

The Sabal

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Rare Plants OF TEXAS



BY JACKIE M. POOLE, WILLIAM R. CARR,
DANA M. PRICE & JASON R. SINGHURST

ATM nature guides

January Meeting of the Native Plant Project:

Tuesday, Jan. 24th, 2012, 7:30pm

William R. Carr: "Rare Plants of Texas"

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

One of the book's authors will provide a review of the plants in this excellent new book by the same title. Book signing available afterwards by Bill. Reviews of the book are numerous and positive, such as: "The authors of **Rare Plants of Texas** are careful and meticulous workers, among the state's finest botanists, who repeatedly supplement their knowledge through field observations of the target species. This book is the most reliable single source of rare plant information in existence. . . . I will use it on a regular basis."— A. Michael Powell, Professor Emeritus, Biology, Director of the Herbarium, Sul Ross State University

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 - Chris Hathcock - (956)-369-1744; <Chris_Hathcock@yahoo.com>

Preservation of Rare Plants—by C. Mild

In the LRGV, there is a multitude of plants which are decreasing in number resulting in the loss of genetic diversity. For that reason, those who are committed to maintaining genetic diversity are keenly aware of “FOR SALE” signs and evidence of heavy equipment activity in areas which appear to hold a measure of plant diversity.

Many of us have been involved in seed collection and plant rescue, while others, such as Frank Wiseman, have kept meticulous records of what has been rescued, and where and when rescued plants have been relocated.

It was in the midst of one such rescue effort that I happened upon the rare mustard featured on page 3. It was due to Bill Carr’s description of the plant and his mailed copies of the type specimen, that I suspected the plant’s identity. Thus, the book which Bill will review for us on Jan. 24th is an important tool, empowering us to recognize the species which are in gravest peril.

But how do we go about protecting a rare plant once we’ve found it? Educating the landowner about the plant’s importance is the logical first step.

Protecting the ecosystem which supports the plant is the best step, if that is possible.

In **Native Plants** Volume 18, Number 4 (published by the National Wildflower Research Center), the impact of invasive plants is featured, including Buffelgrass, which is especially problematic in the LRGV. Included below are quotes from that article.

“Buffelgrass is so aggressive that it even takes hold in pristine areas with undisturbed, stabilized soil surfaces.” The same can be said for several exotic bluestem species on the rise in this area. “How could just one plant destroy an ecosystem? In the case of buffelgrass, the answer begins with the nature of its seed, which is delicately bristled and easily dispersed by wind across broad areas. Buffelgrass easily out-competes native groundcovers for moisture and nutrients and forms dense, continuous colonies that produce great quantities of tinder-dry biomass.”

There are many issues involved in stepping onto



private or public land to attempt ecosystem protection. Seed collection and plant relocation add greatly to the complexity. An article entitled “Earthly Abundance, Saving Natives from the Dozer,” by Michelle Pulich, appeared in **Native Plants**, Volume 18, Number 3. “A wreck, a fire, a runaway mower at the wrong time can dent the population of a single plant variety substantially.” Worse yet is massive land clearing.

“Performing a *plant rescue* involves gaining the clear permission of the landowner and sending a knowledgeable person or team to rescue plants that would otherwise be condemned, because they exist on a site slated for bulldozing or development.”

It is often difficult to identify landowners. Publicly-owned lands may hold worse nightmares, such as finding room on a meeting agenda and attending subsequent committee meetings. Gaining permission from a committee can involve deadly delays, if work has already begun in “clearing.”

The mention of “knowledgeable” persons is most suitable. One needs some idea of an individual specie’s root system and preferred growing conditions, in order to effectively move the plant or seed without undue damage.

Beyond the goal of protecting individual species: “Displays of native plants, supported by plant rescues, allow people to become aware of the richness of native plant life...” “...18.2 percent of North America’s floral species are now non-native...” thus such displays are vital to establishing a sense of place.

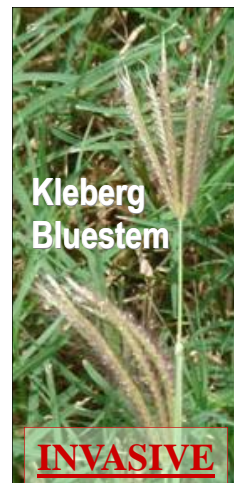
How does one approach plant rescue once a landowner has been identified and contacted?

“A person may not take anything from public or private land without permission. ...a document releasing the landowner from liability in case of injury has been a helpful tool in obtaining such permission.”

In the case of property owned by a Harlingen dentist, NPP member Ginger Byrum was his patient, and was able to discuss plant rescue at her scheduled dental appointment. We were able to capitalize on an existing relationship, which was immensely helpful.

Ginger suggested that we provide the landowner with the license plate numbers of each and every volunteer who would be conducting plant rescue on the property. He agreed.

Valley Nature Center is active in plant rescue.



Shinners' Rocket—
photos & text by Christina Mild



Family: Brassicaceae (Cruciferae)
Scientific Name: *Thelypodiopsis shinnersii*

See p.159 of **Plants of Deep South Texas** for more detail about this Cameron County species.

In spring of 2007, several Master Naturalist volunteers were salvaging diverse plant species from a tract of land across the street (Loop 499 in Harlingen) from Hugh Ramsey Nature Park (Arroyo Colorado unit of the World Birding Center.)

On March 23rd, I noticed a very tall, thin, white-blooming plant which looked suspiciously like a rare mustard described to me by Bill Carr. Bill had sent me a copy of the catalogued specimen, showing the wide basal leaves and long seed-containing “siliques.”



Shinner's Rocket (*continued*)

Mike Heep suspected the identity of the plant as Shinner's Rocket from an email-attached photo and visited the revegetation site to further confirm it.

Bill Carr was beyond enthusiastic that the living plant had been located. He had been seeking out the plant for several years.

Shinner's Rocket belongs to the group of plants we think of as "wet/cool weather" species. Most Crucifers found in the LRGV fall into this group. Their seeds seem to germinate during cool, wet periods. As can be seen from the soil cracks visible in this photo, the plants may persist for a short time as soils dry up when temperatures rise and rainfall disappears.

Several specimens of Shinner's Rocket were dug and transplanted into what seemed an appropriate area in Ramsey Park (the Medicinal Garden located along the beginning of the Upper Mown Trail on the southwest side of the park).

Mature seed was also collected, sown, and shared with native plant growers.

I believe Shinner's Rocket was also found in spring 2007 on the former Matz' property in Rio Hondo, along the caliche trail not far from the home site.

As one might imagine, it is difficult to simulate the soil, light and plant community where a plant to be salvaged is found. For a short time, Shinner's Rocket persisted in Ramsey Park and produced seed in the transplantation area.

One tends to provide water where possible to promote the growth of rescued species. The problem with this approach is that many common native and exotic species spread aggressively with irrigation, necessitating careful and endless weeding.

It is not known whether Shinner's Rocket has persisted in Ramsey Park.

Plant rescue from intended building sites continues to be an important task for those of us who consider native plant diversity to be an important goal.



Will We Have Wildflowers?

Whenever we experience droughty conditions, we become concerned that wildflowers may not appear in spring. Assuming they will begin to grow, who among us can recognize the seedlings as wildflowers and not as unwanted exotics?

Native American Seed offers a free catalog which is updated seasonally. Inside are photos of our native wildflowers, with a picture of the emergent seedling. The catalog holds a wealth of information, including recovery steps for land scorched by wildfire, seed-mixes for various soils and regions, deer resistant species, species to attract such critters as quail & dove, hummers & singers and butterflies.

The scope of included information is beyond what can easily be listed, and the catalog is well worth having. You can request one at: <http://www.seedsource.com/>

Besides wildflowers, native grass seeds are offered, and some grasses and wildflowers are offered as live roots.

Educators are encouraged to order a FREE case of approximately 100 past season catalogs (order #9999).

They're great as field guides.

Native American Seed is located in Junction, TX.

Phone 800-728-4043. Fax 800-728-3943.



What about the drought and yard plants?

Dr. Alfred Richardson's advice: A good thick mulch is one of the best things I know of. It conserves water, and keeps the soil cooler (or less hot). In summer, I prune, sometimes severely. In winter, I usually don't prune until spring. I don't try to keep my yard plants growing lush and green, but when they start looking really bad, I water well and then leave them alone for a time. In natural conditions, there is usually no mulch, but the shrubs and perennials die back (prune themselves), and annuals produce seed (hopefully), then die and wait for another generation.

Excerpts from
Survive the drought—think like a plant,
by Marilyn Sallee.

...La Nina in the Pacific, is already in place again for next summer, and may extend a year or more after that. In general, the climate trend shows all areas of Texas receiving less rainfall than the historic average. ...Time to learn how to conserve water, live with the heat and landscape for drought.

Most people are aware of the way some plants will droop or fold their leaves in the heat of the day to conserve moisture. When that trick isn't enough, some plants actually drop their leaves and look dead, but they are just holding onto the moisture in their roots. ...Many will come back from the roots... Do not rip out a plant just because the top looks dead. Watch for new growth around the base of the plant... many may come back just fine.

...many short-lived perennials survive extreme conditions by ...putting their all into seed production. ... Save those seeds to make new plants if the parents don't leaf out in the spring.

Some native seeds actually rely on the extreme conditions to germinate their seeds. You may know that some seeds need special harsh treatment to sprout. The heat and sun pounding them all summer is another way to scarify or acid-etch to penetrate thick seed-coats or crack tough shells. ...watch for those slow-germinating seeds to put out new life this spring.

And then there are the truly macho plants that actually do well in those extreme conditions. Many Texas plants ... saw the heat and drought as business as usual. They evolved to thrive in the extremes and have been tested through past drought cycles. Some actually preferred the drier soils and harsh conditions. These are the ones that do not do well in amended garden beds with regular watering—they can't take being treated nicely.

...Start your own list of what survived and thrived in your area, and keep collecting that data through next spring, and even next year. Then share it with your local chapter.

(Reprinted with permission from "NPSOT NEWS, Vol. 30 No. 1, Winter 2012.)

November NPP Program:
“Encountering and Enjoying Caterpillars,”
—by *Berry Nall* (photographed at right)

Berry presented gorgeous, detailed photos demonstrating metamorphosis of several butterfly species. His knowledge was impressive and his enthusiasm for the subject was contagious!

The content on the Nall’s website is always expanding. It would be a real challenge to read and remember all the details which he and his wife have made available to us. The website address is:

[<http://www.leps.thenalls.net/index.php>]

In addition to walking us through the metamorphic stages of several butterflies and moths, Berry talked about various methods he uses in his studies. The photo at left shows Berry holding a catch frame which can be placed beneath a plant. By gently shaking the branches, caterpillars tend to fall onto the frame. This is certainly easier than attempting to find a camouflaged caterpillar and pluck it from a leaf. Berry clarified some of his methods, in quotations below:

“1. Place a “beating sheet” (preferably white so the caterpillars will be easily seen) underneath branches of a plant, gently move branches over the sheet, then rap the stems sharply with a stick or similar item. If done properly, the caterpillars won’t be prepared. They will drop from the branch to the sheet. “

Berry also makes great use of the net cages sold as childrens’ “butterfly cages.” Inside these he places a potted host plant with the “hungry caterpillars.” “2. Yes, I sometimes place a potted plant inside a butterfly cage - but only if I feel I don’t have enough food to pick leaves or branches. If the food supply is adequate, it is more sanitary to keep the caterpillars in a jar that can be regularly cleaned. Even if I don’t use a potted plant, though, I do place the chrysalis in the cage -- that way the fresh butterfly will be less likely to destroy its wings if it emerges unexpectedly.”

“3. Offering sticks as a place for the butterfly chrysalis is a good idea, but caterpillars don’t always use them - they often go to the top or side of whatever container they are in. Many moth caterpillars bury themselves; the adults need a stick to climb when they emerge.”



Checkered White photo by Gil Quintanilla

Because the featured plant this month is Shinner’s Rocket, in the Brassicaceae or Crucifers, I asked Berry about which butterflies utilize this group as host plants. He provided these answers:

Certain Whites, particularly Checkered White and probably Cabbage White, use crucifers. My personal observations:

Checkered White uses at least the following around here:

Gregg Keelpod, *Synthlipsis greggii*

London Rocket, *Sisymbrium irio*

Pepperweed, *Lepidium lasiocarpum* or *virginicum*

Mike Quinn's Caterpillar Food Plants for the Lower Rio Grande Valley of Texas lists the following hosts:

Brassicaceae - Mustard Family

Descurainia pinnata Tansy mustard - Cabbage White, Checkered White

Lepidium virginicum Lentenjilla - Checkered White, Great Southern White

Lepidium (2) spp. Peppergrass - Falcate Orangetip

Rorippa sp. Watercress - Great Southern White

Sisymbrium (2) spp. Rocket Mustard - Falcate Orangetip



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

(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:

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Sponsors

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NPP Board & General Meetings 2011: (no Dec. mtg.)

(Fourth Tuesday each month) Board Meetings at 6:30pm. Speaker at 7:30pm.
Most meetings held at Valley Nature Ctr. (see above)

Here are a few upcoming programs for 2012:

February 28, 2012. James Lovegren, a local native plant grower—
Growing Native Seedlings for Revegetation Projects—A detailed
look at what it takes to grow 100,000 native plants a year.

March 27, 2012. Ken King will be giving our annual Wildflower
program.

April 24, 2012. John Goolsby will discuss the role of insects on na-
tive trees.

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

www.NativePlantProject.org

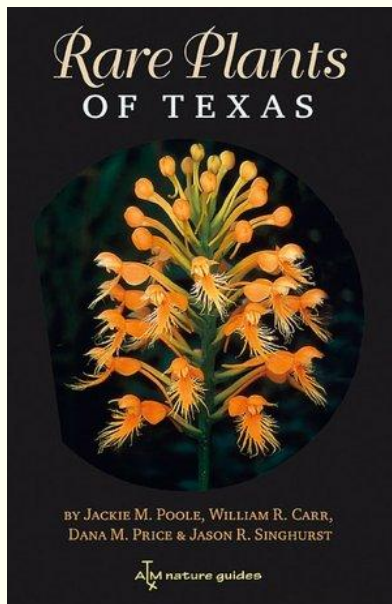
Native Plant Project presents:

**Tuesday,
Jan. 24th, 2012,
7:30pm**

*Bill Carr:
co-author of*

**"Rare Plants
of Texas"**

A review of this newly-published book.



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

Some reviews of **Rare Plants of Texas:**

"With the growing recognition that native plants support wildlife, conserve water, promote biodiversity, and exemplify our natural heritage, we must also recognize the need for greater understanding of endangered plants, the threats to their existence, and the importance of their survival. *Rare Plants of Texas* is highly recommended for professional botanists and advanced researchers, conservationists, students, range managers, and others concerned with preserving the ecosystems of Texas and the Southwest."

"The book is scholarship at its truest, meticulous workmanship carried out with devotion as well as experience. . . . The images show the extraordinary range of beauty among cacti, fragile blooms, water plants and shrubs. By singling out each species, their unique standing becomes even more apparent. . . The book, meeting a need for professional botanists and environmentalists, is no less appealing to the nature lover and diehard Texan. Texas A&M University Press has done itself proud with this book, and a special mention goes to Linny Heagy for her delicate drawings." --*The Dallas Morning News*

*2012 Membership Dues
are payable at this time.
Pre-addressed envelope
enclosed.*

TO: