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**RIO DELTA WILD**

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**Stinging Cevallia blooms near Rio Grande City.** Photo by Frank Wiseman.



#### FLORA FACTS

Scientific Name: *Cevallia sinuata*

Common Names: Shirley's Nettle

Family: Loasaceae (Blazing Star)

#### **Blooming on the Bordas Escarpment**

*Cevallia sinuata* has a host of descriptive common names: Stinging Cevallia, Stingleaf and Stinging Serpent are among these. A. Michael Powell of Sul Ross State University has studied the plant in great detail. He refers to it as Shirley's Nettle. "I call it this because Shirley Powell, my wife, did much of the cytological work on the species" Powell relates.

Cytology involves study at the cellular level. *Cevallia sinuata* has undergone extensive studies of that sort. *Cevallia* is of two cytotypes, though these are identical in appearance. Powell elaborates: "The  $n = 13$  cytotype is a widespread weed, and the  $n = 7$  cytotype is restricted to near Presidio (Presidio Co., TX) and adjacent Chihuahua, Mexico, near Ojinaga, and a few other areas in north-central Mexico.

Shirley's Nettle is blooming now near Rio Grande City, on the *Bordas* (or Reynosa) Escarpment. Here the geology bears sharp contrast to our mental image of South Texas: flat coastal plains, almost flat ranch country and the agricultural mecca of the Rio Grande's Delta. The Bordas escarpment is a ridge with varying degrees of elevation, gravelly washes and rocky outcroppings. ??? Rainfall is about half that received along the lower coast. ???

One encounters incredible beauty by walking trails through the wild vegetation growing there. I can best describe that beauty as reminiscent of the loveliest xeric botanical gardens.

Although fieldtrips are offered to widespread areas of the LRGV, I know of none which are currently offered to this diverse natural area. My first visit there took place on April 2, 2004. I am still in awe of that experience.

J. R. Beard's Geological Map #19 shows this elevated rocky ridge beginning south of Mission near the Rio Grande, extending westward, and curving northward near Rio Grande City through Cuevitas and Guerra. (This map, and other documents of special importance to LRGV natural history, can be viewed in the Special Collections section of the UTPA Library in Edinburg, thanks to Librarian George Gause.)

Shirley's Nettle is very noticeable blooming now on that escarpment.

My mental image of the plant is akin to a short, rounded, bejeweled Christmas shrub, decked out in delicate rounded yellow ornaments. Fortunately, friends warned me to behold this beauty from a respectful distance.

A. Michael Powell describes the plant as a “brittle-stemmed, low, spreading shrub with clusters of small yellow flowers. It is a mild nettle. The stinging hairs, visible under low magnification (hand lens), have an unusual appearance; they look like tiny glass pagodas.”

“Tiny glass pagodas...” elicits memories of why my graduate studies focused on cell biology. The intricate structure and order of complexity one encounters at each level of magnification provide unending inspiration for further study.

Most people encounter those tiny glass pagodas by reaching out to touch the plant. Appreciation is not the sort of reaction most folks have, Powell explains. “Reportedly the stinging hairs contain a small amount of formic acid and may cause a skin rash.”

Texas is blessed with several types of stinging plants. *Urtica* species are true stinging nettles. Bull Nettle is *Cnidioscolus texanus*. *Tragia* species are known as Noseburns.

Delena Tull writes about these in “Edible and Useful Plants of Texas and the Southwest” (1999). “In general, most stinging plants act like miniature hypodermic needles. Contact with the bristles breaks off the tip, enabling the sharp point to penetrate the skin. The bending hair puts pressure on a bulbous sac at its base, forcing the toxic fluids through the tubular bristle into the skin.”

Tull provides several tips for relief. Cool water may be sufficient to reduce. A solution of 1 part bleach to 9 parts water may help. A product like “Easy-Ivy” is handy to carry along on hikes where stinging plants may be encountered.

Much is still unknown regarding the chemistry and pharmacology of substances produced by various types of stinging plants.

Powell explains where Shirley’s Nettle may be found: “*Cevallia sinuata* ranges from Texas (mostly the western half) west to southeastern Arizona, and south in Mexico to the state of Zacatecas.” In the LRGV, the plant occurs in Willacy and Hidalgo counties in caliche, loose sand and gravel hills. Dr. Richardson reports the blooming period as spring through fall. (“Plants of the Rio Grande Delta,” 1995.)

Apparently I’m not alone in regarding the plant as beautiful. Geyata Ajilvsgi includes Stinging *Cevallia* in “Wildflowers of Texas” (2002): “The flowers of this plant are very interesting but do not lend themselves to close inspection... These plants are much visited by flies, bees, and butterflies, which are evidently immune to the stinging hairs.”

*Cevallia sinuata* is rather easily-identified, as there are no close relatives found in Texas. The wavy leaf margins (*sinuata*) are distinctive even when the plant is not in bloom.

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