# MENISPERMACEAE 

by
A. L. STOFFERS
(Botanisch Laboratorium, Nijmegen)

Twining, woody vines, or climbing, rarely erect, shrubs, dioecious. Leaves alternate, entire; petiole swollen below the blade. Stipules wanting. Inflorescence consisting of axillary panicles or racemes. Flowers small, unisexual. Sepals 4-6 or more, free, imbricate in the bud. Petals 4-6 or reduced to 1 , or wanting, free or connate. Sepals, petals and stamens usually each in 2 rows. Male flowers: stamens 6 and then epipetalous, or less; filaments free or united; anthers 4-celled or falsely so, longitudinally dehiscent. Female flowers: gynaecium of (1-)3-6 distinct, sessile or stipitate pistils, ovary superior, 1-celled, 1 -carpelled; styles very short or wanting; stigma terminal, capitate or discoid, entire or lobed; staminodes 6 or wanting; ovules 2, one aborting, anatropous, on a parietal placenta; fruit a drupe; seed one, horseshoe-shaped; embryo long, curved; endosperm present or wanting.
About 400 species in 63 genera, almost all tropical.

Key to the genera:
Leaves glabrous; flowers with 6 sepals and 6 petals, the male ones with 6 stamens; the female ones with 3 pistils . . . . . . . Hyperbaena

Leaves pubescent or glabrate beneath; male flowers with 4 sepals, petals united, stamens united, anthers 4 ; female flower with 1 sepal, 1 petal and 1 pistil . . . . . . . . . . . . . . . . Cissampelos

## Hyperbaena Miers, Ann. Nat. Hist. Ser. 2, 7: 44.1851

Climbing shrubs. Leaves coriaceous, entire, palmately veined. Male flowers in slender panicles, small; sepals 6, the outer ones small; petals 6, somewhat fleshy; stamens 6, free, the filaments dilated at the top. Female flowers in racemes, sepals 6, the outer ones small; petals 6, somewhat fleshy; staminodes 6, very small; pistils 3, free; styles hooked. Fruit a drupe. Seed horseshoeshaped. Endosperm wanting.
Ten species in tropical South America and the West Indies.

Hyperbaena domingensis (DC.) Benth.
Bentham, Journ. Linn. Soc. 5, suppl. 2: 50. 1861; Urban, Symb. Ant. 4: 238. 1905; Boldingh, Fl. D. W. Ind. Isl. 1: 68. 1909; Diels in Engler, Pflanzenreich IV(94): 200, fig. 70. 1910; Boldingh, Fl. Ned. W. Ind. Eil. 191. 1913; Fawcett \& Rendle, Fl. Jamaica 3(1): 191, fig. 78. 1914; Urban, Symb. Ant. 8: 225. 1920; Brittron \& Wilson, Sci. Surv. Porto Rico \& Virgin Isl. 5: 308. 1924; Leon \& Alain, Fl. Cuba 2: 166. 1951; - Cocculus domingensis DeCandolle, Syst. 1: 528. 1818; Grisebach, Fl. Br. W. Ind. Isl. 10. 1859; Duss, Fl. phan. Ant. franç. 7. 1897.

Climbing shrub; the younger branchlets ferrugineous-tomentellous, glabrescent. Leaves petiolate; petiole striate, up to 5 cm long, jointed near the top, somewhat pubescent; blade ovate, oblong-elliptic or oblanceolate, acute, obtuse or acuminate at the apex, rounded or subcordate at the base, palmately 3 -veined, glabrous or slightly pubescent on the veins beneath, $4-18 \times 3-11 \mathrm{~cm}$. Inflorescences usually puberulous. Male flowers: outer sepals about $1.5 \times 1$ mm , the inner ones concave, $1.5-1.8 \mathrm{~mm}$ long and wide; petals about $1.5 \times$ $0.8-1.2 \mathrm{~mm}$; stamens about 1 mm long. Female flowers: sepals and petals as in the male flowers; staminodes about 0.4 mm long; ovaries 0.8 mm long; drupes about 2 cm long, red, finally black.
Antilles, Guiana, and Brazil.
Woodlands and forests.
Saba: Spring Bay Gut (Boldingh 2092, st. July).
St. Eustatius: top of The Quill, 500 m (Boldingh 486, st. June); Bottom of The Quill (Boldingh 426, st. June; 891, st. June; 896, fl. June; Stoffers 3644, st. July; 3641, st. July); lower part of The Quill near Bengalen (Boldingh 708, st. June).

Cissampelos Linnaeus, Spec. Plant. 1031. 1753
Climbing shrubs or woody vines. Leaves herbaceous, broad, subcordate, rarely peltate, often pilose. Male flowers in cymose panicles; sepals 4; petals united into a cup; stamens united into a column. Female flowers clustered in the axils of leafy bracts, in simple cymes; sepals l, hairy; petals usually l, opposite the sepal; pistil 1, hairy; style 3-lobed; drupe subglobose, more or less hispid; stone compressed, tuberculate at the back, concave on both sides.

About 20 species, natives of tropical America and South Africa; one species in the tropics of both worlds.

## Cissampelos pareira I.

Linnaeus, Spec. Plant. 1031. 1753; Grisebach, Fl. Br. W. Ind. Isl. 10. 1859; Duss, Fl. phan. Ant. franç. 7. 1897; Urban, Symb. Ant. 4: 237. 1905; Boldingh, Fl. D. W. Ind. Isl. 1: 68. 1909; Johnston, Proc. Bost. Soc. Nat. Hist. 34(7): 211. 1909; Diels in Engler, Pflanzenreich IV(94): 286, fig. 91. 1910; Boldingh, Fl. Ned. W. Ind. Eil. 190. 1913; Fl. D. W. Ind. Isl. 2: 30. 1914; Fawcett \& Rendle, Fl. Jamaica 3(1): 193, fig. 79. 1914; Urban, Symb. Ant. 8: 226. 1920; Britton \& Wilson, Sci. Surv. Porto Rico \& Virgin Isl. 5: 307. 1924; Williams, Fl. Trinidad \& Tobago 1(1): 19. 1928;

Leon \& Alain, Fl. Cuba 2: 164, fig. 69. 1951; Arnoldo, Zakflora 132. 1954; Zakflora 161. 1964; - C. caapeba Linnazus, Spec. Plant. 1032. 1753; - C. pareira L. var. caapeba Linnaeus, Spec. Plant. 1032. 1753; - C. microcarpa DeCandolle, Syst. 1: 534. 1818; - C. heterophylla DeCandolle, Syst. 1: 534. 1818; - C. tomentosa DeCandolle, Syst. 1: 535. 1818; - C. longipes Miers, Contr. Bot. 3: 139. 1871.

A long, woody vine; branchlets slender, glabrous or tomentose. Leaves petiolate; petiole up to 12 cm long, pubescent; blade broad-cordate or ovate, obtuse, subacute or emarginate and usually mucronate at the apex, cordate, subtruncate and somewhat peltate at the base, palmately veined, pubescent on both sides or underneath only, or glabrate, $2-12 \times 2-12 \mathrm{~cm}$. Male flowers in subcorymbose inflorescences in the axils of the leaves; sepals 4 , subovate, about $1-1.5 \times 0.6-1.2 \mathrm{~mm}$; corolla patelliform, $0.8-1.5 \mathrm{~mm}$ in diam. Female cymules in the axils of bracts; the latter orbicular, $6-18 \mathrm{~mm}$ broad; sepal broadly obovate, $1-1.5 \times 0.6 \mathrm{~mm}$; petal broadly reniform, $0.6-0.8 \times 1-1.5$ mm ; ovary minutely hispid, becoming glabrous towards the top; drupe suborbicular, compressed, hispid, red, 4-5 mm long.

Tropics of both worlds.
Woodlands and forests.
Vernacular names: yerba di pataca, rais di pataca (Leeward Group).
Bonaire: calcareous plateau of Montagne (Boldingh 7411, male fl. Feb.).
Curaçao: Seroe Christoffel, 300 m (Arnoldo 1929, fem. fl. Feb.); hills to the east of Westpunt (Boldingh 5448, st. Nov.).
Saba: near Sulphurmines (Boldingh 1702, st. July); Castle Hill, seaside, 300-350 m (Stoffers 4186, male fl. Aug.).
St. Eustatius: slope of The Quill near Bengalen, 100 m (Boldingh 667, fl. June; 710, st. June); northern slope of The Quill (Stoffers 3978, st. July).
St. Martin: mountain between Mont des Accords and Sentry Hill, 200-300 m (Boldingh 2885, st. Aug.); Mount Paradise, $150-400 \mathrm{~m}$ (Boldingh 3191, male fl. Sept.).

