

MELASTOMACEAE

by

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Herbs, shrubs or trees or rarely lianas or epiphytes (not in our region). Leaves opposite or rarely verticillate, with 3—9 longitudinally converging parallel nerves and few to many parallel side veins, the margin entire or toothed. Stipules wanting. Inflorescence consisting of terminal or axillary panicles or corymbs. Bracts sometimes coloured. Flowers hermaphrodite, actinomorphic or the androecium zygomorphic. Hypanthium cupshaped or tubular. Sepals 3—5 or more, sometimes united into a calyptra. Petals imbricate, free or united at the base. Stamens twice as many as or sometimes as many as the petals; filaments free; anthers 2-celled, incurved in the bud, opening by pores or slits, the connective often protruded and appendaged. Ovary inferior to half-inferior, sometimes free in the hypanthium, 2—many-locular or rarely 1-locular. Ovules numerous. Fruit a capsule or berry, enclosed by the hypanthium. Seeds minute. Endosperm wanting.

About 4000 species in c. 200 genera in the tropics, mainly on the American continent; only a few species outside the tropics.

Key to the genera:

1. Fruit a capsule; ovary superior, free or nearly free from the hypanthium *Tibouchina*
Fruit a berry, ovary more or less adherent to the hypanthium 2
2. Hypanthium constricted above the ovary; sepals spreading in fruit *Tetrazygia*
Hypanthium not constricted above the ovary; sepals not spreading 3
3. Flowers 5-merous; petals spreading or reflexed, white to pale-pink *Miconia*
Flowers 4-merous; petals erect, forming a bell-shaped corolla, crimson *Charianthus*

Miconia Ruiz & Pavon, Prodr. 60. 1794 nom. cons.

Shrubs or trees. Leaves opposite or whorled. Inflorescence consisting of terminal, or rarely axillary, spikes, compound spikes or panicles. Flowers 4–6-merous, sessile or short-pedicellate. Hypanthium subglobose to narrowly campanulate or tubular. Sepals varying from elongate to minute or obsolete, persistent or deciduous. Petals usually white. Stamens isomorphic or dimorphic; anthers varying from linear to ovoid, opening by a terminal pore or by 2 longitudinal slits; connective simple, prolonged or variously lobed or appendaged. Ovary partly or completely inferior, (2—) 3 (—5)-locular; style usually elongate, straight or curved. Fruit baccate.

About 800 species throughout tropical America.

Key to the species:

1. Leaves sessile, auriculate or subclasping, 20—40 × 7.5—15 cm *M. impetiolaris*
Leaves distinctly petiolate, 5—20 × 2—8 cm; petiole 1—3 cm long *M. laevigata*

Miconia impetiolaris (Sw.) D. Don

D. DON, Mem. Wern. Soc. 4: 316. 1823; GRISEBACH, Fl. Br. W. Ind. Isl. 256. 1860 [1864]; DUSS, Fl. phan. Ant. franç. 284. 1897; BOLDINGH, Fl. D.W. Ind. Isl. 1: 149. 1909; URBAN, Symb. Ant. 4: 457. 1910; BOLDINGH, Fl. Ned. W. Ind. Eil. 310. 1913; URBAN, Symb. Ant. 8: 493. 1921; BRITTON & WILSON, Sci. Surv. Porto Rico & Virgin Isl. 6: 7. 1925; FAWCETT & RENDLE, Fl. Jamaica 5(3): 371. 1926; LEON & ALAIN, Fl. Cuba 4: 28. 1957; ADAMS, Flowering plants of Jamaica 540. 1972; FOURNET, Fl. Guadeloupe & Martinique 923, fig. 445. 1978; — *Tamonea impetiolaris* SWARTZ, Prodr. Veg. Ind. Occ. 70. 1788.

Evergreen, small tree up to 6 m high with trunk up to 7 cm in diam, or a 2–3 m high shrub with stout twigs; bark brown and finely fissured; twigs densely brown and scurfy hairy. Leaves opposite, sessile or nearly so, somewhat clasping at the base; blade large, elliptic, oblanceolate to obovate, abruptly short-acuminate to long-acuminate at the apex, rounded to cordate-clasping at the base, 20–30 (—40) × 7.5–10 (—15) cm or even larger, thick and leathery, slightly shiny green on the upper surface, becoming glabrous or nearly so, pale brownish green beneath and densely covered with minute star-shaped hairs, 5-nerved, one pair arising c. 8 mm above the base, usually also an additional faint nerve close to the margin, many parallel lateral veins between the nerves; margin minutely toothed. Inflorescence consisting of large terminal panicles up to 25 cm long, divaricately branched with simple, spike-like, densely brown scurfy-hairy branches. Flowers small, sessile in small glomerules. Hypanthium cup-shaped, tubular to obconical, nearly 3 mm long, densely scurfy-hairy. Sepals 5, tooth-like. Petals 5, spreading, white, 2.5 mm long, notched at the apex. Stamens 10. Ovary half-

inferior, 3-locular; style slender up to 10 mm long; stigma truncate. Fruit a globose berry, 4—5 mm in diam., red turning blue to blackish, crowned by the calyx-ring at the apex.

Antilles; continental tropical America from southern Mexico through Central America to Venezuela, Peru, Bolivia, and Brazil.

ST. EUSTATIUS: Bottom of The Quill (Boldingh 469, st. June); top of The Quill? (Boldingh 310, fl. & fr. June).

Miconia laevigata (L.) DC.

DECANDOLLE, Prodr. 3: 188. 1828; GRISEBACH, Fl. Br. W. Ind. Isl. 257. 1860 [1864]; DUSS, Fl. phan. Ant. franç. 281. 1897; BOLDINGH, Fl. D.W. Ind. Isl. 1: 149. 1909; JOHNSTON, Proc. Bost. Soc. Nat. Hist. 34(7): 244. 1909; URBAN, Symb. Ant. 4: 457. 1910; BOLDINGH, Fl. Ned. W. Ind. Eil. 311. 1913; URBAN, Symb. Ant. 8: 494. 1921; BRITTON & WILSON, Sci. Surv. Porto Rico & Virgin Isl. 6: 8. 1925; FAWCETT & RENDLE, Fl. Jamaica 5(3): 373, fig. 136. 1926; WILLIAMS, in Fl. Trinidad & Tobago 1: 389. 1931; LEON & ALAIN, Fl. Cuba 4: 25. 1957; GOODING *et al.*, Fl. Barbados 315. 1965; ADAMS, Flowering plants of Jamaica 541. 1972; FOURNET, Fl. Guadeloupe & Martinique 929, fig. 448. 1978; — *Melastoma laevigata* LINNAEUS, Syst. Nat. ed. 10. 1022. 1759; — *Miconia ambigua* (BONPLAND) DECANDOLLE, Prodr. 3: 189. 1828; GRISEBACH, Fl. Br. W. Ind. Isl. 257. 1860 [1864]; FAWCETT & RENDLE, Fl. Jamaica 5(3): 373. 1926.

Evergreen shrub, up to 3 m high; branches minutely scurfy when young; bark grey, smooth; twigs slender, slightly 4-angled. Leaves opposite, petiolate; petiole 1—3 cm long, scurfy; blade ovate, oblong-ovate or lanceolate, long-acuminate at the apex, cuneate to rounded at the base, 5—20 × 2—8 cm, membranaceous, upper surface slightly shiny green and becoming hairless, the lower surface dull light green and hairy on the raised veins, 5-nerved and usually also a faint nerve along the margin, all arising from the base, many parallel lateral veins between the nerves, margin toothed or entire. Inflorescence consisting of pyramidal panicles, up to 15 cm long, the branches opposite; peduncle and branches scurfy. Flowers sessile or subsessile, more or less crowded. Hypanthium cup-shaped, scurfy, 2—3 mm long. Sepals 5, triangular. Petals 5, obovate, rounded at the apex, spreading, white or pale-pink, 3—4 mm long. Stamens 10. Ovary half-inferior, 3-locular; style thickened near the top. Fruit a globose berry, crowned by the calyx-ring at the apex, 3 mm in diam., blue to black, slightly 10-ribbed; pulp juicy, blackish.

West Indies; continental tropical America from southern Mexico to Ecuador and Venezuela.

SABA: top of The Mountain, 800 m (Boldingh 2216, st. July; 1825a, defl. July); slope of The Mountain, at Under the Cliff, 680 m (Stoffers 3228, fl. & fr. May); slope of The Mountain near Windwardside (Stoffers 3342, fl. & fr. May); from Windwardside to Hellsgate (Boldingh 1682, fr. July); near Hellsgate (Boldingh 1683, st. July); between Crispine and Small Rendez-Vous, 375-450 m (Stoffers 2934, fl. & fr. Ap.); The Saddle, 400 m (Stoffers 4126, st. Aug.); lower part of

Bottom Mountain, 250 m (Boldingh 1406, fr. July); Spring Bay Gut (Boldingh 2119, fr. July); without loc. (Burgers 508, fl. March).

ST. EUSTATIUS: top of The Quill, 350-450 m (Boldingh 338, flb. June; 208, fr. June; 262, fr. June; 344, st. June; 506, fr. June); Bottom of The Quill, 300 m (Boldingh 452, fr. June); slope of The Quill near Bengalen, 200 m (Boldingh 742, flb. June); western slope of The Quill, 275 m (Stoffers 4706, fr. Aug.; 4733, fl. & fr. Aug.; 4734, st. Aug.); id., 240 m (Stoffers 3984, fr. July); without loc. (van Groll-Meyer 191, st.).

ST. MARTIN: Mount Paradise, 300-400 m (Boldingh 3208, st. Sept.; 3341, st. Sept.); Colombier (Le Gallo 862, fr. July); between Grande Case and Marigot? (Boldingh 3100a, st. Sept.); top of the hills on northern side of Cul de Sac, 200-300 m (Boldingh 3006, st. Aug.).

Charianthus D. Don, Mem. Wern. Soc. 4: 327. 1823

Small trees or shrubs, usually much branched. Leaves opposite, petiolate; blade lanceolate to ovate or elliptic, entire, often coriaceous, the younger leaves usually covered with close brown or whitish-scurfy scales, glabrous to setose. Inflorescence consisting of terminal or rarely axillary paniculate or corymbose cymes. Flowers 4-merous, showy. Hypanthium campanulate to urceolate. Sepals persistent, small with a minute, bluntish exterior tooth. Petals ovate to obovate or narrowly oblong-spathulate, free, erect, usually forming an imbricate bell-shaped corolla, red to crimson-purplish. Stamens 8, in two equal series, inflexed in the bud, exceeding the petals in length; anthers opening by longitudinal slits or rarely by a terminal pore; connective not elongated and without appendages. Ovary completely united with the hypanthium, 2-4-locular; style filiform and very long; stigma simple, rounded. Fruit baccate, subglobose or urceolate, crowned by the persistent calyx, juicy. Seeds pyramidal.

Five species and six varieties; probably endemic to the highest peaks of the volcanic islands of the Antilles.

Charianthus purpureus D. Don

D. Don, Mem. Wern. Soc. 4: 329. 1823.

Shrub, 1-10 m high; twigs slender to stout, obtusely tetragonal, often densely to slightly covered with brown hairs when young or glabrate except for a setose ring at the nodes, the persisting hairbases often remaining as small tubercles. Leaves petiolate; petioles 4-7 cm long, but those of the lower leaves up to 18 cm long, more or less sulcate, the margins densely to sparingly setose; blades broadly ovate to ovate-elliptic, somewhat obovate or subrotund, shortly cuspidate or abruptly blunt-acuminate at the apex, rounded to subcordate at the base, 5-nerved, 7-16 × 3-11 cm, margin entire, undulate or crenulate, often setose-ciliate; youngest leaves remotely scurfy-lepidote above, at length glabrous, closely brown-lepidote or white-furfuraceous below, at length glabrescent. Inflorescence terminal, few- to many-flowered, corymbose, the cymes sessile; branches, pedicels, and hypanthia with scattered or close furfuraceous scales; pedicels

1—3 mm long. Hypanthium 3 mm long. Sepals 1.5—2 mm long, with a blunt, often obscure, exterior tooth near its middle. Corolla bright to deep crimson-purple; petals oval, 7—12 mm long and 6—7 mm wide. Stamens inflexed in the bud; filaments 12—14 mm long; anthers 2—3 mm long, arcuate. Style red, 1.5—2.5 cm long; stigma rounded, yellowish. Berry subglobose, 5—7 mm in diam., maroon, turning black at maturity.

Antilles.

var. **crinitus** (Naudin) Hodge

HODGE, Contr. Gray Herb. 135: 129. 1941; — *Charianthus crinitus* NAUDIN, Ann. Sc. Nat. sér. 3. 18: 112. 1852; BOLDINGH, Fl. D.W. Ind. Isl. 1: 149. 1909; Fl. Ned. W. Ind. Eil. 310. 1913.

Twigs densely setose; hairs 3—5 mm long, especially abundant on the internodal areas. Leaves ovate to somewhat obovate, entire to minutely undulate, subacute to bluntly-cuspidate and often recurved apex, emarginate to subcordate at the base, 6—22 × 5—14 cm, subcoriaceous above, with scattered, closely appressed, brown scales when young, at length glabrous, glabrescent below; the nerves of younger leaves setose below, glabrescent at length; petioles 1.5—15 cm long, setose on the channel-margins above.

Known from Saba and St. Kitts only.

In mossy forest at the top of the islands.

SABA: The Mountain, 600—800 m (Boldingh 1784, fl. & fr. July [NY, U]; Arnaldo 799, fl. & fr. Aug.; 1359, fl. March); top of The Mountain (Arnaldo 3316, fl. Dec.; Stoffers 4225, st. Aug.); between Hellsgate and Sandy Cruz (Stoffers 3457, st. May).

Tetrazygia L. C. Richard ex A. P. De Candolle, Prodr. 3: 172. 1828

Shrubs or small trees, usually scurfy with soft scales. Leaves opposite, simple, petiolate; blade 3—5-nerved. Inflorescence consisting of terminal panicles or corymbs. Flowers small, numerous. Hypanthium constricted above the ovary. Sepals 4—5, spreading. Petals 4—5. Stamens 8—10; anthers opening by a pore; connective not prolonged. Ovary partly connate to the hypanthium; style narrowed towards the top; stigma pointed. Fruit a berry, crowned by the persistent hypanthium. Seeds numerous, minute.

About 20 species in the Antilles and French Guyana.

Tetrazygia discolor (L.) DC.

DECANDOLLE, Prodr. 3: 172. 1828; GRISEBACH, Fl. Br. W. Ind. Isl. 255. 1860 [1864]; BOLDINGH, Fl. D.W. Ind. Isl. 1: 149. 1909; Fl. Ned. W. Ind. Eil. 310. 1913; WILLIAMS, in Fl. Trinidad & Tobago 1: 368. 1931; — *Melastoma discolor* LINNAEUS, Syst. Nat. ed. 10. 1022. 1759.

Shrub, up to 6 m high; branches densely scurfy but soon glabrate. Leaves petiolate; petioles slender, up to 6 cm long, scurfy; blades ovate to ovate-lanceolate (to lanceolate), long-acuminate at the apex, rounded at the base, 7—20 × 5—10 cm, membranaceous, glabrous above, white with very short tomentum beneath, 5-nerved, the inner pair arising somewhat above the base, the nerves soon glabrate, margin obscurely wavy-toothed. Inflorescence consisting of corymbose panicles, the branches white with very short tomentum. Hypanthium bell-shaped, scurfy, 2.5—3 mm long, with dilated limb. Sepals 4, roundish or sometimes pointed. Petals 4, obovate, obtuse at the apex, 2—3 mm long, yellowish. Stamens 8; filaments subulate, 2 mm long; anthers linear, c. 2 mm long. Ovary 2—4-locular; style 6—7 mm long, incurved; stigma pointed. Berry globose, 3—5 mm in diam., scurfy at first but soon glabrate.

Lesser Antilles and French Guyana.

In secondary communities above 150 m altitude.

SABA: Rendez-Vous, 600 m (Arnoldo 3263, fl. Jan.); slope of The Mountain at the side of The Bottom, 400—500 m (Stoffers 3123, fl. & fr. Ap.); Booby Hill, 400 m (Stoffers 4297, st. Aug.; 4312, st. Aug.); lower part of Bottom Mountain, 300 m (Boldingh 1436, fl. July); Castle Hill, 300—350 m (Stoffers 4160, st. Aug.); between The Bottom & Mary's Point, 100—200 m (Boldingh 1551, fr. July).

Tibouchina Aublet, Pl. Guian. 1 : 445, t. 177. 1775

Herbs or usually subshrubs, simple or branched, almost always pubescent and sometimes strongly lepidote. Flowers 4—8-merous, usually many in branching panicles. Hypanthium campanulate to tubular. Sepals well-developed and frequently exceeding the hypanthium in length, deciduous or persistent. Petals often large and brightly coloured. Stamens isomorphic or dimorphic; filaments terete or flattened; anthers subulate, linear, oblong or narrowly ellipsoid; connective more or less prolonged below the thecae and bearing 2 basal anterior lobes or short appendages. Ovary free, setose at the summit, usually 4-celled; style filiform; stigma punctiform. Fruit capsular. Seeds minute, cochleate, tuberculate.

About 250 described species of tropical America, most abundant in southern Brazil and the Andes of Bolivia and Peru; four species in the West Indies.

Key to the species:

1. Leaves 5—8 × 1—3 cm; flowers white to purplish, in loose or dense paniculate cymes *T. longifolia*
 Leaves 0.3—0.7 × 0.2—0.6 cm; flowers purple, solitary or 3—5 together
 at the top of the branches *T. strigosa*

Tibouchina longifolia (Vahl) Baill.

BAILLON, Adansonia 12: 74. 1877; URBAN, Symb. Ant. 8: 491. 1921; WILLIAMS, in Fl. Trinidad & Tobago 1: 362. 1931; LEON & ALAIN, Fl. Cuba 4: 14, fig. 3. 1957; — *Rhexia longifolia* VAHL, Eclog. Am. 1: 39. 1796.

Small shrub or subshrub up to 1 m high; stems erect, branching, scabrous with stout, appressed, ascending or spreading, often brownish and mostly up to 3 mm long hairs. Leaves opposite, petiolate; petioles 5—10 (—15) mm long; blades oblong-lanceolate, ovate-oblong to narrowly lanceolate, acuminate to acute at the apex, cuneate at the base, 5—8 (—10) × 1—3 (—3.5) cm, 5-nerved, the lateral nerves confluent toward the base; appressed-pilose on both sides. Inflorescence consisting of loose or dense cymes arranged in rather large panicles. Hypanthium broadly campanulate, 3—3.5 mm long, 10-ribbed, hairy with fine bristles. Sepals 5, triangular-subulate to linear, hairy as the hypanthium, 2.5—3.5 mm long, persistent, usually recurved. Petals 5, white or purplish, lanceolate and unequal-sided, 5—7 mm long. Stamens 10, nearly isomorphic; filaments flattened, 5 mm long; anthers straight, 2—3 mm long, yellow; connective curved, with 2 basal lobes. Capsule c. 4 mm long, 10-ribbed, bristly, crowned by the persistent sepals.

From southern Mexico to Brazil and Bolivia; West Indies.

In elfin woodland and secondary rain-forest.

SABA: slope of The Mountain at the side of Windwardside, 600 m (Stoffers & Marion Rouweler 8851, st. Aug.); slope of The Mountain above Rendez-Vous, 600—680 m (Stoffers 3265, fl. & fr. Ap.; 3356, fl. & fr. Ap.); The Mountain, 700 m (Arnoldo 3317, fl. & fr. Dec.); Hellsgate (Arnoldo 1353, fl. & fr. March).

***Tibouchina strigosa* (Rich.) Cogn.**

COGNIAUX, in DE CANDOLLE, Monogr. Phan. 7: 266. 1891; BOLDINGH, Fl. D.W. Ind. Isl. 1: 148. 1909; Fl. Ned. W. Ind. Eil. 309. 1913; — *Rhexia strigosa* RICHARD, in Act. Soc. Hist. Nat. Paris 1: 108. 1792; — *Pleroma strigosum* TRIANA, Transact. Linn. Soc. 28: 47. 1871; — *Osbeckia ornata* SWARTZ, Fl. Ind. Occ. 2: 647. 1798; — *Tibouchina ornata* (SWARTZ) BAILLON, Adansonia 12: 74. 1877; FOURNET, Fl. Guadeloupe & Martinique 909. 1978; — *Chaetogastra strigosa* DE CANDOLLE, Prodr. 3: 134. 1828; GRISEBACH, Fl. Br. W. Ind. Isl. 266. 1860 [‘1864’].

A low (strongly) branched subshrub up to 30 cm high, often decumbent; branches tetragonal, densely strigose; the internodes short. Leaves opposite; petioles 1—1.5 mm long, with a few bristles; blades ovate to elliptic, 0.3—0.7 × 0.2—0.6 cm, acute at the apex, broadly truncate to roundish at the base, the margin slightly thickened, 3-nerved, sometimes an additional faint nerve close to the margin, 16—20 appressed, about 2 mm long yellowish bristles parallel to the midrib on the upper surface, pale-yellow bristles on the nerves below and a few scattered also on the margin. Flowers solitary or 3—5 at the end of the twigs, about 2 mm long stalked, drooping, 2.5—3.5 cm in diam. Hypanthium cup-shaped and slightly constricted above the ovary. Flowers not seen. According to Grisebach and Fournet: sepals ovate-oblong, blunt at the apex, suberect; petals 4—5, obovate, purple, ciliate at the margin; anthers blunt, the tail one-third the length of the cells.

Guadeloupe, St. Kitts, Saba, Guyana, Novo Granata.

SABA: top of The Mountain, 800 m (Stoffers 3463, defl. May).