

GUIDE TO THE GENERA OF LIANAS AND CLIMBING PLANTS

IN THE NEOTROPICS

OLACACEAE

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Pantropical family, with 3 genera and about 56 species of trees, shrubs or exceptionally scrambling shrubs or lianas. Climbers in the Neotropics belong to the genus *Dulacia*, with 2 species consistently recorded as scandent shrubs. The genus is most diverse in humid forests at low elevations.

Diagnosics: Scrambling lianas with cylindrical stems; leaves simple, alternate, distichous, coriaceous with cartilaginous, undulate or entire margins, and pinnate venation, lamina commonly with conspicuous discoloured laticifers; exstipulate; drupes subtended by an acrescent calyx.

General Characters

1. STEMS. Slender, cylindrical, attaining 3 m long; cross section simple, with *regular* anatomy; xylem, with narrow rays.
2. EXUDATES. Scanty, inconspicuous.
3. CLIMBING MECHANISM. Shrubs or scrambling lianas.
4. LEAVES. Leaves simple, alternate, with entire margins, and pinnate venation; petioles ca. 0.5 cm long, adaxially canaliculate, glandless; stipules absent.
5. INFLORESCENCES. Axillary, very short, few-flowered cymes.
6. FLOWERS. *Actinomorphic*, bisexual; pedicelled. Calyx minute, obtusely 5-dentate, undulate or truncate, forming a hypanthium; petals 6, connate along lower ½, white,

caducous; stamens 3; staminodes 6, bifid; ovary subinferior, 3-carpellate, unilocular, with a single pendent ovule per locule.

7. FRUITS. An ellipsoid drupe, completely covered by the fleshy acrescent calyx, orange when mature, with a single seed (fig. 1).

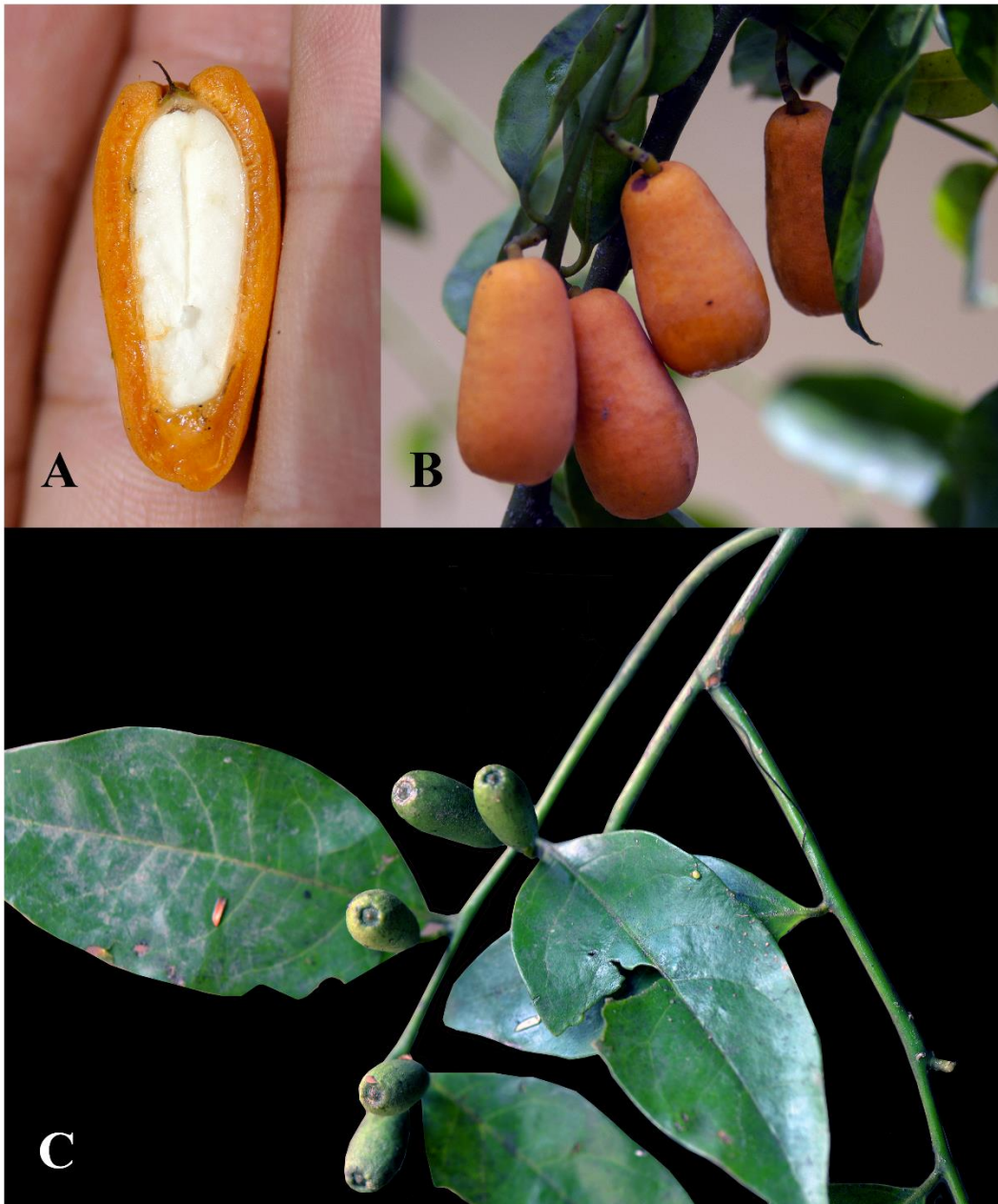


Figure 1. *Dulacia* sp. A. Longitudinal section of fruit, showing the orange, fleshy acrescent calyx surrounding the fruit. B. Fruiting branch. C. Fruiting branch, fruit showing apical umbonate scar. Photos by P. Acevedo.

GENERIC DESCRIPTION

DULACIA Vellozo, Fl. Flum. 32. 1829 ['1825'].

Glabrous, unarmed, shrubs or trees, or occasionally scrambling shrubs or lianas reaching up to 3 m in length; branches slender, flexuose. Leaves alternate, distichous, simple, coriaceous, with entire margins, and pinnate venation, lamina lacking laticifers; petioles furrowed, short; exstipulate. Inflorescences of axillary, simple or laxly branched thyrses, with straight or flexuose axes. Flowers pedicellate, bisexual, actinomorphic; calyx green, minute, cupular, obtusely 5-dentate, undulate or truncate, forming a hypanthium at base; petals 6, connate along lower $\frac{1}{2}$, white, lanceolate, inflexed or reflexed, caducous; stamens 3, alternating with the petals, adnate to basal part of petals; staminodes 6, epipetalous, bifid; ovary semi-inferior, 3-locular, with a single ovule per locule, the stigmas subcapitate. Fruit an ellipsoid drupe, completely covered by the fleshy acrescent calyx except for the apical umbonate region, orange when mature, with a single seed.

Distinctive features: Erect shrubs with scrambling branches or scrambling lianas; leaves alternate, simple, with cartilaginous, undulate or entire margins, and pinnate venation, lamina lacking laticifers; exstipulate; drupes entirely covered by an acrescent calyx.

Distribution: A neotropical genus of about 13 species, 2 of which are consistently reported as scandent shrubs; *Dulacia cyanocarpa* Sleumer from Venezuela, and *D. macrophylla* (Benth.) Kuntze from the Amazonian basin in Colombia, Venezuela, Peru, and Brazil, in terra firme and seasonally flooded lowland forests.

RELEVANT LITERATURE

Sleumer, H.O. 1984. Olacaceae. Flora Neotropica Monographs Vol. 38: 1-158.

PICTURE VOUCHERS

Figure 1.

A. *Dulacia* sp. (Acevedo 15031).

B. *Dulacia* sp. (Acevedo 17071)