

## HERNANDIACEAE

A small pantropical family of trees, shrubs or lianas, with four genera and ~73 species.

Climbers are found in the Old World genus *Illigera* Bl. with 28 species and the neotropical genus *Sparattanthelium* Mart. with ~12 species. The latter is found in continental tropical America from Mexico to central-eastern Brazil, occurring in moist, non-flooded forests and scrubs at low elevations.

**Diagnosics:** Scrambling lianas with long hanging branches, leaves alternate, simple, 3-plinerved from base and with entire margins; stem cross sections simple, un-descriptive, with conspicuous rays. Vegetatively similar to species of Menispermaceae but petioles not pulvinate, also similar to *Ampelozizyphus* (Rhamnaceae) but this genus has acrodromous venation.

### General Characters

1. **STEMS.** Woody, cylindrical; cross sections with regular anatomy, with abundant narrow rays (Figure 15C, D); bark smooth, greenish gray.
2. **EXUDATES.** Watery or no visible exudates.
3. **CLIMBING MECHANISMS.** Scramblers (Figure 15A) aided by recurved or down-pointing woody hooks that represent undeveloped lateral branches.
4. **LEAVES.** Alternate, simple, mostly 3-plinerved from base and entire margins (Figure 15B), chartaceous to coriaceous; exstipulate; petioles short, glandless, nearly cylindrical.
5. **INFLORESCENCE.** Axillary, dichasial cymes, with flexuose axes and swollen nodes (Figure 16B).
6. **FLOWERS.** Bisexual, actinomorphic (unisexual or zygomorphic in non-climbing genera); calyx of 4–5 free sepals; corolla absent; stamens 4–5, opposite the sepals, of similar

length, the anthers opening by longitudinal valves; ovary inferior unilocular, with a single pendent ovule, the style stout, the stigma capitate.

7. FRUIT. A dry ellipsoid, smooth or costate drupe.



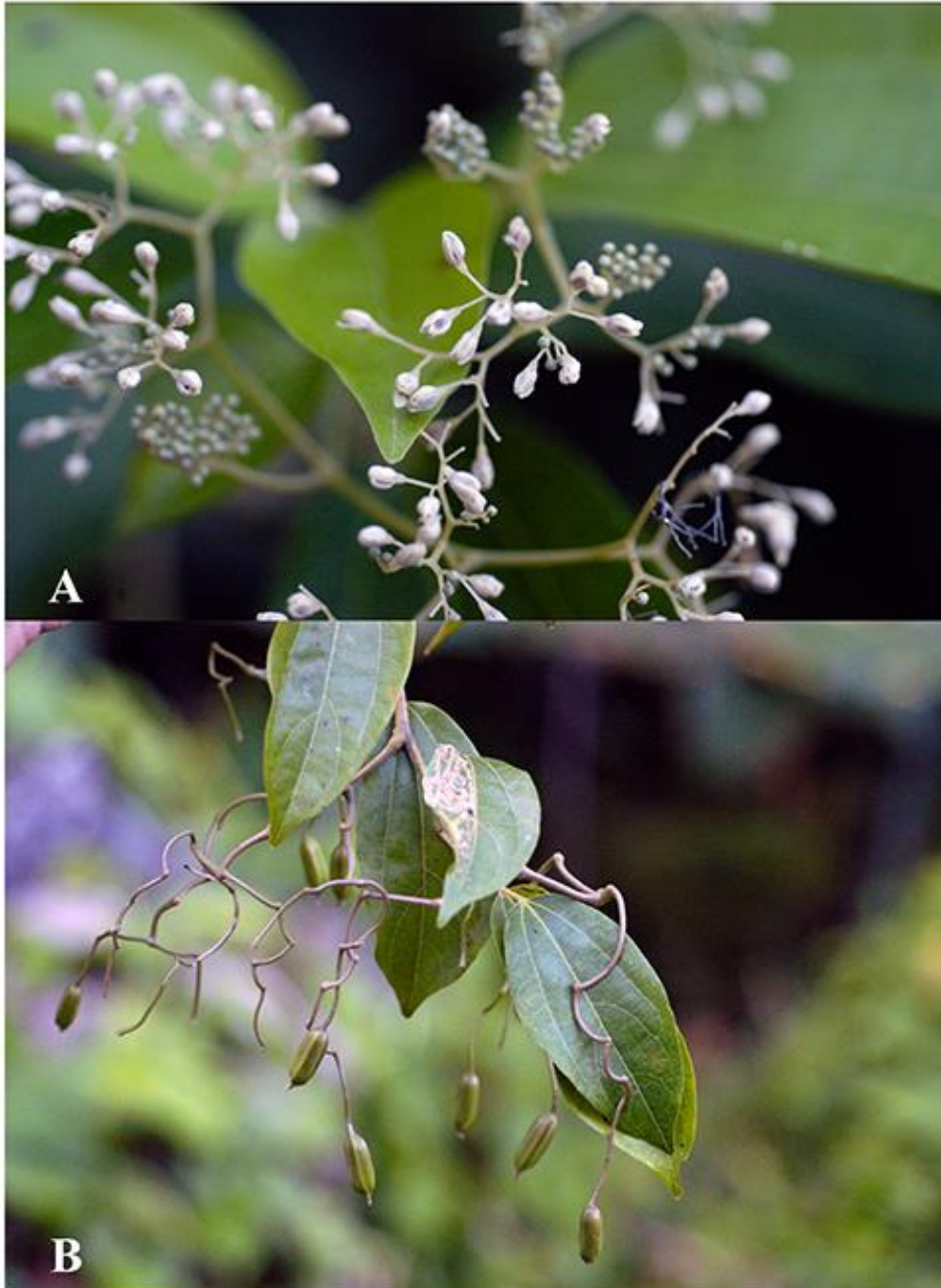
**Figure 15.** *Sparattanthelium* sp. **A** Scrambling habit with lateral hanging branches. **B** Leaf showing triplinerved venation. **C** Cross section of mature stem (fresh) with regular anatomy, with wide vessels and conspicuous rays. **D** Cross section of young stem (dried), of *Sparattanthelium amazonum* with large angular medulla and aliform to aliform confluent wood axial parenchyma. Photos by P. Acevedo.

**SPARATTANTHELIUM** Martius, Flora 24 (2, Beibl.): 40. 1841.

Unarmed scrambling lianas with long hanging branches or sometimes shrubs or small trees; lianas sometimes with axillary, recurved or down pointing hooks (a buttressed persistent base of aborted shoots) that help in clinging on to host plants; stems glabrous or pubescent, slightly angled or cylindrical, reaching 2–6 cm in diam. and 5–10 (25) m in length; bark blackish or grayish green, smooth or lineate; cross section regular with narrow rays. Branches buttress-shaped at the base, forming a right angle with the main stem. Leaves alternate, chartaceous to coriaceous, elliptic, oblong to nearly oblanceolate, triplinerved from base, tertiary veins commonly chlatrate, the apex short-acuminate or acuminate, the base rounded, obtuse or truncate, the margins entire; exstipulate; petioles 1–3 cm long, cylindrical, non-pulvinate. Inflorescence axillary dichasial cymes with flexuose axes and swollen nodes. Flowers whitish, bisexual; hypanthium conical, similar in color to the calyx; sepals free, 4–5, commonly pubescent; stamens shorter than the opposite sepals; corolla absent; ovary inferior, unilocular, with a single pendulous ovule, the style stout, terminal, the stigma capitate. Drupe dry, ovoid or ellipsoid, 5-costate-angled, 1–1.5 cm long, commonly glaucous at maturity; seed one, with contortplicate cotyledons (Kubitzki 1993).

**Distinctive features:** Scrambling unarmed lianas; leaves alternate, exstipulate, simple, with entire margins and 3-plinerved from base; petioles non-pulvinate, cylindrical; inflorescence axes flexuose with swollen nodes. Vegetatively similar to *Ampelozizyphus* (Rhamnaceae), but that genus has leaves with acrodromous venation (vs. 3-plinerved), short petioles  $\leq 1/8$  the length of the blade (vs.  $1/4-1/3$ ), and elongated panicle inflorescences with greenish flowers.

**Distribution:** A neotropical genus of 12 species distributed from Mexico to southern and eastern Brazil; lowland, moist, non-flooded forests.



**Figure 16.** *Sparattanthelium amazonum*. **A.** Inflorescence. **B.** Infructescence with flexuose axes that are swollen at the nodes. Photos by P. Acevedo.

