

Psychotria brachiata Sw.
RUBIACEAE

palo de cachimbo

Synonyms: *Psychotria neurotricha* DC.
Cephaelis polycephala Schtdl.
Palicourea caerulea (Ruiz & Pav.) Roem. & Schult.



General Description.—Palo de cachimbo is an evergreen shrub occasionally reaching 5 m in height but usually 2 to 3 m in height and 3 to 6 cm in basal diameter. The shrub usually has several stems formed by suckers from the lateral roots a few cm out from the central stem and by branches low on the principal stems. The wood has a moderately low density, is moderately strong, and has faint annual rings. Palo de cachimbo plants are supported by relatively shallow lateral root systems, at least in soils that have poorly aerated subsoil. The roots are tan colored and flexible. The branches and twigs are green, slender, and usually paired. Shiny, dark-green leaves are ovate to lanceolate, entire and pointed at both ends, 7 to 20 cm long and 3 to 8 cm broad, with a 1- to 3-cm petiole. Small yellow to greenish-white flowers are tightly clustered in open terminal panicles. The 4-mm ellipsoidal berries are tightly clustered. They are dark purple or dark blue at maturity and usually contain two hemispherical seeds having the inside face concave and the outside face with five ridges (Croat 1978, Liogier 1997, Stevens and others 2001).

Range.—Palo de cachimbo is native to the Greater Antilles, Trinidad, and Guatemala to Peru (Liogier 1997). The Missouri Botanical Garden (2002) lists some 73 herbarium specimens from South America. However, some researchers (Croat 1978, Stevens and others 2001) contend that the South American range is based on missidentification of the similar *P. caerulea* Ruiz & Pav. Palo de cachimbo is not known to have been planted or naturalized elsewhere.

Ecology.—Palo de cachimbo grows mostly in wet forest areas that receive from 2000 to 3000 mm of mean annual precipitation. It occurs at elevations from near sea level to 800 m in Nicaragua (Stevens and others 2001). Palo de cachimbo is intolerant of shade. Plants compete well with herbs and other shrubs in openings but do not survive long after a forest canopy closes over them. The species is common to uncommon in roadsides, secondary forest, and openings in primary forest. Plants sampled in secondary forest in Puerto Rico had the following nutrient levels in their leaves: 2.36 ± 0.03 percent N, 0.12 ± 0.00 percent P, 2.08 ± 0.25 percent K, and 12.66 ± 0.71 percent ash. Lower levels of those nutrients were reported for twigs and stem (Lugo 1992).

Reproduction.—Palo de cachimbo flowers from February to August and fruits from July to April in Nicaragua (Stevens and others 2001). The species is a good producer of fruits and seeds. A collection of fresh fruits from Puerto Rico weighed an average of 0.1569 ± 0.0125 g/fruit. Air-dried seeds separated from them averaged 0.0048 ± 0.0002 g/seed or 208,000 seeds/kg. Placed in commercial potting mix, 48 percent germinated between 34 and 57 days following sowing. Seeds are presumably dispersed by birds. Seedlings are common in the vicinity of fruit-producing plants.

Growth and Management.—Palo de cachimbo grows slowly in the early seedling stage. It grows 0.5 to 0.8 m/year for 2 or 3 years from sprouts. Individual stems probably live from 10 to 20 years, but plants may persist longer by sprouting.

Natural regeneration probably can be encouraged by disturbance designed to create forest openings. Planting and management experience have not been published.

Benefits.—Palo de cachimbo contributes to the biodiversity of forests, helps protect the soil, and furnishes food and cover for wildlife.

References

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