



The Sabal

February 2011

Volume 28, number 2

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Editor:

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

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February Meeting of the Native Plant Project:

"Wildflowers of South Texas"

by Ann Treece Vacek

**Tuesday, Feb. 22nd
at 7:30 P.M.**



Senna bauhinioides. Legume.
Two-Leaved Senna.

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

The Native Plant Project proudly presents our annual
Wildflowers of South Texas program by Ann Vacek.

Ann is one of NPP's native plant experts, a wonderful photographer, and long-time NPP
Board Member. Once you see her close-ups of the beauty along our roadsides, you won't
want to keep zooming past at 60 mph.

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; <chrishathcock@yahoo.com>



The Barretal, Part 2: A Distinct Biotic Community. By Chris Best.

Adapted from an article published in August 1998 in:

Vol. 3 No. 7, **Green Jay Chatter**, newsletter of the Friends of the Wildlife Corridor

Numerous subshrubs are found on the exposed, well-drained uplands where barretas grow. These include three ubiquitous cactus species:

- prickly pear (*Opuntia engelmannii*)
- tasajillo (*Opuntia leptocaulis*) and
- strawberry pitaya (*Echinocereus enneacanthus*)



ABOVE: Tasajillo, Pencil cactus, after spring rain, with red fruit and newly sprouted segments. A profusion of tiny glochids arm this "jumping" cactus. Segments fall off, often sticking to animal fur and human skin, and propagate easily. The newest (lime green) growth tips are spineless, crunchy, and a bit tangy.



ABOVE: Strawberry Pitaya, a spring bloomer, produces delicious fruit. Large colonies can be found in undisturbed areas of the western LRGV. The Nature Conservancy's "Chihuahua Woods" near Mission is a wonderful sanctuary for this and other cactus species.

Many other species of cacti occur in this alliance, sometimes in very dense small colonies containing as many as 10 to 15 species. *Continued on page 3...*



ABOVE LEFT: Peyote, *Lophophora williamsii*, in bud and bloom, growing in the rocky soil of Starr County. Smaller cacti are especially threatened by human disturbance and are often unnoticed by the casual visitor. Peyote is especially threatened by collection for the drug trade.



ABOVE RIGHT: Runyon's Pincushion Cactus. *Coryphantha pottsiana*. It was formerly *Mammillaria robertii* and *Coryphantha robertii*. There is considerable variation in bloom color in this species.

In the Barretal, native grasses persist where protected from grazing. Among other grass species, these include:

buffalograss (*Buchloe dactyloides*) (photo on page 7)
curley mesquite (*Hilaria belangeri*)
red grama (*Bouteloua trifida*)
purple threeawn (*Aristida purpurea*) and
gummy lovegrass (*Eragrostis curtipedicellata*)

A few small emergent trees may also occur, such as palo verde (*Cercidium texanum*), Texas ebony (*Pithecellobium ebano*), and honey mesquite (*Prosopis glandulosa*), but their combined canopies total less than 25% of the total vegetation cover.

Up to 25% of the vegetational cover in the barretal, at least in south Texas, consists of barreta trees. Here the barreta reaches up to 4 m in height. Most of them were top killed by a severe freeze in December, 1989. Currently (*in August 1998*) the barretal is conspicuous for the abundance of standing dead barreta trunks, surrounded by vigorous coppices of new growth generally reaching about 3 m, in height. **The barretal association is one of the most diverse plant communities in south Texas.**

It occurs at or near the tops of steep hills in caliche and gravel deposits along the Bordas Escarpment (also known as the Goliad Formation). This formation of exposed caliche (photo page 5) runs in a crescent from near Corpus Christi in the north to near Hebbronville in the west. It crosses the Rio Grande between Rio Grande City and La Joya, then extends in a south-easterly direction south of Reynosa and east of San Fernando, Tamaulipas.

Many rare and unusual plants occur as endemics in the exposed caliche soil.

Unfortunately, much of the escarpment has been destroyed through strip-mining of caliche and gravel and ill-advised root-plowing. Consequently, some of the endemic species of this formation have become threatened or endangered with extinction.

Some of the unusual plants that occur in the barretal association include: (**bold** indicates photos on right)

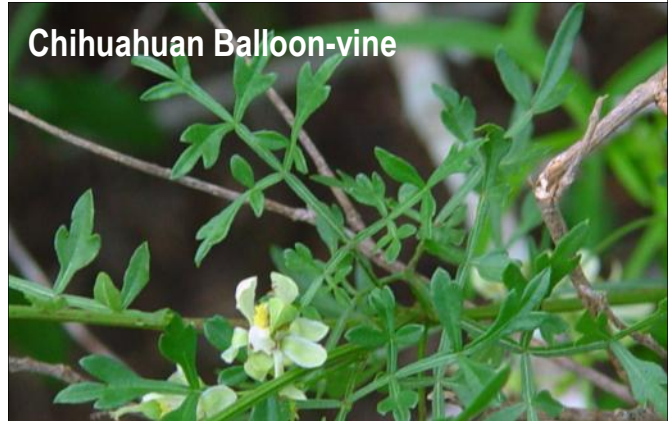
Gregg's mortonia (*Mortonia greggii*)
chomonque (*Gochnatia hypoleuca*)
huaco (*Manfreda variegata—sileri*)
Runyon's huaco (*M. longiflora*) (photo page 8)
peyote (*Lophophora williamsii*) (photo page 2)
damiana (*Turnera diffusa*)
Chihuahua balloon-vine (*Cardiospermum dissectum*)
mission fiddlewood (*Citharexylum spathulatum*)
Runyon's cory cactus (*Coryphantha macromeris* var. *runyonii*)
Gregg's wild buckwheat (*Eriogonum greggii*) and
Walker's manioc (*Manihot walkerae*).

Continued on page 4...

Gregg's Mortonia



Chihuahuan Balloon-vine



Damiana



Mission Fiddlewood



Walker's manioc was listed as a federal endangered species in 1991. Another endangered species, star cactus (*Astrophytum asterius*), once occurred along the Bordas Escarpment (but may no longer occur within the barretal).

Wildlife such as deer and javelina emerge from their sheltered corridors in the derramaderos to browse the barretal at night. The arid conditions produce little for man, but indigo snakes, western diamondback rattlesnakes and reticulated collared lizards are among the many reptiles that are well adapted here. The diversity of birds that frequent the barretal includes the caracara, Chihuahuan raven and scaled quail.

derramaderos—
drainage corridors of deep, moist soil

The sparse vegetation of the barretal and the black-brush-cenizo-guajillo shrublands is not very productive for grazing. Many landowners in south Texas and north-east Mexico have been tempted by the rapid but short-term benefits of root-plowing these fragile upland soils in order to plant buffelgrass. Cattle production does increase for a few years, but in just 5 to 10 years those buffelgrass pastures fill in with prickly pear, blackbrush and honey mesquite. Repeated root-plowing might restore the buffelgrass, but each time the loosened bare soil is exposed, erosion is accelerated. Meanwhile, the prickly pear proliferates through vegetative regeneration of the pads.

Buffelgrass, which is an invasive exotic grass, prevents the revegetation of many native plants. (photo p 7)

The native shrubby vegetation may not produce much forage, but compared to bare soil, it does greatly reduce runoff and increase the absorption of rainwater. After

repeated root plowing occurs, soil erosion and loss of vegetative cover reduce the capacity of the soil to absorb and hold water. Ultimately, even buffelgrass becomes sparse and unproductive.

The long-term result is the anthropogenic conversion of land that can sustainably produce deer, javelina and small numbers of cattle, into real deserts that have no use either for people or wildlife. The loss of vegetative cover over such a large percentage of south Texas and northern Tamaulipas may have altered atmospheric conditions, thus diminishing the potential for rainfall and initiating irreversible climatic changes—in other words, desertification.

anthropogenic—
resulting from the influence of human beings on nature.

Curiously, the United States Surface Mining and Control Act of 1977 has never been applied to caliche and gravel mines in south Texas.

Likewise, the Endangered Species Act has never been invoked when federal funds and tax incentives have been used to promote root-plowing in S. Texas.

Some of the more thoughtful landowners have balanced their economic needs with good land stewardship, by only root-plowing in strips or checkerboards and leaving mosaics of natural vegetation in the landscape. This management approach not only sustains long-term productivity of this arid land, but conserves native plants and wildlife. Perhaps enlightened natural resource management of this sort can be promoted and practiced in time to save the remaining barretal ecosystem.



ABOVE: *Amorexia wrightii*, Yellow Show, an October bloomer.

BELOW: *Phemeranthus aurantiacus*. Formerly *Talinum angustissimum*. Yellow Flameflower. Large fleshy tuberous root allows survival; in dry areas.

RIGHT: *Macrosiphonia lanuginosa*, Flor de San Juan. Notice the hornlike seedpods in upper left corner.



Diversity in undisturbed barretal areas after abundant rains can be breathtaking; it may remind one of a garden.

Habitat loss continues at an alarming rate. Subdivisions and schools are choosing the barretal for building sites because of the view offered from the barretal hills, with no regard for plant diversity.

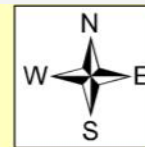
A few of many herbaceous plants found in the area of the Barretal:





Fieldtrip Announcement:
The Barretal, Los Barretales

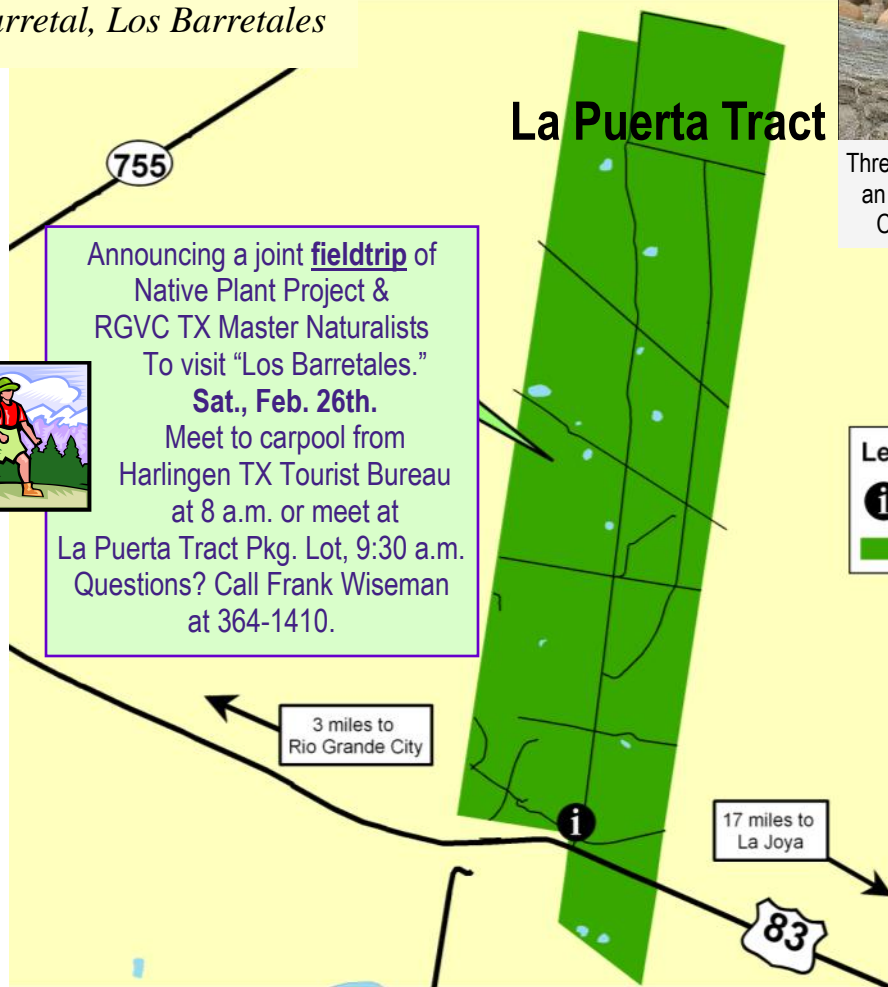
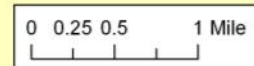


Threatened: Reticulate Collared Lizard, an inhabitant of the barretal. Photo by Chris Harrison, [birdsandherps.com]



Legend

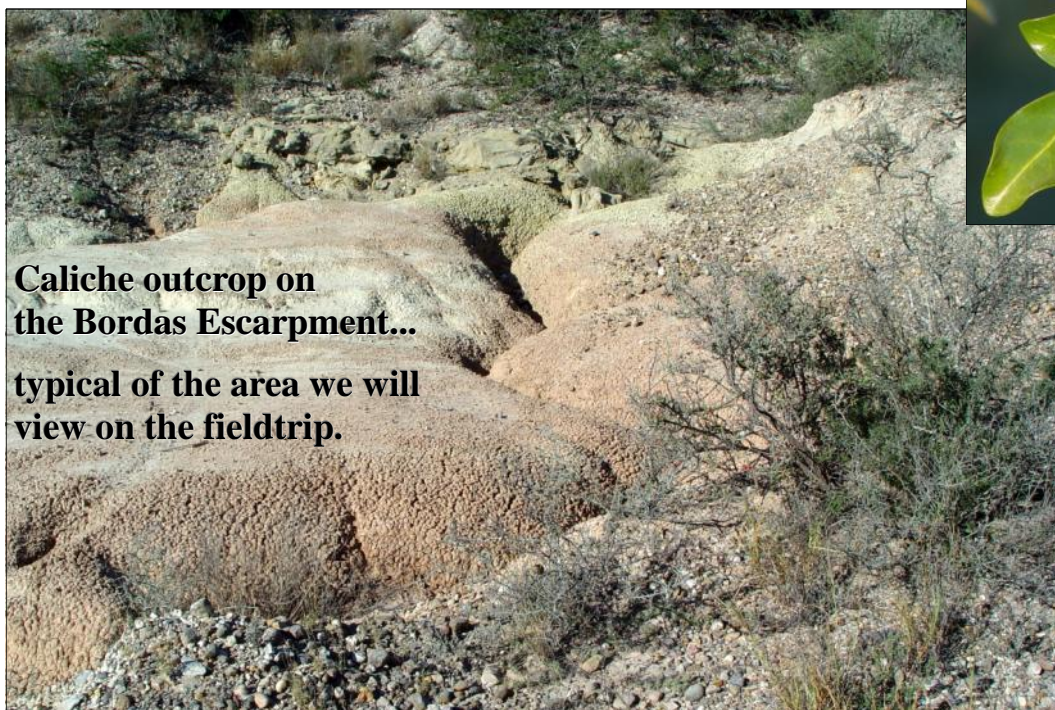
-  Parking / information
-  U.S. Fish & Wildlife Service



Announcing a joint **fieldtrip** of Native Plant Project & RGVC TX Master Naturalists To visit "Los Barretales." **Sat., Feb. 26th.** Meet to carpool from Harlingen TX Tourist Bureau at 8 a.m. or meet at La Puerta Tract Pkg. Lot, 9:30 a.m. Questions? Call Frank Wiseman at 364-1410.



Below: Barreta, the plant for which the "barretal" is named.



Caliche outcrop on the Bordas Escarpment... typical of the area we will view on the fieldtrip.

Plants of Deep South Texas

A FIELD GUIDE TO THE WOODY AND FLOWERING SPECIES



Alfred Richardson & Ken King

ATM nature guides

A long-awaited publication has arrived for sale at Valley Nature Center!

This user-friendly guide includes photos and descriptions of more than 800 species, many of which are not currently included in available field guides.

Beyond the usual data expected in a field guide, authors' comments include such information as the plant's use by caterpillars and its value from a human perspective.

The Authors: Alfred Richardson is professor emeritus of biological sciences at the University of Texas at Brownsville. Ken King, of Weslaco, TX, is a plant biologist and serves on the board of Directors for NPP. Both authors serve on the Editorial Advisory Board for *The Sabal*.

One reviewer comments: "A significant addition to the plant books of the Lower Rio Grande Valley. The 800-plus species treated in this book make this the ultimate plant identification guide for the Lower Rio Grande Valley. . . a "must-have" book for anyone interested in the flora of the Lower Rio Grande Valley. It will be the book I carry into the field."-- Thomas Patterson, South Texas College.

\$30 per copy. (Payable by cash, check or credit card.)
ISBN-13: 978—1-60344-144-5

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.
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750 W Sam Houston
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(956) 460-9864

Pérez Ranch Nursery
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Owned and operated by Mike and Claire Heep
 We grow plants suited to landscaping
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[www.heepsnursery.com]

Native Plant Rescue:

Valley Nature Center will rescue native plants slated for
 destruction by construction or development, or natives no
 longer wanted by home owners. Call 956-969-2475.

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NPP Board & General Meetings
 2011: Feb. 22, Mar. 22, April 26, May 24
 (Tuesdays) Board Meetings at 6:30pm. Speaker at 7:30pm
 Most meetings held at Valley Nature Ctr.

Highlights from the Board of Directors Mtg. Jan. 25th, 2011

The NPP board of directors elected officers at the January 25th meeting. Chris Hathcock is president, Martin Hagne is vice-president, Susan Thompson is secretary, and Bert Wessling is treasurer. The general membership also re-elected 5 directors to serve another 3-year term on the NPP board. The five are Chris Hathcock, Martin Hagne, Eleanor Mosimann, Susan Thompson, and Bert Wessling. Jann Miller was also elected to fill a recently vacated seat on the board of directors. Her term will expire in January 2012.



Buffel-grass, tall,
 introduced, invasive.
 Note bristly seedheads.



Buffalo-grass.
 Native short grass.
 Flowerheads shown here
 are found on male plants.

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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Address _____

City _____ State _____

Phone _____ Zip _____ - _____

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Email address: _____

Please mail this form with dues check payable to:

Native Plant Project, POB 2742, San Juan, TX 78589-7742

www.NativePlantProject.org



Manfreda longiflora.
Runyon's Huaco.

"Wildflowers of South Texas" by Ann Vacek

Valley Nature Center, 301 S Border, Weslaco, TX
(956)969-2475

Tues., Feb. 22nd at 7:30 p.m.



A juvenile Reticulate Collared Lizard, *Crotaphytus reticulatum*, one special inhabitant of the Barretal.

(photo by Lou Hamby, from Southwesternherp.com)

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[Details on page 5.](#)

TO: