

GUIDE TO THE GENERA OF LIANAS AND CLIMBING PLANTS IN THE NEOTROPICS

LORANTHACEAE

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Struthanthus interruptus, photo by P. Acevedo

A pantropical family of 77 genera and about 950 species of hemiparasitic shrubs, sometimes with climbing branches. In the Neotropics the family is represented by 17 genera and about 370 species, of which 3 genera and 23 species are consistently known hemiparasitic vines. For the most part, they are found in humid or wet lowland forests.

Diagnosics: Hemiparasitic vines, climbing by haustoria and sometimes twining branches; leaves opposite, alternate, verticillate coriaceous to subfleshy, simple, lacking stipules; flowers commonly minute or small, white, cream, yellowish green or red, with inferior ovary; fruit a 1-seeded, often mucilaginous berry.

General Characters

1. STEMS. Flexible, moderately woody, developing cylindrical, tetragonous, or slightly flattened, reaching 2-5 m long and < 1 cm in diam.

2. EXUDATES. Watery or not visible.
3. CLIMBING MECHANISMS. Epicortical roots, formed from the base of the plant or along stems, bearing haustoria with which adhere to host plants; in addition, some *Cladocolea* have prehensile petioles and some *Struthanthus* have twining stems.
4. LEAVES. Opposite, alternate or whorled, exstipulate; blades coriaceous to subfleshy, often fragile, venation penninerved, midvein commonly abaxially prominent, secondary and tertiary venation commonly inconspicuous, margins entire; petioles short, commonly grooved.
5. INFLORESCENCE. Axillary or terminal, simple or fascicled spikes or racemes, sometimes paniculate or flowers solitary and axillary; flowers in monads, dyads or triads.
6. PEDICELS. Commonly very short or lacking.
7. FLOWERS. Bisexual, unisexual, sometimes with rudimentary opposite sex parts, actinomorphic, 4-6-merous; hypanthium well-developed with unilocular ovary, 4-12 ovules with free, central placentation; calyx represented by a calycus, i.e., greatly reduced to a rim or minute teeth; petals fleshy, white, cream, light yellow, greenish white or red, commonly connivent along lower half to form a tube, upper half spreading; stamens epipetalous, as many as the petals, these short or absent, the anthers opening along longitudinal slits, sometimes with an apical appendage; style 1, terete, straight or less often twisted, the stigma capitate or bilobed.
8. FRUIT. A cylindrical or ellipsoid small, variously colored, fleshy berry with a single seed with abundant endosperm.

KEY TO THE GENERA (accord. to Kuijt 2013)

1. Flowers in monads *Cladocolea*
1. Flowers in triads or dyads.....2
2. Stamens of two different lengths, anthers basifixed, with an apical sterile appendage; filaments very short or absent..... *Passovia*
2. Stamens similar, anthers dorsifixed (versatile), apiculate at apex; filaments slender
..... *Struthanthus*

GENERIC DESCRIPTIONS

CLADOCOLEA Van Tieghem, Bull. Soc. Bot. France 42: 166. 1895.



C. archeri, photo by R. Foster

Hemiparasitic shrubs with spreading, hanging or climbing branches, some species vine-like, reaching 1.5-2 m in length. Like most Loranthaceae bearing epicortical roots with haustoria with which attach to host plants, some species with prehensile petioles. Stems nearly cylindrical. Leaves opposite and decussate, alternate or sometimes whorled, blade coriaceous and often ovate, petiolate. Inflorescence axillary, short spikes or racemes. Flowers bisexual or unisexual (in dioecious species), 4-6-merous, in ebracteolate monads; calyculus of minute teeth crowning the light green hypanthium; petals light green, fleshy, free, often revolute at apex; stamens epipetalous, in 2 series or all similar, anthers basifixed; disk annular; style terete, as

long as the corolla, with capitate stigma. Fruit a one-seeded, terete to ellipsoid berry.

Distinctive features: Parasitic vines; leaves opposite, alternate or whorled; spikes or racemes short, axillary.

Distribution: A neotropical genus of about 25 species, with only *C. archeri* (A.C. Sm.) Kuijt from Colombia and *C. tehuacanensis* (Oliv.) Tiegh. from Mexico reported as vines; moist and wet forests; 50-2900 m.

PASSOVIA Karsten, Bot. Zeitung 4: 107. 1846.



P. ensifera Kuijt, photo by P. Acevedo

Hemiparasitic shrubs with spreading, hanging or climbing branches, some species vine-like, reaching up to 5 m in length and climbing through the aid of haustoria produced by the epicortical roots. Stems cylindrical or keeled, slightly

enlarged in nodal area. Leaves opposite and decussate, blade coriaceous, often elliptic, ovate, or lanceolate, petiolate. Inflorescence mostly axillary, solitary or fasciculate, short spikes or racemes, sometimes paniculate. Flowers bisexual or unisexual (in dioecious species), (4-)6-merous, in bracteolate triads where at least the medial flower is sessile; calyculus a rim crowning the light green hypanthium; petals dark red or cream, slightly fleshy, connivent into a short tube at base, upper half spreading; stamens epipetalous, in 2 series, anthers basifixed, sessile or on short flat filaments, often with an apical sterile appendage; style terete, as long as the corolla, with subcapitate stigma. Fruit a one-seeded, terete to ellipsoid, variously colored berry.

Distinctive features: Parasitic vines; leaves opposite, decussate; inflorescence solitary or fasciculate spikes or racemes, sometimes a laxly branched panicle.

Distribution: A neotropical genus of 30 species, with only 3 species (*P. ensifera* Kuijt, *P. pedunculata* (Jacq.) Kuijt and *P. pyrifolia* (Kunth) Tiegh.) sometimes reported as vines; Mexico to Bolivia and SE Brazil, including the West Indies (Jamaica & Grenada); moist to wet, terra-firme or flooded forests; 200-500 m.

STRUTHANTHUS Martius, Flora 13: 102. 1830 (nom. cons.).



S. interruptus (Kunth) G. Don, photo by P. Acevedo

Dioecious,
hemiparasitic vines with
spreading, hanging and
climbing branches, some
species reaching 10 or
more m in length,
climbing through the aid
of haustoria produced
from the stems, and
sometimes by twining
branches. Stems
cylindrical or

tetragonous, slightly enlarged in nodal area. Leaves mostly opposite and decussate, blade coriaceous, elliptic, ovate or lanceolate, often involute, petiolate. Inflorescence mostly axillary, solitary or fasciculate, short spikes or racemes. Flowers unisexual by reduction of sexual organs, 6-merous, in bracteolate, sessile or pedunculate triads; calyculus a rim crowning the light green hypanthium; petals yellowish green or greenish white, fleshy, connivent into a tube at base, upper half spreading; stamens epipetalous, of same length, anthers dorsifixed, on slender filaments, often shortly apiculate at apex; style terete, as long as the corolla, with bilobed stigma. Fruit a one-seeded, terete to ellipsoid, commonly orange or yellow berry.

Distinctive features: Twining lianas; stems with successive cambia; leaves simple, alternate with tertiary clathrate venation.

Distribution: A neotropical genus of about 94 species; Mexico to northern Argentina; 18 species consistently reported as vines; seasonal savannas, moist or wet forests; 0-2900 m.

RELEVANT LITERATURE

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