

# GUIDE TO THE GENERA OF LIANAS AND CLIMBING PLANTS IN THE NEOTROPICS

## THYMELAEACEAE

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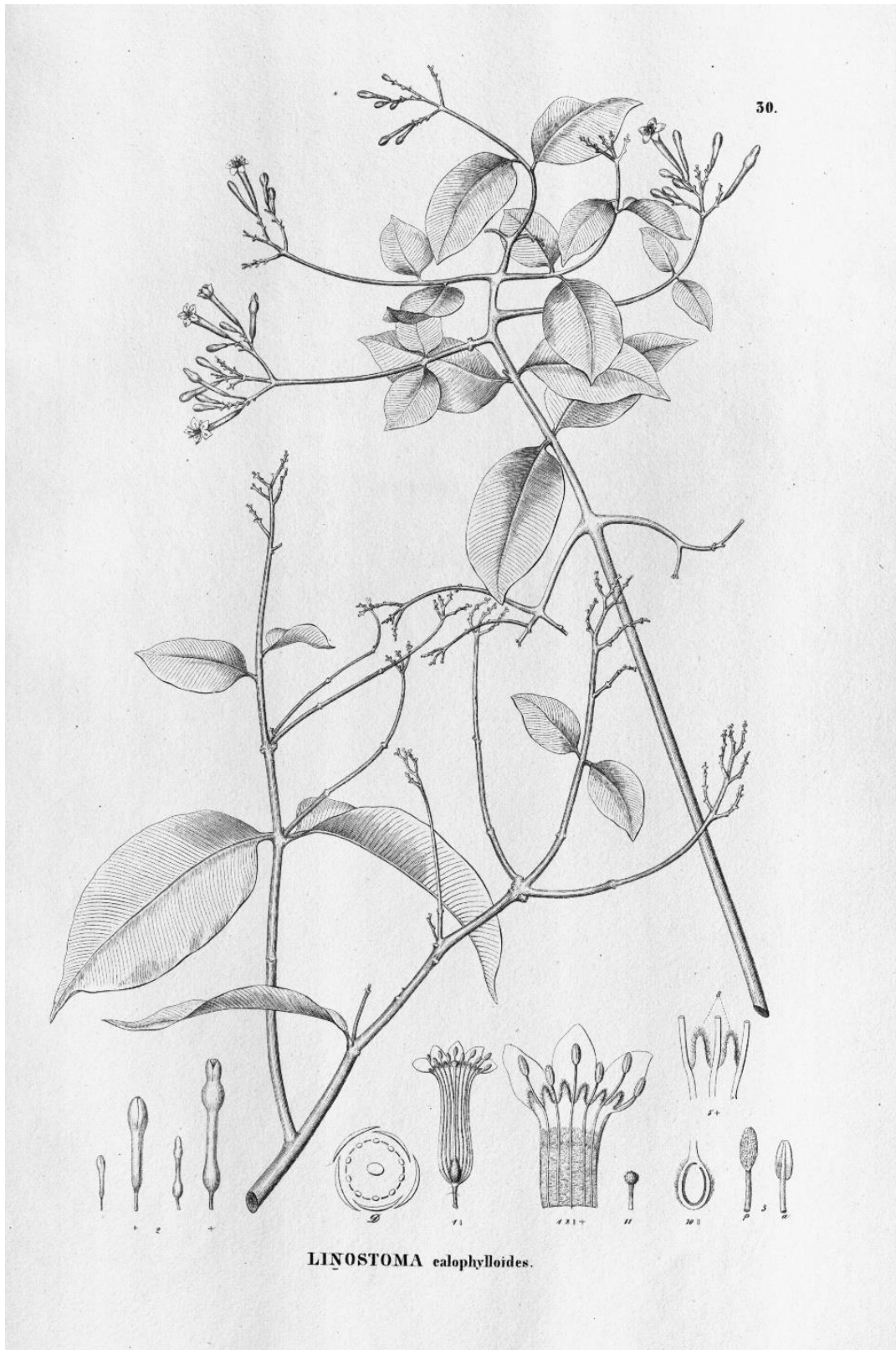
A family of trees, shrubs and lianas with pantropical distribution with some members extending to warm temperate zones. Worldwide, the family consists of 52 genera and about 450 species, with lianas in 6 genera. In the Neotropics the family is represented by 7 genera and about 75 species, of which only *Lophostoma* has 4 species of lianas or climbing shrubs. The genus is found in the Amazon basin, in various types of vegetation.

**Diagnosics:** Scrambling lianas bearing short prehensile branches and hooks, with simple, opposite to alternate, exstipulate leaves that have fine parallel secondary venation; vegetative shoots commonly show bifurcate or trifurcate branching; bark with abundant internal fibers. Easily recognized by the prehensile branches, finely pinnate leaves, and xylem with interxylary phloem arcs.

### General Characters

1. STEMS. Cylindrical, in some species known to reach up to (?) cm in diam. and 10 m in length; cross section with xylem dissected by narrow rays, and with scattered short, interxylary phloem arcs.
2. EXUDATES. No information available.
3. CLIMBING MECHANISM. *Scrambling* lianas with short *prehensile branches* or unciform branches whose bases develop into a woody hook.

4. **INDUMENT.** Plant puberulent but soon becoming glabrous, trichomes are simple straight or less often undulate.
5. **LEAVES.** Leaves are simple, opposite, subopposite or alternate, exstipulate, with entire margins, pinnate venation with numerous straight or slightly arcuate parallel secondary veins, and short glandless, canaliculate petioles.
6. **INFLORESCENCES.** Terminal racemes or sub umbels on short lateral branches, with colored bract-like leaves at the base.
7. **FLOWERS.** Actinomorphic, white, bisexual, 4-5-merous, with distinct cylindrical calyx crowned by 5 subequal sepals; petals 5, shorter than the sepals, medially cleft; stamens 10, included, in 2 whorls; gynoecium superior, unilocular with a single pendulous ovule, the style terminal, as long as the floral tube, the stigma capitate.
8. **FRUITS.** A drupe, enclosed by the accrescent calyx.



**Figure 1.** *Lophostoma calophylloides* (Meisn.) Meisn. vegetative and fertile branches. From Martius, *Flora Brasiliensis*. Vol 5. 72. 1855.

## GENERIC DESCRIPTION

**LOPHOSTOMA** (Meisner) Meisner in A. DC., Prodr. 14: 600. 1857.

Large lianas, with short axillary, prehensile branches, sometimes with base modified into a woody recurved hook; young stages of the plant sometimes as erect shrubs that become scramblers during late stages; stem cylindrical, 2- 10(?) m in length, the bark sparsely lenticellate, containing many fibers; cross section cylindrical, xylem dissected by narrow rays, and with scattered short, interxylary phloem arcs. Leaves opposite to alternate, simple, entire; veins finely pinnate, inconspicuous and parallel; petioles short, canaliculate; stipules absent. Inflorescences terminal on short lateral branches, racemose or subumbellate; pedicels very short. Flowers actinomorphic, white, bisexual, with distinct cylindrical, inconspicuously ribbed calyx crowned by 5 subequal sepals 5; petals 5, shorter than and alternating with the sepals, medially cleft, inserted at the floral tube orifice; stamens 10, included, in 2 whorls, the anthers basifixed, longitudinally dehiscent; disc minute, annular, lobed, glabrous; gynoecium superior, unilocular with a single pendulous ovule, the style terminal or eccentric, as long as the floral tube, the stigma capitate. Fruit drupaceous and enclosed by the persistent and acrescent calyx.



Stem cross section of *L. calophylloides* (Meisn.) Meisn., photo by P. Acevedo

**Distinctive features:** Lianas with prehensile branches, sometimes forming a woody hook near the base; stem cross section with scattered interxylary arcs; leaves with very fine and parallel secondary veins; flowers white, long tubular.

**Distribution:** Restricted to the Amazon basin, including Venezuela, in seasonally flooded forests “igapó”, in non-flooded forests and in scrub formations.

## **RELEVANT LITERATURE**

Nevling, L.I. 1963. A revision of the genus *Lophostoma* (Thymelaeaceae). Journal of the Arnold Arboretum, 44: 143-164.