



The Sabal

April 2010

Volume 27, number 4

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April Meeting of the Native Plant Project: **Tuesday, April 27th at 7:30 P.M.**

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

“Convincing People about the Values of Native Plants” by Carol Goolsby

Carol Goolsby has worked in environmental education for 15 years. She managed the native plant nursery at the North American Butterfly Association’s Headquarters in Mission for 3 years. She is a new director of the Native Plant Project.

Her presentation will highlight how we can better promote landscaping with native plants throughout our communities, and the benefits to be gained by the average homeowner by using native plants.

RIGHT: Carol Goolsby, photo by Frank Wiseman.



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.

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Barreta & The Barretal

by Ken King

Barreta is the dominant shrub/tree on several hill-tops in Starr County. (Such habitat is classified as "Barretal.") They have a more extensive range farther south into Mexico. The most easily seen populations are east of Rio Grande City on both sides of Hwy 83. Other populations occur on hills north of Escobares and Roma. The tallest trees can get close to 20 ft. in height. I have one in my backyard that is at least that tall. The populations growing this far north are periodically frozen back to the ground during our rare extreme cold winters and start regrowth from stumps. The tallest individuals are found in ravines where they get more water and cold protection.

Giant swallowtail and ruby-spotted swallowtail butterflies use barreta as a host plant. The ruby spot caterpillars are especially interesting because they cluster in large groups on the trunks. Both are bird dropping mimics and will exude a foul smelling chemical as a defense when touched. We need people to work on techniques for better seed germination. The late Raymond Labus had consistent success. The trees are attractive and have a narrow upright growth habit making them good landscape choices for areas near doorways or entrances. Barreta looks yellow and sickly during extreme water stress but quickly re-flushes with bright green growth after rains or irrigation. I have never seen one that has died from our droughts.

The Barretal habitat is one of our most endangered habitats in the country. Recent housing developments have targeted the hills to build expensive homes and now schools have also chosen the virgin growth hills as sites to develop. We need to protect what remains and incorporate intensive study projects to learn more about the biology of these areas.

(As early as Sept. 1984, in *Sabal Vol. 1 No. 3*, Joe Ideker brought barreta to attention of NPP members.)

LEFT: Trifoliate leaves of barreta. Brown samara fruiting structure will separate into 3-4 winged seeds, ripening from September to October.

BELOW: Greenish-white flowers in terminal clusters, appear from March to May.



BELOW RIGHT: Photo by R. Lehman, taken at Valley Nature Center Nov. 20, 2003. Larvae of the Ruby-Spotted Swallowtail feeding on barreta.



BELOW:
Ruby-spotted Swallowtail
(*Papilio anchisiades*).
Photo provided by Jan &
David Dauphin



More on Barreta & The Barretal:

A recent study in Mexico provides insight into the growth requirements and uses of Barreta:

Foroughbakhch, Rahim, Alvarado-Vasquez, Marco A., Nunez-Gonzalez, Adriana et al. **Structural analysis and performance of *Helietta parvifolia* (Gray) Benth in southeastern Nuevo Leon, Mexico.** INCI, Nov. 2003, vol.28, no.11, p.651-655. ISSN 0378-1844.

Excerpts from this study follow:

In rural zones of Mexico the demand for timber and forest products continues to increase. Efforts are being made to meet the demand for timber by raising compensatory man-made plantations. At present, attention is given to growing indigenous premium quality hardwood species. One of the promising indigenous species among various fuelwood species is *Helietta parvifolia* (Rutaceae), which occurs naturally in the dry and subtropical zones of northeastern Mexico.

Helietta parvifolia (Rutaceae) is a perennial shrub or small tree 6m in height, with a thin trunk 15-20cm in diameter and thin brown scaly bark. It has 3 opposite ovoid 1-5cm leaflets, sessile or almost sessile. Flowers are white, perfect and small in terminal panicles, 3-4 stamens, fruit about 6-8mm (Standley, 1920, Martínez, 1979, Correll and Johnston, 1970). It is native to northeastern Mexico, ranging from southeastern Texas through central Mexico, e.g., San Luis Potosi, Guanajuato, yet concentrated in Nuevo Leon, Tamaulipas and parts of Coahuila. **Studies on management of *H. parvifolia* in northeastern Mexico show that it grows best in gentle slopes and on hills with up to 20° slopes in northern or northeastern directions (10-30°) and on rocky hills of 15 to 70°. The favorable soils for this specie are well drained dark gray silty-clay vertisols, with pH 7-8 and a depth of more than 60cm (Rovalo et al., 1983).**

This shrub has a variety of uses, the main one being timber for housing construction, fences and corrals for animals in rural areas. Its wood is highly valued for its durability and resistance to rotting. The leaves are used as forage for cattle. The deep root system makes it an appropriate species for erosion control and soil conservation. Furthermore, due to the shape of the crown, *H. parvifolia* can be used as an ornamental plant in urban areas (Reid et al., 1989).

***H. parvifolia* with a low growth rate of 0.4cm per year in DBH and 13-24cm in height (Foroughbakhch and Heiseke, 1990) is not a desirable species to be used in mixed plantations, because a species with a rapid rate of growth can become dominant when different species in the mixture have different rates of growth.**

The study was conducted in the tamaulipan thornscrub, situated at 35km southeast of General Teran, Nuevo Leon, Mexico, 25°16'N and 99°21'W, with an altitude of 200-800m.

The study area has a semidry to subhumid climate with very low winter precipitation. It belongs to (A)C(Wo) type, with two periods of summer rainfall. The long-term mean annual precipitation is 800mm, with two peaks in the spring and late summer and **drought periods in midsummer and winter** (Stienen, 1990). The mean annual temperature is 22.1°C with a large difference between winter and summer (Min. 12°C, Max. 45°C) and even within the same month. **Hail and frost usually occur each year, sometimes even after the beginning of the growing season in February-March.** The water budget is unbalanced, the ratio of precipitation on free evaporation being 0.48 and precipitation/potential evaporation 0.62. The soils of the region are basically a rocky substrate of Upper Cretaceous lutite or siltstone. The dominant soils are deep, dark grey, lime-clay vertisols, which are the result of complex processes of aluvial and coluvial types. They are **characterized for high clay and calcium carbonate content (pH 7.5-8.5) and relatively low in organic matter, phosphorus and nitrogen.**



Blooms photographed by Frank Wiseman.

Coryphantha pottsiana, another component of the Barretal.

Comments by Ken King:

This cactus is what we formerly called *Escobaria runyonii*. Weniger listed it as *Mammillaria robertii*.

Flora of North America and Michael Powell (Cacti of Trans Pecos) are calling it *Coryphantha pottsiana*.

C. pottsiana is never found in the eastern part of the Valley. It probably occurs no further east than Rio Grande City. It is easily confused with *Mammillaria prolifera*, except that *M. prolifera* has many hairlike structures between the spines. *C. pottsiana* has no hairs. It is a common component of the barretal cactus population. The spine color varies from brown with blackish tips to pure white.

I have never heard of a yellow- or golden-spined form of this species as in *M. prolifera*.



Plains Bristlegrass
Setaria leucopila

by C. Mild & M. Heep

In recent years, especially following the ample rain received in February 2010, this bristlegrass has spread along pathways at Ramsey Park to such a degree that “rescue” efforts can take place within the park itself by moving young grass clumps into new areas.

Mike Heep noted abundant rainfall for February 2010 at his nursery in Harlingen and compared that to four previous years.

Heep’s data helps to explain the rapid spread of bristlegrass at Ramsey Park this year, as well as gorgeous spring wildflowers throughout south Texas.

Setaria leucopila is found throughout the drier portions of Texas. It is an important forage species. Primarily adapted to open sites, it is most frequent on well-drained soils along areas with occasional abundant moisture. Similar species include *S. macrostachya*, *S. texana* and *S. Scheelei*. Hybridization probably occurs.

Until recently, rescue specimens were the only source of local provenance Bristlegrass. Due to the efforts of several entities, seed sources are now available. Contact information for seed suppliers appears below this article.

Commercial development of native seed sources, especially grasses, is an ongoing effort of USDA-NRCS Plant Materials Program, South Texas Natives, and the Texas Agricultural Experiment Station at Beeville.

At Ramsey Park and at Valley Nature Center in Weslaco, one native grass has performed very well, a species of bristlegrass, *Setaria leucopila*. With fine leaves, lime green color and attractive bristly, grainy seedheads, Plains Bristlegrass won many admirers. Survival of this pretty grass in revegetated areas is due in some part because it’s easy to discriminate from exotic guinea grass.

(Center photo: wide-leaved guinea grass amongst fine-leaved bristlegrass, not to be confused with invasive buffleggrass, with even more bristly seedheads.)

Setaria leucopila is one of several native, perennial bunchgrasses. They produce seed from May to November and even longer in good growing conditions. Mature foliage height ranges from 1-4 feet tall.



West Harlingen Feb. 2010 rainfall total:
1.70 inches.

February totals for the previous four years:
2006- .05"
2007- .80
2008- .01
2009- .20
1.06 inches = total February rainfall from
2006-2009

Suppliers of Bristlegrass, *Setaria leucopila*

Catarina Bristlegrass Blend & KIKA 677 Streambed bristlegrass

Turner Seed Co. [www.turnerseed.com] (800)722-8616, 211 County Road 151. Breckenridge, TX 76424

Catarina Bristlegrass Blend

Bamert Seed Co. [www.bamertseed.com/] (800)262-9892, 1897 CR 1018, Muleshoe, Texas 79347

Douglas King Seed Co. [www.dkseeds.com] (888)357-3337, 4627 Emil Rd, San Antonio, TX 78219-4124

Pogue Agri Partners [www.pogueagri.com/] (830)583-3456, 287 Hwy 72 West, Kenedy, TX 78119

Springtime Wildlife Smorgasbord in the Eastern LRGV: What's Out There To Eat?

a photo essay by Christina Mild

Quite often, colorful birds are the wildlife we hope to attract to our native gardens, especially in spring. We often think of birds as eating berries, but berries are in the minority of available food in mid-April 2010. Insects abound. Masses of wildflowers offer pollen and nectar. Tiny seeds are abundant, and some are packed with high-energy lipids. In addition, many critters, even birds, enjoy tasty leaf buds.

Here are samples of the foods available right now.



ABOVE LEFT: *Morus alba*, Moral Blanco, a naturalized member of the Mulberry Family Moraceae, is loaded with fruit which is adored by many birds. **ABOVE RIGHT:** Zarzamora, the native Southern Dewberry, *Rubus trivialis*, forms extensive colonies along the Arroyo Colorado. Fruit is ripening in mid-April. Dewberries were once abundant along ponds, ditches and other waterways. Family Rosaceae.



Species of the Composite family with oil-laden seeds attract small birds, as well as pollinators like butterflies.

ABOVE LEFT: Texas Thistle, *Cirsium texanum*. Swallowtails & Monarchs are among the pollinators. Goldfinches eat the seeds, which will ripen to black.

ABOVE RIGHT: Cowpen Daisy, *Verbesina encelioides*. Easily grown from seed in the poorest of soils, this is a very early bloomer which produces an early crop of seed.



The tiniest of seeds may go unnoticed until one spots a favorite bird carefully plucking them to eat.



Upper Left: Ridged seeds of *Ammoselinum popei*, Sand Parsley. Among other species in the Parsley family, Umbelliferae, this is a hostplant for the Black Swallowtail butterfly.

Family Labiatae: (May be used as hostplant by the Painted Lady.)

Upper Right: Tropical Sage, *Salvia coccinea*. Some gardeners view the brown seedheads as ugly, others see them as a buffet for goldfinches.

Center Left: Pink Mint, *Stachys drummondii*, produces a large crop of tiny seeds. When moisture is available, Pink Mint blooms almost year-round.

Below Left: Family Papaveraceae. Prickly Poppy, *Argemone sanguinea*. Prolific quantities of seeds are released when seed capsules open. These are adored by doves.

Below Right: Family Cruciferae, Mustard. Bladderpod, *Lesquerella lasiocarpa* is an early nectar plant producing prolific seedpods.



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NPP Board & General Meetings, 2010:

May 25, Sep. 28, Oct 26, Nov 23
(Tuesdays) Board Meetings at 6:30pm. Speaker at 7:30pm
Most meetings held at Valley Nature Ctr.



ABOVE: Common cacti provide wildlife food in spring. **Top Left:** Red fruits on *Opuntia leptocaulis*, Tasajillo. **Top Right:** Pollen is abundant in Prickly Pear blooms, *Opuntia engelmannii*. **Bottom:** *Echinocereus pentalophus*: Ladyfinger blooms provide nectar. Rounded fruits (in upper left corner with withering bloom still attached) will soon be ripe.

**Highlights from the NPP
Board of Directors Meeting
Tuesday, March 23rd, 2010**

A schedule for selling Mike Heep's plants at the RGV Home and Garden Show in McAllen was drawn up. It was agreed to again give a free plant to new members.

The NPP By-laws will be discussed during the April Board meeting.

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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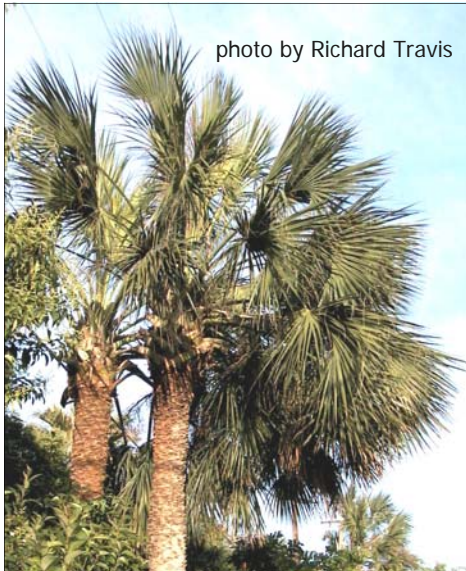


photo by Richard Travis

April 27th at 7:30 p.m.

“Convincing People about the Values of Native Plants” by *Carol Goolsby*

Valley Nature Center, 301 S Border, Weslaco, TX

Thanks to our
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- Ricardo Carranza
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Saving trees one member at a time!

TO: