A pantropical to warm temperate family of shrubs, trees or twining lianas. The family contains 3 genera and 14 species; in the Neotropics the family is represented by 2 genera and 2 species, of which *Gelsemium sempervirens* (L.) St. Hil. is the only species of liana; distributed from S.E. United States to Guatemala, predominantly in wet forests, and scrubs.

**Diagnostics:** *Gelsemium* is easily recognized by the twining habit; mature stems with islands of interxylary phloem; leaves simple, opposite, entire with pinnate venation; and large funnel-shape, yellow corollas.
General Characters

1. STEMS. Cylindrical with moderate secondary growth, slightly enlarged at the nodes; cross section with scattered *interxylary phloem islands*.

2. EXUDATES. No information has been reported on the color and nature of exudates in *Gelsemium*, as a result it seems fair to conclude that they are odorless and *colorless*.

3. CLIMBING MECHANISM. Main stems *twining*.

4. LEAVES. Leaves are simple, opposite, with pinnate venation and entire margins, glandless; axillary or interpetiolar colleters commonly present; petioles ca. 5 mm long; stipules absent but interpetiolar flange present.

5. INFLORESCENCES. Axillary few-flowered racemes, basally with numerous, imbricate bracts.

6. FLOWERS. *Actinomorphic*, bisexual; short-pedicelled. Sepals 5, free; corolla light to bright yellow, gamopetalous, funnel-shaped, 5-merous, the tube often longer than the lobes; stamens 5, inserted on the corolla tube, and alternating with the corolla lobes, the filaments short, the anthers inserted or nearly projected beyond the corolla tube; gynoecium superior, syncarpous, 2-carpellate, with numerous axial ovules per carpel, the style terminal, elongated with 4 stigmatic branches.

7. FRUITS. Oblong-elliptic, flattened, woody, tardily dehiscent capsule, 1.5-2 cm long.

8. SEEDS. Nearly flattened, with an asymmetrical wing.

**GENERIC DESCRIPTION**

GELSEMIUM Jussieu, Gen. 150. 1789.
Twining lianas. Stems cylindrical, slightly enlarged at the nodes, 5-7 m in length. Leaves simple, opposite, with entire margins with pinnate venation; petioles short; stipules represented by an interpetiolar ochrea-like ridge. Inflorescence axillary, few-flowered racemes, bearing numerous overlapping bracts on basal portion. Flowers fragrant, heterostylosus; sepals imbricate, greenish yellow; corolla yellow, 2.5-3.5 cm, funnel-shaped with imbricate lobes; ovary bi-locular with numerous ovules per locule, style 4-branched. Capsule septicidal, 4-valved, with several uni-winged seeds.

**Distinctive features:** Twining lianas, stems with scattered interxylary islands of phloem; leaves opposite, simple, entire, with pinnate venation; corollas large, bright yellow.

**Distribution:** A genus of 3 species, 2 in southern North America, one of which (*G. sempervirens*) extends to Guatemala, a third species is native to China and western Malesia.

**USES**

In spite of their toxicity, species of *Gelsemium* are commonly planted as a garden plant due to its beautiful, fragrant flowers. The foliage of *Gelsemium sempervirens* contains several toxic alkaloids responsible for the death and abortion in livestock (Debay, 1950; Martínez, 1959; Kingsbury, 1964). Ingestion of nectar and honey is reported to cause death in humans and bees in the southeastern United States (Kingsbury, 1964).
RELEVANT LITERATURE