

Christina Mild
RIO DELTA WILD



"Younger blossom on top left. Older blossom shows large yellow two-lobed stigma ready to receive pollen."

FLORA FACTS Eustoma crop.jpg)
Scientific Name: *Eustoma exaltatum*
Common Names:
Texas Bluebell, Lira de San Pedro
Family: Gentian

TX Bluebells Reappear after Wet Winter

Texas Bluebells will be blooming on South Padre Island through the summer, Dr. Al Richardson tells me. Those which bloom on the island are smaller than those we find in

Harlingen, Mike Heep notes.

Texas Bluebells are found throughout the state. According to Correll and Johnston, they're most abundant in Mexico. (*Manual of the Vascular Plants of Texas*, 1979.)

Billy Joe Snider, Jr. found a single plant blooming in Ramsey Park during the week of May 8, 2003. The area where it grew had been cleared of guinea grass months before by an army of Arroyo Colorado Audubon Society (ACAS) volunteers.

"This shows what can happen after a wet winter," one of those volunteers, Diann Ballesteros, remarked.

Her words echo those of Dr. Richardson, author of *Plants of the Rio Grande Delta* (1995). "*Eustoma exaltatum* is one of those plants that bloom profusely in right conditions (in this case, lots of rain), and some seasons you rarely see them. I have seen drainage ditches full of the blooms, as far as I could see (not very far, admittedly). Also in low places adjoining the expressway. They always bloom in the spring at the beach, even when they are seen nowhere else. Colors range from white to dark purple. They are much like the central Texas bluebells, (same genus), but a little smaller. The seed catalogs offer *Lisianthus* (*Eustoma grandiflorum*) in many colors. That's the name of the central Texas bluebell. These seeds germinate pretty easily, and I have been told the *E. exaltatum* don't."

You may have seen the central Texas bluebells sold as cut flowers. They're available in several colors. Botanists, of course, are in disagreement about whether Texas Bluebells growing in this area are the same or different than species growing in the rest of Texas.

The keys for differentiating the two species involve measuring the length and size of petals. Petal size, of course, varies widely with rain, soil nutrients and a whole host of other factors.

It's likely that wild-growing plants in this area carry specific genetic attributes which enable them to survive our variable climate. The difficulty Dr. Richardson mentions, "seed is hard to germinate," may be one of those attributes. It's probably vital that seed doesn't germinate around

here except in prolonged wet weather. Only under those conditions would the plant be able to flower and produce seed before inhospitably dry conditions returned.

Whether we should call LRGV Bluebells by a different scientific name is of great importance to botanists sitting in air-conditioned offices preparing illustrious publications. For those who wish future generations to see these wildflowers growing in the LRGV, the most important goal is to protect existing wild populations.

Frank Boggus, Sr. recently invited me to visit his three and a half acre Harlingen backyard. Mr. Boggus is doing just that: protecting a wide diversity of LRGV-native flora. Most of his wildflowers had already produced prolific seed for future years. The Texas Bluebells were still vibrant. In the photograph, you see evidence of a black soaker hose the Bogguses wisely use to keep their wildflowers watered. Frank's wife grew the Bluebells from seed she collected on a vacant lot.

I've only seen Texas Bluebells at one other spot in Harlingen, along an edge of Harlingen Thicket. The last time I saw those was over four years ago.

Before Coakley Estates subdivision was begun, massive clearing and bulldozing was done to change local drainage patterns. After any clearing, the first plants to appear in spring are herbaceous wildflowers and grasses. Along the Thicket's edges during that first spring after clearing, the display of wildflowers and diverse grass species was wondrous.

Before the introduction of tall exotic grasses like guinea and buffle grass, wildflowers reappeared spring after spring until shrubs and then trees took their place in the sun and rain, in the process of natural succession.

The process of natural succession in South Texas has changed dramatically with the introduction of these tall grasses. Wildflower populations can barely emerge before they're outpaced. Guinea grass germinates and grows throughout the year, in shade and sun. Once established, it's often the only plant species which survives: a monoculture.

Thus, I no longer find Texas Bluebells along the Thicket edge. Some seed from previous wildflower generations may remain there. As time progresses, creatures will devour most of that remaining seed. Mold and fungi will assist in the natural process of decomposition.

Texas Bluebells display wondrous color. Mike Heep says they remind him of tulips. Even the color of the foliage is similar. Certainly they are better-suited to this area than any variety of tulip.

Looking down into the bloom, one notices that some blooms appear to have very different structures than others. Howard S. Irwin, in his reliable manner, explains why this is so (*Roadside Flowers of Texas*, Wills & Irwin, 1961). The Gentian family exhibits "protandry." In young flowers, the male anthers shed their pollen while the female stigma is yet immature. Bees are typically attracted and buzz about gathering the pollen. As the pollen-dusted bees bumble about in search of pollen, they also visit older flowers. These no longer have pollen to collect, but the mature stigma has become large, sticky and receptive to the pollen which bees cart along. Thus, genetic diversity is favored, as a flower cannot fertilize itself.

Keep your eyes open for this beautiful wildflower. Ann Vacek of Native Plant Project provides a few tips on where to look: "This plant amazes me - such a beautiful flower growing under very harsh conditions ... on S. Padre Island in full sun amongst low vegetation and at an Edinburg park in full sun on the almost barren side of an irrigation ditch."

Technical assistance by Mike Heep, native plant nurseryman and UTPA Instructor.

Mrs. Mild holds an M.S. in Biol. Sci. She may be contacted at RioDeltaWild@aol.com.

Return to website: www.riodeltawild.com

