



The Sabal

May 2017

Volume 34, number 5

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NPP meeting topic/speaker:

"Round Table Plant Discussion"
—by NPP members and guests
Tues., April 23rd, at 7:30pm

The Native Plant Project will have a Round Table Plant Discussion in lieu of the usual PowerPoint presentation. We're encouraging everyone to bring a native plant, either a cutting or in a pot, to be identified and discussed at the meeting. It can be a plant you are unfamiliar with or something that you find remarkable, i.e. blooms for long periods of time or has fruit all winter or is simply gorgeous. We will take one plant at a time and discuss it with the entire group, inviting all comments about your experience with that native. It should be fun. Don't forget your plants! Please join us.

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



Photo above by Anita Westervelt. Chiggery Grapes. One local specimen growing and spreading on Sato property in San Benito. Fruits eaten by Groove-Billed Ani. PDST 149. Leaves used for rubbing off chiggers!

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 at the Edge of the Subtropics:

A Look at the Rare and Northern-Limital Plants of the Lower Rio Grande Valley

— by Bill Carr

This article appeared in the **Native Plant Society of Texas News, Vol. XVII, number 5, Sept/Oct 1999**. It is reprinted here with the permission of the author.

Editor's Notes: I met Bill Carr when he worked for Texas Nature Conservancy as Botanist. Bill has a profound knowledge of Texas' plants and is well-acquainted with the plants of Deep South Texas. I've relied upon his knowledge for many years, enjoy his wit, and enjoyed many treks through the brush in his company.

In this article, Bill points out the many native plant species resident here which aren't found much of anywhere else in the U.S. Many of these plants have since been successfully propagated by many native plant growers.

These days Bill is an independent contractor offering botanical services, and I can recommend his expertise without reservation. He can be reached at:

Bill Carr, Acme Botanical Services, [512-459-5326](tel:512-459-5326) (office), [<billcarrspurge@gmail.com>](mailto:billcarrspurge@gmail.com)

Because some of these unique species are well-nurtured in many revegetation sites, including home gardens, we've come to think of them as being rather common.

As property owners, volunteers and personnel change over the years, some of these unique species are overlooked or crowded out by other vegetation. Many years ago, Jann Miller pointed out a very scraggly Carlowrightia parviflora to me at Valley Nature Center near the old waterfall. It was crowded out by more common species growing in the area, lovingly planted by an older VNC member years before. These days I find myself to be an "older volunteer," rediscovering such species every time I work at Ramsey Nature Park.

For many people, even some with an interest in nature, mention of the region known as the Lower Rio Grande Valley conjures up a caldron of negative images and stereotypes. They envision a place that's always miserably hot and humid, even during its frequent prolonged drought periods; a place so dedicated to the production of citrus, sugar cane, cotton, sorghum and truck crops that a conscientious driver must regularly swerve to avoid hitting a misplaced grapefruit, head of broccoli or bunch of carrots. They see "The Valley" as a place where almost no natural vegetation remains, and where the little that does endure is infested with killer bees and often detested for its equally aggressive, thorny shrubs.

That view, however understandable, is not universal. And it is changing. While such negative images have not been completely erased, the LRGV is rapidly becoming a destination of choice for ecotourists. Bird watchers from all over the world have long ventured to the Valley to catch glimpses of subtropical species not so easily seen elsewhere, birds such as Green Jay, Plain Chachalaca, Great Kiskadee and Ringer Kingfisher. And the number of birders visiting the Valley increases every year. In the last two decades, creation of the Lower Rio Grande Valley National Wildlife Refuge has heightened interest in two rare felines, the ocelot and the jaguarundi, even though both by nature are seldom seen. The birds, along with cats and other charismatic

"megafauna" are viewed as the principal natural assets fueling a growing ecotourism industry, an industry that now makes an important contribution to the economy of the Lower Rio Grande Valley.

There is, of course, a parallel situation in the botanical story of the Lower Rio Grande Valley, although that



Above: Rare bird eats rare fruits! This red-crowned parrot was photographed at Estero Llano Grande by Javi Gonzalez. In his beak are seed capsules of *Adelia vaseyana* (PDST 207), which is found few places beyond the Arroyo Colorado brush. For years, Mike Heep has told us that parrots eat these fruits. Thanks to Javi Gonzalez for documenting that fact!

story has not yet been so widely embraced by the local chambers of commerce. Not unlike the avian kiskadee and chachalaca, literally dozens of common “sub-tropical” plant species reach the northern limits of their range in the Valley. (See Table 1).

In addition, the region is home to a number of plant species of more restricted distribution (See Table 2).

Table 1.

Southern or “subtropical” species reaching the northern limit of their respective ranges in or near the LRGV.

*Editor’s Note: Species names in **bold** indicate those which are commonly propagated in 2017.*

<i>Abutilon hulseanum</i>	<i>Cooperia smallii</i>	<i>Passiflora suberosa</i>
<i>Abutilon hypoleucum</i>	<i>Croton cortesianus</i>	<i>Pennisetum nervosum</i>
<i>Abutilon trisulcatum</i>	<i>Croton soliman</i>	<i>Petiveria alliacea</i>
<i>Achyranthes aspera</i>	<i>Dicliptera vahliana</i>	<i>Pisonia aculeata</i>
<i>Amyris madrensis</i>	<i>Eriochloa pseudoacrotricha</i>	<i>Plumbago scandens</i>
<i>Bastardia viscosa</i>	<i>Esenbeckia runyonii</i>	<i>Sabal mexicana</i>
<i>Buddleja sessiliflora</i>	<i>Glandularia delticola</i>	<i>Selenia grandis</i>
<i>Capparis incana</i>	<i>Heimia salicifolia</i>	<i>Solanum erianthum</i>
<i>Capraria mexicana</i>	<i>Helietta parvifolia</i>	<i>Spermacoce floridana</i>
<i>Cardiospermum dissectum</i>	<i>Iresine palmeri</i>	<i>Sporobolus buckleyi</i>
<i>Cephalanthus salicifolius</i>	<i>Lantana microcephala</i>	<i>Taxodium mucronatum</i>
<i>Cereus spinulosus</i>	<i>Mortonia greggii</i>	<i>Tournefortia volubilis</i>
<i>Chiococca alba</i>	<i>Nicotiana plumbaginifolia</i>	<i>Tradescantia buckleyi</i>
<i>Chloris chloridea</i>	<i>Panicum ghiesbreghtii</i>	<i>Turnera diffusa</i> var. <i>aphrodisiaca</i>
<i>Citharexylum berlandieri</i>	<i>Panicum hirsutum</i>	<i>Urvillea ulmacea</i>
<i>Colubrina greggii</i>	<i>Paspalum conjugatum</i>	<i>Wissadula amplissima</i>
<i>Commelina elegans</i>	<i>Paspalum virgatum</i>	<i>Wissadula periplocifolia</i>
<i>Cooperia jonesii</i>	<i>Passiflora filipes</i>	<i>Xylosma flexuosa</i>



Above: Larva on blooming *Urvillea ulmacea*, PDST 381. As attitudes towards growing and protecting vines has changed from negative to positive, many butterfly aficionados have added this vine to their cultivated areas. At this stage, many of us may regard this as a common vine, while it’s actually unique to this area. Jan Dauphin’s I.D. of the caterpillar is a Silvered Prominent Moth (*Didugua argentilinea*). See: [<http://bugguide.net/node/view/155152/bgimage>]

Right: Bee on *Capraria mexicana*, PDST 385, which resembles *Baccharis* in foliage and growth form.

Below: *Capparis incana*, a beautiful, long-blooming accent shrub. PDST 175.



Coastal Marshes and Shrublands.

Among the regional specialties in this portion of the LRGV is lila de las lomas (*Echeandia chandleri*) a lily with inconspicuous grasslike leaves and bright golden-yellow tepals. Although it ranges northward to clay prairies in the Corpus Christi area and, presumably, south into northern Tamaulipas, the vast majority of known populations of *E. chandleri* are found on lomas near the mouth of the Rio Grande.



Photo above: *Echeandia texensis*, PDST 26, closely-related to *E. chandleri*. Even less common in the wild, but propagated easily in many wildscapes and wildlife habitats.

Saltier soils on the lower slopes of lomas and in nearby salty prairies are home to scattered small populations of Texas stonecrop (*Lenophyllum texanum*) a small succulent that ranges from Tamaulipas and Nuevo León north to five counties in the Lower Rio Grande Valley. Although fairly widespread, *L. texanum* seems to be rare throughout its range.

Two of the common components of the dense brush that covers some lomas, Tamaulipan fiddlewood (*Citharexylum berlandieri*) and Sierra Madre torchwood (*Amyris madrensis*) are among the many southern species that reach their northern limits in or near the valley.

Riparian forests

Many plants found in the various riparian forests along the Rio Grande are **northern-limital** representatives of **their species (plants growing at the northern edge of their range)**.

Mexican sabal palm (*Sabal mexicana*), an arborescent native, dominates the vegetation at a few locations in Cameron County. Over the years many other sub-

Below: Palmer's bloodleaf (*Iresine palmeri*), photographed at Sabal Palm Grove Sanctuary. Mature seeds and red foliage.



tropical species have been collected from these palm groves, including vines such as Palmer's bloodleaf (*Iresine palmeri*), Twining tournefortia (*Tournefortia volubilis*), climbing plumbago (*Plumbago scandens*); shrubs such as David's milkberry (*Chiococca alba*) brush-holly (*Xylosma flexuosa*) and potato-tree (*Solanum erianthum*); and various tall, semi-woody mallows (*Abutilon hulseanum*, *Abutilon hypoleucum*, *Abutilon trisulcatum*, *Wissadula amplissima*, *Wissadula periplocifolia*).



Left: *Abutilon hypoleucum*. PDST 303. Rio Grande Abutilon. An attractive colony-forming shrub, 4' or taller, which is not an aggressive invader.

The only known collections of Gregg's manzanita (*Colubrina greggii*), which ranges across parts of Coahuila, Nuevo León, Tamaulipas, and San Luis Potosi, were taken from a small population in a palm grove near Southmost in the early 1940s. Runyon's water-willow (*Justicia runyonii*), a globally-rare species restricted to Cameron and Hidalgo counties and adjacent Tamaulipas, is found in several habitats in the LRGV but tends to be most common in or along palm groves and similar forests.



Above: Runyon's Water Willow, PDST 51. This Malachite butterfly hostplant prefers low, moist places. It is easily propagated, but doesn't compete well with more aggressive species, such as *Dicliptera vahliana*.

Some of these species, as well as numerous other northern-limital plants, also occur in other types of riparian forests, including types that lie on current river banks and are dominated by hackberry (*Celtis laevigata*) and cedar elm (*Ulmus crassifolia*) and the more variable and diverse forests on better-drained soils on levees and resaca banks. A short list of other northern-limital plants found in these important habitats would include a chaff-flower (*Achyranthes aspera*) tropical forest cactus (*Cereus spinulosus*), red dicliptera (*Dicliptera vahliana*), a cupgrass (*Eriochloa pseudocrotricha*) jopoy (*Esenbeckia runyonii*), hachinal (*Heimia salicifolia*) devil's claw (*Pisonia aculeata*), two passionflowers (*Passiflora filipes* and *Passiflora suberosa*) hierba de las gallinitas (*Petivera alliacea*), Buckley dropseed (*Sporobolus buckleyi*) and Montezuma cypress (*Taxodium mucronatum*).

Globally-rare specialties in these habitats include Texas ayenia (*Ayenia limitaris*) and Bailey's ballmoss (*Tillandsia baileyi*). The former, a medium-sized shrub that ranges from Coahuila and Tamaulipas north to the

LRGV, is a listed endangered species known in Texas from only a few extant populations. The latter, a bromeliad, ranges from South Texas into Tamaulipas and is similar to many other large epiphytic bromeliads which are so typical of tropical and subtropical forests. Even the resacas themselves are home to a few unusual species. Mexican mud-babies (*Heteranthera mexicana*), a mudflat plant that has been found from Coahuila, Nuevo León and Tamaulipas north to the Texas Panhandle but is rare throughout that range, is known at least historically from several resacas in the LRGV. Finding their northern limits in the resacas of the Valley are Mexican buttonbush (*Cephalanthus salicifolius*) a shrub that ranges as far south as Honduras, and Hairy panicum (*Panicum hirsutum*), a globally-common subtropical grass covered with stinging hairs that is often abundant in shady resaca bottoms.



Above: The unique blooms of *Esenbeckia runyonii*, photographed in Harlingen's Ramsey Nature Park. PDST 376.

Mesic and Upland Shrublands

This group includes dozens of intergrading and poorly defined community types, some of which lie on relatively mesic sites bordering riparian forests and other of which lie on more xeric upland sites. Perhaps the most interesting of these upland shrublands, at least from the standpoint of northern-limital representatives and globally rare species, are those on sites underlain by the Goliad Formation in western Hidalgo and eastern Starr counties. Mixed thorny brush on these xeric gravelly slopes includes the largest stands of barreta (*Helietta parvifolia*) in the United States, as well as northern-limital shrubs such as hierba del venado (*Turnera diffusa* var. *aphrodisiaca*) and Gregg's

Mortonia (*Mortonia greggii*). Several globally-rare species are also found on the Goliad Formation, either on these gravelly slopes or on shallow, droughty, sandy soils on adjacent uplands. Most significant is Walker's manioc (*Manihot walkerae*), a listed endangered species known from a few sites in this area and in similar areas in northern Tamaulipas. Similarly restricted in range, albeit not quite so rare, are Chihuahuan balloon-vine (*Cardio-spermum dissectum*) and Mission fiddlewood (*Citharexylum spathulatum*).

Four other listed endangered species occur in low xeric shrubland types in this area and westward toward Falcon Dam. Star cactus (*Astrophytum asterias*), an inconspicuous but strikingly-shaped cactus, is known from Hidalgo and Starr counties and into Nuevo León and Tamaulipas; it may be rare in part due to collecting. Johnston's frankenia (*Frankenia johnstonii*) a low shrub known from Starr, Webb and Zapata and northern Nuevo León is apparently rare due to its restriction to fossiliferous, gypseous soils. Both Zapata bladderpod (*Lesquerella thamnophila*) a short-lived perennial conspicuous after heavy rains, and ashy dogweed (*Thymophylla tephroleuca*), a small sunflower of disturbed sandy soils, are apparently endemic to Starr and Zapata counties, although either may also occur in northern Mexico.

These are just a few of the many rare or otherwise interesting plant species that can be seen in the LRGV. Clearly there is more to the Valley than cleared fields and chachalacas. Fortunately, plant conservation in the Lower Rio Grande Valley is well under way.

Groups like the Native Plant Project have heightened awareness of conservation issues, and acquisition of remnant brush tracts continues. Foremost in this effort is the U. S. Fish and Wildlife Service, whose LRGV National Wildlife Refuge captures, in its 110 tracts, much of the regional botanical diversity not already represented in its Santa Ana and Laguna Atascosa refuges. Filling other gaps are numerous wildlife refuge tracts operated by the Texas Parks and Wildlife Department, preserves of The Nature Conservancy and The Audubon Society, and the various efforts of local land trusts and private landowners.

Table 2.

Regional specialties, i.e., globally-rare species found primarily in the LRGV of Texas and northern Mexico. (**Globally-rare species** are defined as those known from 100 or fewer populations.)

Adelia vaseyi

*Ambrosia cheiranthifolia**

*Astrophytum asterias**

Atriplex klebergorum

*Ayenia limitaris**

Callisia micrantha

Citharexylum spathulatum

Coryphantha macromeris var. *runyonii*

Echeandia chandleri

Echinocereus papillosus var. *angusticeps*

Echinocereus reichenbachii var. *albertii**

Echinocereus reichenbachii var. *fitchii*

Eriogonum greggii

*Frankenia johnstonii**

Grindelia oolepsis

Justicia runyonii

Lenophyllum texanum

*Lesquerella thamnophila**

Manfreda longiflora

*Manihot walkerae**

Opuntia engelmannii var. *flexospina*

Thelypodopsis shinersii

*Thymophylla tephroleuca**

Tillandsia baileyi

* Listed as endangered by both Texas and the U.S. Fish & Wildlife Service.

Species in bold are cultivated in 2017.

Below: Mission or Mexican Fiddlewood (*Citharexylum spathulatum*). Two specimens are cultivated at Ramsey Nature Park. PDST 412.

Editor's Note:

Since the initial publication of this article in 1999, additional entities have begun large-scale revegetation or conservation efforts. NABA's Butterfly Park in Mission protects such endangered species as Walker's Manihot. Hugh Ramsey Nature Park volunteers monitor such species as Bailey's Ball Moss, *Ayenia limitaris*, Runyon's *Esenbeckia*, Gregg's *Mortonia*, Barreta, and a host of other diversity. Valley Nature Center continues to protect, propagate and sell many natives. Nine locations of World Birding Centers are involved in revegetation, habitat restoration and conservation of natural areas throughout deep south Texas. McAllen's Nature Center is actively promoting native plants. Several cities have created wetlands featuring natives.

We cannot afford to become complacent; habitats are still being cleared.



LRGV Native Plant Sources

See also our
Sponsors on right

Perez Ranch Nursery

(Betty Perez)

12 miles north of La Joya, TX

(956) 580-8915

<PerezRanchNatives@gmail.com>

These vendors may sell exotics:

National Butterfly Center

Old Military Hwy/3333 Butterfly Pk Dr

Mission, TX 78572

office (956) 583-5400

Marianna Trevino Wright, Exec.Dir.

cell 956-648-7117

<mariana@nationalbutterflycenter.org>

[http://www.nationalbutterflycenter.org]

Rancho Lomitas Nursery

(Benito Trevino)

P.O. Box 442

Rio Grande City, TX 78582

(956) 486-2576 *By appt. only

Valley Garden Center

701 E. Bus. Hwy. 83

McAllen, TX 78501

(956) 682-9411

M&G Double D Native Plants & Seeds of South Texas, (Gail Dantzker)

956-342-5979; <gdld@att.net>

7500 N 21st St; McAllen, TX 78504

[mandgdoubled.com]

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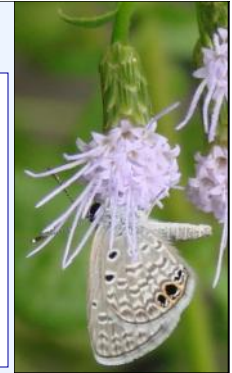
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Native Plant Fieldtrip:

Saturday at 9:00 a.m. May 20, 2017. RVCTMN volunteers lead this plant tour at Ramsey Nature Park, Harlingen. (Last Chance until the fall season.) Join our experienced nature tour guides for an exciting adventure of Plant Learning, Butterfly and Bird viewing at Harlingen's Ramsey Park. Tour lasts for 2 hours. Bring your camera and your friends. You will visit the Specialty Gardens on Ebony Loop. ¼ mile walk, wear comfortable clothing and shoes. Bring water if needed. Meet at the south end of the parking lot. Hugh Ramsey Nature Park is at 1000 South Loop 499, just two miles south of Harlingen's Valley International Airport.

Below: Giant Swallowtail butterfly nectaring on Mexican Buttonbush, PDST 369.



**NPP Board & General Meetings are held at
Valley Nature Center**

(4th Tues. each month, except thru summer)

Brd Mtgs 6:30pm — Speaker 7:30pm.

2017 meetings resume in fall: 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

Regular \$20/yr. Contributing \$45/yr
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NPP meeting/speaker:

The Native Plant Project will present:

"Round Table Plant Discussion"
—by NPP members and guests
Tues., April 23rd, at 7:30pm

Bring a native plant to be identified or discussed, something you enjoy or wish to know more about.

The meeting is held at
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956-969-2475.

We hope to see you there!



In this issue: **"Texas at the Edge of the Subtropics,"**
A Look at the Rare and Northern-Limital Plants of the Lower Rio Grande Valley, by Bill Carr.

Previously published in: **Native Plant Society of Texas News, Vol. XVII, number 5, Sept/Oct 1999.** Reprinted herein with author permission.

Above: South Texas "specialty bird" eats seed capsules of "northern-limital" deep south Texas native plant species.

How does the red-crowned parrot manage to eat seed capsules of *Adelia vaseyii*? This parrot grasps them in a gnarly claw, apparently adept at hanging onto the shrub with the other claw. Javi Gonzalez documented this phenomenon at Estero Llano Grande state park in Weslaco.