The Sabal

April 2015

Volume 32, number 3

In this issue:

Page numbers for plant species shown in the Sabal refer to: **"Plants of Deep South Texas" (PDST).**

April 2015 Mtg., Native Plant Project:

Tues., April 28th, 2015: at 7:30pm

The Native Plant Project will present:

"Growing Native Plants from Seed"

by Betty Perez

Perez Ranch Nursery started growing trees and shrubs for U.S. Fish and Wildlife Refuges in 1997. The nursery has expanded since then, and is now open to the public. Betty will share their secrets and admit their failures in growing natives from seed. Finally, it's time to learn what we are doing wrong when trying to get our stubborn seeds to grow.

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

Coral Bean blooms, *Erythrina herbacea,* are gorgeous in mid-April. PDST p261. Occurs in Cameron County. All parts poisonous if eaten by humans. Hummingbird nectar. Thorny. Easily established from seed.

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>

"**Bringing Nature Home: How You Can Sustain Wildlife with Native Plants**,"
by Douglas W. Tallamy

The central theme of this newsletter issue is based on the above-referenced book, recommended to me by Betty Perez. Some of Tallamy's work has been reprinted in previous Sabal issues. As I delve further into this work, more references will follow in future issues. Direct quotes from the above title will appear in quotes throughout this issue.

In chapter 13, Tallamy presents a beautifully-illustrated compendium entitled "What Does Bird Food Look Like?" On page after page, one sees insects: adults, larvae, eggs. Insects and more insects. Arthropods, to be more specific, as I should be including spiders, which technically aren't insects. "Spiders constitute up to 50 percent of the diet of some bird species that are rearing young." I believe this is the case with nesting hummingbirds, just one example.

The black infestation in the photo below (**Bordered Patch butterfly larvae** consuming leaves of yellow-blooming **Cowpen Daisy, PDST p134**) looks like a disaster to the average gardener. To those who comprehend the importance of insects to all higher life forms, this "infestation" is a robust success.

Pink-blooming wildflowers below provide good butterfly nectar. They are **Clammyweed, PDST p176**.

Tallamy promotes plantings of diverse species, to encourage a diversity of desirable fauna. However, he emphasizes that not all plant species are created equal to the task of supporting a diverse native fauna. In general, much research supports the fact that "alien" plant species cannot serve as food to the same wide diversity of native insects as native plant species can support.

"In a survey of insect herbivores (plant-eaters) in Oxford, Pennyslvania, native plants produced over four times more insect biomass than alien plants produced. This difference resulted entirely from the inability of insects with chewing mouthparts to eat alien plants..."

The table Tallamy includes to summarize that data shows roughly six times the herbivore biomass produced by native vs. alien plants.

"In a comparison of the diversity of herbivorous insects on native and alien woody plants in Oxford, Pennsylvania, more than three times as many insect species were associated with native plants as with alien plants..."

Research conducted by Dr. John and Carol Goolsby, Ann Vacek, John Brush and Dr. Alex Racilis in 2010/11 in the McAllen area produced very similar results to those listed above. Tallamy is based in Pennsylvania, but his results reflect research conducted in many other locations.

This biomass of insects/arthropods should not be interpreted as species which bite and sting humans or which invade our homes. Most of these critters are innocuous to humans, and hardly noticed except by the native fauna which hunt them down for a meal.

"In a comparison of Lepidoptera larvae (butterflies and moths) produced on native and alien woody plants in Oxford, Pennsylvania, native plants supported 35 times more caterpillar biomass, **the preferred source of protein for most bird nestlings**, than alien plants supported."

In Newark, Delaware, one study found that insect biomass produced by native plants during the month of August 2005 was more than 6.5 times greater than that produced on alien plants. (Of course, this is why so many gardeners prefer alien plants, which don't have all those inconvenient "bugs" on them.)

How selfish can we continue to be, if we wish for life on earth to fluorish? Our rate of destroying natural diversity outpaces nature's ability to rebound. The bottom of the unwieldy food pyramid we sit upon is heavily dependent on the ability of arthropod species to convert plant material into tasty insect/spider biomass eaten by the next level up the pyramid: amphibians, reptiles, birds, many small mammals, and human cultures we consider "primitive."

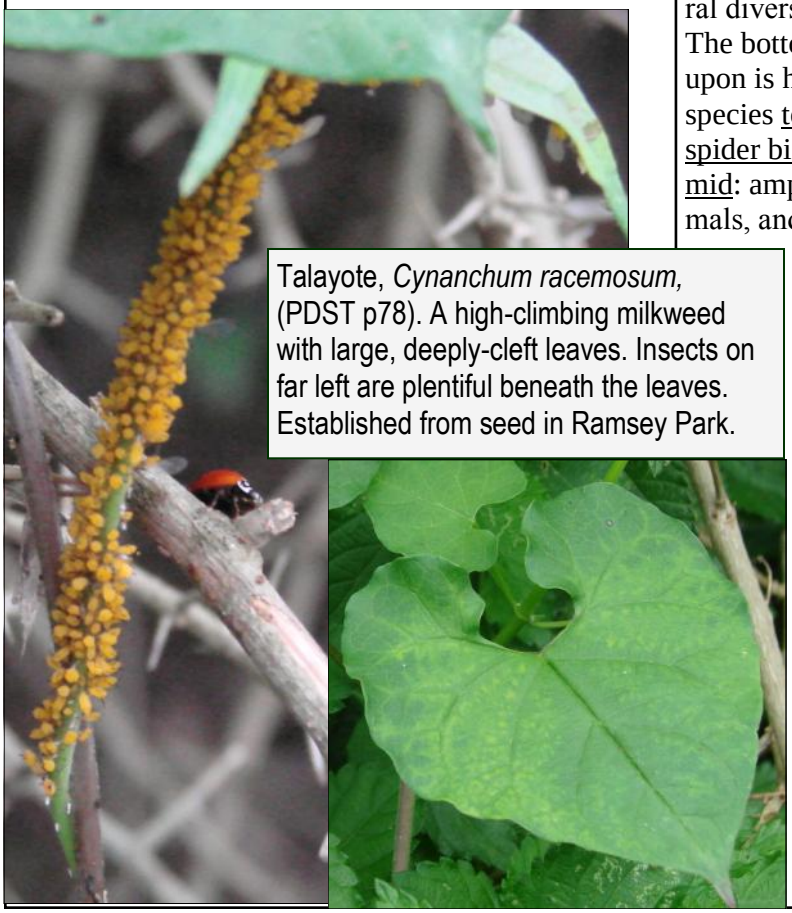
We've begun to include more information in native plant publications regarding the butterflies (and some moths) known to utilize particular plant species as host plants. The vast majority of that information is as yet unknown.

We all but ignore the vast number of other insects which depend upon any particular plant family or species.

Pollinators receive some attention, probably because they sit in the middle of a bloom which we consider "pretty."

The use of digital cameras continues to provide additional information regarding arthopod use of plant species, as viewing our photos magnified on a computer screen often brings additional insects into focus.

Let's look a bit harder for them!



Talayote, *Cynanchum racemosum,* (PDST p78). A high-climbing milkweed with large, deeply-cleft leaves. Insects on far left are plentiful beneath the leaves. Established from seed in Ramsey Park.

Applying Tallamy's Basic Principles to a Harlingen "Pocket Park" — *by C. Mild*

In all likelihood, I was introduced to C. B. Wood Park, along the Harlingen Hike & Bike Trail, by Mike Heep. One of the valley's most rare plants, *Ayenia limitaris*, PDST p403, occurs there. The city of Harlingen has signed an agreement with Texas Parks & Wildlife to protect that colony. For several years, a Pauraque nested near the Ayenia.

But C. B. Wood is more than just a small natural area with one rare plant species. It is the most diverse area of Arroyo Colorado brush which I've encountered within Harlingen's city limits. It occurs at the westernmost end of the Arroyo Hike & Bike Trail across the arroyo from Boggus Ford.

When the early Master Naturalist classes began to volunteer at Ramsey Park, we took regular tours to C. B. Woods. We were, after all, setting out on a project to create the most diverse piece of habitat possible, and we were doing so on land bordered by the Arroyo Colorado. It made great sense to visit, observe and study a diverse mature piece of arroyo brush (on an easy hike).

In later years, a core group of Master Naturalist volunteers led a series of tours (while "winter visitors" were in residence) to several city-owned parks along the arroyo and the Hike & Bike Trail.

C. B. Woods is relatively flat, a short walk from a small parking lot, and affords visitors an astounding view of native diversity.

So where am I going with all this?

Considering Tallamy's research on wildlife-carrying capacity and native species diversity, C. B. Woods is a gem which should be preserved and used as a teaching tool. In recent years, it has been all-but-forgotten. Without an actual budget for the city of Harlingen to "manage" their nature parks, and virtually no training for employees, most of these "parks" are virtually ignored.

Following Hurricane Dolly in 2008, the arroyo flooding of 2010, and deteriorating health of core RGVCTMN volunteers in Harlingen, tours of Harlingen's nature parks were discontinued.

For several years, I've not visited C. B. Woods Park. With a new group of trainees working in Ramsey Park, and a review of Tallamy's evidence supporting the need to preserve native diversity at a much faster pace, C. B. Wood park looks like a very good target for a manageable project.

As with all wildlife areas, invasive species must be controlled to maximize wildlife benefits. In order for the park to be used as a teaching tool, guinea grass and invasive, poisonous Kalanchoe species should be eradicated from the area.

The size of C. B. Wood makes it an appropriate place to start in demonstrating to the city of Harlingen how a nature park can be appropriately managed for flora and fauna.

For many years, seed from such high-nitrogen browse species as Oreja de Raton, *Bernardia myricifolia*, PDST p208, was collected from C. B. Wood park by several native growers and my team of volunteers. A good-sized colony produced ample, large and viable seed for revegetation seedlings. This species is such a favorite of deer and other browsers that seed is often difficult to find in the wild.

The wealth of diversity which that small park held ranged from native grasses, several small species of cacti, David's Milkberry (PDST p369, which primarily occurs in Sabal Palm Grove), Texas and Mountain Torchwood, PDST p375, two species of Tillandsia (ball moss, PDST p28-29) in great numbers, Hogplum (PDST p364, which we've had little success growing in Ramsey Park), and surprises around every corner. Mike Heep and I have crawled under the least thorny bushes to discover what is growing off the major trail, and I've been lost, bitten and thorny in doing so more than once. It was great!

Preserving a small parcel of exceptional diversity is counter to recent USFWS land acquisition. For several years, newly-purchased tracts have been farm land. The goal has been to create a continuous wildlife corridor along the Rio Grande. With an enormous border fence and ultra-high crime, how well can wildlife fare on the "river?"

In a mature parcel of diverse natives, one has no idea of the diversity of seed and root stock remaining in the ground. Research has shown that some seed can germinate under the proper environmental conditions after hundreds of years in the ground.

Land which has been repeatedly tilled and treated with herbicide/insecticide will not hold this latent diversity, which has built up through decades of drought, extensive flooding, and the "hard" freezes we experience several times each century.

Consider this a call to action, not just in Harlingen, but elsewhere in Deep South Texas. Private landowners hold vital keys to preservation.

Photo left: Esenbeckia runyonii. PDST p376. Only about a dozen wild specimens are found in the U.S., only in Cameron County.

The Search for Esenbeckia runyonii.

It has come to the attention of Mike Heep that specimens of Runyon's Esenbeckia have been sighted from a San Benito resaca.

This is one of the most beautiful and rare plants of Deep South Texas, occurring in well-drained areas which receive adequate moisture. This is a member of the citrus family, with smooth triplets of leaflets, beautifully-splotched grey bark, no thorns, and a very unusual fruiting structure.

It looks so much like an ornamental tropical that I pulled mine up by mistake, realizing what I had done far too late.

Heep is attempting to ascertain who owns the land where these specimens grow and gain permission to explore the area.

Esenbeckia represents not just one rare species, but is a poster child, perhaps, for resaca bank diversity. Most of our resaca surroundings have been converted to building lots, with mown carpet grass extending to the water's edge and often sporting bulwarks between the land and water.

If Esenbeckia occurs in an area, there may be a wide complement of other diversity present, ranging from grasses, forbs, groundcovers, wildflowers, cacti, vines, trees and shrubs.

Heep has an ample stock of propagated Esenbeckia available at his nursery.

So if Heep has a nursery full of this plant, why is it so important to muck around looking for more of them growing in the wild?

Genetic diversity.

You've all heard of zoos exchanging rare animals (or their semen) to preserve as much genetic diversity as possible in endangered animal populations. The same principle is just as important in plant populations, especially in rare ones.

This is why I continue to collect seed from as many places as possible, even if I already have a garden full of Tropical Sage or anything else.

And I share seed with as many growers as possible. Which brings me to the Lovegrens.

James & Suzie Lovegren & family.

The Lovegrens, of San Benito, began growing native seedlings when one of their sons undertook an Eagle Scout project. It has become a family business. When seed or fruit is plentiful in my yard or at Ramsey Park, I send them an email with details regarding where to pick. They're always quick to respond, and have grown thousands of seedlings for USFWS. They've also been generous donors of plants for Ramsey Park. You can contact them at:

<sulovegren@gmail.com>
<JLovegrenww@gmail.com>

Photo left: Brush Holly, another native shrub of resaca banks. Tasty small, dark berries are especially abundant during winter, when few native fruits are abundant. PDST p274.

Opportunity is Raining Down Upon Us in mid-April of 2015!

I cannot remember another year when the opportunity to revegetate, extirpate invasives or work outdoors has been so marvelously abundant. Verdant new leaves are everywhere and fruits are abundant. Some plants sport blooms, new foliage, and mature and immature fruits simultaneously. Blooms are large and of magnificent colors! Even the guinea grass, in new growth, is easier to cut or kill now than in later, tougher stages of seedy growth.

Fruits of Chapote, TX Persimmon, PDST p205.

Ebano, TX Ebony, PDST p242.

Prickly Pear Bloom, PDST p170-171.

Cenizo, PDST p386. Widely-accepted in landscaping.

Sierra Madre Torchwood, PDST p375.

Granjeno, PDST p408. (Assymetrical leaf margins.)

LRGV Native Plant Sources

See also our Sponsors on right

Perez Ranch Nursery
(Betty Perez & Susan Thompson)
12 miles north of La Joya, TX
(956) 580-8915
<PerezRanchNatives@gmail.com>

Please be aware that the following vendors may also sell non-natives.

NABA Butterfly Park
Old Military Hwy/3333 Butterfly Pk Dr
Mission, TX 78572
office (956) 583-5400
Marianna Trevino Wright, Exec.Dir.
cell 956-648-7117
<marianna@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:

Williams Wildscapes, Inc.
(**Allen Williams**)
750 W Sam Houston
Pharr, TX 78577
(956) 460-9864
[www.williamswildscapes.com]

Landscaping, Etc. Inc.
Noel Villarreal
125 N. Tower Rd, Edinburg
956-874-4267
956-316-2599

Sponsors (Native Plant Nurseries)

Heep's LRGV Native Plant Nursery
Owned and operated by Mike and Claire Heep
We grow plants suited to landscaping
and revegetation in south Texas.
1714 S. Palm Court Drive, Harlingen, TX 78552
(956) 457-6834 <heepsnursery@gmail.com>
[www.heepsnursery.com]

Come visit the VNC:
301 S. Border Ave.
Weslaco, TX 78596
(956) 969-2475
info@valleynaturecenter.org
www.valleynaturecenter.org

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-**Native Plant Nursery**-Meeting Room-
-Environmental Education and Exhibit Hall-

NPP Board & General Meetings
held at Valley Nature Center
(see ABOVE)
(Fourth Tuesday each month)

Board Meetings 6:30pm
— Speaker 7:30pm.

Meeting Dates for 2015:
May 26, Sept.22, Oct.27, Nov. 24.

Photo above: Blue-Wing Adelia (*vaseyi*) with 3-lobed fruiting capsules. This plant is typical of Arroyo Colorado brush, and occurs in few other parts of Deep South Texas. PDST p207.

Notes from the March board meeting:
An updated version of NPP's "Native Trees" handbook is in the planning stages. The Board will collect good photographs, both entire trees and close-ups, to replace those in the Trees handbook. The updated version of "Native Trees" will appear only on our web site, it will not be reprinted. Suggestions were to add large shrubs to the trees, to include Joe Ideker's keys to the 28 trees; and to add growing information. All handbooks will be on-line only, once remaining stock is depleted.

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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Please mail this form with dues check payable to:
Native Plant Project, POB 2742, San Juan, TX 78589-7742

TO:

NPP January meeting/speaker on:

Tues., April 28th, 2015: at 7:30pm

The Native Plant Project will present:

"Growing Native Plants from Seed"
by Betty Perez

Perez Ranch Nursery started growing trees and shrubs for U.S. Fish and Wildlife Refuges in 1997. The nursery has expanded since then, and is now open to the public. Betty will share their secrets and admit their failures in growing natives from seed. Finally, it's time to learn what we are doing wrong when trying to get our stubborn seeds to grow.

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

Purple-blooming Dakota Vervain, PDST p413 and Indian Blanket, PDST p100, are fairly common local wildflowers. Unfortunately, most wildflowers are taken down in their prime by mowers. Is there any hope that we can change mowing patterns in the foreseeable future? Aren't these prettier than mown grass? Established from seed.

Inside this issue:
Data from Douglas Tallamy's:
"Bringing Nature Home: How You Can Sustain Wildlife with Native Plants"