blooms. Butterfly host plant for: Tiny Checkerspot, Elada Checkerspot, Texan Crescent and Vesta Crescent. Blooms summer thru fall. Frequent in Ebony litter. Acanthaceae Family.

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Other Relevant Literature:

Correll, D. S., and M. C. Johnston. 1970. *Manual of the Vascular Plants of Texas*. 1881 pp. Texas Research Fndn.

NatureServe. 2011. International Ecological Classification Standard: Terrestrial Ecological Classifications. Associations of Lower Rio Grande Valley National Wildlife Refuge. NatureServe Central Databases. Arlington, VA.

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Above: Texas Ebony, with its very useful "Ape's Ear-ring" seedpods. PDST 242.
Mike Heep recalls collecting green seedpods for a friend, who would boil and then roast them. This was in his graduate school days. They ate the beans with salt, like peanuts. Betty Perez calls the dish *mahuacata*. The pods should not be showing any signs of brown for this recipe.

NPP Board & General Meetings **are held at Valley Nature Center**
(4th Tues. each month)

Brd Mtgs 6:30pm — Speaker 7:30pm.
2017 meetings: 4/25, 5/23, 9/26, 10/24, 11/28

FROM: NPP; POB 2742; San Juan, TX 78589

The **Native Plant Project (NPP)** has no paid staff or facilities. NPP is supported entirely by memberships and contributions. Anyone interested in native plants is invited to join. Members receive 8 issues of **The Sabal** newsletter per year in which they are informed of all project activities and meetings.

Meetings are held at:
Valley Nature Center, 301 S. Border, Weslaco, TX.

Native Plant Project Membership Application

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__Life $250 one time fee/person
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NPP meeting/speaker:

The Native Plant Project will present:

"Wildflower Design"
—by Carol Goolsby & Ann Vacek

Tues., March 28th, 7:30pm

Who doesn't love wildflowers? These enthusiastic and devoted native plant enthusiasts will show their knowledge and experiences seeking out the local wildflowers.

The meeting is held at **Valley Nature Center**, 301 S Border, (in Gibson Park), Weslaco. 956-969-2475.

We hope to see you there!

Photo above: Texas Ebony in bloom. *Chloroleucon ebano.* PDST 242-3.

Photo right: Magnified bloom of *Koeberlinia spinosa,* Allthorn. PDST 176. One of the many species found in "old growth" Ebony woodlands.

In this Issue:
Texas Ebony & Its Role in South Texas
also, "The Chigger," a poem by Chris Best