

# GUIDE TO THE GENERA OF LIANAS AND CLIMBING PLANTS

## IN THE NEOTROPICS

### LYTHRACEAE

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A tropical and subtropical family extending into temperate zones, containing herbs, shrubs and trees, with 27 genera and about 650 species, not commonly associate with lianas. However, two neotropical species of *Cuphea*, i.e., *C. paradoxa* Koehne and *C. pinetorum* Benth. are frequently collected as scrambling herbs or vines. Since Lythraceae is a morphologically diverse family no attempt will be made here to provide a description of the family, instead, the current treatment is solely based on the description of climbing species of *Cuphea*.

#### General Characters

1. STEMS. Herbaceous to subwoody, often with 4 or 5 prominent angles, reaching 2-10 m in length; cross section with **regular** anatomy forming a continuous vascular cylinder traversed by uniseriate or biseriate rays (sometimes inconspicuous). The presence of **intraxylary phloem** is common to all members of the family (Metcalf & Chalk, 1957).
2. EXUDATES. No visible exudate.
3. CLIMBING MECHANISM. Scramblers, leaning upon the surrounding vegetation and reaching up to 10 m in length.
4. LEAVES. Opposite, decussate, simple, chartaceous, with entire margins and pinnate venation; petioles are short or absent; stipules inconspicuous.
5. INFLORESCENCES. Axillary, 1-3-flowered racemes, or flowers solitary in upper nodes.
6. FLOWERS. Zygomorphic, 6-merous, bisexual, shortly pedicelled; calyx tubular, 12-ribbed, with short lobes and sometimes appendages on distal portion; corolla of free petals, the 2

dorsal petals usually larger than the 2 or 4 ventral ones; stamens included or exserted, inserted on the floral tube, filaments unequal; ovary superior, asymmetrical, 2-carpellate, unilocular, with few to numerous ovules, style terminal, short, included, stigma capitate.

7. FRUITS. A thin-walled capsule.
8. SEEDS. Seeds few to many, dorsiventrally flattened.

## GENERIC DESCRIPTION

**CUPHEA** Jacquin, Enum. Syst. Pl. 4, 21. 1760.



*C. pinetorum* Benth., photo by P. Acevedo

Erect, herbs, subshrubs or shrubs, scrambling vines or decumbent herbs. Scrambling vines 2-10 m long. Stems nearly terete or 4-5-angled. Leaves opposite, decussate, pinnately veined, with entire margins, sessile or shortly petioled. Inflorescence of short, axillary 1-3-flowered racemes, or flowers solitary in upper nodes. Flowers zygomorphic, 6-merous; calyx tubular, often gibbous, deep pink, red, purplish or rarely green, 12-ribbed, the lobes short; petals bright red, 6, the 2 dorsal petals larger than the ventral ones, or sometimes vestigial; stamens commonly 11, and exserted; ovary superior, sessile, asymmetric. Fruit a unilocular, thin-walled capsule, covered by the persistent, ribbed calyx.

**Distinctive features:** Scrambling, herbaceous or subwoody vines, with opposite leaves, flowers brightly colored.

**Distribution:** A New World genus of about 260 species, of erect herbs or shrubs. Only *C. paradoxa* from Colombia and Venezuela and *C. pinetorum* from Mexico to Honduras are consistently reported as scrambling vines; open disturbed, moist habitats; 125-2400 m.

## RELEVANT LITERATURE

- Baas, P. and R.C.V.J. Zweypfenning. 1979. Wood anatomy of Lythraceae. Acta Bot. Neerl. 28: 117-155.
- Graham, S.A. 1988. Revision of *Cuphea* Section Heterodon (Lythraceae). Systematic Botany Monographs 20: 1-168.