

# The Genus

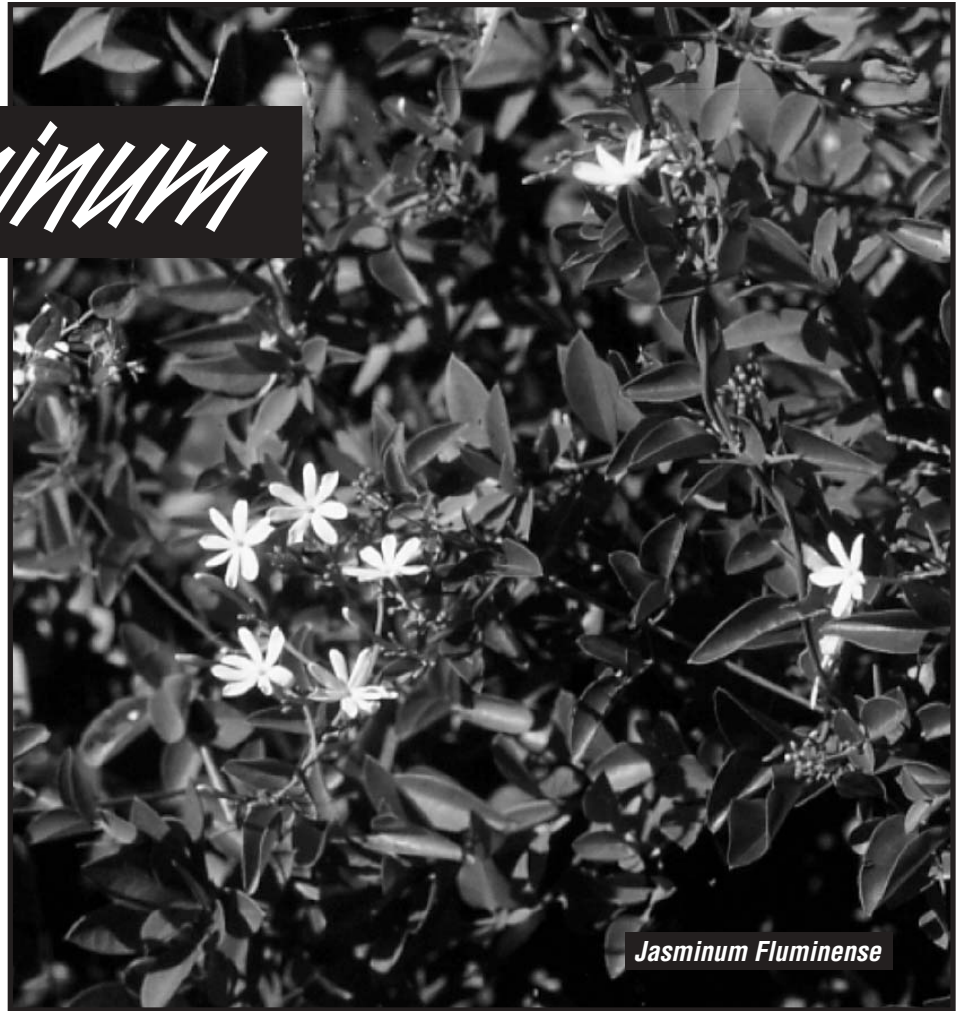
# JASMINUM

## In Florida

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“Jasmine” (or “jessamine”) is a popular name for a number of unrelated plants. Confederate jasmine (*Trachylopernum jasminoides*) and pinwheel jasmine (*Tabernaemontana divaricata*) both belong to the Oleander Family (Apocynaceae). Day jasmine (*Cestrum diurnum*) and night jasmine (*C. nocturnum*) are members of the Nightshade Family (Solanaceae). Orange jasmine (*Murraya paniculata*) is in the Citrus Family (Rutaceae). And Madagascar jasmine (*Stephanotis floribunda*) is in the Milkweed Family (Asclepiadaceae). True jasmines belong to the genus *Jasminum*, a tropical and subtropical genus comprised of about 300 species of vines and shrubs from Eurasia, Africa, Australia, Oceania, and tropical America. They are members of an economically important group of plants, the Olive Family (Oleaceae) and are related to the olive (*Olea* sp.), ash (*Fraxinus* sp.), and lilac (*Syringa* sp.). Many jasmines are of horticultural interest, mainly for their fragrant flowers, and some species are cultivated commercially for the production of perfume and as a flavoring for tea. In many countries the flowers are also used in garlands and worn in the hair.

Currently there are at least ten species of *Jasminum* cultivated in Florida. Of these, seven species have escaped cultivation, which include Gold Coast



*Jasminum Fluminense*

jasmine (*Jasminum dichotomum*) Brazilian jasmine (*J. fluminense*), Japanese jasmine (*J. mesnyi*) star jasmine (*J. multiflorum*) angelwing jasmine (*J. nitidum*) poet's jasmine (*J. officinale*), and Arabian jasmine (*J. sambac*).

Following Hurricane Andrew in 1992, Gold Coast jasmine and Brazilian jasmine became exceptionally aggressive in the storm-damaged forests of Miami-Dade County. Both had been established long before the storm but soil disturbance and abundant light levels created by fallen trees allowed localized populations to explode. Both species were introduced by Dr. David Fairchild, the founder of Fairchild Tropical Garden in Miami. Fairchild even apologized for introducing the Gold Coast jasmine after observing the abundant fruits produced in Florida, fearing that he may have introduced a plant that would become a serious environmental pest.

In 1962, Robert Read, a botanist associated with Fairchild Tropical Gar-

den authored a paper in the proceedings of the Florida State Horticultural Society entitled “Jasmine species in cultivation in Florida and their correct names.” In this paper, Read mentions Fairchild’s early concerns regarding the weedy potential of Gold Coast jasmine but concluded that “although the species does produce an abundance of fruit it is not a serious weed. Only a few wild plants may be found in vacant lots and along the roadside in south Florida.”

### That Was Then, This Is Now

As Dr. Fairchild predicted, Gold Coast jasmine has become a troublesome weed in Florida and can now be found in virtually every hardwood forest in urbanized Miami-Dade County. Wunderlin (1998) lists it for Highlands County and the southern peninsula, and the Florida Exotic Pest Plant Council (EPPC) includes it in Category I of Florida’s most invasive species. Cat-

egory I is reserved for those plant species that are disrupting Florida native habitats and includes such notorious pests as Brazilian pepper (*Schinus terebinthifolius*), cajeput (*Melaleuca quinquenervia*), and Australian pine (*Casuarina equisetifolia*). Aside from native habitats, Gold Coast jasmine is also exceptionally weedy in disturbed sites, such as along fencerows as well as in cultivated landscapes.

Gold Coast jasmine is a woody climber, which can reach 25 feet or more into the tree canopy. Its simple, ovate, glossy leaves are opposite and the petioles are noticeably angled in a somewhat elbow shape. This is a useful characteristic that resource managers can use to identify sterile plants because a native shrub of hardwood forests in southern Florida, snowberry (*Chiococca alba*) somewhat resembles Gold Coast jasmine but lacks the angled petiole. Gold Coast jasmine produces intensely fragrant white flowers that are pink when in bud. The flowers are followed by a great abundance of pea-sized black or dark purple fruits that are eaten by birds and mammals.

## Fairchild's Folly

Another species that Dr. Fairchild introduced into Florida, and again one that he later apologized for, is Brazilian jasmine. This plant has an interesting history of introductions. In 1916, cuttings labeled *Jasminum azoricum* were shipped from La Mortola Gardens in Italy to the USDA Plant Introduction Station in Miami. None of these cuttings survived so it is unknown whether or not they were actually *J. azoricum*, a native of the Canary Islands. Seeds that Dr. Fairchild introduced in 1931 came from Oranjestad, St. Eustatius in the Leeward Islands, and these too were labeled *J. azoricum* by USDA, probably because of its similarity to the earlier introduction. The following year, USDA received more seeds of "*J. azoricum*" from Nassau, Bahamas (Read, 1962).

*Jasminum azoricum* is a misapplied name for the species introduced into Florida. The correct name is *Jasminum fluminense*. Another confusing aspect of this plant is its common name and its reported native range. It is usually referred to as Brazilian jasmine because

the type locality (where it was first collected and described) is near Rio de Janeiro in Brazil. It is believed to have been introduced into Brazil by the Portuguese. A frequently used common name for this species is Azores jasmine due to its introduction under the erroneous name *J. azoricum*.

The native range of Brazilian jasmine is listed as "Brazil" by Read (1962), as "tropical America" by Wunderlin (1998) and as "Africa" by Menninger (1970). In checking various floras in the research library at Fairchild Tropical Garden, it seems that it is clearly an African native. In the *Flora of Tropical East Africa* (Bruce and Lewis 1960), its range is given as "Mauritius, Seychelles, Arabia, Eritrea, Somaliland [Somalia and the Ogaden region of Ethiopia], Abyssinia [Ethiopia], Rhodesia [Zimbabwe], Nyassaland [Malawi], Portuguese East Africa [Mozambique], Angola, Nigeria, and South Africa (West Indies and South America, introduced)." Other African floras gave similar ranges, none of which mention it being native anywhere in the western hemisphere.

Brazilian jasmine has the honor of

being the most frequently encountered and most troublesome jasmine in Florida although, curiously, Wunderlin (1998) includes it as "rare" for Highlands, St. Lucie, Miami-Dade, and Monroe counties. It is widespread in a variety of habitats, most particularly hardwood forests, and is a pest in cultivated grounds as well. It is an ever-blooming vine with very fragrant white flowers produced in open clusters. The leaves are compound, bearing three leaflets that are slightly pubescent. Black or dark purple fruits are borne in profusion. Read (1962) pointed out its aggressive tendencies when he wrote, "when left alone it will grow over the top of any tree or shrub as rapidly as any vine." It is listed in Category I of Florida EPPC's list of most invasive species. Seeds are bird-dispersed but dense clusters of seedlings can be found sprouting from raccoon droppings as well.

Arabian jasmine, from tropical Asia, also deserves watching because it is already listed in Category II by Florida EPPC. Control of jasmines in natural areas has been successful using 10%

Garlon 4 as a basal stem treatment on young plants and as a cut stump treatment on mature, old growth, woody stems. Seedlings can be hand-pulled but resource managers should make regular site visits to control re-infestations.

## Literature cited

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