

**Wooly seeds on Palmer's Bloodleaf indicate a female plant.**



**FLORA FACTS**

Scientific Name: *Iresine palmeri*

Common Names: Palmer's Bloodleaf

Family: Amaranthaceae (Amaranth)

**Wool-Seeded Vine of Sabal Forest**

Growing amongst the diverse plants at Sabal Palm Sanctuary are many types of vines. Three or more species often grow twined together, an excellent challenge for the would-be botanist.

Brownsville's small pocket of remaining palm forest has been preserved by National Audubon Society. It's a tiny remainder of subtropical forest which once grew along both sides of the Rio Grande, stretching for many miles north and south, as well as inland.

Sabal Palm Sanctuary is a great place to test your skills at sighting wildlife and identifying plants. Because there are so many different species growing there, it has taken me many years to focus on today's vine: *Iresine palmeri*, Palmer's Bloodleaf.

The leaves of this vine are somewhat variable in shape, but are generally narrow and pointed like so many other leaves growing in a forest.

At certain times of year, Palmer's Bloodleaf would be noticeably red. During April 2004, this red coloration wasn't present. The pigments responsible are *Betalains*, also found in beets, Swiss Chard, purslane, cacti, bougainvillea and Amanita mushrooms.

The Amaranth family "with lots of red pigments," Mike Heep explains, "is in the Order Caryophyllales, as are all of those other plants you mention."

These pigments are also called *betacyanins*. They are chemically similar to alkaloids and produce a wide range of colors: yellow, orange, red and purple. They have received great attention from biochemists and geneticists.

*Betalains* are used in all sorts of ways by people, especially in adding color to food and wine.

It is often not so clear why plants produce the pigments. Flowers obviously attract pollinators. But why, for example, would an especially dark red root be advantageous for a beet?

Mike Heep explained to me that succulent coastal plants utilize these pigments to combat osmotic problems. "They accumulate salt from the soil water and stash it in vacuoles to keep it

from doing any damage (Sodium is hell on some plant enzymes). They make the red pigments in the cytoplasm, outside of the vacuoles, to keep the osmosis from going haywire. This is a common strategy in all of those succulent plants in salty areas. During drought periods many of them get real red.”

I guess there wasn't much osmotic pressure on Palmer's Bloodleaf at the Palm Grove when I visited in April. We had a pretty rainy spring.

Palmer's Bloodleaf belongs to the mostly inconspicuous Amaranth Family. Careless Weed, Pigweed and Snake Cotton are close relatives. Amaranths have tiny flowers. Many are annuals. One would typify them as weedy herbs. Because the flowers are so tiny, I tend to ignore the whole family as uninteresting.

A conversation with my college daughter shed light on the danger of ignoring any group of living organisms. “Is there a key which holds everything together?” she remarked. “We know that all living things are related in complex ways. Will we someday annihilate a key species, ultimately leading to the destruction of everything else?”

It's a good question. Preserving diversity is an important thing. Plants without conspicuous blooms shouldn't be ignored as unimportant. So I'd better take a closer look at the inconspicuous things as well as the plants with pretty flowers.

The male and female flowers of *Iresine palmeri*, tiny and without petals, are borne on different plants. Thus, female plants will bear conspicuously woolly seeds, while male plants will not. This can be maddening when you're learning to identify the plant.

You'll find Palmer's Bloodleaf in few places in the United States. The Brownsville-Olmito area of Cameron County, Texas is the northern range limit. It has a wider range in Mexico.

“The furthest north that I have seen it is at Russelltown.” Mike Heep relates. “Joe Labus at one time had a nice one growing on a trellis on the east side of his house.” Mr. Labus is a native plant grower living near Edinburg.

Palmer's Bloodleaf is described by Correll and Johnston as “a perennial weak shrub, scandent or decumbent, stems much-branched, the branches ascending, slender or stout... leaves opposite.” (“Manual of the Vascular Plants of Texas,” 1979.)

I typically regard the plant to be a vine. It is examined most easily in contrast with the bark of a tree. I should challenge myself to identify Palmer's Bloodleaf growing amongst the myriad herbs and shrubs of the forest floor. Perhaps I can wait until it's blood red.

A visit to Sabal Palm Forest can be an enchanting experience. I recommend repeated visits.

Adjacent to the tiny Visitor's Center is a picnic-area deck. It's a great place to have lunch with green jays, hummingbirds and chachalacas. Colorful and noisy creatures are always nearby at various feeders and watering areas.

A drive to the area reveals how little natural vegetation remains.

One passes “Ocelot Acres,” an exceptionally ugly, recently-bulldozed housing development. This typifies man's disrespect for other living things. Any ocelot that once lived there is certainly gone.

Down the road a bit lays a small glimmer of hope: Texas Nature Conservancy's Southmost Preserve. Here, another small chunk of Sabal Palm forest is preserved and seedlings are grown for revegetation throughout the valley.

Perhaps we can plant some “Ocelot Acres” somewhere else, though it will be no easy task.

Imagine acquiring over 150 different native plant species. Then imagine planting them in the right soil, drainage, sun and with preferred companion plants. Even this ridiculously-simplified plan for recreating a Sabal Palm forest would be no easy task.

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