

PETIVERIACEAE

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For the most part, a neotropical family of herbs, shrubs, lianas or less often trees, consisting of nine genera and 22 species. Lianas are restricted to the genera *SeQUIERIA* and *Trichostigma* with a total of six species distributed from Mexico to southern Brazil; commonly found in dry to moist forests at low elevations.

DiagnosTics: Scrambling lianas 10–20 m long; stems cylindrical, leaves alternate, simple, exstipulate.

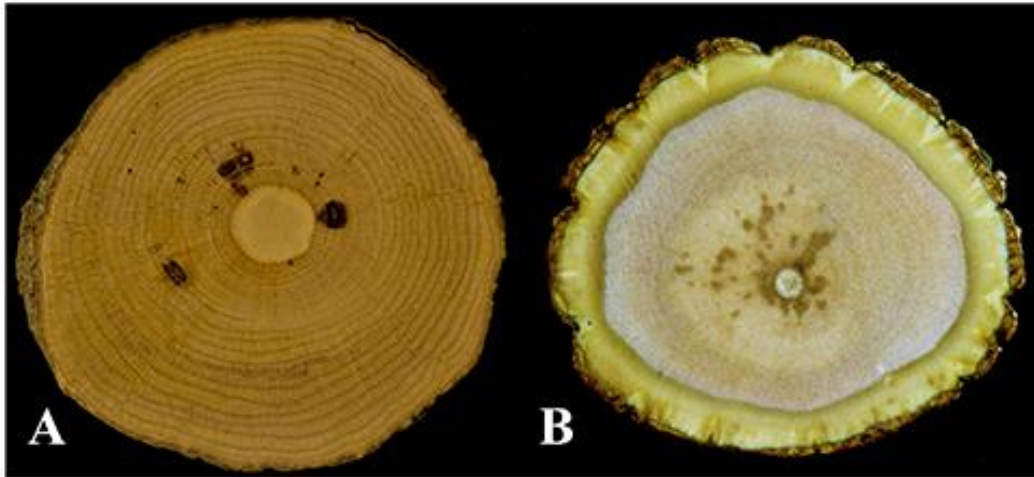


Figure 195. Stem cross sections of Petiveriaceae. **A.** *SeQUIERIA americana* with successive rings of xylem and phloem. **B.** *Trichostigma octandrum*, stem nearly cylindrical with regular anatomy. Photos by P. Acevedo.

General Characters

1. **STEMS.** Cylindrical, woody, reaching 20–25 m in length and > 25 cm in diam. at the base; bark smooth to slightly rough, lenticellate; cross sections in *SeQUIERIA* with successive cambia that produce concentric rings of xylem and phloem dissected by numerous narrow

rays (Figure 195A). *Trichostigma* has regular vascular anatomy with a relatively large medulla and vascular tissues dissected by numerous narrow rays (Figure 195B).



Figure 196. Vegetative features in Petiveriaceae. **A.** *Segueria americana*, a scrambling liana > 25 m long. **B.** *Trichostigma octandrum*, a scrambling liana, many-branched from base, bark semi-rough and lenticellate. Photos by P. Acevedo.

2. EXUDATES. No visible exudate.
3. CLIMBING MECHANISMS. Climbing Petiveriaceae are scramblers (Figure 196) with numerous, short lateral, hanging branches. In addition, species of *Seguieria* have a pair of recurved thorns produced at the base of lateral branches that help with clinging on to host plants (Figure 197A).
4. LEAVES. Alternate or subopposite, exstipulate, chartaceous to coriaceous, simple, entire; petioles short, glandless (Figure 197A).
5. INFLORESCENCE. Axillary or distal racemes or panicles.
6. PEDICELS. Short to long.
7. FLOWERS. Bisexual, subzygomorphic; calyx of 4 or 5 free, petaloid sepals; corolla absent; stamens 8-numerous, the filaments free; ovary superior, unilocular with a single ovule.
8. FRUIT. A fleshy drupe or a samara with a distal wing.

Key to the genera of climbing Petiveriaceae

1. Stem cross section with concentric successive ring of xylem and phloem; plant armed with axillary pairs of thorns; fruit a samara.....*Seguieria*
1. Stem cross section of a single vascular cylinder; plant unarmed; fruit a fleshy drupe
.....*Trichostigma*

SEGUIERIA Loefling, Iter Hispan. 191. 1758.

Scrambling shrubs or lianas, reaching > 25 m in length and 25 cm in diam.; cross section with successive cambia that produce concentric rings of xylem and phloem dissected by numerous narrow rays (Figure 195A). Leaves alternate, simple, pinnately veined; petioles short; stipules absent but often with a pair or small recurved thorns at the base of the petiole that seem like stipules, but are modified prophylls that commonly are at the base of short axillary branches. Inflorescences of axillary panicles or racemes on short lateral branches; bracts minute, persistent. Flowers bisexual, actinomorphic or subzygomorphic, long-peduncled; calyx of 4 or 5 free sepals; petals absent; stamens numerous, the anthers lanceolate, dehiscent longitudinally; ovary superior, unilocular, with a single basal ovule, the style laminar, one side developing into a wing, the stigma punctiform. Fruit a samara with a distal wing.



Figure 197. A. *Segueria americana*, showing a short lateral branch with two recurved thorns at the base. B. *Segueria* sp., infructescence with hanging samaras. Photos by P. Acevedo.

Distinctive features: Scrambling lianas with simple, alternate, exstipulate leaves. Easy to distinguish by the presence of a pair of axillary, recurved thorns at the base of short, lateral branches (and sometimes at the base of petiole) and by its samaras with a distal wing.

Distribution: A neotropical genus of five species, three of which are scrambling lianas; native from Panama to southern Brazil; lowland moist to seasonal forests.

TRICHOSTIGMA Richard in Sagra, Hist. Fis. Pol. Nat. Cuba, Pt. 2, Hist. Nat. 10: 306. 1845.

Scrambling shrubs or lianas with scandent or hanging branches, reaching 20 or more m in



Trichostigma octandrum, photo by P. Acevedo.

length; stem cylindrical, up to 15 cm in diam.; cross section with regular vascular anatomy with a relatively large medulla and vascular tissues dissected by numerous narrow

rays (Figure 195B); bark slightly rough, lenticellate, becoming corky with age. Leaves alternate or subopposite; petioles long; stipules absent. Flowers bisexual, actinomorphic, in axillary racemes; bracts deciduous; bracteoles persistent; calyx of 4 free sepals; petals absent; stamens 8–

16, in two whorls, the anthers dehiscent longitudinally; ovary superior, unilocular, with a single ovule, the stigma sessile, penicellate. Fruit a fleshy drupe with a single seed and persistent reflexed sepals at the base.

Distinctive features: Scrambling lianas, with simple stems, alternate, simple exstipulate leaves, inflorescences with reddish axes and flowers; drupes purplish black. Vegetatively similar and often confused with *Chamissoa altissima* (Amaranthaceae) but distinguished by the stem seen in cross section having regular anatomy (vs. successive cambia in *Chamissoa*).

Distribution: A genus of three species, distributed throughout the Neotropics from Mexico south to southern Brazil and throughout the West Indies; found in dry to moist forests.