

Postcards from Paradise

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Those Confusing Lantanas

Plant lovers love variety. To achieve it we move plants from all parts of the world to cultivate in public and private gardens. We select varieties, or cultivars, with the best attributes - bigger flowers, more flowers, brighter colors - and, unwilling to leave well enough alone, we create our own hybrids. Why do we strive for so much variety in our gardens? Because plants play such an important part in our well being, our material and spiritual enrichment, our recreation. We seek variety in our gardens to escape the mundane and monotonous.

Any logical person would think that if a single plant species is widely cultivated around the world - in tropical, subtropical, and temperate regions alike - there would be little, or no, confusion concerning its identity. This is generally true until you encounter *Lantana camara*, a species with no popular common name other than simply "lantana." There are some 160 species of lantana in the world, yet only a few are widely cultivated, and none more than *Lantana camara*. The confusion is created because of the more than 100 named color forms, horticultural cultivars, and hybrids of *Lantana camara* in the nursery trade. This is in addition to naturally-occurring varieties and hybrids recognized by botanists and taxonomists. The more you try to unravel the confusion, the more confusing it becomes.

The World's Weed

Lantana camara is highly variable and taxonomically complex. Wild, naturalized plants in Florida represent tetraploid cultivars that are typically multi-branched, prickly-stemmed shrubs to five feet or more in height. The dull-green, rough leaves are coarsely toothed along the margins, and the clustered, small, green fruit ripen metallic blue. Flowers of one common wild form begin yellow, but gradually turn orange, then red, within a 24-hour period. This gives the flower cluster a bull's eye appearance with yellow flowers in the center, surrounded by successive circles of orange, then red.

Although the origin of *Lantana camara* is debated, it is believed that it originated in the Greater Antilles. As a wild plant, it is distributed in tropical, subtropical and warm temperate regions of the world, growing in disturbed sites and dry, well-drained natural ecosystems. It is not always welcome. The toxic leaves are a principal cause of fatal poisoning of grazing livestock worldwide, and cause severe liver problems in dogs. The green, unripe fruit contain a toxin, lantanine. The literature abounds with cases of serious poisoning and deaths of children who ingested even small quantities of the fruit. Symptoms include vomiting, diarrhea, weakness, lethargy, labored respiration, coma and neuro-circulatory collapse. Contact with the plant can also cause dermatitis and itching. Because of its poisonous properties, some countries, such as Zimbabwe, Mozambique and Botswana, have passed laws banning the plant, and stiff fines are imposed on anyone who knowingly harbors plants on private property.

So, with all that going against it, what is it that makes *Lantana camara* such a popular landscape subject? Would you like color for a dry, sunny area with poor soil? *Lantana* excels. Or would you like a superb butterfly attractor? Choose *Lantana*.

Lantana



↑ One of the many color forms of *Lantana camara*. Photo by Rob Sosnowski.



↑ Wild sage, *Lantana involucrata*, is a common native species throughout much of Florida, especially near the coast. Photo by Rob Sosnowski.



↑ Rockland lantana, *Lantana depressa* var. *depressa* in its natural habitat. Note the prostrate growth habit of this endangered species. Photos by Roger Hammer



↑ The South American *Lantana montevidensis* is a trailing species that has been genetically altered to produce free-flowering sterile plants for the nursery trade. Photo by Roger Hammer.



↑ *Lantana* "Gold Mound" is a popular bedding plant for sunny locations. Note the wedge-shaped leaf base, a characteristic taken from one of its parents, *Lantana depressa* var. *depressa*. Photo by Roger Hammer.

The Natives

Florida harbors three native species of lantana. Wild sage, *Lantana involucrata*, is the most common native species with a natural range that includes central and southern Florida, the West Indies, and Mexico south to northern South America. It is an upright or sprawling shrub with rounded, aromatic leaves and yellow-centered, white flowers which may be blushed with light purple. It inhabits beach dunes, pinelands, scrublands, and other dry, well-drained sites. Although attractive, it is not commonly cultivated.

Another native lantana is extremely rare and, in Florida, is known only from a few locations in southern Dade County where it prefers pine rockland habitat and the narrow ecotone along the edges of hardwood hammocks. Botanically, it is known as *Lantana canescens*, but it can also be found listed under the synonym *Lantana microcephala*, a descriptive name meaning "little head" in reference to the small clusters, or heads, of white flowers. Its natural range also includes the Greater Antilles but, due to its rarity in Florida, it is listed as an endangered species.

Florida's third native species is divided into three separate recognizable varieties. All three varieties produce yellow flowers that fade to tawny orange. Rockland lantana, *Lantana depressa* var. *depressa*, is a rare, endangered species that is endemic to the globally imperiled pine rocklands of southern Dade County. The leaves of this ground-hugging species are typically curled longitudinally, giving them a boat-shaped appearance. A key character that helps separate it from *Lantana camara* is the cuneate (wedge-shaped) leaf base of *Lantana depressa*, compared to the truncate (squared-off) leaf base of *Lantana camara*. Although generally prostrate in growth habit, it may produce a short central stem to 1.5 feet long.

Along Florida's east coast is *Lantana depressa* var. *floridana*, a bushy shrub to five feet or more. It is found on coastal dunes, sand barrier islands, and on inland relict dunes. Along Florida's west coast is *Lantana depressa* var. *sansibelensis*, which inhabits calcareous dunes and wet limestone prairies. It grows to five feet or more in height and has ascending branches. Seldom are pure forms of these three endemic varieties found in cultivation.

Even Florida native lantanas have been misunderstood. In the botanical literature, the name *Lantana ovatifolia* has been misapplied to *Lantana depressa* and *Lantana camara*/*Lantana depressa* hybrids. John Kunkel Small's monumental 1933 publication, *Manual of the Southeastern Flora*, gives *Lantana ovatifolia*'s range as "southern peninsula Florida and the West Indies." Roger Sanders, PhD, who conducted extensive genetic research on the genus *Lantana*, has determined that true *Lantana ovatifolia* is endemic to Grand Bahama Island and may occur on the Bahamian Islands of Great Abaco and Little Abaco as well. Nowhere in Florida does it occur as a wild plant.

What you're likely to find in the supermarket parking lot...

The two most widely cultivated lantanas in Florida (and

elsewhere in the United States) are *Lantana camara* in all of its various forms, and *Lantana montevidensis*. The latter is a rosy lilac-flowered, trailing species native to South America. It is widely used as a colorful groundcover or as a cascading plant in hanging baskets or planters. This species has been manipulated genetically to produce sterile plants for the nursery trade. Sterility is a desirable trait because it tends to make plants more everblooming. This species is listed as having escaped cultivation in a number of Florida counties, but these

plants are probably either persisting from cultivation or are a result of discarded landscape material.

Correctly identifying exotic pest plants can be tricky business. Naturalist Roger Hammer will examine "look alike" plants in this regular feature, "Postcards from Paradise."

Let the Confusion Begin

In 1952, Monrovia Nursery in Azusa, California, introduced a new hybrid lantana under the patented trade name "Gold Rush." This hybrid, known botanically as *Lantana x callowiana*, was reported to have been a cross between a *Lantana camara* cultivar and a yellow-flowered form of *Lantana montevidensis*, creating a low-growing, bright yellow-flowered plant. According to Roger Sanders, the plant that Monrovia Nursery thought was a yellow-flowered *Lantana*

montevidensis was, in fact, Florida's endemic *Lantana depressa* var. *depressa*. There are no yellow-flowered forms of *Lantana montevidensis*.

And this is only the beginning of the confusion. "Gold Rush" has been back-crossed to create an improved form introduced by Monrovia Nursery in 1992 as Gold Rush "Monol," described in their catalog as having masses of golden yellow flowers with a horizontal growth habit. "Gold Rush" has also been used to create other cultivars, most notably "Confetti," "Cream carpet," "Sunburst," and perhaps "Gold Mound." The latter has a mounding growth habit and is covered with cheery, bright yellow flowers and glossy leaves. It also appears to be sterile. It is uncertain what the parentage of "Gold Mound" really is, but it may be another cultivar name for the improved form of "Gold Rush." Whatever the case, it is being erroneously sold by some Florida nurseries as *Lantana depressa* and is therefore misrepresenting Florida's rare pine rockland endemic species. As a case in point, it was supplied to Everglades National Park and planted around the new main Visitors Center, but was removed once its true identity was revealed.

The Not-So-Great Depression

Lantana depressa is threatened by habitat destruction but, even more alarming is that its very existence as a species is being jeopardized by gene pool contamination by the exotic *Lantana camara*. Unchecked hybridization in the wild will eventually result in its extinction as a species if pure populations of *Lantana depressa* are not protected. Botanists from the Institute for Regional Conservation recently reported that not a single unadulterated plant of *Lantana depressa* var. *floridana* could be found along the east coast of central and southern Florida. It may already be too late to save our endemic *Lantana depressa* and, to me, that is very depressing.