

## LAURACEAE

A family of trees and shrubs with 55 genera and ~2,500 species with pantropical distribution extending into warm temperate areas and higher elevations within the tropics.

Lauraceae is not commonly associated with climbing plants, however, *Cassytha* and *Aiouea* are known to have species of twining or scrambling vines. The family occupies a wide range of biomes, but it is more diverse in lowland and montane forests of the Neotropics.

### General Characters

1. STEMS. Cylindrical, herbaceous and thin in *Cassytha*, woody in *Aiouea*, reaching 2–12 m in length; cross section with regular anatomy forming a continuous vascular cylinder traversed by narrow rays in *Aiouea*.
2. EXUDATES. No visible exudate.
3. CLIMBING MECHANISM. *Aiouea* are scramblers, with short plagiotropic branches, often with short brachyblasts that end with a sharp spine, helping in clinging on to host plants; *Cassytha* has twining stems and adheres to hosts through haustoria.
4. LEAVES. Simple, alternate, distichous, reduced to scales in *Cassytha* and large, coriaceous in *Aiouea* with entire margins and pinnate venation; petioles short, glandless; stipules absent.
5. INFLORESCENCES. Paniculate cymes, terminal on branchlets in *Aiouea* and axillary spikes in *Cassytha*.
6. FLOWERS. Actinomorphic, bisexual; pedicellate; tepals 6, free; stamens 9 or 12, filaments free, anthers opening by one or two pairs of hinged valves; ovary superior, unilocular with a single pendulous ovule, style terminal, stigma capitate.
7. FRUITS. A fleshy berry, with a single seed.

### Key to the genera of climbing Lauraceae

1. Autotrophic, woody, scrambling shrubs reaching 15 m in length; leaves coriaceous, elliptic, > 10 cm long; inflorescence a many-flowered paniculate cyme.....*Aiouea*
1. Parasitic, herbaceous, twining vines with haustoria, reaching up to 5 m long; leaves scale-like, 1–2 mm long; inflorescence a short, few-flowered spike .....*Cassytha*

**AIOUEA** Aublet, Hist. Pl. Guiane 1: 310. 1775.

Trees or less often erect or scrambling shrubs; stems cylindrical, more or less rigid, with



*Aiouea guianensis*, from Oldeman 2591 (US).

regular anatomy, xylem with inconspicuous narrow rays, reaching 15 m in length. Leaves alternate, distichous, simple, coriaceous, 12–16 (22) cm long, pinnately veined, with entire margins; stipules absent. Inflorescences paniculate cymes, distal

on lateral branchlets. Flowers bisexual, obconical to campanulate, cream to yellowish green; tepals 6, connate at the base forming a tube that is as long or shorter than the lobes; stamens 12, included, in 4 whorls, sometimes with 2 sessile glands at the base, the filaments slender, the

anthers with a pair of upward opening hinged valves; ovary ovoid to globose, the style cylindrical. Berries black, 1–2 cm long, ellipsoid, with shallow, red cupule at base.

**Distinctive features:** A scrambling unarmed liana, with alternate, distichous, coriaceous leaves with ranalian smell; berries subtended by a cupule.

**Distribution:** A neotropical genus of trees with 72 species distributed from Mexico to southern Brazil including the West Indies. Only two species (*A. guianensis* Aubl. and *A. laevis* (Mart.) Kosterm.) are reported as sometimes leaning or scrambling shrubs or lianas (Renner 1982).

*Aiouea guianensis* occurs in Trinidad and the Guianas, while *A. laevis* has a wider distribution, found in Trinidad, the Guianas and Brazil (Amapá, Amazonas, and Bahia); predominantly in terra firme, moist forests, at low elevations.

#### CASSYTHA Linnaeus, Sp. Pl. 35. 1753.

Herbaceous, twining, parasitic vines, 1–5 m long, densely branched, adhering to host by



Twining branch with haustoria and inflorescence in *Cassytha filiformis*, photo by P. Acevedo.

haustoria; stems cylindrical, to 3 mm diam., yellowish or yellow-green, glabrous. Leaves 1–2 mm long, scale-like, or absent. Spikes erect, few-flowered, sometimes head-like.

Flowers bisexual, sessile; tepals 6, white, ovate, in 2 unequal series;

fertile stamens 9, in 3 whorls, anthers

with a pair of upward opening hinged valves; ovary globose, hidden by the perianth parts.

Berries fleshy, globose, light green or white, 5–7 mm diam.

**Distinctive features:** Parasitic, twining vines with haustoria. Often confused with the genus *Cuscuta* (Convolvulaceae) as they both are parasitic, twining vines. However, stems in *Cassytha* are green to yellowish green, the tepals nearly free, and the anthers with a pair of upward opening hinged valves, while in *Cuscuta* the stems are golden to pale yellow, the calyx and corolla are tubular, and the anthers open through longitudinal slits.

**Distribution:** A pantropical genus of ~20 species, of which only *Cassytha filiformis* L. is present in the Neotropics, distributed from Mexico to southern Brazil, in lowland, semi deciduous forests, and coastal forests.