

VITACEAE

by

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Shrubs climbing by means of tendrils which are modifications of the axis; nodes often jointed or swollen. Leaves usually alternate, simple or compound, often with pellucid punctate dots. Stipules caducous. Inflorescence consisting of cymes, racemes or panicles opposite the leaves. Flowers minute, hermaphrodite or unisexual, actinomorphic, usually greenish-yellow. Sepals 4—5, often basally connate. Petals 4—5, separate or coherent, caducous, valvate. Disk annular or lobed. Stamens 4—5, epipetalous, arising from the base of the disk; anthers distinct or connate, 2-celled, with longitudinal dehiscence. Ovary superior, 2(—9)-locular, usually surrounded by the disk; style 1, short; stigma discoid or capitate. Ovules 1—2 in each locule, ascending, anatropous. Fruit a berry. Seeds 2—4. Embryo straight. Endosperm copious.

About 700 species in 12 genera; widely distributed in tropical and subtropical regions and extending into the temperate regions.

Cissus Linnaeus, Spec. Plant. 117. 1753

Climbing vines, often woody and shrubby at the base. Leaves often fleshy, simple or 3-foliolate. Inflorescence consisting of corymbose cymes which are more or less umbellately divided. Flowers hermaphrodite or polygamous. Sepals 4, united into a short, subentire calyx. Petals 4, distinct or more or less cohering before flowering, spreading. Disk 4-lobed. Stamens 4, inserted on the margin of the disk. Ovary 2-locular. Ovules 2 in each locule. Berry often with pulp, 1—4-seeded. Seeds ovoid or obtusely 3-cornered.

About 300 species, natives of the tropics.

Key to the species:

1. Leaves simple..... *C. sicyoides*
Leaves 3-foliolate..... 2
2. Leaflets mostly emarginate at the apex, the terminal one shorter, petiolulate; petiole up to 1 cm long; margin with scattered appressed teeth above the middle (St. Martin)..... *C. obovata*

Leaflets not emarginate at the apex, all leaflets sessile; petiole up to 2 cm long; margin sharply toothed above the middle, the teeth close together (Aruba)
..... *C. trifoliata*

***Cissus sicyoides* L.**

LINNAEUS, Syst. Nat. ed. 10. 897. 1759; GRISEBACH, Fl. Br. W. Ind. Isl. 102. 1859 ['1864']; DUSS, Fl. phan. Ant. franç. 95. 1897; BOLDINGH, Fl. D.W. Ind. Isl. 1: 124. 1909; JOHNSTON, Proc. Bost. Soc. Nat. Hist. 34(7): 234. 1909; URBAN, Symb. Ant. 4: 379. 1910; BOLDINGH, Fl. Ned. W. Ind. Eil. 267. 1913; Fl. D.W. Ind. Isl. 2: 61. 1914; URBAN, Symb. Ant. 8: 403. 1920; BRITTON & MILLSPAUGH, Bahama Fl. 260. 1920; BRITTON & WILSON, Sci. Surv. Porto Rico & Virgin Isl. 5: 539. 1924; FAWCETT & RENDLE, Fl. Jamaica 5(3): 77. 1926; WILLIAMS, Fl. Trinidad & Tobago 1: 177. 1930; QUESTEL, Fl. Isl. St. Bartholomew 145. 1941; LEON & ALAIN, Fl. Cuba 3: 225, fig. 93. 1953; ARNOLDO, Zakflora 54. 1954; Zakflora 210. 1964; GOODING *et al.*, Fl. Barbados 273. 1965; ADAMS, Flowering plants of Jamaica 454. 1972; FOURNET, Fl. Guadeloupe & Martinique 1138. 1978.

Shrubby vine, creeping or climbing to a great height, provided with long cord-like aerial roots; branches glabrous, jointed. Leaves petiolate; blade simple, ovate, broadly ovate to triangular or ovate-oblong, acute or acuminate at the apex, cordate or truncate at the base, 3—8 (—15) × 2—7 (—12) cm, glabrous or pubescent, margin serrate, the teeth acute or bristle-tipped; petioles 1—4 cm long. Inflorescence consisting of pedunculate cymes, forking 2—3 times, usually shorter than the opposite leaf; pedicels 2—2.5 mm long. Flowers small, greenish-yellow, white or purplish. Calyx small, about 1 mm long and 1—1.5 mm wide, entire or slightly 4-toothed. Sepals oblong, 2 × 1 mm, hooded at the apex. Disk fleshy. Stamens 4; filaments dilated at the base, 1 mm long; anthers more or less triangular, 0.5 mm long. Berry subglobose or obovoid, black, 7—10 mm in diam. Seeds solitary, obovoid, 4—6 mm long.

Florida, West Indies, and tropical continental America.

Rather common vine in many types of vegetation, especially on roadsides.

Vernacular names: cabuya di klimop, cabuya di tranqué, cabuya corrá, cabuya macutu, wateru, klimop (Leeward Group)
pudding withe (Windward Group).

ARUBA: hills near Fontein (Arnoldo 247, fl. Dec.); Rooi Taki (Stoffers 1861, fl. Jan.; 1844, st. Jan.); without loc. (Boldingh 6214, flb.).

BONAIRE: Sabana (Arnoldo 993, fl. Jan.); Colombia Plantation (Stoffers 1017, st. Dec.); hills near Soto (Boldingh 7193, fl. Feb.).

CURAÇAO: road from Cas Chiquito to Veeris (Boldingh 4716, st. Oct.); Seroe Christoffel (Boldingh 4988, fl. Nov.); hofje of klein Piscadera (Boldingh 4847, fl. Oct.); near St. Joris Baai (Britton & Shafer 3100, st. March); without loc. (Aschenberg s.n., fl.; Boldingh s.n., fr.).

SABA: between The Bottom and Mary's Point, 100—200 m (Boldingh 1506, st. Sept.); along roads between The Bottom and Windwardside, 200 m (Boldingh 1344, flb. July); Spring Bay Gut (Boldingh 2107, st. July); gut between Hellsgate and Mastic Gut, 300—400 m (Boldingh 2051, st. July); The Mountain near Windwardside, 400—475 m (Stoffers 3329, fl. May); The Bottom (Boldingh 546, st. Aug.); Ladder Gut, 100—200 m (Stoffers

2771, fl. Ap.); Fort Bay Gut, 0—100 m (Stoffers 2895, fl. Ap.); Great Rendez-Vous, 475 m (Stoffers 3082, fl. Ap.); between Promised Land and Thais Hill, 175—200 m (Stoffers 3429, fl. May).

ST. EUSTATIUS: Bottom of The Quill (Stoffers 3642, fl. July); between Glass Bottle and White Wall (Stoffers 4072, st. Aug.); slope of lower part of The Quill near Bengalen (Boldingh 709, st. June; 727, st. June); id., 100 m (Boldingh 668, fl. June); top of The Quill, 380 m (Boldingh 284, st. June): rocky slope near Tumble Down Dick Bay (Boldingh 153, st. May); seashore near Oranjestad (Boldingh 44, fl. May); without loc. (v. Groll-Meyer 155, fl.).

ST. MARTIN: gut from Bethlehem to Cul de Sac (Boldingh 3434, st. Sept.); hills along eastern side of Cul de Sac (Boldingh 3437, st. Sept.); along saltpond near Philipsburg (Boldingh 2443, st. Aug.); from Philipsburg to Guana Bay (Boldingh 2384, st. Aug.); from Philipsburg to Belvedere (Boldingh 2589, fl. Aug.); hills along northern side of Cul de Sac (Stoffers 2608, st. March).

Cissus trifoliata L.

LINNAEUS, Syst. Nat. ed. 10. 897. 1759; GRISEBACH, Fl. Br. W. Ind. Isl. 102. 1859 ['1864']; URBAN, Symb. Ant. 4: 380. 1910; BOLDINGH, Fl. Ned. W. Ind. Eil. 267. 1913; Fl. D.W. Ind. Isl. 2: 62. 1914; URBAN, Symb. Ant. 8: 404. 1920; BRITTON & MILLSAUGH, Bahama Fl. 260. 1920; BRITTON & WILSON, Sci. Surv. Porto Rico & Virgin Islands 5: 540. 1924; FAWCETT & RENDLE, Fl. Jamaica 5(3): 77. 1926; LEON & ALAIN, Fl. Cuba 3: 226. 1953; ARNOLDO, Zakflora 52, 99. 1954; Zakflora 211. 1964; ADAMS, Flowering plants of Jamaica 454. 1972; FOURNET, Fl. Guadeloupe & Martinique 1139. 1978; — *Sicyos trifoliata* LINNAEUS, Spec. Plant. 1013. 1753.

Glabrous, fleshy vine, climbing over shrubs and trees; branches succulent, more or less jointed and flexuous. Leaves petiolate, 3-foliolate; leaflets sessile, ovate to obovate or suborbicular, roundish at the apex, narrowed or cuneate at the base, 1—3.5 × 0.5—3 cm, fleshy, sharply toothed above the middle, teeth close together, spreading; petiole 0.5—2 cm long. Inflorescence consisting of compound, long-stalked cymes, usually longer than the opposite leaf. Flowers long-pedicellate, greenish-yellow or creamy, hermaphrodite. Sepals connate into an entire or slightly 4-toothed, 1 × 2 mm calyx. Petals 4, ovate, acute and hooded at the apex, 3 × 2 mm. Stamens 4; filaments slightly dilated towards the base, 1.5 mm long; anthers ovate, 1 mm long. Disk fleshy, 4-lobed, surrounding the ovary. Berry globose to ovoid, dark-purple or black, mucronate, 5—7 mm in diam.; pedicels recurved in fruit. Seeds obovoid, 5—6 mm long.

Florida, West Indies south to Martinique; northern South America.

Rare climber, known from vegetations in which candle-cactuses predominate.

Vernacular name: wareru cruz (Leeward Group).

ARUBA: Matoguerai (Stoffers 1420, fl. Jan.; 1450, st. Jan.); without loc. (Boldingh 6210, fr.).

Cissus obovate Vahl

VAHL, Symb. Bot. 3: 19. 1794; Boldingh, Fl. D.W. Ind. Isl. 1: 124. 1909; URBAN, Symb. Ant. 4: 380. 1910; BOLDINGH, Fl. Ned. W. Ind. Eil. 267. 1913; BRITTON & WILSON, Sci. Surv. Porto Rico & Virgin. Isl. 5: 540. 1924; QUESTEL, Fl. Isl. St. Bartholomew 145. 1941; FOURNET, Fl. Guadeloupe & Martinique 1139. 1978.

Slender vine; branches glabrous except for scattered hairs at or near the nodes. Leaves petiolate, 3-foliolate; leaflets obovate, 0.6—2.0 × 0.4—1.2 cm, rounded and usually emarginate at the apex, acute or cuneate at the base, margin crenulate with scattered appressed teeth above the middle, veins conspicuous beneath; lateral leaflets sessile, the terminal one shortly petiolulate; petiole 1 cm long or less. Inflorescence consisting of small, few-flowered cymes; pedicels slender to filiform. Flowers hermaphrodite, greenish. Sepals 4, united into an entire or slightly 4-lobed calyx, 1 × 1.5 mm. Petals oblong, acute and hooded at the apex, 2 × 1 mm. Stamens 4; filaments slightly winged, 1.25 mm long; anthers ovoid-oblong, 1 mm long. Disk fleshy, about 1 mm high. Berry oblong to ovoid, blackish, mucronate, up to 8 mm long.

St. Thomas, St. Croix, St. Martin, St. Bartholomew, Guadeloupe, and Martinique.

Very rare vine in woodlands.

ST. MARTIN: Mount Paradise (Boldingh 3350, fl. Sept.); id. 300—400 m (Boldingh 3236, fl. & fr. Sept.).