

Task Force in the near future. A fact sheet pertaining to carrotwood and its control can be printed for public distribution from the IFAS EDIS Web site: <http://edis.ifas.ufl.edu> (search natural area weeds).

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Mexican Bluebell (*Ruellia tweediana* Griseb.) A Pretty Invasive Weed

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Ruellia is a genus in the Acanthus Family (Acanthaceae) that honors the French herbalist, Jean de la Ruelle (1474-1537), and comprises about 150 species native to tropical and temperate North and South America. Five species are native to Florida and three non-native species have escaped cultivation and are listed as naturalized in the state (Wunderlin, 1998). Of these three exotic species, clearly the one to watch is Mexican bluebell.

Taxonomically, this plant has been somewhat confusing. Florida nurserymen offer it under the name *Ruellia brittoniana*, but Richard Wunderlin, Ph.D., of the University of South Florida, points out that "The basionym for both *Ruellia tweediana* Griseb. (1879) and *Ruellia brittoniana* Leonard (1941) is *Cryphiacanthus angustifolius* Nees (1847), thus they have the same type. This makes *Ruellia tweediana* the correct name and *R. brittoniana* a synonym" (email correspondence, in part, to the List Committee of the Florida Exotic Pest Plant Council, January, 2001). The species was named in 1879 by the German botanist, August Heinrich Rudolf Grisebach (1814-1879), who studied tropical plants in the West Indies. The name, *tweediana*, commemorates James Tweedie (1775-1862), the head gardener at Edinburgh, Scotland who

emigrated to Argentina. Dieter Waschausen, Ph.D., and an expert in the Acanthaceae, once favored even another name, *Ruellia coerulea* Morong, but now agrees with Wunderlin that *R. tweediana* is the legitimate name for this popular landscape plant.

In Betrock's PlantFinder®, a wholesale guide to foliage and ornamental plants in Florida, there are a number of cultivated varieties (cultivars) of Mexican bluebell listed (as *Ruellia brittoniana*). These include a compact growth form ('Compacta') as well as various flower color forms ('Princess Pink,' 'Pink Showers,' 'Purple Showers,' 'Snow Queen,' 'Snow White,' 'Tricolor Katie'™, and 'Pink Shorts Katie'™). Cultivars have no botanical standing and are merely plants that are propagated because of certain horticultural traits. When cultivars spread from seed, they often revert back to the typical growth form or color form of the species. For instance, seedlings from the pink-flowered forms may revert to the blue-flowered type of the species. Regardless, all of the various growth and color forms of this species are exceptionally weedy.

Nurseries that promote butterfly-attracting plants offer Mexican bluebell as a larval foodplant to attract the Common buckeye (*Junonia coenia*) and the Malachite (*Siproeta stelenes*). Secondary larval foodplants of the Common buckeye are native species of *Ruellia*, particularly *R. caroliniensis* and *R. succulenta*. There are no documented records that Malachites will utilize *R. tweediana* in Florida, although they will use it in captivity when it is the only plant available to them. Neither Ron Boender nor Marc Minno, two noted authorities on butterflies, have ever observed Malachites utilizing any *Ruellia* species in the wild in Florida (pers. comm., October, 2001). In Florida, the preferred larval foodplant of the beautiful, green-and-black Malachite is Green shrimp-plant (*Blechnum pyramidatum*), another weedy, non-native species that is firmly entrenched in the flora of Florida. Several butterfly gardening books even list Mexican bluebell as a butterfly nectar source although personal observations indicate that butterflies pay little or no attention to the flowers (hummingbirds serve as pollinators of some members of the

genus in tropical America).

As a weed, Mexican bluebell prefers wet, disturbed sites. It has been observed frequently by the author on roadside ditch banks and around road culverts in the Big Cypress National Preserve and Fakahatchee Strand Preserve State Park, both in Collier County, Florida. Large, spreading populations have also been observed around two widely separated hunting camps deep within the Big Cypress National Preserve, and hundreds of seedlings were found lining the swamp buggy trails leading to and from the camps.

It is not limited to southern Florida either. Large, naturalized populations in Gainesville (Alachua County, FL) and Lake Wales (Polk County, FL) have been reported to the author, and Wunderlin (1998) lists it as "frequent" throughout the Florida peninsula into the central and western panhandle. In *A Flora of Tropical Florida* (Long & Lakela, 1971) it is listed for "disturbed sites, peninsula Florida, scattered sites in southeastern U.S., Texas, naturalized from Mexico." In *Aquatic and Wetland Plants of Southeastern United States* (Godfrey & Wooten, 1981) its range

and habitat is reported as "drainage ditches, shores of ponds or lakes, moist to wet wooded areas. Native to central Mexico; in parts of our range cultivated for ornament and sporadically naturalized; coastal plain, South Carolina to Florida, west to Texas." It is interesting to note that long before Mexican bluebell gained its recent popularity and exploded in the nursery trade, it was already being reported as a weed in the southern states.

Its widespread range in Florida is not surprising because anyone who grows this plant, in any of its various forms, will quickly realize its weedy tendencies in cultivation. Plant one and you will have many dozens in a short period of time. Attempts to eradicate the species by hand removal is nearly futile because a persistent seed bank in the soil allows it to reappear long after eradication efforts are thought to be successful. Let a single plant go unnoticed until it flowers and seeds, and the whole process begins anew.

In southern Florida it is not uncommon to see thousands of potted Mexican bluebells being propagated in nurseries. Not only is it promoted

and sold by local wholesale and retail nurseries, it is also available in garden centers of such large distributors as Home Depot, K-Mart, and Wal-Mart. With such a wide distribution coupled with a growing popularity as a colorful landscape and bedding plant, it will likely prove difficult, if not impossible, to eliminate it from cultivation in Florida. In short, it appears that the Florida nursery trade has helped unleash yet another invasive weed for resource managers to cope with. How Mexican bluebell will affect Florida's natural areas has yet to be seen, and how costly its control will be has yet to be realized. Unfortunately, it's too late to close the barn door now that the cows are out.

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