

Native Aquatic and Wetland Plants: Golden Canna: *Canna flaccida*¹

Edward F. Gilman, Carl J. Della Torre III, and Lyn A. Gettys²

Introduction

Golden canna is a native herbaceous perennial wetland plant that grows in marshes, wetlands, and savannahs and around the edges of lakes and ponds. Golden canna is an emergent plant that only needs to have “wet feet” (damp soil) and usually grows up to 4 feet tall, although some reports suggest that the species can reach up to 9 feet in height. The leaves of golden canna are up to 2 feet long and 6 inches wide. Golden canna leaves are vertical, thick, and tender and have pinnate, or feather-like, venation. Each leaf is oblong with a wide base that tapers to a point at the tip. Leaves are arranged in a spiral; the base of each leaf wraps around the stem and the next leaf overlays the one above. The flowers of golden canna are borne in a terminal cluster, and each of the bright-yellow flowers is up to 3 inches across (UF/IFAS Center for Aquatic and Invasive Plants (UF/IFAS CAIP) 2020). The showy parts of the flower are not the petals but consist of a modified style and three stamens. There are a number of cultivars of golden canna available through the water garden industry. Most of the cultivars are hybrids and usually have pink, red, white, striped, or variegated flowers.

Classification

Common Names

Golden canna, bandana of the Everglades



Figure 1. Flower of golden canna.
Credits: David Sutton, UF/IFAS

Scientific Name

Canna flaccida Salibs

Family

Cannaceae (Canna Family)

1. This document is FPS102, one of a series of the Department of Environmental Horticulture, UF/IFAS Extension. Original publication date October 1999. Revised June 2015, November 2020, and July 2024. Visit the EDIS website at <https://edis.ifas.ufl.edu> for the currently supported version of this publication.
2. Edward F. Gilman, professor emeritus, Department of Environmental Horticulture; Carl J. Della Torre III, former graduate assistant, Department of Agronomy, UF/IFAS Fort Lauderdale Research and Education Center, Aquatic Plant Science Lab; and Lyn A. Gettys, associate professor, Department of Agronomy, UF/IFAS FLREC, Aquatic Plant Science Lab; UF/IFAS Extension, Gainesville, FL 32611.

The Institute of Food and Agricultural Sciences (IFAS) is an Equal Opportunity Institution authorized to provide research, educational information and other services only to individuals and institutions that function with non-discrimination with respect to race, creed, color, religion, age, disability, sex, sexual orientation, marital status, national origin, political opinions or affiliations. For more information on obtaining other UF/IFAS Extension publications, contact your county's UF/IFAS Extension office. U.S. Department of Agriculture, UF/IFAS Extension Service, University of Florida, IFAS, Florida A & M University Cooperative Extension Program, and Boards of County Commissioners Cooperating. Andra Johnson, dean for UF/IFAS Extension.

Distribution and Habitat

Golden canna is broadly distributed throughout Florida and can be found in most of the state's 67 counties. The species is less common in other coastal southeastern states, but native populations occur as far west as Texas and as far north as South Carolina (US Department of Agriculture, Natural Resources Conservation Service (USDA NRCS) 2020a). Golden canna is categorized as a wetland species, meaning that it almost always occurs in wetland opposed to terrestrial environments (USDA NRCS 2020a). Golden canna is often grown as an ornamental perennial in cooler climates, but it cannot tolerate freezing temperatures. In temperate areas, the rhizomes (thick fleshy underground structures) should be dug up and stored indoors to prevent cold damage; these rhizomes can be replanted outdoors in spring. Golden canna can grow in a wide variety of substrates, including sand, clay, loam, and organic muck. Although golden canna grows best in moist or saturated soil, the species is somewhat tolerant of drought; however, it is not tolerant of salt spray or saltwater encroachment. Golden canna tolerates partial shade, but it grows best under full-sun conditions.

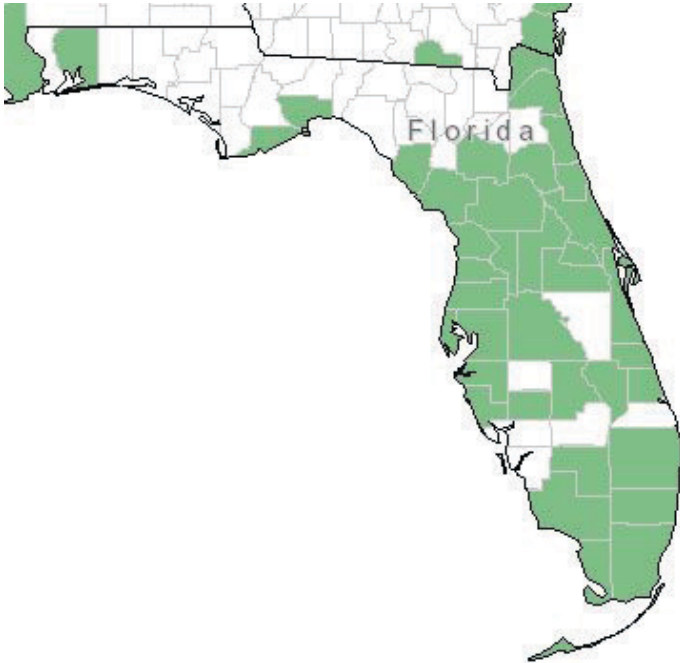


Figure 2. Distribution of golden canna in Florida.
Credits: USDA NRCS

Propagation

Most reproduction in native populations of golden cannas occurs through seeds. The species is hermaphroditic, meaning it has both male and female reproductive structures. Golden canna is self-fertile, so seeds can be produced by self-pollination, but some cultivars are sterile triploids and are unable to produce seeds. Pollination is facilitated by bees, bats, hummingbirds, and other small wildlife species.

Unripe seed pods are green, covered with dense hairs, and velvety to the touch. Pods turn dark brown as they ripen and contain numerous hard, brown seeds. The hard seed coat prevents water from penetrating the seed, which results in seed dormancy. Germination can be induced by scarifying the seeds. Scarification allows water to penetrate the seed coat and can be done by nicking the seed coat with a metal file, sandpaper, or a weak sulfuric acid solution.



Figure 3. Unripe seed pods of golden canna.
Credits: David Sutton, UF/IFAS

Golden canna can also be easily propagated by rhizome division. Rhizome division results in clones, or plants that are genetically identical to the source plant, and is the only means of reproduction for sterile cultivars. Golden canna usually produces four or five new shoots from new rhizomes during the course of a growing season, and these can be removed and either potted up or replanted elsewhere. Plants may be started indoors in large pots before they are set out after all danger of frost has passed, or rhizomes can be directly planted in the ground in late spring and into the summer. They can also be planted directly in shallow water at the edge of a pond. Staking and the removal of spent blooms may be necessary to maintain a neat appearance. In southern climates, rhizomes are left in the ground to grow and flower each year. Cut back to within 6 to 8 inches, and dig up the rhizomes if you prefer.

Cannas enjoy full sun locations, where they produce an abundance of flowers over a long period of time. The plant grows but flowers poorly in the shade. Set rhizomes about 12 inches apart for a solid mass of coarse-textured bright

color during the summer. Healthy roots may be divided in the spring with each division having one or more eyes (nodes or growing points that look like greenish bumps on the rhizome).

Pests and Diseases

Caterpillars and Japanese beetles feed on young leaves and flower buds. Milky spore can be used to help control larvae in the soil.

Bud rot causes numerous spots on unfolding leaves. The spots run together along veins and may be whitish at first but soon turn black. Infected flower buds turn black and die before opening. The disease moves down the leaf stalk, killing young stems and buds. The disease spreads more slowly on older leaves and forms irregular, yellowish spots with water-soaked margins. Canna mosaic virus is transmitted by aphids and causes leaves to have pale yellow stripes from the midrib to the margin. The leaves are wrinkled, curled, chlorotic or dusty brown, and the stems, sepals, and petals have yellow bands. Aster yellows is also transmitted by aphids and causes irregular, diffuse, dull yellowing of young leaves, which turn brown with age. Destroy infected plants and control aphids to prevent spread of canna mosaic virus and aster yellows.

Other Species of *Canna*

Golden canna is not the only species of *Canna* that is found in Florida. *Canna glauca* L. (maraca amarilla) is native to Florida but is rare; the only Florida population of the species is in Madison County, an extreme northern county that borders Georgia (USDA NRCS 2020c). The introduced species *Canna indica* L., commonly known as Indian shot and wild canna lily, has been reported in twelve Florida counties (Wunderlin et al. 2020). Although Indian shot is considered an invasive species in Australia, South Africa, and many Pacific Islands (BioNET-EAFRINET 2011), there is no evidence that the species has become a problem in Florida. Cultivars of *Canna generalis* L. H. Bailey—derived from crosses between *C. glauca* and *C. indica*—also occur in more than a dozen Florida counties and can be found as far west as Texas and as far north as New York (USDA NRCS 2020b; Wunderlin et al. 2020).

Uses

Golden canna and its cultivars are used extensively as ornamental landscape species, especially in areas that remain damp for extended periods of time. Cannas also have potential as phytoremediation agents to remove nitrogen (N) and phosphorus (P) from water. For example,

Canna generalis L. H. Bailey ‘Australia’ removed more N and P from water than 5 other plants studied in a floating wetland system (Chen et al. 2009).



Figure 4. Young golden canna plants in the field.
Credits: David Sutton, UF/IFAS

Many parts of golden canna have been used for commercial purposes. The rhizomes are rich in starch and have been historically used to make arrowroot starch, a bland food that was particularly valued for feeding the sick (Tracy 1911). However, you should NEVER eat plants collected in the field because many species have very similar appearances and you could accidentally consume something toxic.

The seeds of golden canna have been used to make a variety of objects, including jewelry, rosaries, dyes, and toys. For example, the Seminoles placed golden canna seeds inside turtle shells to make ceremonial rattles. Also, the Miccosukee refer to the species as *sawakmali:tî* and the Creek call golden canna *sáwko matihita*; both names translate roughly to “the contents of a rattle” (Austin 2004). The stems and leaves have been used as cattle feed, and the leaves can be processed to make a light tan paper.

Golden canna is useful to fauna other than humans as well. The species is sometimes eaten by birds (The Institute for Regional Conservation (IRC) 2015) and is a nectar source for the Brazilian skipper (*Calpododes ethlius*), also called the canna or arrowroot butterfly. Golden canna is also a host for at least two species of larvae—the larger canna leafroller, which is the larval form of the Brazilian skipper, and the lesser canna leafroller, *Geshna cannalis* (McAuslane 2022).

Summary

Golden canna is a native aquatic and wetland plant that is a welcome addition in a variety of settings, including water gardens, aquatic ponds, and wetland restoration and mitigation sites. The species is broadly adapted and extremely common throughout Florida, and its perennial nature promises a rewarding performance year after year. Although golden canna is a wetland plant, the species is often used as an ornamental landscape plant and grows well under garden conditions.

Literature Cited

Austin, D. F. 2004. *Florida Ethnobotany*. Boca Raton, FL: CRC Press.

BioNET-EAFRINET. 2011. “Keys and fact sheets: *Canna indica* (wild canna lily).” Accessed November 24, 2020. http://keys.lucidcentral.org/keys/v3/eafrinet/weeds/key/weeds/Media/Html/Canna_indica_%28Wild_Canna_Lily%29.htm

Chen, Y., R. P. Bracy, A. D. Owings, and D. J. Merhaut. 2009. “Nitrogen and phosphorus removal by ornamental and wetland plants in a greenhouse recirculation research system.” *HortScience* 44 (6): 1704–1711.

The Institute for Regional Conservation (IRC). 2015. “Golden canna, bandana of the Everglades.” Accessed November 24, 2020. <http://regionalconservation.org/beta/nfyn/plantdetail.asp?tx=Cannflac>

McAuslane, H. J. 2022. Larger canna leafroller, *Calpododes ethlius* (Stoll) (Insecta: Lepidoptera: Hesperiiidae). EENY-132. Gainesville: University of Florida Institute of Food and Agricultural Sciences. Accessed July 10, 2024. <https://edis.ifas.ufl.edu/in289>

Tracy, S. M. 1911. “Arrow-root.” In *Cyclopedia of American agriculture: Crops* edited by L. H. Bailey, 199. London: Macmillan.

University of Florida IFAS Center for Aquatic and Invasive Plants (UF IFAS CAIP). 2020. “Golden canna: *Canna flaccida*.” Accessed November 24, 2020. <https://plants.ifas.ufl.edu/plant-directory/canna-flaccida/>

US Department of Agriculture, Natural Resources Conservation Service (USDA NRCS). 2020a. “*Canna flaccida* Salisb.: bandana of the Everglades.” Accessed November 24, 2020. <http://plants.usda.gov/core/profile?symbol=CAFL11>

USDA NRCS. 2020b. “*Canna generalis* L.: canna lily.” Accessed November 24, 2020. <http://plants.usda.gov/core/profile?symbol=CAGE3>

USDA NRCS. 2020c. “*Canna glauca* L.: maraca amarilla.” Accessed November 24, 2020. <http://plants.usda.gov/core/profile?symbol=cagl13>

Wunderlin, R. P., B. F. Hansen, A. R. Franck, and F. B. Essig. 2020. Atlas of Florida Plants (<http://florida.plantatlas.usf.edu/>). [S. M. Landry and K. N. Campbell (application development), USF Water Institute.] Institute for Systematic Botany, University of South Florida, Tampa. Accessed November 24, 2020.