

Cecropia schreberiana

System: Terrestrial

Kingdom	Phylum	Class	Order	Family
Plantae	Magnoliophyta	Magnoliopsida	Urticales	Cecropiaceae

Common name	llagrumo hembra (Spanish), yagrumo hembra (Spanish), trumpet wood (English), pumpwood (English), grayumo hembra (Spanish), trumpet tree (English)
Synonym	<i>Cecropia peltata</i> , auct. non L.
Similar species	<i>Cecropia peltata</i>
Summary	<i>Cecropia schreberiana</i> is a neotropical pioneer tree native to the Antilles and northern South America. It is strongly associated with post-hurricane, or other disturbance, colonization. It has been reported introduced in Hawaii, West Africa, Malaysia, Madagascar, and French Polynesia. It is known to establish dense stands in the Luquillo Mountains, Puerto Rico and has invasive potential to reduce biodiversity and displace native species.



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Species Description

Cecropia schreberiana is a tree which typically reaches 20 m in height and 60 dbh but may grow larger. Leaves of mature trees are simple, alternate, clustered, and peltate measuring 30-75 cm wide, with 7-11 large lobes on a long thick petiole (Brokaw, 1998; Kinsey, 2006). They are dark and scabrous above and densely white-tomentose underneath. Seedling leaves are unlobed, lanceolate, slightly toothed, downy on both surfaces, and whitish underneath. Its bark is gray and smooth. It has few stout branches supporting a thin spreading canopy, with younger branches bearing triangular leaf scars. Flowers of both sexes are very small, about 1.6 mm long, very abundant, and are born on clustered spikes, or aments. Female spikes develop into multiple fruits, swollen to 5-10 cm long and 1 cm thick and containing many minute fruits, each with one achene. These small oblong seeds are about 2 mm in length (Brokaw, 1998).

Notes

Cecropia schreberiana Miq. was distinguished from *C. peltata* L. in 1988. Whereas *Cecropia peltata* occurs in Mexico and Central America, *C. schreberiana* occurs in the Antilles and northern South America (Howard, 1988; ISTF, 1997 in Brokaw, 1998; Csurhes, 2008). However, ITIS does not distinguish between the species and, in fact, states *Cecropia schreberiana* as the valid name for the species and indicates *C. peltata* as a synonym for *C. schreberiana*.

Lifecycle Stages

Cecropia schreberiana becomes sexually mature in about 3-6 years. It has been found to mature as early as 3.3 years in more open, sunny locations and takes longer, about 5-6 years, in forest gaps where light is reduced (Csurhes, 2008). Individual trees are thought to live 30-50 years (Brokaw, 1998). It establishes an abundant seed bank from which populations quickly regenerate following disturbances such as hurricanes (Csurhes, 2008).

Uses

Cecropia schreberiana performs a key function in the reorganization of Luquillo Forest, Puerto Rico, and likely other, ecosystems after disturbance, because its abundant regeneration and rapid growth capture and store nutrients. Also, its colonizing saplings may facilitate succession to mature forest by excluding grasses, herbs, and vines that hinder forest development (Brokaw, 1998).

The light wood of *C. schreberiana* is variously used for matchsticks, boxes and crates, interior boarding and paper pulp. The hollow branches and trunks are used to make floats, gutters and trumpets. In places the leaves, latex or bark are employed in medicinal remedies (Bingelli, 1999).

In Grenada, a tea made from its leaves, along with bamboo, is used for colds and hypertension. It is also known to be used for diabetes and kidney disorders in some locations. In St. Lucia, the stem is made into a musical instrument called the ha ha. In Jamaica, it is also used to make musical instruments.

Habitat Description

Cecropia schreberiana is a pioneer species that often inhabits forest gaps and disturbed areas, such as along roadsides or riparian zones but almost never occurs in abandoned pastures or wide open locations (Wen *et al*, 2008; Zimmerman *et al*, 1995b). It is an important post-hurricane colonizer that regenerates quickly and abundantly (Brokaw, 1998; Zimmerman *et al*, 1995a). It requires a wet environment and may be found in subtropical to montane rainforest zones with annual precipitation from 990-over 3810mm. *C. schreberiana* grows in alluvial, colluvial, and residual soils with an acidic pH (Silander & Lugo, 1990). It is shade intolerant and requires much light for germination and early growth (Brandeis *et al*, 2009). It is known to inhabit altitudes from 0-1,300 m (Silander & Lugo, 1990).

Reproduction

Cecropia schreberiana is dioecious and produces wind-pollinated flowers in spikes and abundant minute seeds broadly dispersed by birds and bats. Flowers of both sexes are grouped on clustered spikes, or aments and are very small, measuring about 1.6 mm long, and abundant, an average of 15,140 per pistillate cluster. The female spikes develop into multiple green, finger-like fruits, swollen to 5-10 cm long and 1 cm thick and containing many minute fruits, each with one achene (Brokaw, 1998; Kinsey, 2006). In Costa Rica, flowering and fruiting are seasonal, lasting about nine months, with a peak of four months during the early part of the wet season (Bingelli, 1999 in Csurhes, 2008).

Nutrition

Cecropia schreberiana requires high sunlight, especially for germination and early growth (Brandeis *et al*, 2009). It is also believed to require nutrient rich soils and high nitrogen levels (Zimmerman, 1996b).

General Impacts

Cecropia schreberiana establishes very dense, almost monospecific stands in the Luquillo Mountains of Puerto Rico where has become one of the 10 most abundant trees and its dominance is maintained by regular disturbance caused by hurricanes. It has the potential to displace or compete with native pioneer or riparian species in introduced locations (Brokaw, 1998; Csurhes, 2008).

Principal source: Brokaw, N. V. L. 1998. *Cecropia schreberiana* in the Luquillo Mountains of Puerto Rico. Botanical Review 64:91-120

Csurhes, Steve, 2008. *Cecropia*, *Cecropia* spp. Pest Plant Risk Assessment. Biosecurity Queensland Department of Primary Industries and Fisheries, Queensland

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