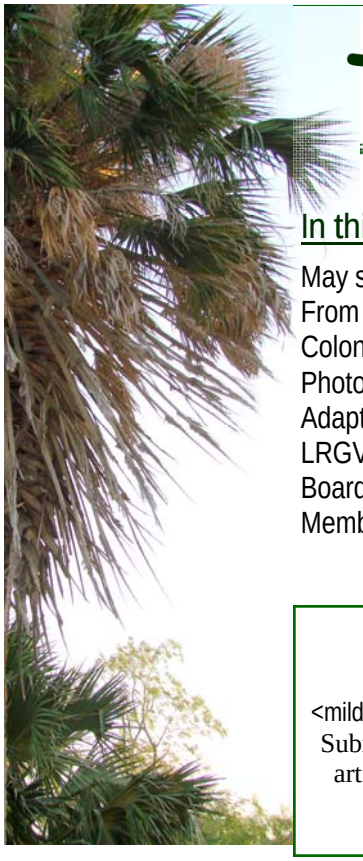


The Sabal

May 2010

Volume 27, number 5

In this issue:

Editor:
Christina Mild
<mild.christina@gmail.com>
Submissions of relevant articles and/or photos are welcomed.

May Meeting of the Native Plant Project:

Tuesday, May 25th at 7:30 P.M.

Valley Nature Center, 301 S. Border, (in Gibson Park), Weslaco.

"Wetland Shrubs**"** *by Christina Mild*

Wetland edges are some of the most important habitat for animal species. Undisturbed wetland edges have some of the greatest plant diversity to be found. Unfortunately, most wetland edges in the LRGV have been repeatedly disturbed by man. This PowerPoint-illustrated talk will present some of the woody shrubs suitable for revegetating disturbed or created wetland edges in the LRGV.

Presenter Christina Mild has lived along the Arroyo Colorado in Harlingen for over 20 years. She has been engaged in exploration and revegetation along the Arroyo at Ramsey Nature Park for over a decade. Mild is an honorary member of RGV Texas Master Naturalists. She holds an M.S. in Biological Sciences and has taught various science-related subjects to all ages.

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 - Eleanor Mosimann - (956)-748-2564; <mosimann@sbcglobal.net>

From Threatened to "Threatening"

by Christina Mild

Over time, each native species taken into cultivation provides additional data regarding response to weather, soil and other conditions. Thus, our "opinion" of any species may change dramatically over time. *Dicliptera vahliana* is a prime example of this phenomenon.

In the May 1986 issue of **The Sabal** (Vol 3 No 4), *Dicliptera* was listed as "threatened" by The Native Plant Project Endangered Species Committee. At the time, the only published record of the species' occurrence was in Santa Ana NWR.

Over the next two decades, additional locations where the plant existed came to light. In Harlingen, for example, *Dicliptera* colonies occur along several edges of Arroyo Park and Harlingen Thicket. Near the thicket, residential yards host blooming *Dicliptera* following damp weather.

Because *Dicliptera* is tall enough to compete with guinea grass, Mike Heep, Christina Mild, Ken King, Sue Griffin and others planted or recommended planting of *Dicliptera* in areas recently cleared of guinea grass. In areas remote from watered gardens, *Dicliptera* performs well as guinea grass replacement.

The "threatening" nature of *Dicliptera* becomes apparent in watered gardens, or during very wet seasons, when it rapidly invades wide areas.

For several years, I've attempted to find a regimen of herbicide spraying which would control *Dicliptera* spread, especially in such areas as beds of small-stature cacti, which are rapidly overrun. Those efforts have been extremely frustrating, as RoundUp (glyphosate) is ineffective, even on new seedlings. Even Triclopyr, an herbicide for woody plants, is ineffective. Internet searches on control of *Dicliptera vahliana* bring forth no knowledge. But searching on *Dicliptera* sheds a glimmer of light on the subject.

Authors Yuan C.I., Chaing M.Y. and Chen Y. M. in Sept. 2002 reported on three naturally-occurring mechanisms of glyphosate resistance in a related species, *Dicliptera chinensis*. (Plant Science, Volume 163, Number 3, September 2002 , pp. 543-554(12))

In light of that study, my advice is this. It is a waste to spray *Dicliptera* with RoundUp. *Dicliptera vahliana* should not be planted near garden areas which will be watered, or where plants of small stature are desired or already occur.

A number of other colony-forming native species are available and less apt to "spread like wildfire". A companion article on page 3 presents several natives which will form medium-tall colonies which do not spread so rapidly as *Dicliptera vahliana*.

RT: Larva munching *Dicliptera* leaf.

BELOW: Blooms of *Dicliptera vahliana.*

RT: Horseweed, *Conyza canadensis*, shows glyphosate resistance in some populations.

Changes in Endangered & Threatened Status: Thanks to the efforts of native plant propagators and gardeners, a number of other species have been propagated so successfully that we can report changes in status since the May 1986 list.

"Endangered" species now widely propagated:
Justicia runyonii, Runyon's Water Willow.

"Threatened," now widely propagated:
Sabal texana, Texas Sabal Palm
Coursetia axillaris, Texas Baby bonnets
Amyris madrensis, Mountain Torchwood
Sedum texanum, Texas Stonecrop
Xylosma flexuosa, Brush Holly
Heimia salicifolia, Hachinal
Chiococca alba, David's Milkberry
Tillandsia baileyi, Bailey's Ballmoss
Anthericum chandleri, Lila de los Llanos
Erythrina herbaceae, Coral Bean
Adelia vaseyi, Vasey Adelia
Cardiospermum dissectum, Rio Grande Balloonvine
Tournefortia volubilis, Twining Tournefortia
Citharexylum berlandieri, Fiddlewood

Colony-Forming Natives

Less-Threatening Selections
to Replace Invasive Grasses

—By Christina Mild and Mike Heep

It is rare that we begin revegetation efforts on a blank slate. Typically, some regimen of removing invasive grasses occurs before planting should commence.

Revegetation often involves the use of diverse species, and this is a wise move. One can hardly predict how any given species will respond to the many environmental variables, particularly to soil, drainage, wind, and moisture or the lack of it.

Planting colony-forming natives is helpful, as one hopes that plants will form strong colonies on their own, to prevent or slow down reemergence of whatever exotic grasses previously overran the area.

Early efforts to establish woody, colony-forming, medium-tall species at Ramsey Park in Harlingen included the successful planting and subsequent colonization of:

Bastardia viscosa (Photo upper right)

Paleface Indian Mallow, *Abutilon hypoleucum* (center)

Carlowrightia parviflora (Photo lower right)

Of these, Bastardia grew most rapidly, especially in full sun. Indian Mallow formed colonies in several places, and was by no means a threat. Carlowrightia took longer to spread. A decade after initial planting, Carlowrightia colonies occur in many places and volunteers continue to establish it in more locations.

Mike Heep recommends the following as additional colony-forming species:

Sacaton, *Sporobolus wrightii*

Malva Loca, *Malvastrum americanum*

Crucita, Fall Mistflower, *Chromolaena odorata*

Spring Mistflower, *Tamaulipa azurea*

(Note: Mistflowers were previously Eupatorium)

It is economical to spread Mistflowers by removing dry seedheads to scatter them to uncolonized areas. The small seeds require sunlight to germinate, and are best scattered over the soil surface.

In moister areas these may successfully colonize:

Hachinal, *Heimia salicifolia*

Canadian Germander, *Teucrium canadense* (photo p.4) (Germander, much like *Dicliptera*, rapidly becomes a pest in well-watered gardens, spreading by rhizomes.)

Native Plant Colonies Along the Lower Arroyo Trail at Ramsey Nature Park in Harlingen, mid-May, 2010.

While many plants have ceased blooming in the dry days of May, beautiful blossoming colonies are found along a low stretch of the Arroyo's banks. Abundant April rains were probably essential in creating this verdant beauty.

CLOCKWISE from UPPER LEFT:

Sea Ox-Eye Daisy, *Borrichia frutescens*, covers hundreds of square meters, attracting many pollinators. In dry soils, this daisy indicates saltiness.

Lance-Leaf Loosestrife, *Lythrum alatum* var. *lanceolatum.* Especially widespread this year, Loosestrife usually occurs in more spotty distribution along the Arroyo Colorado. Some colonies cover many square feet and are 5' in height.

Texas Frog Fruit, *Phyla nodiflora,* stands less than a foot in height. Thickened leaf, almost succulent. Found in sandy clay.

Canadian Germander, *Teucrium canadense.* Colonies up to about 4 ft. tall disappear as soils dry out.

Adaptations to Drought

(Based on an article by Joe Ideker "Strategies for coping with drought: reactions of chaparral plants to the 1989 drought," from ***The Sabal*** *Vol. 6 No. 7, November 1989.)*

April 2010 has been mainly hot and dry, accompanied by high winds. Cracks are appearing in clay soils and many plants appear wilted. We begin to worry whether they will survive.

Native species have adapted in many ways to this type of weather. Most will remain alive, although annuals may not appear again until adequate moisture is available for growth of seedlings. Dr. Al Richardson, botanist, elaborates: "Being annuals which don't need to survive vegetatively - seeds survive over long periods of time. Some seeds have chemicals preventing their germination until the chemical is washed away, sometimes requiring several seasons. Or they have a tough seed coat that gradually wears away, again requiring several seasons. These characteristics enable the species to survive a number of years as seeds during times when the plants could not grow, or would die before reproducing."

Here are other ways in plant species have adapted to dry conditions (followed by species which utilize each technique):

Reducing transpiration (loss of moisture thru leaf pores) by dropping all leaves during hot and dry periods. (*Adelia vaseyii*)

Reducing transpiration by dropping 50-90% of leaves. (Blackbrush Acacia)

Regrowing leaves when cooler and/or wetter conditions prevail. (Elbowbush)

Bearing smaller leaves than more mesic (dry-adapted) congenors (members of the same species). (Chapote, Texas Persimmon)

Bearing smaller leaves during drier seasons than during wetter seasons. (*Dicliptera*)

Folding leaves (leaflets) during hotter portions of the day and reopening during the cooler portions of daylight hours. (Mimosa Family: Mimosaceae)

Utilizing chlorophyll in twigs and stems to supplement stored food after dropping leaves (Palo Verde, Lotebush)

Developing underground storage "tanks" in root systems. (Marine Ivy)

Dying back to the roots, regrowing during next "wet" season (Sapindaceae family vines: Urvillea)

Developing thick water-retaining stems (Cacti)

Various desert-adapted plants of the lower Rio Grande Valley employ one or more of these strategies to survive drought.

Many reflect a wet/dry cycle more than they do the hot/cold seasonal cycle of temperate regions.

As humans, we have far fewer adaptations to mesic conditions. So carry water, protect yourself from the sun, and enjoy the view outside your windowpane!

TOP Photo: Unfolding leaves of Tenaza, *Pithecellobium pallens*.

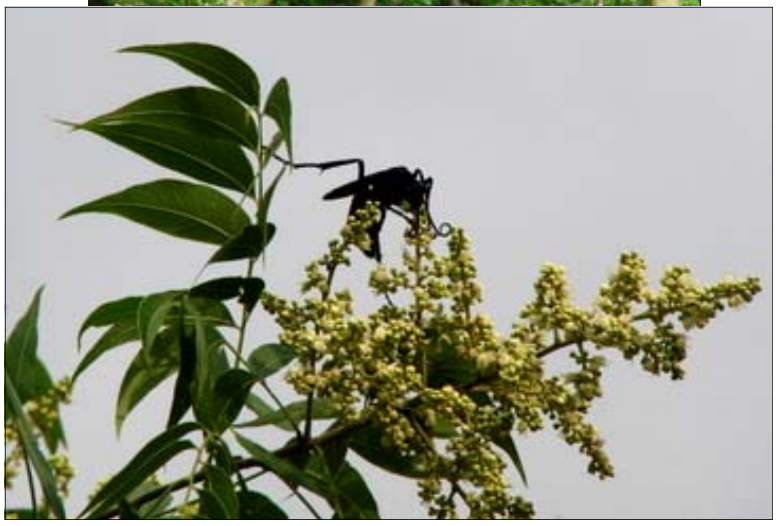
Center: *Adelia vaseyii*, almost leafless, with typical, enlarged nodes.

Bottom: Retama, *Parkinsonia aculeata,* with long, threadlike leaves, barren of leaflets. Like Palo Verde, Retama has chlorophyll-laden branches.

Blooms & Fruits of May 2010:

TOP: Swallowtail butterfly on blooming Button Willow.
CENTER: Prodigious unripe seedpods on Ebony Tree.
BOTTOM: Black bug on blooming Soapberry Tree.

(All photos taken at Ramsey Park in Harlingen, May 14, 2010.)



LRGV Native Plant Sources

Heep's Nursery (& Landscaping)
(Mike Heep)
1714 S. Palm Court Drive
Harlingen, TX 78552
(956) 423-4513 * By appt. only

Valley Nature Center
301 S. Border Ave.
Weslaco, TX 78596
(956) 969-2475
info@valleynaturecenter.org
www.valleynaturecenter.org

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

Mother Nature's Creations
(Billy & Sue Snider)
2822 Nueces; Harlingen, TX 78550
Nursery open by appointment:
(956) 428-4897

NABA Butterfly Park
Old Military Hwy & Butterfly Pk Dr
Mission, TX 78552
(956) 583-9009

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

Landscaper using Natives:

Williams Wildscapes, Inc.
(Allen Williams)
750 W Sam Houston
Pharr, TX 78577
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www.williamswildscapes.com

NPP Board & General Meetings, 2010:
Sep. 28, Oct 26, Nov 23
(Tuesdays) Board Meetings at 6:30pm. Speaker at 7:30pm
Most meetings held at Valley Nature Ctr.

Highlights from the NPP
Board of Directors Meeting
Tuesday, April 27th, 2010

—The board agreed to begin work on the NPP by-laws by incorporating amendments into the main body of the text.

—Sue Sill resigned from the board of NPP in order to spend more time with other projects.

—19 new members joined the Native Plant Project at the RGV Home and Garden Show in April.

—The board discussed setting up an Advisory Board and placing Mike Heep and Benito Trevino into this new category.

—Decided to print a list of native plant growers and nurserymen with contact info in every Sabal.

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 $15/yr. __Contributing $35/yr
__Life $250 one time fee/person
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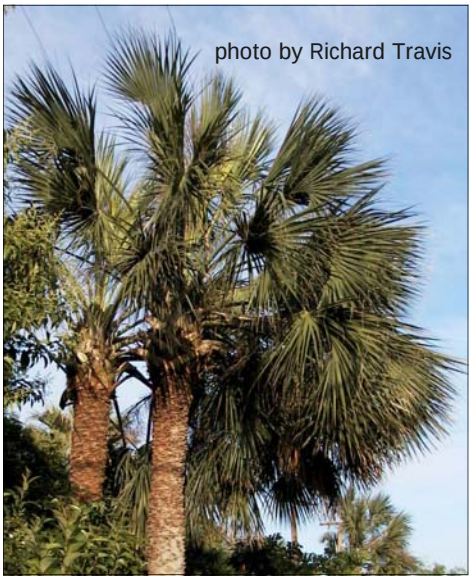

Tues., May 25th at 7:30 p.m.
"Wetland Shrubs" *by Christina Mild*
Valley Nature Center, 301 S Border, Weslaco,TX

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