

SCHISANDRACEAE

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A tropical to temperate family, primarily distributed in eastern Asia with three genera and ~80 species. *Illicium* L., the largest genus is made of shrubs and trees, while *Kadsura* Juss. and *Schisandra* Michx. are twining slender lianas. The family is represented in the Neotropics by six species of *Illicium* and one species of *Schisandra*. Members of this family in the Neotropics are mostly found montane forests above 800 m.

Diagnosics: Twining slender lianas, commonly with lightly fissured bark, and no exudate; stem cross sections with regular anatomy; leaves alternate, simple, denticulate to serrate with pinnate venation, exstipulate; flowers unisexual (the plant monoecious) zygomorphic with 9–12 tepals.

General Characters

1. **STEMS.** Woody, cylindrical, up to 20 m in length and ~2 cm in diam.; bark smooth, thin, becoming corky and flaking with age. Cross section with regular anatomy, axial elements mostly of tracheids and a few scattered vessels (appearing as perforations in the xylem).
2. **EXUDATES.** Watery or no visible exudate.
3. **CLIMBING MECHANISMS.** All climbing species of *Schisandra* are twiners.
4. **LEAVES.** Alternate, spirally arranged toward distal portion of stems, chartaceous or membranaceous, simple, ovate, elliptic to obovate, penninerved, margins dentate or denticulate. Petioles long ($\frac{1}{4}$ – $\frac{1}{3}$ the length of the blade), slender. Stipules wanting.
5. **PEDUNCLES.** Commonly slender and long.
6. **FLOWERS.** Solitary and axillary; unisexual, zygomorphic, fleshy; sepals 4–7, inner ones slightly longer than the outer ones, oblong, rounded, often greenish yellow, concave;

petals 5, about the same size and shape as the sepals, slightly unequal, reddish or orangish tinged; stamens 5, on a fleshy receptacle; gynoecium apocarpous, carpels numerous, in a conical arrangement, but spread on an elongated axis as they develop into berries.

7. FRUIT. Subglobose, reddish berries on more or less elongated clusters; seeds immersed in a fleshy pulp.

SCHISANDRA A. Michaux, Fl. Bor.-Amer. 2: 218. 1803 (nom. cons.).

Monoecious, twining, slender lianas. Stems cylindrical, up to 20 m long and 2 cm diam.;



Schisandra glabra, photo by K. Wurdack.

bark slightly fissured and flaking, grayish brown; cross section regular, axial elements mostly of tracheid and a few scattered vessels, medulla small, ray tissue inconspicuous, cortex with numerous fibers. Leaves alternate, in spiral cluster at the end of branches, elliptic, membranaceous, pinnatinerved, with spicy aroma, margins denticulate; petioles slender, elongated. Flowers 6–8 mm long, axillary, solitary, on long (2.5–5 cm), delicate, drooping peduncles. Berries red, fleshy, nearly globose to ovate, 5–10 mm long, in loose pendent, clusters.

Distinctive features: Twining, slender liana; cross section of stems with regular anatomy, xylem mostly of tracheids with scattered vessels (appearing as perforations); leaves alternate, denticulate with spicy smell; flowers fleshy, small and reddish.

Distribution: Essentially an eastern Asian genus of 26 species with a single species (*S. glabra* (Brickell) Rehder) from North America (SE United States and northern Mexico) that extends into the Mexican states of Hidalgo and Vera Cruz.; mesophyllous, montane forest.