The Sabal

November 2015

Volume 32, number 7

In this issue:

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

NPP November meeting/speaker: **Tues., Nov. 24th, 7:30pm**
at **Valley Nature Center**,
301 S Border, (in Gibson Park), Weslaco. 956-969-2475.

"USFWS Role in Recovery of South Texas Rare Plants"

Our presenter, Kim Wahl, (photo right) a Plant Ecologist for the Lower Rio Grande Valley National Wildlife Refuge (LRGVNWR), oversees the endangered plant conservation program on lands owned and managed by LRGVNWR. She oversees the invasive plant management program and burned areas rehabilitation program as well. Kim has worked for Neal Smith National Wildlife Refuge, Chicago Botanic Gardens, and Badlands National Park.
Kimberly Wahl-Villarreal, Plant Ecologist, LRGVNWR, ofc: 956-784-7580

Below: **Falfurrias milkvine,** *Matelea radiata*. This is a rare plant. See p7 for an enlargement of the flower.

Lower Right: Rediscovered Matelea species for Deep South Texas: *Matelea radiata*, photographed by Al Richardson at the Santa Margarita Ranch on May 21, 2010. This species is not included in PDST. Texas endemic. Usually found in the Rio Grande Plains. (See Correll & Johnston p1239)

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.

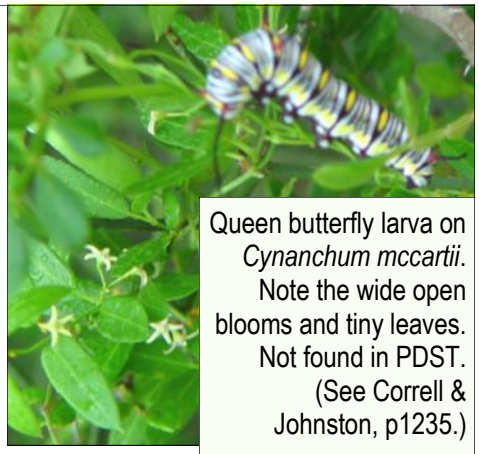
Change of address, missing issue, or membership: **<bwessling@rgv.rr.com>**
President - Ken King - <wk_king01@yahoo.com>

The Monarch Subfamily and Deep South Texas Milkweeds.

Monarchs, Soldiers and Queens are members of the Subfamily **Danainae** (the Monarchs). They are members of the Brushfooted Butterflies (Family **Nymphalidae**).

There is great interest throughout the U.S., Canada and Mexico in providing "gardens" or habitat for Monarch butterflies. Their great migrations are legendary and visits to their winter roosting spots in Mexico are high on the list for places to visit.

According to Brock & Kaufman, ***Butterflies of North America***, "Nonmigratory populations (of the **Monarch**, *Danaus plexippus*) may be found breeding year-round in areas such as southern Florida and Texas." **Thus, our gardens must provide year-round nectar and host-plants to keep the Monarch population stable or even to help Monarch populations increase.**



Queen butterfly larva on *Cynanchum mccartii*. Note the wide open blooms and tiny leaves. Not found in PDST. (See Correll & Johnston, p1235.)

Each member of the Subfamily of Monarch butterflies utilizes members of the Milkweed (**Asclepiadaceae**) family as a host plant. All milkweeds have a thick white sap containing substances poisonous to birds and mammals.

The name "milkweed" comes from the plants' milky sap that contains latex and a toxic alkaloid, a cardiac glycoside, with adverse effects on birds or mammals which consume milkweed plants or the larvae which consume milkweeds. Chemicals derived from milkweeds also make the adult butterflies extremely distasteful to most predators.

The **Viceroy** butterfly (of a different Subfamily) uses willows rather than milkweeds as a hostplant, but is often avoided by birds due to a strong resemblance (***mimicry***) with Milkweed butterflies.

Mike Quinn has created an excellent resource on butterfly nectar and host plants for the LRGV. He indicates that **Monarchs use the following native milkweed species as hostplants**: *Asclepias oenotheroides* (Zizotes), *Matelea reticulata* (Pearl Milkweed Vine), and *Sarcostemma* (now *Funastrum*) *cynanchoides* (Climbing or Twining Milkweed Vine, often considered a garden pest).

Monarch larva on Tropical Milkweed, *Asclepias curassivica.* This exotic species is often planted and eaten quickly!

Monarch eggs on blooms of Zizotes. Both photos taken by Berry Nall.

Queens (photo left) are often mistaken for Monarchs, and they are beautiful indeed. We typically have hundreds of Queens and just a few Monarchs at any given time. In our area, Queens may be present and flying year-round, often reproducing three broods within a year. Male Queens seek out flowers such as *Eupatorium* (mistflowers) and *Heliotrope* to obtain certain alkaloids that they require for breeding. (This probably explains why Queens are even attracted to cut stems of the Indigo Heliotrope.) According to Quinn, Queens lay their eggs on: *Cynanchum (2 spp.)*, *Matelea reticulata*, and *Sarcostemma* (now *Funastrum*) *cynanchoides.*

Soldiers (photo left) generally occur where Queens are common (Deep South Texas, for example). They are typically seen in late summer and fall. Quinn lists *Cynanchum* (2 spp.) and *Sarcostemma* (now *Funastrum*) *cynanchoides* as hostplants for the Soldier.

Mike Quinn's guide is found at: [http://www.naba.org/chapters/nabast/plants_info.pdf]. I highly recommend downloading it if you have an interest in butterflies and butterfly gardens. At 10 pages, it was too comprehensive to reprint here. Sunlight requirements, nectar quality and bloom period are included.

Asclepidaceae (Milkweed Family) Genera & Species in Deep South Texas

Native milkweed species vary greatly from one region of the country to another. And some publications unwittingly proliferate biased ideas about how many species of milkweed we have in Deep South Texas. This recently-released, free downloadable manual, for example, *may seem to include every milkweed*:

Identification of Milkweeds (Asclepias, ...) in Texas.

Compiled by Jason Singhurst and Ben Hutchins <jason.singhurst@tpwd.state.gov>, <ben.hutchins@tpwd.state.gov>, Texas Parks and Wildlife Department Austin, Texas and Walter C. Holmes <walter_holmes@baylor.edu> Department of Biology, Baylor University, Waco, Texas.

The authors of this manual are requesting additional photographs documenting occurrence of Asclepias spp. as well as those which illustrate definitive characteristics of each species. This document is a free download at:

[https://www.wildflower.org/plants/TPWD-Identification-Milkweeds-Texas.pdf]

From the title, one might assume that every milkweed species native to our area is included. **This is not the case**. Only milkweed species in the genus ***Asclepias*** are found in this manual. A close look at the title makes this obvious. You may find this manual helpful in identifying several of the milkweeds which are uncommonly or rarely encountered in our area. Detailed photos are printed for each species included. Floral and fruiting structures are well-illustrated on pp4-5.

Below: Page #s for the Asclepias spp. included precede the 6 listed species from Deep South Texas:

p10 **Tropical milkweed** *Asclepias curassavica* (naturalized) PDST 73 introduced from American tropics, is available at many big-box nursery departments. *(This species definitely attracts Monarchs. There was a scare about planting this. It has been debunked by an article in "**American Butterflies, Vol. 22 #4, Winter 2014, pp 4-10: "Tropical Milkweed and the injurious effects of well-meaning people, by Jeffrey Glassberg.)* Unfortunately, many assume this is the only "Monarch" milkweed to plant.

p 11 **Emory's milkweed** *Asclepias emoryi* PDST 74 Hidalgo, Starr

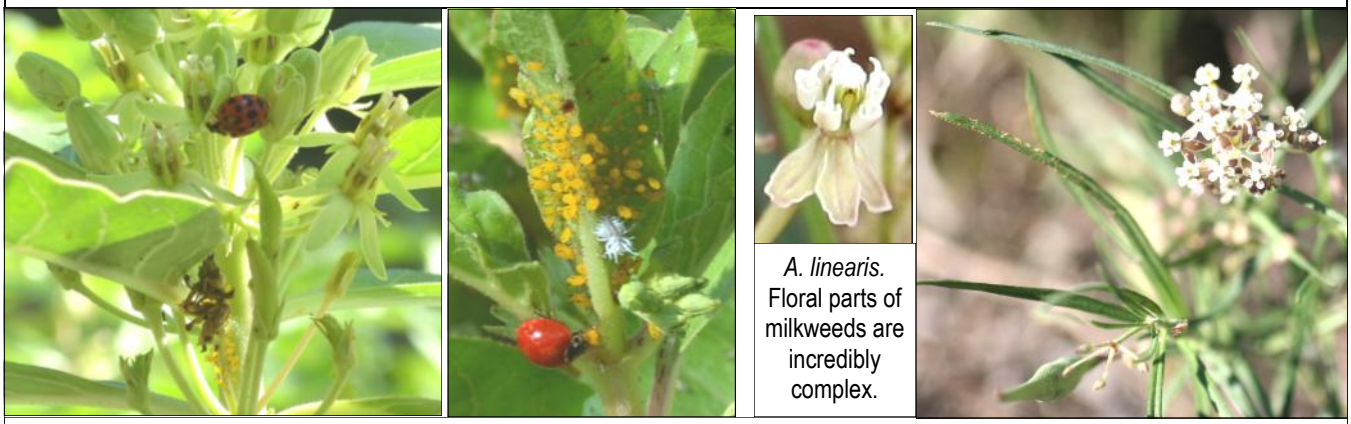
p 18 **Slim milkweed** *Asclepias linearis* PDST 74 Cameron, Hidalgo, Willacy (see photos below right)

p 22 **Savannah (Pineland) milkweed** *Asclepias obovata* PDST 75 Willacy

p 23 **Prairie, Zizotes** *Asclepias oenotheroides* PDST 75 Cameron, Willacy, Hidalgo, Starr (photos left)

p 24 **Prostrate milkweed** *Asclepias prostrata* PDST 76 Hidalgo, Starr. Globally rare.

Plants of Deep South Texas (pp 73-81) lists 14 native species of milkweed found in our area. Only five species, 36%, are in the genus *Asclepias*. Nine species, roughly 64%, are from other genera: *Cynanchum, Funastrum,* and *Matelea.* Those nine species will be the focus of pages 5-6.



A. linearis. Floral parts of milkweeds are incredibly complex.

L: Anita Westervelt shots: insect diversity on *A. oenotheroides*. R: Al Richardson shots: *A. linearis*, floral structure, overall.

There's a craze to grow milkweeds —
This author, over many years, has attempted to plant seeds from every milkweed species I can collect ripe seedpods from. Many others are doing the same. It's important to follow ethical guidelines for seedpod collecting. If not, we are diminishing milkweed diversity, not increasing it.

Green Seedpods Will Not Mature if Collected!
Green seedpods do not contain viable seeds, nor will they, ever, if removed from the living plant. If collected, green milkweed pods will simply mold, rot, or dry up into tissue which doesn't contain any seeds.

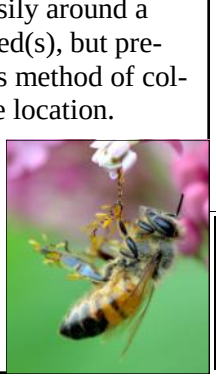
Seedpod Collection is Tricky. You need a brown, hardened seedpod. **Brown, hardened seedpods are ripe and ready for picking.**

Store ripened pods in paper bags (not plastic or glass).
If a paper bag is large enough, it can be closed at the top and shaken to release the seeds from the fluff (which is very messy if it's flying around indoors). When you hear a lot of seeds rattling around on the bottom of the bag, cut open one corner and pour the seeds into a smaller paper bag or envelope. Paper doesn't hold in enough moisture, usually, to mold the dry, brown, mature milkweed seeds.
You can release the fluff somewhere outdoors, for nest-building birds.
For long-term storage you may want to store the seed envelope inside a closed container to which a **Hot Shot No-Pest Strip** has been added. This will help to keep any unnoticed insects from devouring your seeds before you're ready for planting.

Please leave some seedpods in place, especially if the species is uncommon and especially if growing in an unusual habitat.
Uncommon species often grow in habitats very different than our common cultivated gardens. Many grow in sandy drifts or the caliche and gravel of the western "valley." It's unlikely that you can duplicate the drainage, rainfall, humidity, sunlight or wind conditions in the typical garden plot of rich humus.
If some seedpods are left in place, chances are good that new plants will grow, in time. The plant has existed in that habitat for a good many years. Also consider donating ripe seedpods from uncommon species to a local grower near you. They will have the highest chances, in general, of propagating the ripened seeds into milkweeds.

Hints on "Saving" Green Seedpods to Pick Later: Camille Rich shared this idea with Ken King. The small organza bags shown above are for sale at Dollar Tree stores in the Baby Shower section. Other sizes are available at larger floral supply stores. The bags close easily around a maturing seedpod, and allow airflow around maturing seed(s), but prevent them from flying off or dropping to the ground. This method of collecting ripened seed is great when the plant is in a remote location.

Why aren't my milkweeds producing seedpods?
On the right is a bee, dangling from a milkweed bloom. The yellow objects stuck on the legs are pollinia sacs, which are magnified in the photo, further right. It requires strength to remove these sacs, and special pollinators. Many insects lose their lives attempting escape.



Above: *Matelea reticulata*, **Pearl Milkweed**, bearing an unripe seedpod. Inset is the lovely bloom. The middle of this bloom resembles a small pearl. Transplants well. PDST p80.

Below Right: Ripe milkweed seed-pod releasing fluffy seed.

Below Left: organza bags at Dollar Tree.

Cynanchum

Narrow-Leaf Swallow Wort. *Cynanchum angustifolium,* Boca Chica beach. Perennial, somewhat succulent twining vine. Western Hidalgo & Willacy County. Uncommon. PDST p77.

Left: Thicket Threadvine. Teeny-Tiny Wiry Vine. *Cynanchum barbigerum.* Blooms are bell-shaped, with tiny "petals" curling back. This is a common vine in many stands of brush throughout deep south TX. Used as a host plant by Queens. The tiny size and wide range of this pretty vine would make it perfect for growing in cultivated native gardens. PDST p77.

Compare blooms of *Cynanchum mccartii,* top photo p2.

Talayote. *Cynanchum racemosum* var. *unifarium*. Deeply cleft leaf above. Bloom clusters below. Blooms spring thru fall. Cameron, Hidalgo and Starr counties. Typically grows very tall, climbing into shrubs and trees. PDST p 78.
Established from direct-sown seed in Ramsey Pk.

Funastrum

BELOW**: Climbing Milkweed.** Umbrella-bloom heartleaf Milkweed**.** *Funastrum cynanchoides.* Most people consider this milkweed vine to be a nuisance, because it comes up in many cultivated gardens. It is perfect for covering a chain link fence or a brush pile. A great variety of pollinators and nectarers visit this plentiful and fast-growing vine. Root is fleshy. PDST p79. Photographers include Javi Gonzalez and Juan Chavez. Far Left: Queen larva. Far right: Crab Spider catches a Skipper.

Funastrum, continued

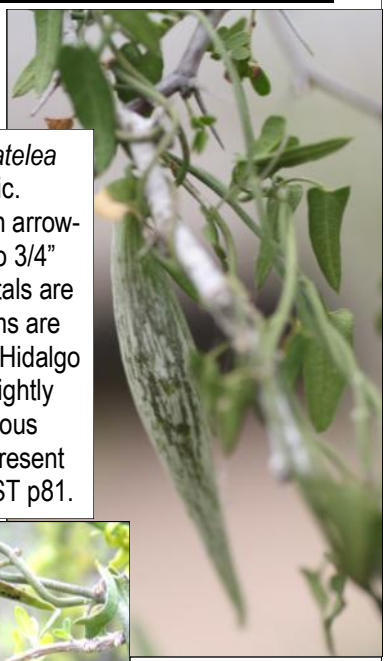
Wavy Twine Vine. *Funastrum clausum.* Perennial twining vine found growing in low areas near water. Spring-fall fragrant bloom clusters. Petals are hairy. Cameron, Hidalgo & Starr counties. Produces runners along the ground for 20' or more. May produce massive curtains of growth over shrubs and trees. Editor's name for the vine: "Thin Leaf." PDST p78.

Matelea

Rio Grande Plains Milkweed. *Matelea brevicoronata.* Hairy, prostrate perennials. Small clusters of greenish corolas. Knobby seedpods. Spring thru fall blooms. Hidalgo and Starr counties. Texas endemic. Milky sap smells like burnt rubber. Has larger flowers than *Matelea parviflora.* Also resembles *Asclepias prostrata*, which has even larger flowers. PDST p79.

Pearl Net Leaf Milkvine. *Matelea reticulata.* Relatively small, well-behaved vine. PDST p79. **See photos p4.**

Mesquite Plains Milkvine. *Matelea parviflora.* Texas endemic. Grows in sandy soil. Stems prostrate, leaning and falling over. Leaves hairy with white venation. Tiny blooms grow in clusters, spring thru summer. Seedpods are knobby with one flat surface. PDST p79 has excellent photo of the seedpod. *Bill Carr photo. (Botanist, Acme Botanical Svcs.)*



Arrow Leaf Milkvine. *Matelea sagittifolia.* Texas endemic. Woody, twining vines with arrowhead-shaped leaves up to 3/4" long. Greenish-yellow petals are almost fluorescent. Blooms are tiny, appearing in spring. Hidalgo & Starr counties. Grows tightly around brush, inconspicuous except when flowering. Present on the Perez Ranch. PDST p81.

Most photos in this issue were provided by Dr. Al Richardson.

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>

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

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

S p o n s o r s (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 <heep0311@yahoo.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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-6 acre Nature Park & Trails -Book & Gift Shop-
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-Environmental Education and Exhibit Hall-

Upper Left: An illustration scanned from: "*Matelea radiata* Correll .... Rediscovered in South Texas" by Richard E. Rintz in *Phytologia (January 2014) 96(1).*
This is an enlarged flower of *Matelea radiata* with two petals removed to show the erect-columnar corona. The insert on lower left shows the pollinarium (about 1 mm long), which allows fertilization by certain insects. The photo is of a flower submerged in water.

Ken King and Al Richardson also found this species on the Santa Margarita ranch in May 2010. (See photo on p1.)

Left: The intact bloom, with vine and leaves for size comparison. Photo by Bill Carr (Austin, TX, Acme Botanical Services.)

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

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

Meeting Dates:
No meeting or Sabal in Dec.

2016 meetings: Jan. 26, Feb. 23 , Mar. 22, Apr. 26, May 24

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 May meeting/speaker:
Tues., Nov. 24th, 7:30pm

"USFWS Role
in Recovery of South Texas Rare Plants"

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

In this issue:
Asclepias spp. are not our only native milkweeds. Cynanchum, Funastrum, and Matelea species are in the family **Asclepiadaceae**, the Milkweeds. Each of these may be a larval hostplant for the Monarch, Queen and/or Soldier.

Asclepias prostrata, Globally rare. Al Richardson photo. Growing in gravel/rocks. PDST p76. Hidalgo & Starr Counties. Fairly uncommon in deep south Texas. Usually in sandy soils.