



The Sabal

September 2016

Volume 33, number 6

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

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NPP September meeting/speaker:

“Tamaulipan Biota Restoration: Basic Principles of Habitat Restoration”
By Raziel Isaac Flores Burquez

Tues., Sept. 27th, at 7:30pm

The Native Plant Project will start this season with a presentation by our newest and youngest member of the Board of Directors, Raziel Flores. He is a graduate biology student at UTRGV who studies plant populations at the community level. Raziel works for the McAllen Nature Center, a city park where he focuses on conservation and restoration of the city's remnant green space. (Raziel's photo is on p 8.)

His program will introduce basic principles of habitat restoration and how they can be applied to our native landscapes, balancing urbanization and wild nature in your backyard and our parks.

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

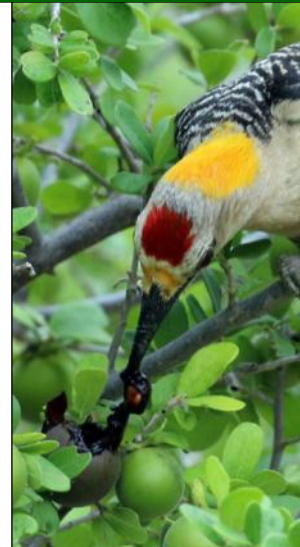


Photo above by Dan & Honeylet Jones. Golden-fronted Woodpecker eating ripe Chapote fruit (TX Persimmon) *Diospyros Texana*, PDST p205.

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>

President - Ken King - <wk_king01@yahoo.com>

2nd Annual Planta Nativa at McAllen's Quinta Mazatlan:

Once again, Quinta Mazatlan is hosting a series of events focused on native plants. One event is a ticketed garden party in honor of Toni and Benito Trevino, native plant growers. For details on this event, see [www.quintamazatlan.com] or call 956-681-3370.

Native Plant Activities:

Thurs. Oct 13th at 6pm, \$3. "Cooking with Native Plants" with Toni & Benito Trevino.

Thurs. Oct. 20th at 6pm, \$3. "Suburdia" presented by national author John Marzluff.

Fri. & Sat. Oct. 21-22, 9am-noon. Native Plant Sale & Garden Tours at Quinta Mazatlan.

Sun. Oct. 23rd, 1-4pm, Native Plant Garden Tour of Homes (map provided).

Milkweeds, Monarchs, Queens, Soldiers etc.

Several members have suggested articles in The Sabal focused on native milkweeds, monarchs and their relatives. Extensive information has been published during 2014 and 2015 on these topics. Those newsletter issues are available on the web, as follows:

11/2015 Vol 32, #7 November: Monarch Subfamily & Deep S TX Milkweeds, Native Asclepiadaceae Genera & Species, Milkweed Fertilization, Seed Collection Methods, Cynanchum, Funastrum & Matelea (selected species).

go to: [<http://nativeplantproject.com/SABALS/SABAL1115.pdf>]

9/2014 Vol 31, #6 September: Milkweeds, Vines & Forbs, Milkweed Seeds: Collecting, Cleaning, Storage and Propagation.

go to [<http://nativeplantproject.com/SABALS/SABAL0914.PDF>]

Photo: Queen larvae on Climbing Milkweed, Twine Vine, PDST p 79.



Plants of Deep South Texas has an excellent section on our native milkweeds on pages 73-81.

Quinta Mazatlan is helping to organize a group of individuals who are committed to providing ample access to native milkweed species for Monarchs and their relatives. If you are interested in participating in this group, please call 956-681-3370.

At **Planta Nativa** several native plant growers will have native milkweed species for sale on Fri. & Sat. Oct. 21-22, 9am-noon. Native Plant Sale Quinta Mazatlan.

Several milkweed species are available from our native plant growers. See page 7 in this issue.

Also of interest in this issue is the photo on p 7 of a Prairie Milkweed grown for several years by Jan Dauphin in her Mission, TX yard. This species usually grows to about 18", possibly because mowing occurs on most of the roadsides where the species is usually encountered. Under Jan's care, her rescued specimen has attained a height above three feet. That constitutes an impressive biomass on just one specimen for butterfly larvae to consume. Jan says it has disappeared and reappeared through the seasons over several years. Obviously, she leaves the area undisturbed even when the milkweed appears to be absent.

Other Resources: Carol Goolsby & Ann Vacek have prepared and presented "Monarchs & Milkweeds" with a focus on monarch interactions with native milkweeds of this area. They can be reached at: Carol Goolsby: <cgoolsby@mcallen.net>. Ann Vacek: <atvacek@gmail.com>.

Revegetation: Beyond Trees & Shrubs

—by Christina Mild

Revegetation projects vary widely, depending on soil types, moisture, availability of irrigation, and previous land use. The range of plant materials available to us is well illustrated by over 800 species included in **Plants of Deep South Texas**, 2011, A. Richardson and K. King. Add to that the many native grasses, sedges and other plants beyond the scope of that volume, and you have lots of potential choices to include in revegetation projects. The scope of this article might be described as **Habitat Enhancement**.

One might not think of lichen establishment or promotion as a revegetation goal, but examination of a hummingbird nest demonstrates one of their essential roles in habitat. Yes, I collect and distribute lichen-covered fallen limbs along with more typical “rescue” specimens and collected seed as habitat enhancement.

The range of what might be included in any such project is limited only by your imagination. On dry soils, you will sometimes find a mysterious thin black crust. This amazingly transforms to gelatinous green patches after rain. Benito Trevino recalls collecting this black crusty layer for his mother, who would rehydrate it for eating much like spinach. I find rabbit droppings near the green slimy patches, which Mike Heep identifies as the primitive blue-green alga *Nostoc*. I’ve collected the black crusty layer, distributing it on inner trails at Ramsey Park, with positive success.

Most of our collective knowledge about habitat enhancement has not been published. It’s the stuff of personal anecdotes, collective knowledge and continuing experimentation.

Such tools as the Facebook group “Native Plants of the Rio Grande Valley” often provide a rapid series of answers to questions about individual plants. John Brush monitors that group. Frank Wiseman’s weekly postings on Facebook’s “Friends of Ramsey Nature Park” give an ongoing account of volunteer efforts towards habitat improvement at that site. Butterfly and Birding groups post photos of critters in their native habitat, providing clues of which plants are attracting animals.

Elements of habitat enhancement can vary from primitive algae thru lichens to agave and cactus, wide-leaved herbaceous species, perennials, annuals, vines, parasites, saprophytes and epiphytes, to the limits of your imagination and creativity. I include all sorts of fungi and mushrooms as revegetation goals, though most would argue that they hardly qualify as “veg.” And where do we begin in discussing what lies beneath the soil to nourish what we see above-ground?

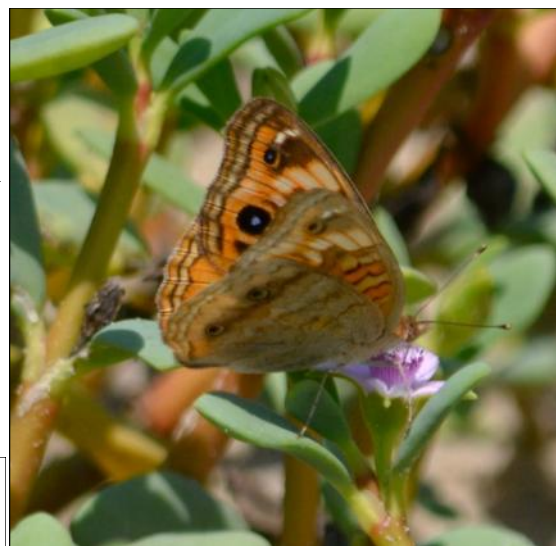
The first local projects I experienced involved reintroduction of trees and shrubs. In general, these efforts resulted in struggling woody species with vast monocultures of invasive grasses throughout. I became involved in promoting further plant diversity in such areas.

In every habitat enhancement project, control of invasives will be an issue. Native American Seed, based in Texas [www.seedsource.com] has a print and online catalog which thoroughly addresses recognizing and controlling invasive species and preparation methods for undertaking revegetation. This is available at no cost.

Right: Beverly Manuel Pardue photo of a Common Buckeye on *Sesuvium portulacastrum*, PDST p56.



Above: Beverly Manuel Pardue photo of a variegated fritillary on *Sesuvium portulacastrum*. PDST p56.



Forbs. “Ecologically, a forb can be one of the first seed plants in early successional stages, i.e., an ephemeral annual, or it can be a component of a climax community. In other than early seral stages, however, forbs are usually in the minority in the composition of a grassland community or grassland/brushland complex. Perennial forbs, particularly legumes, are highly desirable in the climax grassland community because they add much-needed variety, and in the case of legumes, they add nitrogen to the soil.” “Many forbs have exceptional nutritional value to herbivorous animals; some provide nutrients not available elsewhere in the plant kingdom. Many forbs are exceptional seed producers. Many provide herbage that is highly digestible to the herbivore, unlike the herbage of woody plants and grasses in most growth stages.” (**Broad-Leaved Herbaceous Plants of South Texas** (1999. Everitt et. al.) A simple definition of a forb is a “broad-leaved herbaceous plant.” One understands the need for a simpler term.



Tailed Orange butterfly on *Salvia coccinea*, PDST p288. Mike Rickard photo.

Many of the species which wildlife managers would classify as “forbs” have all but disappeared in the places we normally tromp about. Competition for light, moisture and nutrients is just too fierce when pervasive stands of taller grasses are present.

A primary factor for successfully reestablishing many forbs is high organic soil content. In Harlingen, I was astounded and mortified to find that much of the soil I encountered is primarily a low-humus clay. Why is so much of this area’s soil low in organic matter? There are several reasons beyond the basic geology of the area, though that is an important factor. Historically, agriculture and overgrazing contributed to loss of topsoil and spread of invasive exotic grasses.

Increasing soil fertility was explored in **The Sabal: 3/2015 Vol 32, #2 March, p2-3.** “Humus Creation, Brush Pile Creation Methods & Values” I cannot overemphasize the importance of promoting rich topsoil and using cut and fallen limbs for creating habitat in the form of brush piles.

Why Did Early Revegetation Projects Focus Primarily on Woody Species?

Some early thought was that animals, wind and water would help to reestablish the multitude of non-woody plants which have historically occurred in the various biomes within deep south Texas. Indeed, birds may carry seed for long distances. And yes, they’ll bring exotic species to your yard without hesitation!

The pervasive public attitude here during the 1980s was that nature parks should be like city parks, consisting of shrubs, trees, perhaps a few “flowers” and mown grass. Everything else was seen as too messy, unnecessary, or “it will take care of itself.” Another pervasive attitude of the time was that all native plants are either thorny and menacing or useless and ugly “weeds.”

In some areas of the valley the premise is still true that things will eventually “take care of themselves,” but that is probably the exception rather than the rule.

Betty Perez relates: “As Susan and I reveged some strips in a farm field here with trees and shrubs, the understory just started to happen it seems--a few native grasses (lots of exotics which I slowly dig out) and annuals, like Broomweed, Palafoxia, camphor weed, many others.”

If diverse colonies of natives are nearby, or if they have existed in unplowed areas in the recent past, whatever seeds remain may begin to grow when conditions are right for each species, generally after a good soaking rain. Again, this is also the best time to remove invasive exotics to make light, nutrients & moisture available.

Relatively undisturbed lots along the coastal areas and on South Padre Island have a great diversity of plant species, some of which are unique to salty, sandy soils. Few of these undisturbed lots remain, of course.

In areas which have been bulldozed, species which form fleshy underground stems or roots will spring forth beautifully in the wide open environment available for their growth. While species such as small cacti will have been lost, other species will have found their time in the sun. **The Sabal: 5/2014 Vol 31, #5, p 3-6. Plants Which Persist After Land Scraping.**

A Harlingen friend who lives along the arroyo with a very large colony of mature ebony trees called me over for advice on what she could plant beneath the ebones. “I can’t get anything to grow under here,” she lamented. I could recognize at least a dozen closely-shaven native herbaceous species in super dry almost-barren dirt. “Don’t plant anything,” I told her. “Water this area heavily, give it a regular thorough soaking (Mike Heep’s earlier advice to me), not just a light sprinkle. And make your gardener stop chopping down all these plants with the mower and the weed eater. The blooms may be tiny, but you’ll attract all sorts of butterflies. Just give things time to grow and teach the gardener to dig out the guinea grass without chopping down everything else.”

Mike Heep has heard “the ebony lament” for too many years to count. Ebony casts a deep shade, but there is an entire community of plants which thrive in that shade and the marvelous rich humus which forms beneath an undisturbed ebony tree. To understand that best, you need to see it over the seasons, in wet and dry times, hot and cold, windy and still.

Observing Mature Communities of Undisturbed Native Brush. The opportunity to visit mature communities of undisturbed native plant diversity continues to decrease. To learn about revegetation, take every fieldtrip you can to see the pockets of undisturbed areas which still remain. Visit those areas throughout the seasons and in dry times as well as wet. Different plant species will proliferate, bloom, fruit, lose or grow new leaves in different environmental conditions. Some species will grow “abnormally” large leaves after abundant rain.

With our many native plant experts, digital cameras and cell phones with macro capabilities, ways to search the internet, message each other, post and email, we’re all teaching each other on a daily basis.

Working With Mother Nature. The opportunity to rescue plants from relatively undisturbed areas is not to be missed, although weather may be the key to whether you’ll need jackhammer strength or the use of a hand trowel.

Seeds Are in the Soil, too. In addition to digging up plants, and collecting seeds, I’ve collected topsoil from areas where I knew turf grass would be planted. The soil around any plant you dig will be full of seed from multiple species which have grown in that spot over many years. Of course, not every plant which germinates will be something you wish to introduce to the area.

Provenance & Genetic Diversity. Ann Vacek emphasizes the importance of collecting seed locally, wherever it is legally and morally proper, maintaining local “provenance.” Mike Heep also recommends collecting seed and rescue specimens from varied locations and habitats to maintain as much genetic diversity as possible. Over the centuries, small genetic changes which enhance survival will have occurred within a species.

Water Is Essential. I can’t neglect to mention water as a major factor in revegetation success. If possible, I conduct plant rescue after ample rain, both because my removal success is better, but also because the transplant is able to establish new roots more rapidly. It’s a common fallacy that native plants don’t need water. A few plants (prickly pear, for example) may grow just fine, eventually, if you plant them in dry soil and leave them on their own to survive. But it’s a general rule that most species will benefit greatly from and may require initial watering. In particular, our natives which occur primarily in wet areas will perform best if you can water them regularly. Instead of merely “hanging on,” they’ll be able to grow, bloom, fruit and provide abundant nectar.



Pollinating fly on Brasil, PDST p365. Juan Sebastian Chavez photo.



Crimson Patch on Fiddlewoodl, PDST p412. Kenneth Wilson photo.

So What Else Is There Beyond the Trees & Shrubs?

The choices are almost endless.

Vines. Vines are marvelous for growing up thru shrubs and trees and covering brush piles. Studies at Santa Ana NWR of nesting chachalacas showed that nests established near prolific vines had better survival rates. Chicks are unable to fly for an extended period and much of their foodsource is at ground level. Presumably, vines provide a ladder of safety for hiding and probably for returning to the nest. We have a multitude of marvelous vines!

Cacti. Creating a native cactus garden isn't terribly difficult; the problem is preventing an overgrowth of "weeds." It's really difficult to remove weeds from cacti without injury to yourself or pulling up the cactus with the weeds. People also just love to steal small cacti, especially when they're in bloom. I'm growing my rescued cacti in pots, and haven't convinced myself as yet that they'll be safe if I plant them in a public space. If you can plant on a raised mound of caliche, that might help to slow down the emergence of weeds in your cactus garden. In any case, a pair of needle-nose pliers is very helpful for pulling out the weeds. Europeans have been enthralled by our small cacti for centuries; we can hardly see them in the wild these days as they're often overgrown by exotic species.

Mat-Forming Euphorbias. These delicate low-growing spreading groundcovers are quite special. I'm not sure I've successfully moved them from one place to another. The seed is so small that I can't see it. Undoubtedly, under any colony there are hundreds of tiny seeds in and on the soil. They're worth protecting, to be sure. (See selected *Chaemaesyce* sp. PDST p208-212.)

Epiphytes & Parasites. Our epiphytic bromeliads (PDST p28-29) are amazing. Diann Ballesteros collects fallen ball moss and Spanish moss, reintroducing them into places like Ramsey Park. Ball mosses may be anchored onto tree bark with glue. These epiphytes benefit from an occasional spray from the water hose.

Mistletoe is a hemi-parasite (PDST p423) and host for the gorgeous Great Purple Hairstreak butterfly. We've collected mistletoe berries and placed them in bird feeders and rubbed them onto tree bark. They need to pass through a bird's digestive tract to germinate and removing the entire mistletoe plant from a tree will kill the mistletoe. There are a whole range of parasitic Dodder species which must play an important role in the greater scheme of things (PDST p202-204) although I am ignorant in that regard at present.

Creating Full-Sun Gardens. Revegetating to create full-sun gardens is a marvelous opportunity for attracting butterflies and other pollinators and nectarers. Control of tall woody species becomes an issue in such gardens, as climax vegetation is typically a forest. In some areas, seasonal mowing to limit the growth of woody species (after annual species have produced mature seed) may be a good option to create and maintain full-sun habitats. Perennials such as *Manfreda variegata* (PDST p) and *Lila de Los Llanos* may not persist after mowing, so a planting strategy might be required, involving "no-mow" areas of the full-sun garden.

Wetland Plants. As cities increasingly use wetlands for purifying water, opportunities for wetland revegetation projects are opening up. Mike Heep and Ken King have some experience in helping local cities to create wetlands. Marisa Oliva has managed wetlands at the Edinburg WBC, and managers at Llano Grande WBC and Frontera Audubon have managed wetlands on-site. An excellent reference for restoring aquatic and wetland areas is Charles D. Stutzenbaker's out-of-print [Aquatic and Wetland Plants of the Western Coast](#). 1999.

I don't expect to run out of potential species in my lifetime.



Balloonvine growing on the Arroyo bank, PDST p380.

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]

Grown at The Woods, Willacy Cty., TX.

Landscapers using Natives:

Landscaping, Etc. Inc.

Noel Villarreal

125 N. Tower Rd, Edinburg

956-874-4267, 956-316-2599

NPP Board & General Meetings are held

at Valley Nature Center

(4th Tues. each month)

Brd Mtgs 6:30pm — Speaker 7:30pm.

remaining 2016 meetings:

Oct. 25, Nov. 22

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Photo left: Prairie Milkweed,
PDST 75. *Asclepias oenother-
oides*. This unusually tall (>3')
specimen has been tended for
several years by Jan Dauphin
in her Mission, TX yard.

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

Life \$250 one time fee/person

Other donation: _____

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Native Plant Project, POB 2742, San Juan, TX 78589-7742*

TO:

NPP March meeting/speaker:
Tues., September 27th, 7:30pm

The Native Plant Project will present:

**“Tamaulipan Biota Restoration:
Basic Principles of Habitat Restoration
By Raziel Isaac Flores Burquez**

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



In this issue:
**Revegetation:
Beyond Trees & Shrubs**



Photo left: Lichen.

Photo above: NPP September speaker out in his native habitat.
Raziel Isaac Flores Burquez.