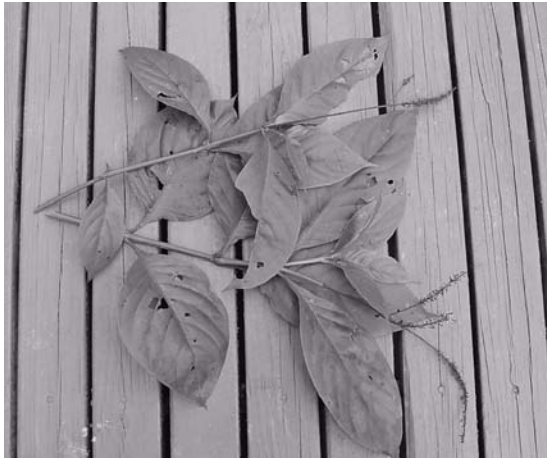


***Odontonema cuspidatum* (Nees in DC.) Kuntze**  
ACANTHACEAE

cardinal's guard

Synonyms: *Odontonema tubiforme* (Bertol.) Kuntze  
*Odontonema strictum* (Nees) Kuntze  
*Thrysacanthus cuspidatus* Nees in DC.  
*Thrysacanthus strictus* Nees in DC.



**General Description.**—Cardinal's guard, also known as firespike, is an evergreen shrub 1 to 2 m in height and 1 to 2.5 cm in basal stem diameter. It grows in patches and clumps that generate from root suckers. The smooth, green stems, which are woody below and semiwoody above, are supported by stiff lateral roots. The stems develop few branches. The opposite leaves are dark green, glabrous, elliptic, 10 to 30 cm long, and acuminate at the tip. The inflorescences are terminal racemes, sometimes branched, composed of tubular flowers of scarlet or other colors including pink, white, and lavender. Fruits are clavate capsules 1 to 2 cm long that contain flattened semiorbicular seeds (Liogier 1997).

**Range.**—Cardinal's guard is native from Mexico to Panama (Stevens and others 2001). The species has naturalized and escaped in at least Puerto Rico, Hispaniola, and Cuba (Liogier 1997), and is widely grown as an ornamental in Florida (Watkins 1975). Some authors propose separating *O. cuspidatum* and *O. tubiforme* into individual species (Whistler 2000) or using only the name *O. tubiforme* (Stevens and others 2001).

**Ecology.**—Cardinal's guard prospers on fertile and moderately fertile soils that are continually moist. It is moderately tolerant of shade and will bloom in full sun, broken sun, and moderate shade (author's observation, Blomber 2000). In Central

America, it grows from near sea level to 1,400 m in elevation (Stevens and others 2001). Cardinal's guard is not salt tolerant (Watkins 1975) and dies to the ground if subjected to frost. In areas subject to frost, it is grown as an annual or herbaceous perennial (Blomber 2000, Watkins 1975). The plants are mostly free of pests and disease but may occasionally be attacked by mealy bugs (Pseudococcidae) (Woman's Club of Havana 1952).

**Reproduction.**—In tropical countries, cardinal's guard blooms throughout the year (Whistler 2002), but in warm temperate areas, it blooms in the fall (Watkins 1975). Although the species is common in Puerto Rico, the plants produce few viable seeds. Capsules fall off before drying and liberating seeds. Fresh capsules collected in Puerto Rico weighed an average of  $0.0095 \pm 0.0002$  g/capsule. One hundred of these capsules were sown on moist potting mix and only a single seedling emerged. Cardinal's guard is most common in disturbed areas (Stevens and others 2001), along streams and drains, and in extra-moist places in secondary forests. Most of the stands of cardinal's guard in Puerto Rico have originated from abandoned gardens or errant pieces of stem or root that have been transported by streams or dumped in the woods with garden prunings. Once established, plants spread by root suckers. The stems also layer (root) readily when they become prostrate.

**Growth and Management.**—Cardinal's guard grows rapidly from suckers and must be pruned frequently when used as hedges (Woman's Club of Havana 1952). Normally, little care is needed once the plant is established (Whistler 2000).

**Benefits.**—In natural stands, cardinal's guard adds to biodiversity and protects against soil erosion. The species is widely cultivated as an ornamental in tropical and subtropical areas for its striking red flowers. It is used as an accent and background plant and sometimes employed to form hedges (Watkins 1975, Whistler 2000, Woman's Club of

Havana 1952). It is also popular in gardens because it attracts butterflies and hummingbirds that feed on the nectar (Blomber 2000, Watkins 1975).

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