The Sabal

September 2014

Volume 31, number 6

In this issue:

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

September 2014 Mtg., Native Plant Project:

Tues., September **23rd, 2014**: **at 7:30pm**

The Native Plant Project will present:

"Sea Beans" by ***Diann Ballesteros*.**

Occasionally tiny travelers carrying history, mystery, and myth come ashore on the beaches of South Padre Island. These small drifters are called sea-beans or drift seeds. They are actually seeds or fruits carried by ocean currents from near and far. Where do they come from? What are they? Do they have any practical uses, and what have sea beans to do with Christopher Columbus?

Diann Ballesteros is a retired HCISD elementary school teacher. After retirement she began a decade long involvement with various nature organizations. She is still active in NPP, PI/SPI Shell Club, and the Harlingen Neighborhood Food Pantry. Above all she loves beachcombing.

Join the NPP as Diann Ballesteros throws some light on Sea Beans.

The meeting is held at:

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

Photo above: Queen larva, *Danaus gilippus,* on milkweed vine. (Note the red markings on this larva, which distinguish it from the monarch larva.)
Photo by Berry Nall. 7/25/12.

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>

Vines, Milkweeds, Seeds, Butterflies & Native Plant Diversity —*by Christina Mild et. al.*

The recent decline in numbers of migrating Monarch butterflies has been a hot topic in the press, ranging from articles in nature magazines, to nation wide TV and local newspapers.

We're being urged to collect milkweed seed and to plant native milkweeds, to further milkweed/Monarch populations.

Two excellent articles by **Cathy Downs** on collecting, cleaning, storing and propagating milkweed seeds are included in this issue**.** We are very thankful that Ms. Downs has graciously allowed the reprinting of both articles.

In discussing this issue's topic with Ken King, several related topics came to light. **One is the issue of vines and their place in native diversity.** Only recently, Ken had some major difficulties convincing Valley Nature Center cohorts that vines should not be removed from the nature park as a "clean-up" measure. In many minds, vines are seen as "too messy," even for "natural" areas.

Above: **Pearl Net Leaf Milkvine**, *Matelia reticulata,* PDST p 80, blooming beneath Live Oak canopy in Mild's front yard. Below: Photo by Dr. Al Richardson of the same species with a developing "knobby" seedpod.

Seven milkweed vines occur among the 14 native milkweed species included in Plants of Deep South Texas. Thus, removing vines from any natural area constitutes an approximate risk of removing half the native milkweed diversity.

Berry Nall added this excellent point: "It might be worth mentioning that the **vines provide a MUCH larger part of the butterflies' food supply: vines have far more leaves per plant, and at least out west are more abundant than the other species**." Berry devotes much of his time to photographing butterflies, their development, and the native flora of the western LRGV. He also sent wonderful photos to include in this edition, from tiny eggs to munching larvae, all of them on milkweed.

At Ramsey Park, I made it a practice to pull up the fleshy roots of vines which were growing in unwanted places, in order to establish those same vines in other areas. For example, the Climbing Milkweed, PDST 79, photo p 1 (stinky twine vine is my common name for it) and Possum Grape, *Cissus incisa*, PDST 424, quickly covered any "rare" shrub or tree we ever watered! Elsewhere in the park were many ugly brush piles which were much-improved in appearance and wildlife value when vines grew to cover them. I rarely took the trouble even to "plant" the fleshy roots of those two vines. They grew just fine and rather quickly when I tossed them on the ground alongside a brush pile.

Milkweed species are utilized by a very wide host of invertebrates beyond Monarchs. While it isn't common to see a Monarch flitting about locally, we have lots of Queens and sporadic spottings of Soldiers, two other "Milkweed Butterflies," of the subfamily Danainae. Though common here, **Queens are pretty special; they're uncommon in most of the U.S.** (Queen Butterfly photo: p 7 Heep's ad.)

Insects are not alone in utilizing vines. For example, Chachalaca chicks are dependent on vines to ascend the forest canopy for protection and descend to find food (like pigeonberries) until they're able to fly.

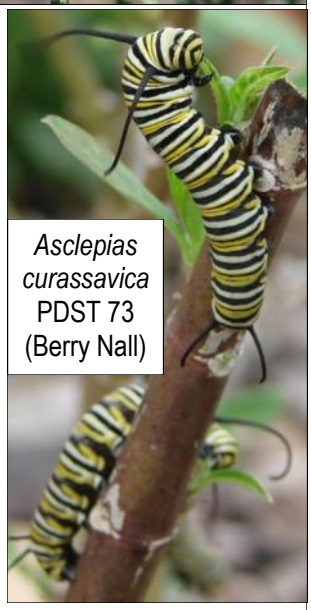
We haven't been all that successful at propagating the wide diversity of locally-native milkweed species! If you're lucky, you might be able to buy about 3 or 4 milkweed species from any given native plant propagator. Thus, the need to preserve what diversity remains must be reemphasized. Since few of us live in close contact with many of these unique milkweeds, our knowledge of how they fit into the overall environmental scheme is extremely limited.

Al Richardson points out that Jann Miller grows Slim Milkweed, *Asclepias linearis,* as a beautiful pot and garden plant. Native grower Mike Heep has had some success in propagating this erect perennial, which reaches a height of about 24" and is endemic to Texas. This narrow-leaved milkweed occurs in Cameron, Hidalgo and Willacy counties. (Right: Photo taken on Coffee Port Rd., Brownsville.)

Asclepias linearis PDST 74 A.Richardson

I've been growing Pearl Milkweed Vine, PDST p80, (see photos p 2) since 2006 or earlier, having never seen a seedpod on it, in my own yard or elsewhere! This is one of the best-behaved vines I've encountered; in my experience, it doesn't overwhelm other plants in the vicinity.

Mike Heep's milkweeds sell out as quickly as he propagates them. The beautiful yellow-orange blooming *Asclepias curassavica* (photo p 7) is a popular favorite with butterfly gardeners. It's a hard plant to keep in "prime condition." It's quickly denuded by **Monarch caterpillars, *Danaus plexippus,*** as illustrated in the photo on the right by Berry Nall, taken 3/29/07.



Asclepias curassavica PDST 73 (Berry Nall)

Heep also grows *Cynanchum racemosum,* Talayote, PDST p 78 (not illustrated here). This twining vine with deeply-cleft large heart-shaped leaves grows beautifully in sunny locations, and is wonderful to cover large brushpiles. Because it often grows high into trees, collecting seedpods can be quite a challenge.

Asclepias oenotheroides is sold faster than Heep can keep it in stock. This is "common" Prairie Milkweed, which is becoming far less common as every vacant lot and roadside are mown and scraped to sparse green nubs. Berry Nall provided the close-up photo seen here on the left. The hairy nature of this erect, 18" high milkweed shows in great detail in the photo. Note the two tiny, white monarch eggs, deposited on the developing flower buds, enclosed by a red oval.

Above left: *Asclepias oenotheroides,* Prairie Milkweed, PDST 73. Sept. 21, 2010.
Above middle: Two monarch larvae, with a shed exoskeleton (see red arrow) between them, chewing on the same plant species, on the leaf underside. Berry Nall photos.

Above: Rio Grande Plains Milkweed, PDST 79, *Matelia brevicoronata.* Milkweed blooms are quite variable in appearance. Photo by Al Richardson, taken 4/29/07.

Berry Nall photo 10/1/10

In Berry Nall's photo on the left, a Queen larva is chomping away on a small-leaved, twining vine: *Cynanchum barbigerum*, Thicket Threadvine, PDST p 77, another milkweed Heep has propagated with some success. This is a common vine in south Texas brush, often growing on prickly pear, as shown in the second photo on the left. Note blooms and seedpods. It's hard to imagine this tiny vine (shown almost life-size in these photos) becoming a pest.

It's very helpful to know what our native milkweeds look like. The photos in Plants of Deep South Texas on pages 73-81 will give you a very good idea of what to look for when you wander afield.

Right: Soldier, freshly-hatched, *Danaus eresimus*. A less common "milkweed" butterfly which occurs locally. C. Mild photo.

Collecting Milkweed Seeds—*by Cathy Downs*

Collecting and distributing milkweed seeds responsibly insures a healthy milkweed habitat population. There are also the additional benefits of opportunity for education and developing relationships with private landowners and communities.

Collect only your native or regional seedpods. Leave some pods in the area you are collecting to insure the plants continue to propagate and thrive in that area. A good rule of thumb is to take 1/3 and leave 2/3.

Positively identify the plant before collecting the pods. Milkweed seeds look alike in most species and are very difficult to identify by the seed alone. Mark the collecting container with your name, the date, species common name, species botanical name, and the location of the collection. For instance: Cathy Downs, 5/24/14, Antelope Horn (Asclepias asperula), Kendall County, Texas.

Collecting is usually done on private lands, public right of ways and roadsides. When collecting milkweed seeds on public right of ways and roadsides remember safety first! Park in an area where there is no chance of disrupting traffic or putting yourself in harm's way. Do not collect in areas near or around development or private gate entrances without permission. Curious onlookers and officials may stop to discuss or inquire about this roadside activity. Take the opportunity and the time to explain politely what you are doing and why. You may even be joined by these curious folks in your efforts or directed to additional areas where they have spotted some of these treasures.

Private property collection always requires permission. As milkweed ambassadors we can not afford to alienate the private stewards of these habitats with any property infringement or trespassing issues on our part.

All milkweeds will put out a pod of some sort. The shape and surface texture may vary but the pods will all look similar.

When collecting pods be sure and have a dry cardboard box or paper bag to put the pods in. The milky sap is very sticky and fresh milkweed pods can mold very quickly. You can line the box with newspaper. Do not pick a pod before its time. The seeds will not ripen in the pod when taken from the stem of the plant too soon. The seeds should be dark in color. Green or pale seeds are not ripe and will not propagate. You can remove the pod with a scissor or snips. Be very careful not to get any of the milky sap in your eyes or on your skin. Wash your hands thoroughly and often when handling milkweed. *Editor's Note: A guard cat might be quite helpful!*

Never harvest a pod until you see the seam of the pod straining or beginning to split. Be sure the pod is free of all flies, milkweed beetles and other seed eating pests. The pod will usually darken with maturity turning to a dark bark or mahogany color. Watch the seam on the milkweed pod which will start out thin and difficult to see, eventually widening and turning pale. On maturity the pod will begin to split.

If you have a surplus of seed in your collecting region you have several choices. You can share the seed with your local or regional communities and schools, distributing out of your home, or you can ship the seed out for redistribution to other areas of need. I get many requests from Texas gardeners, individuals, schools and first time Monarch habitats for regional seed. There are also non profit and for profit growers and nurseries looking for native milkweed seed. Monarch Watch accepts seed from all over the nation to propagate with their partner nursery and then offers the plugs for sale at cost. [www.monarchwatch.org].

We are beginning to see a market develop in the commercial nursery industry for native milkweeds. If distributing seed to a commercial enterprise, it is imperative we distribute only to those growers who have a reputation for non systemic pesticide use. Native American Seed in Junction, TX (www.seedsource.com) now includes a variety of milkweeds in their catalogs and conservation packets which include milkweed seeds.

Milkweed seed collection is by its nature a relaxing and enjoyable past time. If we take care to show responsible collecting, storage and distribution practices we are insuring at least a stability if not an increase in healthy Monarch, insect and pollinator habitats.

If you have any questions, additional suggestions or surplus seeds for distribution please feel free to contact me.

Cathy Downs, Chair – Bring Back the Monarchs to Texas;
105 Feather Hill Road; Comfort, TX 78013; <mzdowns@hctc.net>; 830-377-1632

Milkweed Seed Cleaning, Storage and Propagation —-*by Cathy Downs*

Cleaning: Cleaning milkweed seed from the pod can be a time consuming and messy business if left for too long. It is not a task to be undertaken inside the home as the chaff tends to fly about with a mind of its own. There are a variety of ways to separate the seed from the chaff, or fluff. If you were able to pick the pods before they split wide open the following method is easiest. Open the pod at the seam and grasp the silk together firmly by the tip. Gently lift the seed and silk from the pod with one hand. Then you can literally "tickle" the seeds into the palm of the hand or a container by sliding your fingers along the silk from top to bottom with your other hand. Keep a firm grasp at the top and continue sliding the hand down as seeds come away. A fellow Monarch Conservation Specialist, Candy Sarikonda, put out this you tube video describing this method in detail. Our milkweed pods tend to be dark in color but the pod she is using is from the Common Milkweed (*Asclepias syriaca*) and looks green to us.

Although the pods look different the method will be the same.

[http://www.youtube.com/watch?feature=player_embedded&v=aFXWitrxOmQ]

If you were not able to get to the pods before they burst open you can empty the seed and chaff from the pods into a brown grocery bag and shake the contents repeatedly. The ripe seed will fall to the bottom and you can release the fluff through the top of the bag. Just tear a slight hole in the bottom corner of the bag to release the seed into a tray or container. I find this method less time consuming and more effective than any other methods. I do the releasing out in my meadow in case there are still a few seeds attached.

Other methods I have heard of include burning the seeds to remove fluff. After a test for germinating success by the author, however, it was decided that the burning method destroys seed germination (and it's a little dangerous…fluff is very flammable) some folks put it through a vacuum cleaner; some have fancy equipment that churns the seed. You can find several of these methods and engineering diagrams on the internet. Personally, I like to keep it simple.

Storage: If you don't have the time to glean the seed right away milkweed pods should be dried thoroughly for at least an hour in a paper lined flat tray to discourage mold. The pods once dry can be stored in brown paper grocery bags until cleaning time. You can use the same bag to separate seed as above. Just be warned when you open the bag to begin cleaning. Fluff will be all the way to the top. Clean seed should be kept stored in paper in a cool dry place. I use lunch size brown bags, fold the top over, staple shut and write the specie common and botanical name, date and county location of origin.

Propagation: There are many methods, videos and essays on propagating milkweeds. The one common thread seems to be the vernalization or cold stratification of the seed. Monarch Watch details vernalization and scarification as follows:

Vernalization: Seeds of most temperate plants need to be vernalized, which is a fancy way of saying that they need cold treatment. The best way to give the required vernalization is through stratification. To stratify seeds place them in cold, moist potting soil (sterilized soil is best but is not required) in a dark place for several weeks or months. Since most people prefer not to place potting soil in their refrigerators, an alternative is to place the seeds between moist paper towels in a plastic bag. This procedure works well, in part because there are fewer fungi and bacteria available to attack the seeds. After a vernalization period of 3-6 weeks, the seeds can be planted in warm (70˚F), moist soil. Without vernalization / stratification, the percentage of seeds that germinate is usually low. "Shocking" seeds that have been refrigerated by soaking them in warm water for 24 hours also seems to improve germination rates. *(Editor's Note: Ken King comments that the vernalization requirement applies only to northern milkweed species, not to those native here. What a relief! This process sounds like a lot of work!)*

Scarification: Even after vernalization / stratification, seeds of many plant species will not germinate. In these cases, the seed coats appear to require action by physical or chemical agents to break down or abrade the seed coat. "Scarification" with some type of physical abrasion that breaks the seed coat usually works and can be accomplished by placing the seeds in a container with coarse sand and shaking the container for 30 seconds or so. Scarification may be required for some milkweeds and might improve the germination rates of other species.

I use a warming pad when I start my milkweeds from seed. I use 4" peat pots in starter trays as it gives the plant more opportunity to put out the all important tap root. Germination usually takes place within a week to 10 days. Once the plant shows two sets of real leaves I put the entire peat pot into a 1 gallon container with a mix of 2/3 garden soil, 1/3 potting soil and about 1/10th granite sand for drainage. This way the transplant experiences the least amount of shock. Milkweeds are notoriously tricky transplants and I find the older the rootstock the more success the plant will have. I will not put a milkweed into the ground before the rootstock is at least 10 months old or more. If you have room to winter over the gallons even better! I water only when the pot is dry to about 4".

Bobby Gendron has a great two part video that explains in detail planting methods for milkweed using a seed starting kit.

[www.youtube.com/watch?v=oGRFXb9Xe7g] Part 1

[www.youtube.com/watch?v=vcJDa6IovQ4] Part 2

I find that Mother Nature always knows best, though. Every year at the beginning of November during a light rain or drizzle I walk through my property scattering any seed I have left to the four winds. My milkweed plant count has tripled in the six years I've been doing this. Or, perhaps, I'm just paying more attention.

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>

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
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McAllen, TX 78501
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NPP Board & General Meetings
held at Valley Nature Center
(see ABOVE)
(Fourth Tuesday each month)

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

Remaining Meeting Dates for 2014:

October 28th,
November 25th

Photo above: Veintiunilla, *Asclepias curassavica.* PDST p 73. Escaped cultivar from American tropics. Very attractive to monarchs and other species of butterflies. (Gulf fritillary butterfly is nectaring.)

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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TO:

NPP March meeting/speaker on:

Tues., September 23rd, 2014: at 7:30pm

The Native Plant Project will present:

"Sea Beans" by ***Diann Ballesteros***.

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

Monarch butterflies above were photographed warming on a Tepeguaje tree at the South Padre Island Convention Center, 11/14/2004 at 10:25am on a cool morning. A fallout of migratory birds was also occurring on that date. It is uncommon to spot so many monarchs in deep South Texas. (See more about this topic inside this issue.)

This month's SABAL topic: **"Vines, Milkweeds, Seeds, Butterflies & Native Plant Diversity"**