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VOL. 1.]

[PART 6.

FLORA
OF
TRINIDAD AND TOBAGO.

MYRTALES (PARS.)

BY
R. O. WILLIAMS.

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FAMILY 3. MYRTACEAE.

Shrubs or trees. *Lvs.* simple, mostly entire, opposite in the local species, glandular-dotted. *Stip.* none or very small. *Infl.* simple, racemose, or racemose-paniculate, rarely cymose, axillary or sub-terminal. *Fls.* mostly regular, hermaphrodite or polygamous. *Cal. tube* more or less united to the ovary; *lobes* usually equally divided into 4 or 5 lobes, imbricate, valvate or irregularly split. *Pst.* 4 or 5, rarely 6 or none, inserted on the margin of the disk, imbricate or connivent in a mass. *Disk* lining the calyx tube. *Stam.* numerous, rarely few, inserted on the margin of the disk in one or more series, inflexed in bud or twice folded or straight; *fil.* free or united at the base into a short tube or in bundles opposite the petals; *anths.* small, 2-celled, dehiscing longitudinally by slits or rarely by apical pores, the connective often tipped by a gland. *Ovary* inferior, 1-many-celled, with mostly axile, rarely parietal placentation; *style* simple; *stig.* terminal, capitate; *ovules* numerous, rarely solitary or few. *Fruit* inferior, a berry or drupe in the local species. *Seeds* one or more.

Cal. limb united in bud, bursting irregularly at flowering.

- | | |
|--------------------------------------|----------------------|
| Fls. 1-3 on axillary peduncles | 1. <i>Psidium.</i> |
| Fls. in sessile clusters | 2. <i>Plinia.</i> |
| Fls. in panicles..... | 3. <i>Marlierea.</i> |

Cal. limb united, falling off like a cap at flowering

4. *Calyptranthes.*

Cal. limb 4 or 5-lobed in bud.

Fls. in panicles.

Ovules few in each cell

5. *Amomis.*

Ovules 2 in each cell.

Sep. the two larger with their lower halves joined to the corolla

6. *Krugia.*

Sep. not joined to the petals.....

7. *Myrcia.*

Fls. solitary or in umbel-like clusters, or racemose.

Cal. lobes foliaceous

8. *Calycolpus.*

Cal. lobes not foliaceous.

Cal. lobes 5.

Lvs. leathery

9. *Anamomis.*

Lvs. membranous

10. *Campomanesia.*

Cal. lobes 4

11. *Eugenia.*

1. PSIDIUM L.

Shrubs or trees. *Lvs.* pinnate. *Fls.* usually large, axillary or terminal, solitary or clustered. *Cal. tube* more or less produced beyond the ovary; *lobes* 4 or 5, undivided in the bud in the local species, irregularly dividing at flowering. *Pet.* 4 or 5, spreading. *Stam.* numerous; *fil.* threadlike. *Ovary* usually 4-5-celled; *ovules* numerous in each cell, attached to a central placenta. *Berry* usually crowned by the calyx. *Seeds* many; *testa* hard.

P. Cattleianum Sabine, a native of Brazil and *P. Friedrichsbalianum* (Berg.) Ndz. of Nicaragua are grown in the Botanic Gardens.

Young branches tetragonal; *lvs.* with

more than 12 lateral nerves1. *P. Guajava.*

Young branches cylindrical or compressed;

lvs. with 12 or less lateral nerves2. *P. guineense.*

1. *P. Guajava* L. Guava.

Griseb. Fl. 241: Fawc. & Rendl. Fl. Jam. 5. 315-316.

Shrub or small *tree*, young *branches* tetragonal and slightly wing-angled; *lvs.* elliptical to oblong, acute or obtuse and usually apiculate at the apex, wedge-shaped, obtuse or rounded at the base, 5-12 cm. long, up to 4.5 cm. broad, papery or thinly leathery, glabrescent above, including the mid-rib, minutely pubescent beneath, minutely and numerous glandular-dotted, lateral nerves 13-15 on either side; *petioles* 3-5 mm. long; *fls.* axillary, usually solitary, or 3 together, puberulous or pubescent; *pedi.* 1-2.5 cm. long, pubescent; *cal. limb* 1-1.5 mm. long, puberulous or glabrescent; *pet.* white, 1.5-2 cm. long; *fruit* globose, ellipsoid or obovoid, 3.6 cm. diam., yellow.

Hillsides and thickets. Trinidad and Tobago.

West Indies. Trop. Cont. America.

2. *P. guineense* Sw.

P. polycarpum A. Anders.

Griseb. Fl. 241: Fawc. & Rendl. Fl. Jam. 5. 316-317.

Shrub, young *branches* cylindrical or compressed; *lvs.* elliptical or oblong-elliptical, obtuse or rounded and often apiculate at the apex, wedge-shaped to rounded at the base, up to 13 cm. long and 6 cm. broad, thinly leathery, glabrescent above, except for the mid-rib, pubescent to velvety beneath especially on the nerves, minutely and numerous glandular-dotted, lateral nerves 6-10, rarely to 12 on either side; *petioles* 5-10 mm. long, velvety; *infl.* axillary, 1-several, often 3-flowered, the *peduncle*, *pedicels* and *cal. tube* velvety; *cal. limb* 7-8 mm. long, pubescent; *pet.* 12-15 mm. long; *fruit* "obovoid-globose, ovoid or subglobose, about 2 cm. diam., yellow, edible, tastes much like a strawberry." (Fawc. & Rendl. l.c.)

Savannahs and Forest borders, Trinidad.

West Indies. Trop. Cont. America.

2. **PLINIA L.**

Shrubs or trees. Lvs. dotted. *Infl.* in sessile clusters at the nodes of the older branches. *Cal.* top-shaped or hemispherical, united in the bud, bursting irregularly after flowering. *Pet.* 4 or 5. *Stam.* numerous in several series; *fil.* filiform; *anths.* longitudinally dehiscent. *Ovary* 2-celled; *ovules* usually 2 in each cell; *style* filiform; *stig.* small. *Berry* depressed-globose, 12-ribbed. *Seeds* solitary, sub-compressed with the testa adhering to the endocarp.

1. **P. pinnata L.**

Marlierea glomerata Berg. *Myrciaria trinitatis* Berg.

Fedde Rep. 15 (1919) 413.

Shrub or small *tree*; young *branches* compressed-cylindrical, shaggy with white spreading silky hairs; *lvs.* elliptical, abruptly long-acuminate at the apex, wedge-shaped at the base, 5-9.5 cm. long, 2-3.7 cm. broad, papery, minutely and numerous transparent-dotted, the mid-rib and petiole shaggy-hairy at first, becoming glabrous, lateral veins inconspicuous, anastomosing near the margin; *petioles* 5-8 mm. long; *infl.* and *fls.* sessile; *cal.* whitish-silky outside, 5-6 mm. long; *pet.* about 2 mm. long, clawed, the *blade* roundish and with a shaggy marginal fringe; *berry* flattened-globose, puberulous, strongly ribbed, 15-25 mm. diam.; *seeds* solitary.

Sieb. 151: Herb. Trin. 10099, Williams, Arima-Blanchisseuse Road, Trinidad.

Martinique, St. Lucia, B. Guiana.

3. **MARLIEREA Camb.**

Shrubs or small *trees.* *Infl.* axillary or terminal panicles. *Cal.* top-shaped, united in the bud, bursting irregularly after flowering; *lobes* 4 or 5. *Pet.* 4 or 5. *Stam.* numerous, longitudinally dehiscent. *Ovary* 2-celled; *ovules* usually 2 in each cell. *Berry* globose, not ribbed. *Seeds* 1-3, with the testa adhering to the endocarp.

1. **M. Guildingiana** (Griseb.) Krug & Urb. in *Engl. Bot. Jahrb.* 29. 591. DeBasse.

Plinia Guildingiana Urb. in *Arkiv. Bot.* 21. A. 5, 23 (1927).

Psidium Guildingiana Griseb. Fl. 242.

Small *tree*, glabrous; young *branches* compressed-cylindrical; *lvs.* ovate, elliptical or elliptical-oblong, gradually or somewhat abruptly narrowed to an obtuse apex, wedge-shaped to rounded at the base, 1-2 dm. long, 3-8 cm. broad, leathery, transparent dots absent or inconspicuous, lateral nerves numerous, delicate, straight,

anastomosing at 1-3 mm. from the margin; *petioles* 4-5 mm. long; *infl.* 2.5-9 cm. long; *peduncles* clustered, once or twice trichotomous, above the base; *fls.* ternately clustered or single, sessile, small 3-4 mm. long; *cal.* irregularly bursting into 4 or 5 lobes, but not down to the ovary, the entire lower part of the limb finally forming a cup 2 mm. broad, and much produced beyond the ovary; *pet.* rounded, dropping early; *berry* red or blackish purple, globose, up to 12 mm. diam., glabrous; *seeds* 1 or 2, sometimes 3, about 8 mm. diam., subglobose, testa hard.

Herb. Trin., Rogers, Manzanilla, 1917; 11641, Marshall, Arena Reserve, 1926; 12754, Marshall, Tamana; 12755, Joseph, Tamana; Broadway 7525, Salibya; Trinidad.

St. Vincent, St. Lucia, British Guiana.

4. CALYPTRANTHES Sw.

Shrubs or *trees*. *Fls.* small, in axillary cymes or panicles, *Cal. tube* top-shaped, produced above the ovary, limb undivided, cap-like. *Pet.* 2-5, small or none. *Stam.* numerous, free. *Ovary* 2-3 celled; *ovules* 2 in each cell. *Berry* crowned by the short, truncate calyx-tube. *Seeds* usually 1 or 2, subglobose.

1. *C. sericea* Griseb. Debasse.

Griseb. Fl. 233.

Small *tree*; young *stems* silky-pubescent; *lvs.* oblong-lanceolate to ovate-lanceolate, usually long-acuminate at the apex, wedge-shaped at the base, 7-15 cm. long, 2.5-5 cm. broad, leathery, shining, glabrous above, silky beneath, inconspicuously transparent-dotted, primary veins very numerous, rather inconspicuous, anastomosing near the margin; *petioles* 5-8 mm. long; *infl.* as long as or shortly exceeding the petiole; *pedu.* in clusters of 2-8 in the axils, up to 12 mm. long, mostly much less, simple or compound; *cal.* ovoid, globose, 1.5 mm. long, 1.5 mm. broad, minutely pointed at the apex, rusty-pubescent; *pet.* none; *berry* globose, 6-7 mm. diam., pubescent or glabrescent.

Forests and hillsides in wet and moist districts, Trinidad. Eggers, 5538, Frenchfield, ex Urb. in Engl. Bot. Jahr. 19. 602, Tobago.

Dominica, Martinique.

5. AMOMIS Berg.

Shrubs or *trees*, aromatic. *Lvs.* leathery, with glandular dots beneath. *Fls.* small, in axillary many-flowered panicles. *Cal. tube* slightly produced above the ovary; *lobes* 5, spreading persistent. *Pet.* 5, early deciduous. *Stam.* numerous, *Ovary* 2-celled; *ovules* 6-7 in each cell. *Berry* ovoid or obovoid-globose, crowned by the persistent calyx. *Seeds* 2-8.

1. **A. caryophyllata** (Jacq.) Krug and Urb. Bay Tree.*Myrtus caryophyllata* Jacq.*Pimenta acris* Kostel.

Fawc. & Rendl. Fl. Jam. 5. 326-327: Griseb. Fl. 241.

Shrub or *tree*, up to 15 m.; *lvs.* obovate, elliptical or elliptical-oblong, the apex rounded, emarginate, obtuse, or somewhat acute, narrowed to obtuse or rounded at the base, 4-12 cm. long, up to 6.5 cm. broad, glabrous, minutely and numerous transparent-dotted, the venation prominent on both sides; *petioles* 4-12 mm. long; *panicles* usually rather longer than the leaves, glandular; *cal.* about 2.5 mm. long, the *lobes* short, broadly triangular; *pet.* white, rounded, about 4 mm. long; *berry* 8-10 mm. long, black.

The tree is of value for the production of bay oil obtained by distillation from the leaves. There is a citron scented variety recorded from cultivation.

Hillsides, Trinidad and Tobago.

West Indies, Venezuela, Guiana.

6. **KRUGIA** Urb.

Small *trees*. *Fls.* in panicles. *Sep.* 5, the 3 outer segments inserted immediately over the insertion of the stamens, the two inner larger and inserted higher with their lower halves adnate to the corolla, all half-moon-shaped. *Cor.* at blooming tearing away with one of its adnate calyx segments and remaining hanging by the other. *Ovary* usually 2-celled; *ovules* 2 in each cell.

1. **K. ferruginea** (Poir.) Urb.*K. elliptica* Urb.*Eugenia ferruginea* Poir.*Marlierea elliptica* Griseb. Fl. 233.

Small *tree*, young *branches* rusty-woolly; *lvs.* elliptical or ovate-elliptical, abruptly and bluntly pointed at the apex, broadly wedge-shaped to rounded at the base, 8-15 cm. long, 4-7.5 cm. broad, shining glabrous above, rusty-woolly on the mid-rib beneath, papery, minutely and numerous transparent-dotted, lateral nerves fairly prominent beneath, numerous, straight, anastomosing at some distance from the margin; *petioles* rusty-woolly when young, 5-12 mm. long; *fls.* sessile, in clusters on elongated rusty-woolly panicles; *cal.* about 3 mm. long, rusty-woolly; *cor.* entire, cap-like, 2.5 mm. diam.; *ovary* 2-celled; *ovules* 2 in each cell; *berry* globose, 6-7 mm. diam., glabrate, surmounted by an entire cup; *seeds* 1 or 2.

Forests in wet and moist districts. Trinidad.

St. Vincent. Guiana.

7. MYRCIA DC.

Shrubs or *trees*. *Lvs.* opposite, punctate, pinnately veined. *Fls.* usually small, in terminal and axillary panicles. *Cal. tube* not, or more or less produced above the ovary; *lobes* usually 5. *Pet.* usually 5, spreading. *Stam.* numerous, in several series, free. *Ovary* usually 2-celled; *ovules* 2 in each cell; *style* thread-like; *stig.* small. *Berry* crowned by the remains of the calyx-limb. *Seeds* usually 1 or 2, sub-globose.

Lvs. with a long tapering apex.

Lvs. large, mostly 2-3 dm. long 1. *M. deflexa*.

Lvs. smaller, 2-15 cm. long.

Cal. tube glabrous.

Cal. lobes pubescent or fringed.

Lvs. with reticulation not evident
on either surface 2. *M. tobagensis*.

Lvs. with reticulation evident on
both surfaces 3. *M. leptoclada*.

Cal. lobes glabrous.

Infl. pubescent; lvs. with very
minute raised dots above.... 4. *M. granulata*.

Infl. glabrous; lvs. with im-
pressed gland dots above 5. *M. multiflora*.

Cal. tube hairy.

Lvs. usually rounded at the base 6. *M. splendens*.

Lvs. wedge-shaped at the base.

Lvs. with the mid-rib channelled
above; fruit 8-15 mm. long. 7. *M. Berberis*.

Lvs. with the mid-rib raised
above; fruit 4-8 mm. long.... 8. *M. stenocarpa*.

Lvs. acute, obtuse, or with a shortly
produced apex.

Lvs. obovate.

Lvs. gradually narrowed into the
petiole; branchlets and lower
surface of leaves glabrous or
nearly so 9. *M. dumosa*.

Lvs. narrowed to the obtuse base;
branchlets and lower surface of
leaves conspicuously hairy..... 10. *M. tomentosa*.

Lvs. elliptical to elliptical-ovate 11. *M. arimensis*.

1. *M. deflexa* (Poir.) DC.*Eugenia deflexa* Poir.*Myrcia ferruginea* Berg.

Griseb. Fl. 235. Urb. Symb. Ant. 4. 444-445, & 8.480.

Tree up to 18 m.; young stems densely brownish-woolly; *lvs.* oblong, ovate-oblong or elliptical, leathery, 5-32 cm. (mostly 2-3 dm.) long, up to 12 cm. broad, the apex very long acuminate, the base obtuse, glabrous and shining above except for the sunken mid-rib, the lateral veins impressed, woolly on the veins beneath; *petioles* 3-8 mm. long, woolly; *panicles* axillary and terminal, densely rusty-woolly; *cal.* densely silky-woolly, rounded or obtuse; *pet.* about 3 mm. long; *fruit* ellipsoidal, up to 12 mm. long and 8 mm. diam.

Forests in wet districts. Trinidad.
West Indies. Northern South America.

2. *M. tobagensis* (Kr. & Urb.) Urb. Fedde Rep. 14. 1916, 336.

Calyptranthes tobagensis Krug & Urb. in Engl. Bot. Jahrb. 19.593.

Tree; *lvs.* oblong-elliptical, long and obtusely acuminate at the apex, wedge-shaped at the base, 6-15 cm. long, 3-6.5 cm. broad, sub-leathery, glabrous above, glabrescent beneath, the lateral veins barely evident above, slightly prominent beneath and anastomosing at some distance from the margin, the reticulation not discernible; *petioles* 5-8 mm. long; *panicles* loosely flowered, the branches spreading, puberulous; *bracts* persistent, triangular, 1-2 mm. long, pilose; *pedi.* variable in length up to 1 cm.; *buds* obovoid, 2-3 mm. long, densely glandular outside; (*fls.* white ex Broadw.); *cal. tube* somewhat produced above the ovary; *lobes* 4, 2 exterior triangular, fringed, the 2 interior half-moon-shaped; *pet.* 4, the margin shortly fringed; *stam.* numerous; *ovary* 2-celled; *ovules* 2 in each cell; *fruit* globular, 10-16 mm. diam.

Eggers 5828, Great Dog River, Tobago, type collection in Herb. Kew; Morne d'Or (ex Urb.); Broadway 4003, Forest Reserve, Tobago, Herb., New York. and Brit. Mus.

3. *M. leptoclada* DC. Wild Guava.

Griseb. Fl. 711: Urb. Symb. Ant. 4.443 & 8.479; Fawc. & Rendl. Fl. Jam. 5. 328-329; Britt. & Wils. Sc. Surv. Porto Rico, 6. 28-29.

Shrub or *tree* up to 10 m., glabrous or nearly so; *lvs.* ovate-lanceolate to elliptical, the apex mostly obtusely acuminate, the base broadly wedge-shaped, 5-12 cm. long, 2-5 cm. broad, thinly leathery, glabrous, lateral veins prominent on both sides, prominently anastomosing at some distance from the margin, obscurely rather distantly dotted; *petioles* 2-4 mm. long; *fls.* in terminal and

axillary panicles, often longer than the leaves, the *rhachis* minutely puberulous or occasionally glabrate, loosely many-flowered, sessile or very shortly stalked, usually 5-merous; *cal. tube* glabrous, slightly produced into a cup above the ovary, the *lobes* rounded, pubescent; *pet.* about 1.5 mm. long; *fruit* globose, about 5-7 mm. diam.

Forests in wet or moist districts, Trinidad and Tobago.

Jamaica, Porto Rico, Guadeloupe, Dominica, Martinique, St. Vincent.

4. *M. granulata* sp. nov.

Affinis *M. leptocladae* DC., foliis supra crebre conspicue elevato-punctatis, lobis calycinis extra glabris differt.

Small tree; *lvs.* ovate or ovate-lanceolate, acuminate at the apex, wedge-shaped at the base, 5.5-9 cm. long, 2.4-4.6 cm. broad, glabrous, thickly and conspicuously covered with raised pellucid dots above, and with scattered raised dots beneath, thinly leathery, the lateral veins and reticulation slightly prominent on both sides and anastomosing rather close to the margin; *petioles* slender, glabrous, 6-10 mm. long; *infl.* shorter than the leaves, up to 4 cm. long, lengthening somewhat in fruit, rather conspicuously pubescent; *fls.* shortly stalked (less than 2 mm.); *cal. tube* top-shaped, produced above the ovary, glabrous, gland-dotted, 3 mm. long; *lobes* 4, regular, triangular, acute or somewhat obtuse, about 1 mm. long; *pet.* 4, orbicular, gland-dotted, fringed, 2 mm. long, 2-2.5 mm. broad; *anths.* oblong, about 0.5 mm. long; *ovary* 2-celled; *ovules* 2 in each cell; *fruit* (immature) globose, glabrous, gland-pitted, 4 mm. diam., crowned with the remains of the calyx tube and limb.

Herb. Trin. 12916, Moruga, Marshall, June 1933 (type), duplicate in Herb. Kew; Herb. Trin. 12167, Marac Road, S. Watershed Reserve, Williams, June, 1927. Trinidad. Endemic.

5. *M. multiflora* (Lam.) DC. non Griseb. Fl.

Eugenia multiflora Lam.

Shrub or small tree, glabrous; *lvs.* ovate or ovate-lanceolate, acuminate at the apex, the acumen usually obtuse, broadly wedge-shaped to somewhat rounded at the base, 2-6.5 cm. long, 1-2.8 cm. broad, glabrous and conspicuously densely gland-dotted, thinly leathery, the lateral veins anastomosing at some distance from the margin; *petioles* about 3 mm. long, soon glabrate; *fls.* small, in ax, axillary and terminal panicles usually longer than the leaves, glabrous; *pedi.* up to 6 mm. long; *cal.* glabrous, 1 mm. long; *teeth* 5, minute; *pet.* about 2 mm. long; *fruit* when dry up to 6 mm. diam., globose, glabrous.

Herb. Trin. 11673, Stauble's to Teteron's Bay, Williams; Britton, Britton and Hazen 94, Piarco Savannah (as *M. stenocarpa*), Trinidad. Guiana.

6. *M. splendens* (Sw.) DC.*Myrtus splendens* Sw.Griseb. Fl. 234 in part: Urb. Symb. Ant. 4.443 and 8.479:
Fawc. & Rendl. Fl. Jam. 5. 328.

Shrub or *tree* up to 10 m.; young *stems* rather shaggy; *lvs.* narrowly lanceolate to ovate, obtusely long acuminate at the apex, rounded or obtuse at the base, 3-10.5 cm. long, 1.5-5 cm. broad, papery, numerous transparent-dotted, at length glabrous, conspicuously net-veined; *petioles* 2-4 mm. long, pubescent; *panicles* axillary or sometimes terminal, few to many-flowered, pubescent; *cal. tube* silky-hairy on both sides, not prolonged above the ovary, *lobes* roundish, unequal; *pet.* white, roundish, silky, about 2 mm. long; *fruit* ellipsoid, obovoid or subglobose, 6-8 mm. long.

Forests and hillsides in wet and moist districts, Trinidad and Tobago.

West Indies.

7. *M. Berberis* DC.*M. divaricata* Griseb. non DC.

Urb. Symb. Ant. 4.444: Britt. & Wils. Sc. Surv. Porto Rico, 6.29.

Shrub or *small tree*, 3-8 m.; young *stems* glabrescent; *lvs.* ovate to lanceolate or elliptical-oblong, long acuminate at the apex narrowed or obtuse at the base, up to 14 cm. long and 7 cm. broad, strongly reticulate on both surfaces, obscurely dotted, thinly leathery; *petioles* 5-8 mm. long; *panicles* large and rather densely many-flowered, glabrescent; *fls.* white, sessile or subsessile; *cal.* whitish-silky, nearly 2 mm. long; *berry* oblong or obovoid, 8-15 mm. long.

Broadway, 7152, Old Matura Road, Valencia and 7163, Paria Road, Blanchisseuse, Trinidad. Clemens, 28, ex Urb., Tobago.

West Indies. South America.

8. *M. stenocarpa* Krug & Urb.*M. multiflora* Griseb. Fl. non DC.

Shrub or *small tree*; young *twigs* glabrescent; *lvs.* ovate-lanceolate, long or shortly acuminate to the obtuse apex, wedge-shaped at the base, 2-8 cm. long, 12-25 mm. broad, thickly papery, glabrous, numerous transparent-dotted, the midrib raised above, the lateral veins numerous and anastomosing at a little distance from the margin, the reticulation prominent on both sides; *petioles* 2-8 mm. long; *panicles* trichotomous, many-flowered, 4-7 cm. long; *fls.* stalked or the central ones sessile; *pedi.* about 1 mm. long; *cal. tube* about 1 mm. long, silky below, *lobes* 5, roundish, shorter than the tube, pubescent outside, silky inside; *pet.* 1.5-2 mm. long; *stam.* numerous; *style* glabrous; *berry* obovate, oblong or ellipsoidal, 4-8 mm. long.

Hillsides and forests in moist districts, Trinidad. Endemic.

9. *M. dumosa* (Berg) Kr. & Urb.

Aulomyrcia dumosa Berg.

Engl. Bot. Jahrb. 19.580-581.

Small tree; young stems with minute adpressed hairs at the tips, soon becoming glabrous; *lvs.* obovate, obtuse or very shortly and obtusely acuminate at the apex, wedge-shaped at the base, 3-9.5 cm. long, 3-5.3 cm. broad, thinly leathery, the lateral veins slightly prominent on both sides, anastomosing at some distance from the margin, the lower surface closely and minutely dotted, the dots slightly pellucid, glabrescent or glabrous, *petioles* 3-10 mm. long; *panicle* pyramidal, many-flowered, 4-7 cm. long, pubescent; *pedu.* 2-3.5 cm. long, compressed; *fls.* subsessile; *cal. tube* top-shaped, glabrous or nearly so, and glandular-dotted outside, *lobes* 5, rarely 4, unequal, roundish, less than 1 mm. long, 1-1.8 mm. broad, minutely silky within; *pet.* white, suborbicular, 2.5 mm. long; *stam.* numerous; *style* 4-4.5 mm. long; *ovary* glabrous above, 2-celled; *ovules* 2 in each cell; *berry* globose, 8-12 mm. diam., becoming red, densely glandular-dotted; *seeds* usually 2, semi-globose.

Herb. Trin. 12680, Arima-Blanchisseuse Road, 9-11 miles, Marshall and Broadway, 7305, same locality, Trinidad. Broadway 4461 (1913) Lot 42, Tobago, in Herb. New York and Brit. Mus.

Guadeloupe, Martinique, St. Lucia, French Guiana.

No authentic material of this species has been seen.

10. *M. tomentosa* (Aubl.) DC.

Eugenia tomentosa Aubl. Pl. Guiane 504, t. 200.

Shrub, 3-4 m.; *stems* woolly; *lvs.* opposite or sometimes verticillate, obtuse at the apex, narrowed to the obtuse base, 5-9.5 cm. long, 2-5 cm. broad, sub-leathery, shaggy-hairy beneath, becoming glabrous, puberulous above, transparent-dotted, the lateral veins rather prominent beneath; *petioles* 3-8 mm. long, at first woolly; *fls.* in lax, axillary, pubescent panicles, longer than the leaves, mostly sessile; *cal.* shaggy outside, the *tube* glabrous within, *lobes* 5, triangular, about 1.5 mm. long; *pet.* white, scented, 2 mm. long; *stam.* 4 mm. long; *style* and *ovary* glabrous, 4-5 mm. long; *berry* globose, orange-coloured, 5-8 mm. diam.

Maraval, Lady Chancellor Road, Chaguanas, Trinidad.

French Guiana.

11. *M. arimensis* Britton.

M. androsaemoides parvifolia Krug & Urb. Bot. Jahrb. 19.579:

Bull. Torr. Bot. Club 48. 334.

Small tree; young twigs slender, rather densely hispid; *lvs.* elliptical to elliptical-ovate, obtusely acute at the apex, wedge-shaped at the base, 4-6.5 cm. long, 2-3.5 cm. broad, stiffly papery, minutely puberulous with adpressed hairs on both sides, becoming

glabrous, the midrib often rusty-puberulous beneath, lateral veins numerous, fairly prominently transparent-dotted; *petioles* 3.5 mm. long, hispid or glabrate; *panicles* 5.7 cm. long the branches slender, spreading, rusty-hairy, several to many flowered; *fls.* nearly or quite sessile; *cal. lobes* rounded, about 5 mm. long; immature *fruit* globose, about 5 mm. diam.

Dannouse, 1905, Arima (type); Maracas, 1904 and Laventille 1902; Herb. Trin. 1732, no locality; Fendler 500 in Herb. Kew; Eggers 1407, Woods by Caroni River. Trinidad. Endemic.

8. CALYCOLPUS Berg.

Shrubs or *trees*, often glabrous. *Lvs.* opposite. *Fls.* large, solitary on axillary peduncles, 1-several in the axils. *Cal. tube* broadly bell-shaped, not or only slightly produced above the ovary, *lobes* 5, often foliaceous. *Pet.* 5, spreading. *Stam.* numerous, free; *fil.* threadlike. *Ovary* 4-5, rarely 3-celled; *style* threadlike; *stig.* capitate or peltate; *ovules* numerous in each cell. *Berry* globose, crowned with the persistent calyx limb. *Seeds* numerous somewhat kidney-shaped, leathery.

1. *C. glaber* (Benth.) Berg. Wild Guava.

Campomanesia glabra Benth.

Calycolpus ovalifolius Berg.

Griseb. Fl. 241: Riley in Kew Bull. 1925. 136 and 1926. 152.

Small *tree* about 14 m., glabrous; *lvs.* elliptical-oblong or elliptical, acuminate or acutely acuminate, the acumen often obtuse, 10-17.5 cm. long, 2.5-7.3 cm. broad, leathery, the veins prominent, more so beneath, minutely and numerous transparent-dotted, *petioles* 4-8 mm. long; *fls.* 1-8 in the axils; *pedu.* 1.2-4 cm. long; *cal. tube* usually stouter than the lobes, *lobes* ovate to ovate-oblong, 3-6 mm. long, 2-4 mm. broad, unequal; *pet.* white, 1.5-2 cm. long; *berry* depressed globose, 1 cm. diam.

The calyx lobes are apparently smaller in the Trinidad species than in the typical plant.

Hillsides and woodlands in moist districts, Trinidad.
Guiana.

9. ANAMOMIS Griseb.

Shrubs or *trees*. *Infl.* in axillary or sometimes terminal many-flowered cymes, rarely reduced to single flowers, the central flower sessile, the 2 lateral ones pedicellate, 5-merous in the local species. *Ovary* 2-4 celled, as long as the calyx tube; *ovules* few to numerous in each cell. *Berry* 1-2 seeded.

1. **A. umbellulifera** (H.B.K.) Britt. Monos Plum.

Myrtus umbellulifera H.B.K.

Eugenia umbellulifera Krug & Urb. Bot. Jahrb. 19.665.

Eugenia esculenta Berg.

Griseb. Fl. 240: Urb. Symb. Ant. 4.452.

Tree 5-8 m. with short rigid branches; *lvs.* elliptical, rounded and notched at the apex, mostly rounded at the base, 3-6 cm. long, 2-4 cm. broad, leathery, glabrous on both sides, conspicuously net-veined and transparent-dotted; *petioles* 2-5 mm. long, glabrescent; *infl.* shorter than the leaves, few to many-flowered, rusty-woolly; *cal.* 4-5 mm. long, the tube densely rusty-woolly, *lobes* 5, broad, rounded, glabrescent towards the margin; *pet.* 5, white, rounded, glandular-dotted, fringed, about 8 mm. long; *stam.* numerous; *style* glabrous; *fruit* oblong-ellipsoidal, about 5.5 cm. long and 3.5 cm. broad, leathery, with pleasant apricot-coloured juicy pulp; *seeds* about 3, white.

Coastal Hillside, Monos, Chacachacare.

Hispaniola. Venezuela.

10. **CAMPOMANESIA** Ruiz & Pav.

Small tree. *Fls.* solitary or clustered in the leaf axils; *pedi.* slender. *Cal. tube* top-shaped or hemispherical, slightly proceuded above the ovary; *lobes* 5, rarely 4-6. *Pet.* 5, rarely 4-6. *Stam.* numerous, free; *fil.* threadlike. *Ovary* 4-many celled; *ovules* numerous in the cells. *Berry* globose. *Seeds* few.

1. **C. aromatica** (Aubl.) Griseb.

Griseb. Fl. 242: Aubl. Pl. Guiane t. 191.

Small aromatic tree; young *branches* puberulous and numerous glandular-dotted, compressed-cylindrical; *lvs.* elliptical, acute and apiculate at the apex, rounded at the base, 7.5-13 cm. long, 3.5-6.7 cm. broad, membranous, glabrate and with numerous minute transparent dots, lateral nerves prominent beneath, impressed above, not anastomosing; *petioles* 7-10 mm. long; *fls.* white, in distant, axillary clusters, 3 or 4 in each, opening before the leaves; *pedi.* slender, pubescent, 8-20 mm. long; *bracteoles* linear-lanceolate, 4-6 mm. long, pubescent; *cal.* pubescent, *tube* 2-3 mm. long; *lobes* 5, oblong or broadened above obtuse, 2-4 mm. long, pubescent on both sides; *pet.* 5, obovate 1 cm. long; *stam.* about as long as the petals; *ovary* 4-celled; *berries* shining, blackish-purple, globose, 10-12 mm. diam., minutely puberulous, crowned with the persistent calyx lobes; *seeds* 1-5, kidney-shaped or subglobose, orange-coloured, 6-8 mm. long.

Carron Park, Look-out hill, Blue Basin, Trinidad.

Guiana.

11. EUGENIA L.

Shrubs or trees. Lvs. usually glabrous, dotted. *Fls.* usually axillary, solitary, or clustered, short racemes or umbels. *Cal. tube* more or less, or not, prolonged beyond the ovary; *lobes* 4 (rarely 5) distinct, sometimes large and imbricate, sometimes short or scarcely prominent on a truncate margin. *Pet.* 4, rarely 5-numerous, or none, spreading and distinct or converging and more or less united to form a lid. *Stam.* numerous. *Ovary* 2, rarely 3-celled; *ovules* few-numerous in each cell. *Berry* usually sub-drupaceous or pulpy. *Seeds* usually 1-4.

Several introduced species of this genus are grown in the colony for their edible fruits:—

E. malaccensis L. the Pomme Malac or Pommerac, a tree bearing flowers with conspicuous magenta stamens and pear-shaped, red, pink or white fruit, supposed to be native of Malaya.

E. Jambos L. the Rose Apple or Pomme Rose, a tree bearing flowers with conspicuous greenish-yellow stamens and globose, pale-yellow rose-scented fruit, native of S. E. Asia to Australia.

E. uniflora L. the Pitanga or Surinam Cherry, a shrub with white flowers and red, ribbed, cherry-like fruit, native of Guiana, Brazil and Argentina.

The following species recorded by Grisebach from Trinidad are grown in the Botanic Gardens and are not known to be native:—

E. Greggii (Sw.) Poir. which is not otherwise known from Trinidad except by Sieb. 222. ex Urban.

E. puniceifolia (H.B.K.) DC. = *E. calycolpoides* Griseb. only known from cultivated specimens, except Cruieger at Arima cited by Grisebach which I have not seen.

E. marowynensis Mig. (*E. sinemariensis* Griseb. *Fl. non Aubl.*) a Guiana plant recorded by Grisebach by a Cruieger specimen from Trinidad and according to him "perhaps only naturalized."

E. latifolia Aubl., a Guiana plant of which all the specimens in the Trinidad Herbarium are apparently from cultivated trees.

E. l'Heritieriana DC. is recorded by Urban in Engl. Bot. Jahrb. 19.659, as follows: "Habitat in insula Tobago? herb Candoll." The material, which is labelled "Antilles" and "Amer. mer.," has been examined but there is no evidence that either specimen was collected in Tobago and they differ from all other material from Trinidad and Tobago.

Fls. mostly solitary in the axils of bracts... 1. *E. ligustrina*.

Fls. in axillary clusters, umbels or contracted racemes, rarely solitary.

Lvs. very small (4-7 cm. long) 2. *E. floribunda*.

Lvs. large (12-27.5 cm. long) 3. *E. Baileyi*.

Lvs. glaucous beneath 4. *E. albicans*.

Lvs. not glaucous beneath.

Petioles 1-4 mm. long.

Lvs. rather suddenly contracted
near the apex; pedi.
glabrous 5. *E. procera*.

Lvs. gradually narrowed to the
apex; pedi. puberulous 6. *E. monticola*.

Petioles 5-10 mm. long.

Cal. tube 1.5-2 mm. long 7. *E. confusa*.

Cal. tube 3-4 mm. long 8. *E. cf. megalocarpa*.

Fls. in simple or compound axillary
racemes.

Infl. pubescent.

Lvs. with raised dots above;
bracteoles not connate 9. *E. perplexans*.

Lvs. minutely pitted above;
bracteoles connate.

Lvs. with arched lateral veins fairly
prominent 10. *E. domingensis*.

Lvs. with straight lateral veins
inconspicuous 11. *E. Cruegeri*.

Infl. glabrous 12. *E. trinitatis*.

1. *E. ligustrina* (Sw.) Willd.

Myrtus ligustrina Sw.

Griseb. Fl. 239: Fawc. & Rendl. Fl. Jam. 5. 334.

Shrub or small *tree* up to 8 m., young *branches* puberulous, glabrescent; *lvs.* mostly lanceolate-oblong or narrowly elliptical, obtuse at the apex, narrowed at the base, 2.5-5.5 cm. long, 10-18 mm. broad, leathery, the mid-rib prominent beneath, lateral nerves inconspicuous, *petioles* 1-5 mm. long; *fls.* solitary in the axils of lanceolate-linear bracts on the young branches below the leaves; *bracts* 5-10 mm. long; *pedi.* threadlike, 1-4 cm. long; *cal. lobes* 4-5 mm. long, obtuse, glandular-dotted and with a marginal fringe; *pet.* white, 8-12 mm. long; *berry* globose, 6-8 mm. diam., red or black, glandular-dotted; *seeds* 1-3.

Shaded hillsides in dry districts, Monos, Gasparee, Point Gourde and Monkey Town, Trinidad. Tobago.

West Indies. Brazil.

2. *E. floribunda* West. Small leafed Wild Guava. Guava Berry.

Britt. & Wils. Sc. Surv. Porto Rico, 6. 39.

Small *tree* up to 10 m.; *lvs.* lanceolate or ovate-lanceolate, long-acuminate at the apex, narrowed or obtuse at the base, 4-7 cm. long, 1-2 cm. broad, papery, glabrous, lateral nerves numerous, inconspicuous; *petioles* slender, 2-4 mm. long;

fls. sessile, few, in axillary and lateral clusters, a little longer than the petiole; *cal. lobes* rounded, 1-2 mm. long, fringed; *pet.* sub-orbicular, 1.5-2 mm. long, fringed; *fruit* globose, red, yellow or white, 8-15 mm. diam.; *seeds* round, 1 or 2.

Britt. l. c. states "The fruit yields an excellent jam and was formerly used in the Virgin Islands in making guava-berry rum."

Herb. Trin. 12425, Marshall, Arima Reserve; Herb. Trin. 12541, Swabey, Cat's Hill Reserve, Trinidad.

West Indies, Northern South America.

3. **E. Baileyi** Britt. Torr. Bot. Club. 48. 334.

Tree up to 12 m. or more; young *branches* compressed-cylindrical; *lvs.* broadly elliptical, rounded or obtuse at the apex, obtuse at the base, 12-27.5 cm. long, 9-12.6 cm. wide, leathery, minutely pubescent when young, soon glabrous, strongly pinnately veined, the veins anastomosing at some distance from the margin, numerous transparent-dotted; *petioles* stout, 1-1.5 cm. long; *fls.* white, sessile, in axillary or lateral few-flowered clusters; *cal.* rusty-woolly outside, *tube* 3-4 mm. long, *lobes* 4, unequal, about 3-4 mm. long; *pet.* 4, 4-5 mm. long, oblong or obovate, obtuse; *stam.* numerous, a little longer than the petals, in several series; *style* about 6 mm. long, bent; *ovary* 2-celled; *ovules* 5 or 6 in each cell; *fruit* lateral, nearly sessile, oblong or ovoid-oblong, about 2 cm. long and 1 cm. diam., greyish puberulent; *seeds* usually 1, more or less oblong, 12-15 mm. long.

Arima, Morne Bleu and Tucuche, Trinidad. Endemic.

4. **E. albicans** (Berg) Urb.

Stenocalyx albicans Berg.

Engl. Bot. Jahrb. 19. 617-618.

Small *tree*, 4-5 m., *stems* glabrous, the *twigs* reddish-brown and glabrous, or shortly pilose at the tips with adpressed hairs; *lvs.* ovate to oblong-lanceolate, the apex abruptly pointed, the base acute, 3-7 cm. long, 13-35 mm. broad, thickly papery, not transparent-dotted, when young clothed with tawny-silky, adpressed hairs, quickly becoming glabrous, glaucous beneath the lateral nerves slightly prominent on both sides; *petioles* 4-6 mm. long, at first tawny-silky; *fls.* (white, fragrant, ex Broadway), 2-4 in the leaf-axils, occasionally solitary, tawny-silky or woolly; *pedi.* 7-12 mm. long; *sep.* 4, orbicular or obovate, concave, the apex rounded or truncate, leathery, glabrous within, the longer 3-3.5 mm. *pet.* ovate, obtuse, 5 mm. long, sparsely pilose on the back, becoming glabrous; *stam.* 4-5 mm. long; *style* glabrous, 5 mm.

long; *ovary* top-shaped, shortly pilose at the top, 2-celled; *ovules* about 15 in each cell; *fruit* globose or somewhat obovate, 10-11 mm. diam., glandular-dotted, glabrescent; *seed* solitary.

Broadway 4053, Forest Reserve, in Herb. New York and Brit. Mus.;
Broadway 3907, Main Ridge in Herb. Brit. Mus., Tobago.
Guadeloupe and Martinique.

5. *E. procera* (Sw.) Poir.

Myrtus procera Sw.

Urb. Symb. Ant. 8. 487-488: Britt. & Wils. Sc. Surv.
Porto Rico 6. 37.

Shrub or *small tree* 4-10 m.; *lvs.* ovate or oblong-ovate, rather suddenly contracted near the obtusely-acuminate apex, narrowed at the base, 3-8 cm. long, 1.5-4.3 cm. broad, papery, glabrous, the lateral veins numerous and fairly prominent beneath, anastomosing at some distance from the margin, transparent-dotted; *petioles* 2-4 mm. long, pubescent to glabrate; *fls.* (white, scented ex Urb.) in sessile, axillary umbels; *pedi.* slender, 4-10 mm. long, glabrous; *cal. lobes*: about 1 mm. long, thin, rounded; *pet.* about 3 mm. long; *fruit* sub-globose, about 5 mm. diam., black, viscid.

Herb. Trin. 2341, Mt. Pleasant Savannah, 1867, Trinidad.
West Indies.

6. *E. monticola* (Sw.) DC. "Small leaf."

Myrtus monticola Sw.

Eugenia Poirerii Berg non DC.

Fawc. & Rendl. Fl. Jam. 5. 347-348: Britt. & Wils.
Sc. Surv. Porto Rico, 6. 35-36: Urb. Symb. Ant. 4.
448 & 8.485.

Shrub or *tree* up to 10 m., young *stems* puberulous, soon glabrous; *lvs.* narrowly lanceolate to ovate or elliptical, the apex mostly obtusely acute or somewhat obtusely acuminate, 1.5-8 cm. long, 5-27 mm. broad, wedge-shaped or obtuse at the base, papery, glabrous, or the mid-rib beneath sometimes with scattered spreading hairs densely pellucid-dotted and with minute black dots beneath, lateral nerves inconspicuous above, slightly prominent beneath, distant and anastomosing at some distance from the margin; *petioles* 1-4 mm. long, glabrous, puberulous or rather shaggy; *infl.* axillary, shortly racemose to clustered, few to many-flowered, usually less than 1 cm. long, puberulous; *pedi.* 1-6 mm. long, threadlike, puberulous; *bracteoles* minute; *cal. lobes* semi-circular, 1-1.5 mm. long; *pet.* white about 2 mm. long; *ovules* few in each cell; *fruit* globose, 3-7 mm. diam., black when ripe; *seeds* 1.

The above description includes two extreme forms, viz., one with very small leaves (Herb. Trin. 1292, Chaguanas) and the other with large leaves (4-8 cm. long, 1.5-4.5 cm. broad). The latter is the var. *latifolia* Krug et Urb. in Bot. Jahrb. 19. 636. The leaf dimensions in material I have studied vary from 2.5-7.5 on a single branch and it does not appear to me a constant character upon which to base a variety.

General in thickets, Trinidad and Tobago.
West Indies, Mexico.

7. *E. confusa* DC. Wild Coffee.

Tree, glabrous; *lvs.* ovate, abruptly and obtusely acuminate at the apex, rounded or wedge-shaped at the base, up to 5 cm. long, and 3 cm. broad, leathery, with numerous delicate lateral nerves, and numerous transparent dots; *petioles* 5-10 mm. long; *infl.* contracted several-flowered raceme, the *rachis* 2-4 mm. long; *pedi.* straight, slender, 7-20 mm. long, glabrous; *cal. tube* about 2 mm. long, glabrous; *lobes* ovate-oblong, about 2.5 mm. long, the apex rounded; *fruit* not seen.

The *wood* is orange-brown in colour, heavy, hard and lasts well in contact with the ground, recorded by the collectors as being a useful timber tree.

Herb. Trin. 12368, May 1930, Long Stretch, Trinidad.
West Indies.

The above description is solely from Trinidad material and does not include the very variable leaf characters known on specimens collected in other West Indian Islands.

Broadway 7452 and Herb. Trin. unnumbered, Freeman, both from Balandra Bay represent a distinct leaf form which after repeated examination cannot be distinguished from *E. confusa* although the Broadway specimen has been proposed as a new species by Dr. Burret of Berlin. A description compiled from this material follows:—

Small tree, glabrous; *lvs.* mostly roundish-elliptical, sometimes broadly ovate, abruptly and obtusely acuminate at the apex, rounded or truncate at the base, 5-10 cm. long, 3.5-7 cm. broad, leathery, with numerous delicate lateral nerves anastomosing near the revolute margin, and numerous transparent dots; *petioles* 5-10 mm. long; *fls.* 1-few in axillary clusters; *pedi.* straight, slender, 4-20 mm. long, glabrous; *bracteoles* lanceolate, minute; *cal. tube* about 1.5 mm. long, glabrous; *lobes* 4, rounded, about 2 mm. long, glabrous except for an inconspicuous marginal fringe; *pet.* 3-4 mm. long, fringed; *fruit* globose, about 1 cm. diam., 1-seeded.

8. *E. cf. megalocarpa* Urb.

Urb. Symb. Ant. 5. 444.

Tree, up to 7 m. high, young stems glabrous; *lvs.* broadly or rather narrowly ovate, acuminate at the apex, more or less broadly wedge-shaped to rounded at the base, 11-18 cm. long and 5-10 cm. broad, glabrous, minutely transparent dotted, the midrib deeply channelled above, lateral venation prominent beneath and anastomosing at some distance from the margin; *petioles* 7-9 mm. long, glabrous; *fls.* in umbel-like sessile clusters; *pedi.* 8-10 mm. long, glabrous or nearly so; *cal. tube* greenish, top-shaped, about 4 mm. long, *lobes* 4, two larger than the others, ovate, obtuse, the larger 4-5 mm. long, the smaller 3-4 mm.; *pet.* 4, white, oblong, 6-8 mm. long, 5-6 mm. broad; *stam.* 5-6 mm. long; *style* glabrous, 6-8 mm. long; *fruit* not seen, globose, 18-20 mm. diam. ex Urb.

Herb. Trin. 12981, Bruins-Lich, Heights of Aripo, 25.3-34., Trinidad.

Guadeloupe.

9. *E. perplexans* sp. nov. Large leaf wild Guava.

Affinis *E. domingensi* Berg, quacum olim a cl. Urbano confusa, foliis punctis supra elevatis, nervis lateralibus a margine longe anastomosantibus nervum limbalem duplicem (interiorem conspicuum) formantibus, rete venularum supra intricato prominulo, bracteolis liberis differt.

Medium sized *tree* (up to 7 feet girth, generally much smaller ex Swabey) with smooth, reddish, flaking bark; *lvs.* ovate-oblong, oblong, or elliptical-oblong, acuminate at the apex, broadly wedge-shaped at the base, 7-15 cm. long, 3.5-6 cm. broad, papery, glabrous, the lateral veins prominent beneath and anastomosing far from the margin then forming a second less conspicuous outer marginal nerve, transparent-dotted and with numerous raised dots on both sides, reticulation imbricate and definitely elevated on the upper surface; *petioles* 5-14 mm. long, soon glabrous; *infl.* axillary or sub-terminal silky racemes up to 11 cm. long; *pedi.* 5-15 mm. long, silky; *bracteoles* free, ovate with a rounded apex about 1.5 mm. long; *cal. tube* densely yellowish-silky, about 2 mm. long; *lobes* 4, rounded, about 2 mm. long, pubescent; *pet.* 4, 5-6 mm. long, *fruit* up to 1 cm. long, ellipsoidal.

Frequent in dry places. Herb. Trin. 12200, Williams, Siparia Reserve, type in Herb. Trin., duplicate in Herb. Kew. Herb. Trin. 12542, Swabey, Cat's Hill Reserve; Dannouse, La Brea, 1902 and Arima 1903 and 1904, Trinidad.

Andersen in Herb. Forsyth in Herb. Kew det. as *E. aeruginea* by Urb., St. Vincent.

10. *E. domingensis* Berg. Serette Guava.

E. aeruginea Urb., Fawc. & Rendl., Britt. & Wils. non DC.
Urb. Symb. Ant. 4.446: Britt. & Wils. Sc. Surv. Porto
Rico, 6.34: Griseb. Fl. 237 in part.

Tree up to 20 m.; *lvs.* usually elliptical or oblong-elliptical, sometimes ovate or oblong-lanceolate, 6-12.5 cm. long, 3.5-5 cm. broad, abruptly and obtusely acuminate at the apex, narrowed or obtuse at the base, papery, glabrous or nearly so when mature, the lateral veins arched, inconspicuous above, fairly prominent beneath, inconspicuously anastomosing, numerous transparent-dotted, pitted above and with raised dots beneath; *petioles* slender, 5-10 mm. long; *fls.* white, in axillary, simple racemes, 3-4.5 cm. long, pubescent; *pedi.* 4-10 mm. long; *bracteoles* 2, united at the base, broadly ovate, obtuse, about 1 mm. long; *cal. tube* densely pubescent, about 2 mm. long, *lobes* 1-2 mm. long, rusty-pubescent, obtuse; *pet.* roundish, about 4 mm. long; *fruit* ellipsoidal or subglobose, red or purplish, 1-3 cm. long; *seeds* 1.

The type of *E. aeruginea* DC. which was identified with *E. domingensis* by Urban has been examined and proves to be the Jamaican *E. Fadyenii* Kr. and Urb.

Herb. Trin. 914, no locality; Herb. Trin. 2995, Crueger, Maracas; Dannouse, 1904, Guanapo; Herb. Trin. 12234, Swabey, S. Watershed Reserve; Herb. Trin. 2346, Harris Promenade; Lockhart in Herb. Kew. Trinidad.

Santa Domingo, Cuba, Porto Rico, Dominica, Martinique.

11. *E. Cruegeri* Krug & Urb. ex Urb. in Bot. Jahrb. 19. (1895) 625.

E. riparia Griseb. Fl. 711 non DC.

Lvs. oblong to oblong-elliptical, long-acuminate at the apex, wedge-shaped at the base, 5.5-12 cm. long, 2.5-4 cm. broad, thinly leathery, inconspicuously puberulous with the mid-rib pubescent beneath, glabrous and minutely pitted above, transparent-dotted, lateral veins mostly straight, anastomosing at a little distance from the margin, rather numerous, inconspicuous; *petiole* 4-7 mm. long, pubescent; *racemes* simple, axillary or terminal, pubescent, 1.5-4 cm. long; *bracteoles* connate, triangular-acute, 1.2-1.8 mm. long; *pedi.* 3-6 mm. long; *cal. lobes* 4, about 2 mm. long, pubescent; *fruit* sub-globose, 12-18 mm. diam.

Crueger, 304, Maracas, Sept. 4th, 1861; Herb. Trin. 1296, no locality; Dannouse, Arima and cultivated, St. Clair Experimental Station, Broadway 5462, 6643, Maracas; Broadway 6644, Blanchisseuse Road, 9½ mile post, Trinidad. Eggers 5804, Pulteney Hill, Tobago. Endemic.

12. *E. trinitatis* DC.

Griseb. Fl. 237.

Small tree, glabrous; *lvs.* ovate-lanceolate or lanceolate, the smaller leaves obtusely acute, the larger ones acuminate at the apex, narrowed to the base, 2.5-6 cm. long, up to 2.5 cm. broad, leathery, shining above, veins slightly prominulous beneath; *petioles* about 4 mm. long; *racemes* single, glabrous, nearly as long as the leaves; *pedi.* nodding, as long as or shorter than the petiole; *fruit* globose, about 6 mm. diam.

Sieb. 94, Trinidad. Specimen in Herb. Kew, perhaps collected in Guadeloupe.

Martinique.

FAMILY 4. **LECYTHIDACEAE.**

Shrubs or *trees*. *Lvs.* simple, alternate, often closely crowded at the ends of the branches, not transparent-dotted; *stip.* small or none. *Fls.* often large and showy, actinomorphic or zygomorphic, usually in axillary or terminal racemes or panicles, sometimes solitary or in clusters on the trunks. *Cal.* 4-6-lobed, usually free, valvate or slightly imbricate. *Pet.* 4-6, free or united into a bell-shaped tube. *Androecium* in the local species produced on one side into a hood which is coiled or bent over the ovary and bears numerous staminodes near the apex. *Ovary* usually inferior, occasionally semi-inferior, 2 or more celled; *ovules* 1 to many on axile placentas, sometimes towards the apex of the cells; *style* usually simple; *stig.* capitate or lobed. *Fruit* leathery, woody or fleshy, globose or urn-like, dehiscent or indehiscent. *Seeds* 1 to numerous.

Lecythis zapucajo Aubl. and *Bertholletia excelsa* H. & B both furnishing nuts of commercial importance are cultivated to a very small extent. Other plants of this order represented in plant collections in these Islands are *Barringtonia speciosa* L., *Cariniana exigua* Miers, *Gustavia augusta* L. and *Napoleona imperialis* Beauv.

Fruit globose, indehiscent1. Couroupita.

Fruit urn-shaped, dehiscent by a lid at the apex2. Eschweilera.

1. **COUROUPITA** Aubl.

Trees. *Lvs.* entire. *Fls.* large, borne in simple racemes on the trunk. *Bracts* and *bracteoles* caducous. *Cal. tube* top-shaped, not produced above the ovary; *lobes* 6. *Pet.* 6, unequal. *Staminal hood* large and fleshy, sub-petaloid, with anthers at the base and on the inside at the apex; *fil.* short; *anthers* short, erect, basifixed, longitudinally dehiscent. *Ovary* semi-inferior, 5-7 celled; *style* very short, thick; *stig.* grooved; *ovules* numerous attached with fleshy funicles. *Fruit* sub-globose, leathery-woody, indehiscent, pulpy within.

1. *C. guianensis* Aubl. Cannon Ball Tree.*C. antillana* Miers.

Aubl. Pl. Guiane, 2. 708, t. 282: Urb. Symb. Ant. 8. 474.

Tall tree; *lvs.* oblong to oblong-ellipsoidal, somewhat unequal sided, 1-2 dm. long, 5-9 cm. broad, acute at the apex, obtuse at the base, glabrous, the midrib hispid beneath; *petioles* about 2 cm., long, hispidulous; *infl.* racemose, the old rachis persisting as woody branches on the trunk from which arise simple racemes; *fls.* about 1 dm. diam., strongly scented, fleshy; *bracts* one at the base of each pedicel, strap-shaped, 14 mm. long and 4 mm. broad; *pedi.* 3-5 cm. long, stout; *bracteoles* 2, about 7 mm. long, borne on one side at the base of the calyx; *cal. tube* 10-12 mm. long, the ovary exceeding it by about 5 mm., *cal. lobes* valvate, rounded, about 7 mm. diam.; *pet.* obovate, about 6.5 cm. long, red within and yellow outside; *stig.* about 2 mm. long, inconspicuously lobed; *fruit* globose, up to 2 dm. diam., very heavy; *seeds* 15-18 mm. long, 10-16 mm. broad, flat, embedded in pulp.

Forests, Trinidad.

Cuba (ex Tuss.) Guiana.

2. *ESCHWEILERA* Mart. sensu Ndz.

Trees. *Fls.* usually large, in axillary or terminal simple racemes or panicles. *Cal. tube* top-shaped, not or barely produced above the ovary; *lobes* 6, rarely 4, equal or unequal, imbricate. *Pet.* 6, rarely 4, often unequal. *Stam.* at the base of the hood; *staminodes* on the inside at the apex. *Ovary* 2-4 celled; *style* short; *ovules* sessile. *Fruit* urn-shaped or globose, leathery or woody, the lid convex, not wedge-shaped within. *Seeds* solitary or few.

Veins of *lvs.* not anastomosing 1. *E. subglandulosa*.Veins of *lvs.* anastomosing 2. *E. decolorans*.1. *E. subglandulosa* (Steud.) Miers in Trans. Linn. Soc. 30. 266 (1874); Eyma, Lecythydaceae of Surinam 1932.*E. laevifolia* Miers l.c. 256 (1874).*Lecythis subglandulosa* Steud. ap. Berg in Linn 27. 459 (1854).*L. laevifolia* Griseb. Fl. 711, nomen; Urb. in Bot. Jahrb. 19. 670.

Tree, 35 m. or more high and up to 1 m. diam.; *lvs.* oblong, abruptly acuminate at the apex, rounded at the base, 3 dm. or more long, 3-14 cm. broad, entire, veins not anastomosing or only slightly so towards the apex, densely reticulate beneath, glabrous, thickly leathery; *petioles* stout, 7-15 mm. long; *infl.* a spreading

panicle usually shorter than the leaves, very shortly puberulous; *fls.* white with a yellow centre, about 6 cm. diam.; *cal. lobes* 6, unequal, oblong, obtuse, 3-5 mm. long; *pet.* up to 3 cm. diam., deeply imbricate, glabrous, 2.5-3 cm. diam.; *caps.* woody, urn-shaped, dehiscing above the middle as a lid, the *calyx lobes* persistent and woody; *seeds* 1-3, conspicuously veined.

Common in forests, Trinidad.

Guiana.

2. **E. decolorans** *Sandwith*. Devil Wood, Tobago.

Kew Bull. 1932, 214-215.

Large tree; *lvs.* elliptical-oblong, acutely acuminate at the apex, rounded to broadly wedge-shaped at the base, 17-24 cm. long, 7-10 cm. broad, entire, the primary veins prominent beneath and anastomosing at some distance from the margin, dotted beneath, glabrous, leathery; *petioles* stout, 8-11 mm. long; *infl.* not seen; *pedi.* glabrous more or less recurved; *cal.* glabrous, *lobes* 6, nearly equal, ovate to orbicular, rounded at the apex, 6-8 mm. long and about 6 mm. broad; *pet.* about 2 cm. long; *caps.* urn-shaped, woody, about 3 cm. diam.

Confirmation of this identification is required by the collection of more complete material.

Herb. Trin. 12383, Marshall, and 12899, Forest Ranger, Roxborough, Tobago.

British Guiana.

FAMILY 5. MELASTOMACEAE.

Herbs, shrubs or trees; branches opposite. *Lvs.* simple, opposite, rarely whorled, with 3-9 longitudinally converging parallel veins (pinnately nerved in *Mouriri*), entire or toothed, without stipules. *Infl.* terminal or axillary, spicate, paniculate or corymbose. *Fls.* hermaphrodite, regular. *Cal. tube* free or united to the ovary sometimes by longitudinal partitions; *limb* truncate, lobed or cap-like, usually imbricate. *Pet.* imbricate, free or rarely united at the base. *Stam.* usually twice as many as the petals, sometimes similar in number; *fil.* free; *anths.* 2-celled, basifix, usually opening by one pore, rarely by 2 or 4; *connective* often thickened at the base and produced, often appendaged. *Ovary* mostly inferior, 2 to many-celled, rarely 1-celled; *ovules* numerous, axile, rarely basal or parietal. *Fruit* a capsule or berry enclosed by the calyx-tube bursting irregularly or opening loculicidally by valves. *Seeds* often minute.

- Fruit many-seeded; lvs. with converging parallel nerves.
- Fruit capsular.
- Seed shell-shaped.
- Stam. very unequal.
- Cal. lobes much shorter than the tube 1. *Arthrostemma*.
- Cal. lobes nearly or quite as long as the tube.
- Pet. obtuse 2. *Acisanthera*.
- Pet. acute 3. *Nepsera*.
- Stam. equal or nearly equal.
- Ovary entirely glabrous 4. *Comolia*.
- Ovary glabrous at the apex 5. *Aciotis*.
- Ovary with bristles at the apex.
- Cal. lobes alternating with bristles 6. *Pterolepis*.
- Cal. lobes without alternating bristles 7. *Tibouchina*.
- Seed wedge-shaped, angular or spindle-shaped 8. *Graffenrieda*.
- Fruit a berry.
- Infl. terminal (occasionally terminal and axillary).
- Pet. acute, narrowed, or oblong and acuminate.
- Anths. with a basal appendage at the back 9. *Platycentrum*.
- Anths. without appendages on the back 10. *Leandra*.
- Pet. obtuse.
- Cal. limb lid-like 11. *Conostegia*.
- Cal. limb not lid-like (truncate or lobed).
- Cal. with appendages on the back of the lobes 12. *Tococa*.
- Cal. without appendages.
- Cor. bell-shaped 13. *Charianthus*.
- Cor. with spreading or reflexed petals.
- Cal. tube constricted above the ovary 14. *Tetrazygia*.
- Cal. tube not constricted above the ovary 15. *Miconia*.

- Infl. lateral or axillary (sometimes also terminal in *Clidemia*).
 Cal. enveloped in large bracts16. **Blakea**.
 Cal. not enveloped in large bracts.
 Pet. obtuse.
 Stems not woody; infl. amongst the leaves.
 Anths. forked at the base; lvs. bladder-like at the base17. **Maieta**.
 Anths. simple at the base; lvs. not bladder-like at the base (in the local species)18. **Clidemia**.
 Stems woody; fls. on the old wood below the leaves.
 Fls. 5 or 6-parted19. **Henriettea**.
 Fls. 4-parted.....20. **Necramium**.
 Pet. acute or acuminate.....21. **Henriettella**.
 Fruit 1-5 seeded; lvs. pinnately veined.....22. **Mouriri**.

1. **ARTHROSTEMMA** R. & P.

Herbs or slender *shrubs*. *Lvs.* petiolate, toothed, 5-7 nerved, membranous. *Fls.* cymose at the ends of branches or scorpioid, rose or purple. *Cal.* glabrous or with a few gland-tipped hairs; *tube* oblong or bell-shaped; *lobes* 4, triangular, much shorter than the tube, persistent. *Pet.* 4, obovate, apiculate, caducous. *Stam.* 8, 4 long and 4 short; *anths.* unequal, incurved, the *connective* produced inwards below the cells into a slender appendage, thickened at the apex and with 3 or 2 small teeth. *Ovary* free or more or less adherent to the calyx, 4-celled, glabrous or setose. *Caps.* covered with the calyx tube, 4-valved. *Seeds* shell-like.

1. **A. macrodesmum** Gleason.

A. campanulare Waud.

Heteronoma diversifolium Griseb. Fl. 266 non DC.

Annual, 1 m. or less; *stems* brittle, glabrous except for scattered, long, weak, gland-tipped hairs; *lvs.* ovate, acuminate at the apex, broadly rounded at the base, 3-8 cm. long, 1-3 cm., broad, minutely fringed and toothed, otherwise glabrous, 5-nerved, the nerves arising from the base; *petioles* 6-22 mm. long, glabrous; *panicles* slender, with scattered weak glandular hairs; *fls.* few to several on the branches; *cal.* green, 1 cm. long, glabrous or with scattered, weak, gland-tipped hairs; *teeth* minute; *pet.* rosy pink, elliptical, rounded at the apex, 2 cm. long, 14 mm. broad, glabrous; *stam.* the 4 long 2 cm. long, the *connective* about 9 mm. long, the

appendage 3 mm. long, 2-3 lobed at the apex; *anths.* whitish; *stam.* the 4 short, 1 cm. long, the *connective* barely developed, the appendage 1.5 mm. long, 2-3 lobed at the apex; *anths.* yellow; *ovary* glabrous; *style* about 1 cm. long, curved at the apex; *caps.* oblong-ellipsoid, glabrous, 1-1.5 cm. long.

Thickets and along streams. Trinidad.

Central and Northern South America.

A. latifolium Don, is also recorded from Trinidad by Grisebach and Cogniaux on the evidence of a Cruieger sheet which was so identified by Cruieger himself. The type from French Guiana has not been available for examination, nor was it seen by Cogniaux who distinguished this species from *A. campanulare* (Naud.) Triana on the ground of the glandular-pilose calyx and the setose apex of the ovary, characters mentioned in *Linnaea* 20.101. The calyx of the Trinidad plant may be either glabrous or glandular-pilose. Don's description of *A. latifolium* is inadequate for identification purposes.

2. ACISANTHERA P. Br.

Herbs or small *shrubs*. *Lvs.* usually small, sessile or shortly petiolate, entire or toothed. *Fls.* terminal and axillary, solitary or in short panicles. *Cal. tube* hemispherical or bell-shaped; *lobes* 4-5, acute or acuminate; *pet.* 4-5, obovate or roundish; *stam.* 8-10, unequal, the smaller often imperfect, the larger perfect, alternating with the petals; *anths.* with one pore, *connective* produced and with a 2-lobed appendage at the base; *ovary* free, 2-4 celled, *style* threadlike or thickened above; *caps.* 2-4 valved, membranous; *seeds* minute, somewhat ellipsoidal or shell-shaped, pitted.

Herb, glabrous; *lvs.* sessile 1. *A. bivalvis*.

Sub-shrub, glandular-hairy; *lvs.* petiolate 2. *A. recurva*.

1. *A. bivalvis* (Aubl.) Cogn.

Melastoma bivalvis Aubl.

A. brevifolia Griseb. Fl. 269. excl. syn.

Herb, glabrous, 2-3 dm. high, stoloniferous at the base, *stems* erect, quadrangular, usually simple below the inflorescence; *lvs.* sessile, the inferior ovate, obtuse, 4-5 mm. long, the superior oblong to oblong-lanceolate, 4-8 mm. long, inconspicuously 3-nerved; *fls.* solitary in the upper axils; *pedi.* erect, 1-5 mm. long; *cal. tube* top-shaped, 3 mm. long, *lobes* 5, lanceolate-acuminate, 3.5 mm. long; *pet.* 5, mauve, obovate, obtuse, 1 cm. long; *stam.* 10, 5 larger; *anths.* about 3 mm. long, *connective* slightly shorter, the spurs about 1 mm.; *style* about 6 mm.; *caps.* sub-globose, 2-3 mm diam., crowned with the persistent calyx limb, longitudinally striate.

In mud on Savannahs, Trinidad.

Guiana and Brazil.

2. **A. recurva** (L.C. Rich.) Griseb.

Sub-shrub, 1-5 dm. high, glandular-pubescent, branches woody quadrangular; *lvs.* ovate or lanceolate, acute at the apex, rounded at the base, up to 11 mm. long and 8 mm. broad, minutely toothed, 3-nerved; *petioles* 1-5 mm. long; *fls.* mostly solitary, sub-sessile or very shortly stalked; *pet.* 5, pink, magenta at the base within, obovate, rounded at the apex, 6 mm. long, 3 mm. broad; *stam.* scarcely exceeding the petals, 5 long purplish, 5 short whitish, lobes of the connective yellow; *style* curved, pinkish; *caps.* globose, 2.5-4 mm. diam., glandular-hairy, crowned with the persistent calyx lobes; *seeds* orange.

Grassy savannahs, Trinidad.

Panama. Trop. South America.

3. **NEPSERA** Naud.

Herb or small slender *shrub*, erect, branching. *Lvs.* petiolate, minutely toothed. *Fls.* small, in loosely pyramidal panicles. *Cal. tube* ovoid; *lobes* 4, ovate-awlshaped, acuminate, persistent. *Pet.* 4, oblong-lanceolate, acute. *Stam.* 8, unequal; *anths.* unequal, 4 short and 4 longer, awl-shaped, with one pore at the apex; *connective* prolonged below the anthers and produced inwards into a 2-lobed appendage. *Ovary* globose, free, 3-celled. *Caps.* 3-valved. *Seeds* short, shell-like, covered with large shallow pits.

1. **N. aquatica** (Aubl.) Naud.

Melastoma aquatica Aubl. Pl. Guiane 1.430. t. 169.

Griseb. Fl. 268.

Plant 0.5 to 1 m. high, more or less pilose or glabrate; *lvs.* ovate, acute or acuminate at the apex, rounded or somewhat heart-shaped at the base, 2.5-7.5 cm. long, up to 3.5 cm. broad, membranous, toothed, glabrous or nearly so; *panicles* large with very slender branches and pedicels; *cal. tube* 2-3 mm. long, *lobes* about as long as the tube; *pet.* white, ovate, 7 mm. long, 3.5 mm. broad; *anths.* purple, the appendages 0.5 mm. long; *fil.* reddish; *caps.* globose, 2-3 mm. diam.

Moist grounds, banks and forest borders, Trinidad.

West Indies, Tropical South America.

4. **COMOLIA** DC.

Herbs or *sub-shrubs*, glabrous, hairy or glandular, *stems* erect or spreading. *Lvs.* entire or toothed. *Fls.* mostly axillary and solitary, purple or rose. *Cal. tube* bell-shaped or tubular-bell-shaped; *lobes* 4, awl-shaped, persistent. *Pet.* 4, obovate. *Stam.* 8, subequal; *anths.* linear-awl-shaped with one pore, *connective* more or less produced and with 2 lobes, spurs or ears at the base. *Ovary* free, glabrous, obtuse, 2-4 celled; *style* straight or curved. *Caps.* 2-4 valved; *seeds* kidney-shaped or shell-shaped, pitted or rough.

1. *C. veronicaefolia* Benth.*C. lythrioides* (Steud.) Naud.*Hostmannia lythrioides* Steud.*Tibouchina trinitensis* Cogn. Urb. Symb. Ant. 7.309

Griseb. Fl. 268.

Herb up to about 0.5 m. high; *stems* quadrangular, spreading, shaggy with glandular hairs, glabrescent or glabrous except at the nodes; *lvs.* obovate or elliptical, acute or obtuse at the apex, rounded at the base, up to 2.5 cm. long and 1.8 cm. broad, minutely toothed, shaggy on both sides or varying to glabrous and sparingly ciliate; *petioles* 1-3 mm. long, shaggy; *fls.* solitary or in threes; *cal. tube* shaggy to glabrous, 6 mm. long; *lobes* bristly to glabrous, 5 mm. long; *pet.* magenta, irregularly oblong-obovate, 1-4 cm. long, 9 mm. broad, irregularly truncate with a bristle at the apex; *stam.* 8, 4 long about 1.5 cm. long, 4 shorter about 1.3 cm. long; *fil.* pinkish; *anths.* purple; *connective* slightly produced and shortly 2-lobed; *caps.* 4 mm. long.

C. veronicaefolia Benth. and *C. lythrioides* Naud. appear to differ only as regards the indumentum and a field study shows that the hairy and glabrous extremes are connected by intermediate forms on the Aripo Savannah.

Broadway, 3659, the type of *Tibouchina trinitensis* Cogn. is the hairy form of this species.

Savannahs, Trinidad.

Guiana.

5. *ACIOTIS* Don.

Herbs, simple or branched, glabrous or hairy. *Lvs.* usually petiolate, ovate or lanceolate, membranous. *Fls.* small, in loose, terminal panicles. *Cal.* glabrous or hairy; *tube* globose; *lobes* 4, minute, deciduous. *Pet.* 4, lanceolate, acute or with a bristle at the apex. *Stam.* 8; *anths.* equal or nearly equal, roundish or oblong, with one pore; *connective* very shortly produced at the base, or produced into an appendage. *Ovary* free, or nearly free, globose, obtuse, 2-celled; *style* thread-like. *Caps.* membranous irregularly bursting.

Anths. short, about as broad as long, stems and inflorescence with conspicuous, spreading, often gland-tipped hairs; infl. a dichotomous cyme1. *A. dichotoma.*

Anths. much longer than broad; infl. a thyrses2. *A. purpurascens.*

1. *A. dichotoma* (Benth.) Cogn.

Spennera Kappleriana Griseb. Fl. 268, non Naud.

Low herb; stems with weak, shaggy, simple or gland-tipped hairs; *lvs.* ovate-elliptical, acute or obtuse at the apex, rounded or wedge-shaped at the base, 1.5-6 cm. long, 1-3.5 cm. broad, minutely toothed and fringed on the margin, with long weak scattered hairs especially above, 3-5 nerved, the nerves arising from the base, membranous; *petioles* 5-20 mm. long, with the indumentum of the stems; *infl.* a dichotomous cyme with copious gland-tipped spreading hairs; *fls.* very shortly stalked; *cal.* ovoid-subglobose, 1.5-2.5 mm. long, with scattered gland-tipped hairs; *teeth* short, acute; *pet.* 4, white, marked with pink, ovate-lanceolate with a bristle at the apex, up to 3 mm. long and 1.5 mm. broad; *anths.* purple, orbicular to obovoid, 0.3-0.6 mm. long; *fil.* white; *connective* not produced; *caps.* membranous, subglobose, up to 2.5 mm. diam.

Banks and roadsides, Trinidad.
Venezuela, Guiana, Brazil.

2. *A. purpurascens* (Aubl.) Triana.

Melastoma purpurascens Aubl. Pl. Guiane 402, t. 154.

A. trinitensis Cogn.

A. discolor D. Don.

Spennera pellucida DC. Griseb. Fl. 268, in part.

Herb; stems narrowly wing-angled, glabrous or minutely puberulous; *lvs.* lanceolate, ovate or ovate-oblong, acute or acuminate at the apex, rounded to wedge-shaped at the base, up to 15 cm. long and 5.5 cm. broad, minutely toothed and fringed, with short scattered hairs or glabrate on both surfaces, green or red beneath, 5-nerved, the nerves all arising from the base, membranous; *petioles* up to 3 cm. long, occasionally very short or subsessile, puberulous; *infl.* an elongated, rather loosely-flowered compound panicle up to 17 cm. long, glabrous, minutely puberulous; *fls.* sessile or shortly stalked; *cal. tube* ovoid, glabrous, 1.5-3 mm. long; *teeth* short, acute; *pet.* 4, white, marked with pink on the margin, ovate, 3 mm. long, acute at the apex and with a terminal bristle; *anths.* 8, purple, oblong, about 1 mm. long; *connective* distinctly produced below the base, not spurred; *caps.* 2-2.5 mm. diam., subglobose, glabrous.

A form occurs, viz. Herb. Trin. 9090 Tucuche, Britt. and Freeman; Herb. Trin. 12870 R. O. Williams Jr., Tamana; Lockhart in Herb. Kew, which has been referred to *A. discolor* D. Don. It differs from the typical Trinidad plant by having uniformly smaller leaves with a roughly hairy upper surface,

short petioles (3-10 mm. long) and narrow panicles with shorter branches but no reliable specific character has been found in the Trinidad specimens. In any case this form differs from Don's type of *A. discolor* in Herb. Delessert, Geneva, which has almost completely glabrous leaves.

Broadway 2651, the type of Cogniaux's *A. trinitensis* is regarded as being at the most only a form of *A. purpurascens*.

The type of *Spennera martinicensis* A. Plée, Martinique, in Herb. Paris, is also regarded as a form of *A. purpurascens*.

Forests and moist banks, Trinidad.

Martinique, St. Vincent (cult.) Trop. S. America.

6. PTEROLEPIS Miq.

Herbs with rough hairs or bristles. *Lvs.* entire, 3-5 nerved, membranous or leathery. *Fls.* in terminal or axillary cymes, solitary or clustered. *Cal. tube* bristly-hairy; *lobes* 4, triangular-ovate, alternating with branched bristles. *Pet.* 4, obovate, obtuse, fringed. *Stam.* 8, unequal; *fil.* glabrous; *anths.* with 1 pore, *connective* more or less produced at the base on the larger anthers with two warts, lobes or spurs, in the smaller anthers shortly produced. *Ovary* free, or united to the ribs of the calyx, 4-celled, bristly at the top; *style* thread-like. *Caps.* 4-valved. *Seeds* shell-shaped, numerous, minute.

Fls. loosely cymose 1. *P. pumila*.

Fls. in dense clusters 2. *P. glomeratum*.

1. *P. pumila* (Bonpl.) DC. ex Crueg. *Linnaea* 20, 102.

Rhexia pumila Bonpl.

Arthrostemma ladanoides Griseb. non Triana.

Annual 2-5.5 dm.; *stems* 4-angled with rough adpressed bristly hairs on the angles; *lvs.* sessile or very shortly stalked, lanceolate or lanceolate-oblong, obtusely acute, acute or acutely acuminate at the apex, more or less rounded at the base, 1.5-5 cm. long, 3-11 mm. broad, with conspicuous long appressed bristly hairs on both sides, entire, membranous, 5-nerved, the outer pair inconspicuous; *infl.* cymose, bristly hairy; *fls.* somewhat distant; *pedi.* 1.5 mm. long or less; *cal. tube* top-shaped and with simple and branched bristles; *lobes* ovate, acute, 1.5-2 mm. long, rigid, fringed and with a long bristle at the apex, sometimes also with one below the apex, persistent; *pet.* 4, pink, about 4 mm. long, fringed with gland-tipped hairs; *anths.* 8, 4 about 2 mm. long, 4 about 1 mm.; *connective* 1 mm. or less, minutely lobed, *caps.* including the persistent cal. lobes 5-6 mm. long.

Cogn. records *P. trichotoma* (Rottb.) Cogn. from Trinidad on the evidence of a specimen collected by Crueger but the Crueger specimen at Kew like all the other Trinidad material is the species which Crueger himself rightly named *P. pumila* Crueg. *P. trichotoma* differs essentially in the much larger flowers, the anthers and connective of the longer stamens being twice the size of those of *P. pumila*.

Grassy savannahs, Trinidad.
Central and South America.

2. *P. glomerata* (Rottb.) Mig.

Arthrostemma glomeratum Cham.

Herb, stems 4-angled, rough with appressed bristly hairs; *lvs.* lanceolate, acute or acutely acuminate at the apex, rounded at the base, up to 45 mm. long and 16 mm. broad, with distant appressed hairs on both sides, entire, membranous, 3-nerved; *petioles* 2-4 mm. long; *fls.* in dense heads at the top of the branches; *pedi.* 1-2 mm. long; *cal. tube* ovoid, green, covered with branched and simple bristles; *lobes* ovate, acute, 4-5 mm. long, rigid, fringed and with a long bristle at the apex, often also with one below the apex, otherwise glabrous, persistent; *pet.* 4, pink or sometimes white, obcordate, 12-16 mm. long, 14 mm. broad, minutely fringed; *anths.* 4 long, 1 cm. long, mauve, the 4 shorter 8 mm. long, yellow, both with two rounded short yellow warts; *anths.* with 1 pore; *style* 1 cm. long; *caps.* including the persistent calyx lobes, 8-10 mm. long.

Grassy banks, savannahs and hillsides in moist districts, Trinidad. Lesser Antilles and Trop. South America.

7. *TIBOUCHINA* Aubl.

Herbs or *subshrubs*. *Lvs.* petioled, 3 or 5-nerved, entire or toothed. *Fls.* borne in the upper axils, solitary or in few-flowered, stalked clusters. *Cal. tube* oblong or urn-shaped; *lobes* 4 or 5, narrow, persistent or deciduous. *Pet.* 4 or 5, obovate. *Stam.* 8 or 10, equal or nearly so; *anths.* with a 2-lobed appendage. *Caps.* 4 or 5-valved. *Seeds* shell-shaped.

1. *T. longifolia* (Vahl.) Baill.

Rhexia longifolia Vahl.

R. lanceolata Bonpl.

Arthrostemma lanceolatum Griseb.

Griseb. Fl. 267: Urb. Symb. Ant. 8.491.

Subshrub about 1 m.; *stems* scabrous with long ascending hairs; *lvs.* oblong-lanceolate, acuminate at the apex, narrowed at the base, 5-10 cm. long, 1-3.5 cm. broad, 3-5 nerved, the lateral nerves 2-parted, entire, appressed pilose on both sides; *fls.* in

stalked loose or dense cymes; *cal.* densely hairy with fine bristles; *tube* 3 mm. long, *lobes* persistent, 3-4 mm. long; *pet.* 5, white, lanceolate, unequal-sided, 6 mm. long, 3 mm. broad; *stam.* 10, equal; *anths.* yellow, very shortly spurred at the base; *caps.* 2-4 mm. long, 10-ribbed, bristly, crowned by the persistent calyx lobes.

Shaded banks and hillsides in moist districts, Trinidad.
West Indies. Cont. Trop. America.

8. GRAFFENRIEDA DC.

Shrubs and *trees.* *Lvs.* usually large, long petioled, entire, 5-9 nerved. *Fls.* in terminal or axillary panicles, without bracteoles. *Cal. tube* oblong-bell-shaped, *limb* 4-5 toothed or bursting irregularly. *Pet.* 4-5, obovate or linear-oblong, obtuse. *Stam.* 8 or 10, equal or subequal; *anths.* with one pore and with a simple appendage. *Ovary* nearly free, 2-5 celled; *style* threadlike. *Caps.* 2-5 valved. *Seeds* oblong or linear, pyramidal.

1. *G. latifolia* (Naud.) Triana.

Cycnopus latifolium Naud.

Griseb. Fl. 266.

Shrub or *small tree*; young *branches* minutely scaly, glabrate; *lvs.* very broadly ovate or ovate-rounded, very shortly cuspidate or rounded at the apex, truncate or rounded and slightly eared at the base, up to 23 cm. long, about as broad as long, glabrous above, obscurely scaly or glabrous beneath, 7-nerved, all arising from the base, papery; *petioles* up to 11.5 cm. long, glabrous; *infl.* widely pyramidal, up to 20 cm. long, minutely scurfy, ultimate branches 3-7-flowered; *pedi.* short; *cal.* bell-shaped, 3-3.5 mm. long, scurfy, shallowly lobed; *pet.* 4-5 mm. long; *anths.* 2-2.5 mm. long.

Not seen. Sieb. 42, 212, ex Cogu., Trinidad. Not otherwise known from Trinidad.

Lesser Antilles, Venezuela.

9. PLATYCENTRUM Naud.

Shrub or *small tree.* *Lvs.* subequal, petioled, ovate-oblong or lanceolate, entire. *Fls.* numerous, small, sessile or shortly pedicellate in terminal pyramidal panicles. *Cal. tube* bell-shaped, bristly; *limb* with 5 pairs of teeth, the inner teeth short, membranous, the outer broadly ovate, acute, bristly at the apex. *Pet.* 5. *Stam.* 10, equal or nearly so; *fil.* compressed; *anths.* erect, linear-awl-shaped, dehiscent by an apical pore, and with an erect flattened appendage at the back. *Ovary* ovoid, free-3-celled; *style* thread-like; *stig.* simple. *Berry* globose, covered by the persistent calyx teeth.

1. *P. clidemioides* Naud.

Tschudya strigillosa Griseb. Fl. 250.

Miconia stenopetala Griseb.

Small tree; young branches rather densely adpressed pubescent; vs. ovate-lanceolate or elliptical-oblong, long acuminate at the apex, wedge-shaped at the base, up to 26 cm. long and 10 cm. broad, parchmenty, fringed, 5-nerved, the outer pair less prominent and rather close to the margin, the inner pair arising at some distance above the base, with short scattered adpressed hairs on both sides, more abundant on the nerves, glabrescent; petioles 1-3.5 cm. long, rather densely adpressed pubescent; panicle spreading, much shorter than the leaves, shaggy; cal. whitish, 1.5 mm. long; pet. transparent white to reddish, lanceolate, acuminate, about 1 mm. long; stam. 10, equal, about 3 mm. long, the appendage about one-third the length of the anther; fil. reddish; anths. yellow; style straight, about 5 mm. long; berry blue, globose, 2-3 mm. diam. with scattered adpressed hairs.

Forests, Northern mountain range, Trinidad.

French Guiana and Brazil.

10. *LEANDRA* Raddi.

Shrubs; young branches round and rough. Lvs. petioled in the Trinidad species, 3-5 nerved, entire, fringed or toothed. Panicles usually terminal with clustered or serial small flowers. Cal. tube produced beyond the ovary; lobes none or in two whorls of 5-7, the inner membranous, the outer awl-shaped. Pet. 5-7, linear-lanceolate. Stam. 10-14, equal; fil. elongated; anths. dehiscent by one pore, recurved, without appendages or thickening on the back. Ovary 4-6-celled, bristly above, partly united to the calyx or almost free; style threadlike, exerted, tapered at the apex; stig. pointed. Berry 3-6-celled, crowned by the calyx limb; seed pyramidal-obovoid.

1. *L. rufescens* (DC.) Cogn.*Tschudya rufescens* DC.*Oxymeris rufescens* Triana.

Griseb. Fl. 250.

Shrub up to 3 m.; young branches roughly rusty-shaggy; lvs. ovate-oblong or elliptical-oblong, acuminate at the apex, narrowed to the obtuse base, 13-27 cm. long, 4.5-9 cm. broad, entire or minutely toothed, fringed, membranous, 5-nerved, the outer pair less prominent, all arising from the base, with minute scattered hairs and shaggy on the nerves above, densely shaggy beneath; petioles shaggy with rusty hairs, 1-4 cm. long; panicles compound, 6.5-18 cm. long, with slender branches, rusty-shaggy;

fls. sessile, serial on the branches; *cal.* thickly shaggy; *teeth* linear, minute; *pet.* 5, pale green, inconspicuous, very like the sepals; *stam.* 10, white, equal, 2 mm. long, longer than the petals; *style* 2-2.5 mm. long; *berry* globose, not ribbed, shaggy, 3-4 mm. diam.

Cogn. also records from Trinidad the variety *asperiuscula* (DC) Cogn. which is said to differ in having leaves almost entire and the panicle a little narrower.

Forests in wet or moist districts, Trinidad.
Trop. South America.

11. CONOSTEGIA Don.

Shrubs or small *trees*. *Lvs.* large, petioled, 3-5 nerved. *Fls.* in terminal panicles. *Cal.* glabrous; *tube* bell-shaped or hemispherical; *limb* lid-like, shedding when the flower opens. *Pet.* 5-10. *Stam.* 10-25, equal; *anths.* with one pore and without appendages. *Ovary* adherent to the calyx, or the apex free, 5-15-celled. *Fruit* a berry. *Seeds* smooth.

1. *C. icosandra* (Sw.) Urb.

Melastoma icosandrum Sw.

C. subhirsuta DC.

Fedde. Rep. 17. (1921) 404: Fawc. & Rendl. Fl. Jam. 5. 364;
Griseb. Fl. 253.

Shrub or small *tree* up to 6 m.; young *branches* tetragonal more or less shaggy-hairy, becoming glabrous; *lvs.* elliptical or oblong-elliptical, rather abruptly narrowly acuminate at the apex, broadly wedge-shaped to rounded at the base, 9-23 cm. long, 4.5-9 cm. broad, entire or wavy-toothed with scattered simple hairs above, and shaggy branched hairs on the nerves beneath, 5-nerved, the outer pair less conspicuous and close to the margin, the inner pair arising at the base or slightly above the base; *petioles* 1-5 cm. long, shaggy-hairy on the upper side; *panicles* 5-10 cm. long, shaggy-hairy; *buds* obovoid or subglobose, 7-9 mm. long, 6-7 mm. broad, at first stellate pubescent, becoming glabrous; *cal. lid* convex, rounded; *pet.* white, 8-10, obcordate, 7-8 mm. long; *anths.* usually 16, 2 mm. long; *ovary* many-celled; *style* thick, glabrous, 3-4 mm. long; *stig.* broadly disc-like, 2 mm. diam., depressed in the centre and furrowed outwards to the minutely lobed margin; *berry* cup-shaped, about 8 mm. diam., surmounted by the elevated calyx and with the persistent funnel-like base of the style.

Forests, northern mountain range, Trinidad.
West Indies. Cont. Trop. America.

12. TOCOCA Aubl.

Shrubs. Lvs. petioled, large, 5-nerved; the petiole often with 2 inflated bladderly lobes. *Fls.* large, in terminal or axillary panicles. *Cal. tube* bell-shaped; lobes 5-6, spreading, appendaged on the back. *Pet.* 5 or 6. *Stam.* 10 or 12, equal or subequal; *anths.* (with two pores in the Trinidad species), not appendaged; *ovary* immersed in the base of the calyx, and adhering except at the apex, 3-5 celled. *Berry* fleshy. *Seed* obovate or pyramidal, smooth or granulate.

1. T. Broadwayi Urb.

Fedde. Rep. 17 (1921), 163.

Shrub, branches with numerous and densely aggregated straw-like bristles at the axils, otherwise glabrous, bristles up to 8 mm. long; *lvs.* ovate or broadly elliptical, very shortly and obtusely acuminate at the apex, obtuse at the base, 25-32 cm. long, 11-18 cm. broad, entire, glabrous except for pale-rusty, curved, bristlets on the margin, papery, 5-7 nerved, the inner pair arising above the base; *petioles* 5-12 cm. long, shortly bristly at the top, otherwise glabrous; *infl.* terminal and axillary, compoundly racemose, densely-flowered, 5-9 cm. long, 2.5-3.5 cm. broad, *primary bracts* ovate-acuminate, up to 15 mm. long and 8 mm. broad, more or less bristly hairy on the back and bearded in the axils; *involucral bracteoles* ovate, 8-10 mm. long, membranous, long persistent, more or less hairy on the back; *pedi.* scarcely 1 mm. long; *cal. tube* 10-ridged, glabrous; *lobes* 5, free, imbricate, shortly ovate, rounded at the apex, 3 mm. long, the *appendages* lanceolate or linear, shortly bristly, the lobes otherwise glabrous; *pet.* 5, white, broadly wedge-shaped, deeply notched at the apex, somewhat unequal-sided, 8 mm. long, 4-4.5 mm. broad, shortly fringed; *stam.* 10, sub-equal; *fil.* 4.5 mm. long, glabrous; *anths.* 3.5-4 mm. long, linear, narrowed above, with two pores; *style* 9 mm. long with short spreading hairs; *stig.* spheroidal; *ovary* minutely hairy at the apex, *ovules* very numerous.

Broadway 4281, in Herb. Berlin, Charlotteville to Parlatuvier in a shady damp wood, Tobago.

13. CHARIANTHUS D. Don.

Shrubs, usually glabrous. *Lvs.* leathery, entire, 3-5 nerved, *Fls.* in terminal paniculate or corymbose cymes. *Cal. tube* urn-shaped or globose; *limb* persistent, obscurely 4-lobed. *Pet.* 4, erect. *Stam.* 8, equal, much longer than the petals opening by a longitudinal slit or with a terminal pore; *connective* not elongated and without any appendage. *Ovary* united to the calyx, 2-4 celled,

the apex glabrous; *style* threadlike, very long; *stig.* blunt. *Berry* sub-globose or urceolate, crowned by the calyx limb. *Seeds* pyramidal.

- Lvs. glabrous on the margin1. *C. corymbosus*.
 Lvs. fringe-toothed2. *C. nodosus*.

1. ***C. corymbosus*** (*L. C. Rich.*) *Cogn.*

Melastoma corymbosa L. C. Rich.

C. glaberrimus DC.

Griseb. Fl. 264.

Shrub, glabrous; *lvs.* ovate, acuminate at the apex, rounded to wedge-shaped at the base, 7-11 cm. long, 4-6 cm. broad, glabrous, very minutely wavy-toothed, thinly leathery, 5-7 nerved; *infl.* corymbose; *fls.* stalked; *cal. tube* 3-4 mm. long; *limb* spreading, shallowly lobed, scaly-scurfy; *pet.* 7-8 mm. long; *anths.* linear, recurved during dehiscence, about 2 mm. long; *berry* up to 5 mm. diam., sub-globose.

Sieb. 58 in Herb. Kew, Trinidad. Not otherwise known from Trinidad.

Lesser Antilles and French Guiana.

2. ***C. nodosus*** (*Desr.*) *Triana.*

Melastoma nodosa Desr.

Shrub; *branches* glabrous; *lvs.* ovate-elliptical to suborbicular, rounded or shortly pointed at the apex, narrowed into the petiole, 4-6 cm. long, 2-5 cm. broad, fringed and toothed, glabrous and punctate, 5-7 nerved, leathery; *infl.* corymbose, with lax pedicels; *cal.* bell-shaped; *tube* 3-4 mm. long; *limb* spreading, obscurely lobed; *pet.* 12-14 mm. long; *anths.* about 2 mm. long; *berry* about 4 mm. long.

Not seen, Sieb. 113, and 279 ex Cogn., Trinidad. Not otherwise known from Trinidad.

Lesser Antilles and French Guiana.

14. **TETRAZYGIA** *L. C. Rich.*

Shrubs or *trees*, usually scurfy with soft scales. *Lvs.* petioled, oblong, ovate or ovate-lanceolate, entire or toothed, 3-5 nerved. *Fls.* small, numerous, in terminal panicles or corymbs. *Cal. tube* constricted above the ovary; *limb* spreading, 4-5 lobed. *Pet.* 4-5, obovate, obtuse. *Stam.* 8-10, equal; *anths.* with one pore; *connective* not prolonged below the cells; *ovary* partly joined to the calyx; *style* narrowed at the top; *stig.* pointed. *Berry* crowned by the persistent calyx-limb. *Seeds* numerous, minute.

Lvs. ovate-lanceolate to ovate, 2-8 cm.

broad.....1. *T. discolor*.

Lvs. narrowly lanceolate, 4-12 mm. broad 2. *T. angustifolia*.

1. *T. discolor* (L.) DC.*Melastoma discolor* L.

Shrub; young branches at first densely scurfy, very soon glabrate; *lvs.* ovate or ovate-lanceolate, acuminate at the apex, rounded at the base, 7-20 cm. long, 2-8 cm. broad, obscurely wavy-toothed, glabrous above, white beneath with very short tomentum, the nerves soon glabrate, 5-nerved, the inner pair arising somewhat above the base, papery; *petioles* slender, 1.5-6 cm. long; *panicle* corymbiform, white with very short tomentum; *cal.* bell-shaped, 2.5-3 mm. long, the limb dilated, scurfy; *teeth* 4, roundish or sometimes pointed; *pet.* 4, 2-3 mm. long; *anths.* 8, about 2 mm. long; *style* 6-7 mm. long; *berry* globose, 3-5 mm. diam, scurfy at first, glabrate.

Sieb. 61 in Herb. Kew. Not otherwise known from Trinidad. Lesser Antilles and French Guiana.

2. *T. angustifolia* (Sw.) DC.*Melastoma angustifolia* Sw.*Miconia angustifolia* Griseb.

Griseb. Fl. 258; Fawc. & Rendl. Fl. Jam. 5.382; Urb.

Symb. Ant. 4. 454.

Shrub or small tree; branches round; *lvs.* linear-lanceolate, acuminate at the apex, narrowed or obtuse at the base, 4-8 cm. long, 4-12 mm. broad, entire, glabrous above, greyish-woolly beneath with minute stellate hairs, 3-nerved and with prominent lateral veins; *petioles* 5-10 mm. long; *panicles* corymbiform, 2-6 cm. long, scaly-hairy; *fls.* crowded, shortly pedicellate; *cal.* scaly-hairy, tube 1.5 mm. long, lobes 4, 0.8-1 mm. long, acute; *pet.* 4, yellowish or rosy, obovate, 2 mm. long; *anths.* 2 mm. long; *style* 4 mm.; *berry* bluish-black, globose, about 5 mm. diam.

Sieb. 127 in Herb. Kew. Trinidad. West Indies.

15. *MICONIA* R. & P.

Shrubs or trees. *Fls.* usually in terminal panicles or corymbs, 5-parted, rarely 4 or 6-parted. *Cal. limb* truncate or lobed, sometimes bursting irregularly, usually persistent, lobes short, variable. *Pet.* spreading or reflexed. *Stam.* usually twice as many as the petals; *anths.* usually with one pore at the apex, rarely 2-4-pored or opening by a slit; *connective* not or scarcely prolonged at the base, with 2 ears or warts. *Ovary* usually adherent to the calyx-tube, 2-5-celled; *ovules* numerous. *Fruit* a berry with one or more seeds in each cell. *Seeds* various but not curved.

- Lvs. with at least the inner pair of nerves arising at some distance above the base of the leaf.
- Lvs. glabrous or rarely minutely scurfy-stellate beneath.
- Lvs. margin entire.....1. *M. fragrans*.
- Lvs. margin wavy-toothed.
- Lvs. with very close ultimate reticulation and rather dense scurfy-pubescence, both obvious under a lens.....2. *M. prasina*.
- Lvs. not closely reticulate beneath, glabrous or rarely minutely scurfy-stellate beneath.....3. *M. splendens*.
- Lvs. sparsely weakly pilose and ciliate....4. *M. savannarum*.
- Lvs. variously densely hairy.
- Lvs. with stellate hairs beneath.
- Lvs. stem-clasping at the base.....5. *M. amplexans*.
- Lvs. not stem-clasping.....6. *M. tomentosa*.
- Lvs. thickly hairy with stiffish adpressed hairs beneath.....7. *M. nervosa*.
- Lvs. coloured beneath with fine conspicuous indumentum.
- Lvs. with a pale coppery covering of stellate scaly-hairs beneath.....8. *M. Plukenetii*.
- Lvs. glaucous beneath with a loose mould-like pubescence.....9. *M. ampla*.
- Lvs. with the inner pair of nerves arising at or near the base of the leaf.
- Lvs. densely scaly beneath.
- Lvs. minutely toothed; anths. dehiscent by a chink.....10. *M. chrysophylla*.
- Lvs. entire; anths. dehiscent by a pore11. *M. punctata*.
- Lvs. with simple distinct hairs beneath.
- Hairs abundant, erect.
- Bracteoles awl-shaped.
- Lateral nerves arising from the leaf-base. lvs. densely tawny-hairy beneath12. *M. Matthaei*.
- Lateral nerves arising just above the base; leaves less hairy and greener than *M. Matthaei* 13. *M. ibaguensis*.

- Bracteoles ovate-orbicular.....14. *M. bracteata*.
 Hairs scattered, weak.
 Stems with long spreading hairs....15. *M. lacera*.
 Stems scurfy and with scattered,
 simple hairs.....16. *M. desmantha*.
 Stems scurfy, soon glabrescent.....17. *M. acinodendrum*
- Lvs. densely covered with very short
 white or brown down or powdery
 wool.
 Lvs. acute or obtuse at the apex.
 Lvs. roundish.....18. *M. macrothyrsa*.
 Lvs. lanceolate, oblong or oblong-
 elliptical
 Lvs. 8-27 cm. long, obtuse or
 rounded at the base.....19. *M. stenostachya*.
 Lvs. 5-12 cm. long, shallowly
 heart-shaped at the base20. *M. albicans*.
 Lvs. acuminate at the apex.
 Cal. glabrous21. *M. guianensis*.
 Cal. variously hairy.
 Fls. stalked, pedi, 4-10 mm. long 22. *M. dodecandra*.
 Fls. sessile or subsessile.
 Young stems 4-angled.
 Infl. narrow; fls. secund 23. *M. argyrophylla*.
 Infl. widely spreading, fls.
 not secund24. *M. hypoleuca*.
 Young stems compressed, not
 4-angled.
 Lvs. conspicuously toothed25. *M. serrulata*.
 Lvs. entire or incon-
 spicuously toothed.
 Berry ovoid, 5-7 mm.
 diam. when dry26. *M. holosericea*.
 Berry flattened-globose,
 up to 4 mm. diam.
 when dry27. *M. pubipetala*.
- Lvs. densely and conspicuously stellate-
 woolly beneath, not whitish or
 brownish downy or powdery woolly.
 Lvs. eared at the base.....28. *M. macrotis*.
 Lvs. not eared at the base.
 Lvs. margin glabrous, entire or nearly
 so, glabrate above.
 Lvs. with 3 prominent nerves above.29. *M. rubiginosa*.

- Lvs. with 5 prominent nerves above 30. *M. Solmsii*.
- Lvs. margin toothed, rather densely stellate woolly above31. *M. lanata*.
- Lvs. glabrous or with scattered minute scales or powdery stellate hairs beneath.
- Lvs. margin bristly.
- Lvs. with a tuft of shaggy hairs at the base of the blade.
- Transverse venation not or barely evident above, the nerves beneath glabrous or with scattered, spreading, very distinct long brown hairs, similar to those on the margin32. *M. ciliata*.
- Transverse venation conspicuous above, the nerves beneath with whitish cobweb like pubescence, very rarely glabrous33. *M. racemosa*.
- Lvs. glabrous or with scattered stellate-scurfy hairs on the petiole.
- Lvs. glabrous and shining beneath. 34. *M. disparilis*.
- Lvs. scurfy-puberulous beneath.
- Cal. 1.5 mm. long; fls. very small. 35. *M. virescens*.
- Cal. 2-3.5 mm. long; fls. larger.36. *M. laevigata*.
- Lvs. margin wavy with callous teeth or entire.
- Lvs., at least the upper ones, usually in whorls of 437. *M. longifolia*.
- Lvs. opposite.
- Stems tetragonal; lvs. with very numerous callous teeth.
- Young branches with dense tufts of scaly hairs at the nodes...38. *M. vulcanica*.
- Young branches without tufts or with tufts very early deciduous39. *M. globuliflora*.
- Stems round or compressed, not tetragonal.
- Young branches entirely glabrous 40. *M. striata*.
- Young branches densely stellate-woolly.....41. *M. multispicata*.

- Young branches glabrate with scurfy or powdery pubescence.
 Petioles less than 1 cm. long.
 Lvs. glaucescent beneath; cal. tube stellate-pubescent; lobes conspicuous with narrow sinuses.....42. *M. myriantha*.
- Lvs. not glaucescent beneath; cal. tube glabrous or nearly so; lobes very short, acute and with shallow wide rounded sinuses43. *M. minutiflora*.
- Petioles more than 1 cm. long.
 Lateral horizontal nerves impressed beneath.
 Lvs. blackish - chocolate beneath when dry; cal. glabrous except near the base44. *M. Kappleri*.
- Lvs. rusty beneath when dry; cal. densely rusty-scurfy45. *M. tetrandra*.
- Lateral horizontal nerves raised beneath.
 Lvs. cordate at the base....46. *M. trichotoma*.
- Lvs. not cordate at the base.
 Young stems glabrate at or near the nodes; lvs. rounded at the base.....36. *M. laevigata*.
- Young stems densely scurfy pubescent; lvs. obtuse or acute at the base.....47. *M. affinis*.

1. *M. fragrans* Cogn.

Urb. Symb. Ant. 7:526-527.

Shrub 3 m.; young stems puberulous becoming glabrous; lvs. elliptical, rather abruptly acuminate at the apex, wedge-shaped at the base, up to 3 dm. long, and 13.5 cm. broad, entire, glabrous on both sides, thinly leathery, 5-nerved, the middle pair arising at some distance above the base; petioles glabrate, 1.5-4.5 cm. long; panicles 6-11 cm. long, puberulous, the branches opposite, spicate; fls. sessile, clustered; cal. bell-shaped, truncate or shallowly lobed, about 2 mm. long, minutely puberulous; pet. 5,

white, quadrate, truncate, reflexed, 1.5-2 mm. long; *stam.* 10, white, equal, about 5 mm. long; *anths.* not lobed at the base; *berry* (immature) globose, 2.5 mm. diam.

Forests, Northern mountain range, Trinidad. Broadway 4045, in Forest Reserve, Tobago.

2. *M. prasina* (Sw.) DC.

M. collina DC.

M. prasina var. *collina* Triana.

Melastoma prasina Sw.

Griseb. Fl. 257: Fawc. & Rendl. Fl. Jam. 5:375.

Shrub or *tree* up to about 7 m.; young *branches* pubescent to glabrate; *lvs.* narrowly elliptical to lanceolate, acute or acuminate at the apex, narrowed at the base into the petiole, up to 2-4 dm. long and 10 cm. broad, glabrous or rarely minutely scurfy-stellate beneath, the margin more or less conspicuously wavy-toothed, 5-nerved, the nerves arising in pairs at some distance from the base; *petiole* 5-15 mm. long, somewhat winged; *panicle* somewhat powdery, pyramidal, many-flowered; *cal.* about 3 mm. long, wavy-toothed; *pet.* 5, white, oblong, truncate, reflexed, 1.5-2 mm. long; *stam.* 10, white, 4-5 mm. long; *berry* bluish, up to 4 mm. diam.

The variety *collina* does not appear to be worthy of distinction. Hillsides and forests in moist districts, Trinidad. West Indies, Trop. Cont. America.

3. *M. splendens* (Sw.) Griseb.

Melastoma splendens Sw.

M. obovalis Naud.; Cogn.

Griseb. Fl. 256.

Shrub or small *tree*, young *stems* scurfy; *lvs.* elliptical or narrowly elliptical, rather abruptly acuminate at the apex, more or less narrowed to the base which is attenuate into the petiole, up to 3-3 dm. long and 14 cm. broad, glabrous above or minutely pubescent on the mid-rib, densely scurfy-pubescent and with very close ultimate reticulation beneath, the margin inconspicuously wavy-toothed, 5-nerved, the inner pair of nerves arising above the base; *petioles* 1-2.3 cm. long, strongly and rather wavy-winged; *panicle* loosely pyramidal, its branches weak, densely brownish-scurfy, 1-2 dm. long; *cal.* 2-3 mm. long, shortly-lobed, densely scurfy; *pet.* 4 or 5, oblong, truncate or emarginate at the apex, 2-3 mm. long; *stam.* 8 or 10; *anths.* about 3 mm. long; *berry* yellow, depressed globose, up to 5 mm. diam., minutely warty and scurfy.

Broadway, 6695, Mora Forest; Broadway 7170 and 7732 Valencia Road; Broadway 7565, Mt. Harris, Central Range, Trinidad. Jamaica, British Guiana (Tutin 340). *M. umbrosa* Cogn. of Amazonian Brazil may be conspecific.

4. *M. savannarum* sp. nov.

Affinis *M. prasinae* (Sw.) DC. var. *attenuatae* (DC). Cogn. ramulis novellis foliis et marginibus et pagina inferiore, inflorescentiis pilis simplicibus longis debilibus sparse indutis, alis crispulis petiolorum pilis similibus conspicue vestitis differt.

Shrub 2 m., young branches with short stellate hairs and with scattered long weak spreading simple hairs, soon becoming glabrous; *lvs.* lanceolate or oblong-lanceolate, acutely acuminate or acuminate at the apex, narrowed into the petiole, 8-12 cm long, and 20-43 mm. broad, entire or very minutely toothed and fringed with distant weak bristles; glabrate above, and with scattered weak simple hairs beneath, papery, 3-nerved, the inner pairs arising above the base; *petiole* 5-10 mm. long, margined with the cut, in-folded leaf base and with numerous weak hairs; *panicle* narrow, 5-7 cm. long, the branches opposite and clothed with short stellate hairs, and with scattered long spreading ones; *fls.* subsessile, clustered on the ends of the branches; *cal.* bell-shaped, 3 mm. long, minutely toothed, densely covered with short stellate hairs and with a few scattered simple hairs; *pet.* 5, white, triangular-ovate, 2.5 mm. long, 2 mm. broad; *stam.* 10, white, 5 long about 7 mm. long, 5 shorter about 5.5 mm.; *anths.* bi-lobed at the base; *style* straight, 5-6 mm. long; *berry* globose, about 4 mm. diam., glabrous.

Britton, 2468, Piarco Savannah, 1921; Herb. Trin. 12856, Piarco Savannah, 1933, Trinidad.

The characters which distinguish this species from *M. prasina* var. *attenuata* also separate it from *M. mucronulata* Ule and *M. cristulata* Naud. (the latter was reduced by Cogniaux to *M. prasina*). It seems probable that the plants known by these three names represent a single species.

5. *M. amplexans* (Crueg.) Cogn.

M. umbrifera Naud.

Pogonorhynchus amplexans Crueg.

Griseb. Fl. 253; Standl. Fl. Panama Canal Zone, 291.

Small tree, very similar to *M. tomentosa* but readily distinguished by the eared stem-clasping leaf bases; *lvs.* elliptical, acute or acuminate at the apex, broadly winged below the junction of the nerves to the eared base, up to 5.5 dm. long, and 2.8 dm. broad, entire, glabrous or nearly so above except for the nerves, brownish stellate-pubescent beneath, the midrib and nerves densely so, 3-nerved, and with an obscure marginal pair, the inner pair arising far above the base, together or at some distance from each other, *panicles* narrow, elongated, 1-3 dm. long, densely stellate-woolly; *fls.*

numerous; *cal.* top-shaped, 1 cm. long, lobes 5, broadly triangular, minutely appendaged in the centre of each lobe outside; *pet.* 5, pinkish, oblong, 5-6 mm. long, 3 mm. broad, truncate at the apex; *stam.* 10, 16 mm. long, mauve, connective cushion-like, covered with numerous stalked yellow glands; *berry* (immature) densely brownish woolly, surmounted by a cup-shaped, persistent calyx.

Forests in wet districts, Trinidad.

Panama, Peru, Bolivia, Brazil (Matto Grosso).

6. *M. tomentosa* (L. C. Rich). D. Don.

Pogonorhynchus sessilifolius Crueg.:

Diplochita tomentosa Griseb. Fl. 252-253 in part.

Acinodendron tomentosum Kuntze.

Tree up to 10 m., stems densely brownish-woolly; *lvs.* elliptical, acute or acuminate at the apex, narrowed to the sub-sessile base, up to 5 dm. long and 2.5 dm. broad, entire, glabrous above except for the nerves, brownish stellate pubescent beneath, the midrib and nerves densely so, leathery, 3-nerved, the lateral ones arising far above the leaf base, together or distant from each other; *panicles* narrow, elongated, 1-3 dm. long, densely stellate-woolly; *fls.* numerous; *cal.* top-shaped, 1 cm. long, stellate-woolly outside, pubescent within, lobes 5, broadly triangular, minutely appendaged in the centre of each lobe outside; *pet.* 5, white to pinkish, oblong, broadened at the apex, more on one side, truncate, about 1 cm. long and 4 mm. broad at the broadest part, reflexed on opening becoming erect, glabrous; *stam.* 10, mauve, bent, 5 long about 15 mm. 5 shorter about 10 mm.; *fil.* minutely glanduliferous; *connective* cushion-like covered with numerous stalked yellow glands; *style* 18 mm. long, bent; *berry* (immature) densely woolly, surmounted by a cup-shaped persistent calyx.

Forests in wet districts, Trinidad.

Trop. South America.

7. *M. nervosa* (Smith) Triana.

Melastoma nervosum Smith: *Tschudya spondylantha* Griseb.:

Acinodendron nervosum Kuntze.

Griseb. Fl. 251: Cont. U.S. Nat. Herb. 23, 1069.

Shrub or small *tree* up to 5 m., branches thickly clothed with appressed, stiffish hairs; *lvs.* ovate or ovate-lanceolate, acuminate at the apex, narrowed at the base into the petiole, 1-3.5 dm. long, 5-14 cm. broad, entire and fringed, rough with scattered bristly hairs above, more densely with whitish hairs beneath, the nerves thickly hairy with weak bristles on both sides, papery, 5-9 nerved, the nerves arising in pairs, the pairs distant from each other above the base; *petioles* 5-30 mm. long, appressed

bristly; *panicle* spike-like, often shortly branched at the base, 5-19 cm. long, bristly hairy; *fls.* sessile in dense clusters; *cal.* cylindrical, 3 mm. long, pubescent; *pet.* 5, transparent white, oblong, acute or obtuse, deeply reflexed, 4 mm. long, 1 mm. broad; *stam.* 10, white, equal, about 5 mm. long; *anths.* without appendages; *berry* scarlet, or blue when ripe, globose, 7 mm. diam.

Forests and thickets in wet or moist districts, Trinidad.

Trop. Central and South America.

8. *M. Plukenetii* Naud.

Diplochita sessilifolia Griseb. Fl. 252, in part.

Small tree; young branches scaly; *lvs.* spatulate, produced into a linear blunt appendage at the apex, gradually narrowed to the sessile base, up to 4.4 dm. long and 19 cm. broad, entire, at first minutely stellate-pubescent, becoming glabrous above, with a pale coppery covering of stellate scaly-hairs beneath, parchmenty, 5-nerved, those of the inner pair arising alternate to each other far above the base, the outer less conspicuous, marginal; *panicle* pyramidal, densely furfuraceous, 1.5-3 dm. long; *cal.* 6-7 mm. long, shallowly-lobed, densely furfuraceous; *pet.* light pink, 4-5 mm. long; *fil.* curled above, glandular-puberulous; *anths.* 5-6 mm. long, curled and thickened below into a produced glandular appendage; *style* 11-12 mm. long, glandular; *berry* subglobose, up to 7 mm. diam., surmounted by an entire cup-like limb, 2 mm. long.

Maracas, Morne Bleu, Trinidad.

Guiana.

9. *M. ampla* Triana.

Diplochita sessilifolia Griseb. Fl. 252, in part.

Small tree; *lvs.* elliptical or oblong-elliptical, acuminate at the apex, narrowed to the sessile base, up to 4.2 dm. long and 2 dm. broad, entire, glabrous above, somewhat glaucous beneath with a loose mould-like almost crystalline pubescence, papery, 7-nerved, the pairs arising distant from each other considerably above the base, the marginal pair less conspicuous; *panicle* pyramidal, up to 4 dm. long, branches opposite, distant, scurfy-woolly; *fls.* sessile, in clusters of 2-3; *bracteoles* oblong, acuminate, 4-7 mm. long, 1.5-4 mm. broad; *cal.* tabular, 6 mm. long, greyish woolly, lobes triangular, acute, 3-3.5 mm. long, deciduous; *anths.* 3.3-4 mm. long, shortly 2-lobed at the base; *berry* ovate-globose, 7-9 mm. diam. surmounted by a ring formed by the shedding of the calyx limb.

Arima and Guanapo, Trinidad. Endemic.

10. *M. chrysophylla* (Rich) Urban.*Melastoma chrysophylla* Rich.*Melastoma fulva* Rich.*Miconia fulva* DC.*Eurychaenia punctata* of Griseb. Fl. 259.

Fedde, Rep. 17, (1921) 406: Fawc. & Rendl. Fl. Jam. 5. 375.

Shrub or small tree, young branches 2-4 angled, scaly; *lvs.* opposite or 3 or 4 in a whorl, oblong-lanceolate or lanceolate, acuminate and with a thread-like point at the apex, narrowed to the base, 8-27 cm. long, 2-6 cm. broad, wavy-toothed, glabrous above, coppery-coloured, and covered with minute stellate scales beneath, leathery, 3-nerved, and usually with an outer obscure nerve, usually arising at the base, sometimes a little above, lateral veins numerous, close together; *petioles* 5-20 mm. long; *panicle* spreading, coppery-coloured, scaly, up to 14 cm. long and 17 cm. broad; *branches* usually whorled; *fls.* minute, sessile; *cal.* top-shaped, 1.5-2 mm. long, minutely toothed; *pet.* 2 mm. long, *fil.* 1.5 mm. long; *anths.* about 1 mm. long, dehiscent by a chink, *connective* slightly produced below the anthers; *ovary* 3-celled; *berry* 2 mm. diam.; *seed* (immature) narrowly and obliquely ovate, 1 mm. long.

Forests in wet districts, Trinidad.
Jamaica, Northern South America.

11. *M. punctata* (Desr.) D. Don.*Melastoma punctata* Desr.

Fawc. & Rendl. Fl. Jam. 5. 376.

Small tree; young stems flattened, angled, scaly; *lvs.* narrowly elliptical, acutely acuminate and with a thread-like point at the apex, narrowed to the obtuse base, 14-27 cm. long, 6-10 cm. broad, entire, glabrous above, pale coppery-coloured and covered with minute stellate scales beneath, leathery, 3-nerved and usually with an outer obscure nerve arising from the base, lateral veins fewer, wider apart and more prominent than in *M. chrysophylla* (Rich) Urb.; *petioles* 2.5-5 cm. long; *panicle* spreading, 15-20 cm. long, 10-15 cm. broad; *branches* opposite rarely whorled; *fls.* minute, sessile; *cal.* 1.5-2 mm. long, minutely toothed; *pet.* 2.5-3 mm. long; *anths.* dehiscent by a pore and longer than those of *M. chrysophylla* Urb.; *berry* up to 4 mm. diam.

St. Anne's, Diego Martin, Morne Bleu, Mora Forest, Guapo, Trinidad.
Cuba, Hispaniola, Porto Rico, Guatemala, Bolivia.

Herb. Kew, de Shack; Herb. Trin. 8496, Irois Forest and Herb. Trin. 12846, Govt. Reserve, Siparia (in each case leaves only) appear to be this species, although the leaves are larger and broader and more rounded at the base, 37 cm. long and 16 cm. broad. The

de Shack specimen was identified by Grisebach as *Diplochita parviflora* Benth. see Fl. 252 and referred by Cogn. from the evidence of the synonymy to *M. argentea* DC. with which however these specimens do not agree.

12. *M. Matthaei* Naud.

M. Matthaei undulata Cogn.

Shrub or *tree* up to 5 m., young *branches* densely, somewhat appressed, rusty-shaggy; *lvs.* lanceolate to ovate-lanceolate, acuminate at the apex, mostly wedge-shaped at the base, 12-24 cm. long, 5.5-9 cm. broad, entire or minutely toothed, glabrous above, rather thickly hairy with tawny simple hairs beneath, papery, 5-nerved, the outer pair marginal and inconspicuous, all arising from the base, *petioles* shaggy, 1-3 cm. long; *panicles* spreading, the branches opposite or sometimes whorled, shaggy, 6-16 cm. long; *fls.* sessile in dense clusters on the branches; *cal.* shaggy 2.5 mm. long, *lobes* triangular; *pet.* 5, oblong, truncate, 2.5 mm. long; *fil.* 3 mm. long; *anths.* about 3 mm. long, shortly appendaged below; *berry* flattened-globose, at first yellow, black when fully ripe, 6-8 mm. diam., with a few long simple hairs and with scale-like hairs at the apex.

The variety *undulata* of Cogn. does not seem to be worthy of distinction.

Valencia, St. Anne's, Tamana, Trinidad.

Northern South America.

13. *M. ibaguensis* (Bonpl.) Triana.

Melastoma ibaguensis Bonpl.

Tschudya ibaguensis Griseb.

Griseb. Fl. 250: Cont. U.S. Nat. Herb. 23.1069.

Shrub or *tree* up to 5 m.; young *branches* shaggy; *lvs.* oblong, lanceolate-oblong or ovate-lanceolate, acuminate at the apex, wedge-shaped at the base, 13-28 cm. long, 5-11 cm. broad, entire or minutely toothed, glabrous or with scattered weak hairs above, shaggy rusty-hairy with scattered simple hairs which are more numerous on the nerves beneath, sometimes glabrescent, papery, 5-nerved, the marginal pair somewhat inconspicuous, the inner pair arising slightly above the base; *petioles* 1-2 cm. long, shaggy; *panicle* 1-2 dm. long, shaggy, branched below, the branches opposite; *fls.* sessile in dense clusters on the branches; *cal.* 3 mm. long, *lobes* 5, triangular; *pet.* 5, white, oblong, 2 mm. long, 1.5 mm. broad; *stam.* 10, white, 6 mm. long; *connective* bi-lobed at the base; *berry* globose, 6 mm. diam., yellow, scurfy and with scattered bristly hairs.

Lady Chancellor Road; St. Anne's; Tamana and Piarco, Trinidad.

Cuba, Central and South America.

14. *M. bracteata* (DC.) Triana.
Clidemia bracteata DC.

Small *shrub*; young *branches* densely rusty-hairy with simple spreading, curved, rather bristly hairs; *lvs.* elliptical, elliptical-oblong or ovate, acutely acuminate at the apex, narrowed or rarely rounded to the obtuse base, 4.5-20 cm. long, 2.2-9 cm. broad, sub-entire or slightly wavy-toothed and fringed with bristles, with distinct simple adpressed hairs on the surface and a fringe of dense bristles on the primary nerves above, densely pilose with weak hairs especially on the primary nerves beneath, thinly papery, 5-nerved, the outer pair conspicuous, all arising at or very near the base; *petioles* 0.5-4 cm. long with the indumentum of the branches; *panicle* 3-8 cm. long, simple or branched, composed of few dense clusters of sessile flowers, the *branches* with dense spreading hairs and a few longer gland-tipped ones; ultimate *bracts* and *bracteoles* unequal, ovate to orbicular, 1.5-3.5 mm. broad, with a dense fringe of long bristly hairs; *cal. tube* ovoid, about 3 mm. long, ribbed and shaggy, *lobes* hidden by the bristles; *pet.* white, about 4 mm. long; *anths.* about 3.5 mm. long; *style* about 6 mm. long; *berry* bluish-black, 5-8 mm. diam., juicy, sparsely hispid and with a tuft of bristly hairs at the apex.

Herb. Trin. 3113, no locality; Herb. Kew, Broadway 5821 and 6034, Aripo Road, Trinidad.
 Guiana to Peru.

15. *M. lacera* (Bonpl.) Naud.

M. villosissima Crueg.

Melastoma lacera Bonpl.

Griseb. Fl. 258: Cont. U.S. Nat. Herb. 23. 1063.

Shrub 1-2 m., *branches* with long, spreading, white hairs, becoming yellowish, reddish or almost black on drying; *lvs.* ovate to oblong-lanceolate, acuminate at the apex, rounded or obtuse at the base, 6-15 cm. long, 2-5.6 cm. broad, the margin toothed and fringed, with scattered, long, simple hairs on both sides, membranous, 3-nerved, the nerves arising from the base; *petioles* 8-50 mm. long with scattered, long, spreading hairs; *panicle* 5-10 cm. long with long spreading hairs, the branches short, opposite; *fls.* sessile; *cal.* green, about 2 mm. long, *lobes* 5, spreading, fringed with long red hairs and an erect fringed appendage inside each lobe; *pet.* 5, whitish-mauve, oblong-spathulate, truncate or notched at the apex, about 2 mm. long and broad; *stam.* 10, about 2 mm. long, bent all on one side; *fil.* mauve; *anths.* purple, white tipped; *berries* black or purple, globose, 4-6 mm. diam.

Shaded hillsides in moist districts, Trinidad.
 Martinique, Central America to Brazil.

16. *M. desmantha* Benth.

Stems densely scurfy-pubescent and with scattered simple hairs, ovate, acuminate at the apex, rounded at the base, 18-26 cm. long, 8-12 cm. broad, with scattered weak simple hairs on both sides, more or less scurfy on the principal nerves beneath, entire or minutely toothed; *petioles* 2-6 cm. long, densely scurfy and with a fringe of simple hairs above; *panicle* shortly scurfy-pubescent, rather densely flowered; *fls.* sessile; *cal. tube* minutely scurfy, 2 mm. long; *limb* almost entire with minute awl-shaped lobes arising below the margin; *pet.* white, oblong, rounded and rather broader at the apex, 3 mm. long, 2 mm. broad; *anths.* about 2-2.8 mm. long, the *connective* minutely spurred; *style* glabrous, 6-7 mm. long.

Herb. Trin. 12982, Bruins-Lich, Aripo, 1934, Trinidad.
Venezuela and Colombia.

17. *M. acinodendrum* (L.) Triana.

Melastoma acinodendrum L.

Tschudya berbiceana Griseb. Fl. 250.

Shrub 1-3 m.; *branches* glabrescent; *lvs.* ovate, rather abruptly acuminate at the apex, somewhat heart-shaped at the base, 7-22 cm. long, 4-11.5 cm. broad, distinctly toothed and fringed, with scattered, weak, simple hairs on both sides, membranous, 5-nerved, the nerves arising from the base; *petioles* 6-30 mm. long, brownish-woolly, the wool wholly or partly deciduous; *panicles* 1-2.3 dm. long, spreading, the branches mostly opposite, sometimes whorled; *fls.* numerous, clustered, sessile; *buds* surrounded by an involucre of reddish bracts, 3 mm. long; *cal.* green, top-shaped, 3-4 mm. long, minutely 5 or 6-toothed, the *teeth* below the truncate limb; *pet.* 5 or 6, white and pink, spreading, obovate, rounded and notched at the apex, about 3 mm. long and 1.5 mm. broad; *stam.* 10 or 12, white changing to yellow, 5 or 6 longer 7 mm. long, the shorter 6 mm., the *connective* minutely spurred; *style* white, slightly curved, 7 mm. long; *berry* 3-5 mm. diam.

Thickets and forests in moist districts, Trinidad.

Lesser Antilles. Guiana.

18. *M. macrothyrsa* Benth.

M. pseudo-rubiginosa Cogn.

Recorded by Kuntze as *M. fallax* DC.

Shrub up to 1 m.; *stems* very shortly brownish-woolly; *lvs.* elliptical to roundish, acute or obtuse at the apex, heart-shaped at the base, 6-10 cm. long, 3.5-8 cm. broad, the margin somewhat jagged and somewhat bristly, glabrate above, whitish or brownish mealy-woolly beneath, membranous, 5-7 nerved, the nerves arising from the base; *petioles* densely brownish-woolly, 4-8 mm. long;

panicles elongated, usually narrow, 7-23 cm. long, woolly; *fls.* sessile in dense clusters on short branches; *cal.* cylindrical, 3 mm. long, brownish-pubescent, 5-toothed; *pet.* 5, obovate, spreading, 3.5 mm. long, 2.5 mm. broad; *stam.* 10, white, 5 long, and 5 shorter, 3 longest about 7 mm.; *connective* enlarged at the base; *style* straight, 6 mm. long; *berry* purplish-black, about 5 mm. diam.

Eggers 1105, collected in Caroni woods, in Berlin Herbarium, one of the specimens cited by Cogniaux under *M. pseudo-rubiginosa* agrees perfectly with Eggers 1400 in Herb. Kew from the same locality and are undoubtedly both *M. macrothyrsa* Benth.

Forest borders, Trinidad.

Venezuela and Guiana to Southern Brazil.

19. *M. stenostachya* (Schr. & Mart.) DC.

Melastoma stenostachyum Schr. & Mart.

M. argyrophylla Benth. not DC.; *M. elata* of Hart.

Cont. U.S. Nat. Herb. 23. 1067.

Shrub 1-3 m.; young *branches* very shortly whitish-woolly; *lvs.* lanceolate-oblong to oblong-elliptical, acute or obtuse at the apex, obtuse or rounded at the base, 8-22 cm. long, 3-10 cm. broad, very minutely toothed or entire, glabrous above, whitish-mealy beneath, thinly leathery, 5-nerved, the nerves arising from the base; *petioles* 1-3 cm. long, shortly woolly; *panicles* narrow or somewhat spreading, 5-15 cm. long; *fls.* sessile; *cal.* cylindrical, about 3 mm. long, *limb* spreading, 5-toothed; *pet.* 5, white, becoming pinkish, oblong, truncate at the apex, spreading, 3.5-4 mm. long; *stam.* 10, nearly equal, about 6 mm. long; *fil.* yellow at first, turning red; *style* 7 mm. long, slightly curved; *berry* flattened-globose, purplish-black, minutely pubescent, 6-8 mm. diam.

Savannahs and hillsides, Trinidad.

St. Thomas ex Cogn. Trop. Cont. America.

20. *M. albicans* (Sw.) Triana.

Melastoma albicans Sw.: *M. holosericea* Vahl. DC.

Griseb. Fl. 256: Fawc. & Rendl. Fl. Jam. 5. 372.

Shrub 2-5 m.; young *branches* shortly and densely whitish or brownish-woolly; *lvs.* oblong-elliptical, acute or obtuse at the apex, shallowly heart-shaped at the base, 5-12 cm. long, 3-5.5 cm. broad, entire, leaves becoming glabrous and shining above, very shortly whitish or brownish-woolly beneath, 3-nerved and with a marginal inconspicuous pair, all arising from the base, papery; *petioles* 5-15 mm. long, woolly; *panicles* pyramidal, 6-10 cm. long, the branches opposite, forked; *fls.* sessile, borne on one side of the branches; *cal. tube* cylindrical-bell-shaped, 2.5 mm. long, densely brownish-woolly, *lobes* 5, short, rounded, recurved; *pet.* 5, white,

obovate, obtuse and notched at the apex, 3-4 mm. long, 1.5-2 mm. broad, recurved; *stam.* 10, equal, white, recurved; *fil.* shorter than the petals; *anths.* 2 mm. long, bi-lobed at the base; *style* straight, 5 mm. long; *berry* globose, 4-5 mm. diam., crowned with the persistent red calyx lobes.

Banks and thickets in moist districts, Trinidad.

West Indies. Tropical Cont. America.

21. *M. guianensis* (Aubl.) Cogn.

Tamonea guianensis Aubl.: *Diplochita Fothergilla* (Desr.) DC. Griseb. Fl. 251: Sc. Surv. Porto Rico, 6.6:

Shrub or small *tree* up to 7 m.; young *branches* scurfy; *lvs.* ovate, oblong or elliptical, the apex acuminate, narrowed to the obtuse or somewhat rounded base, 8-18 cm. long, 2.5-8.5 cm. broad, entire, glabrous above, brownish-white scurfy beneath, thin, leathery, 5-nerved, the nerves arising from the base; *petioles* 1.5-6 cm. long, scurfy; *panicles* 6-17 cm. long, 3-5 cm. broad, many-flowered, the branches whorled, stellate-pubescent; *buds* enclosed in 2 petaloid bracts, pinkish-white, obovate, 8 mm. long, 5 mm. broad, shedding early; *cal.* top-shaped, glabrous, *tube* about 3 mm. long, *limb* spreading, 1-2 mm. long with acute lobes; *pet.* 5, whitish within, reddish on the back, oblong, acute at the apex, 8 mm. long, 3.5 mm. broad; *stam.* 10, longer than the petals, reddish-orange except at the apex which is yellow; *berry* globose, blackish-purple, 8 mm. diam. surmounted by a persistent red calyx, 1 mm. long.

Forests in wet or moist districts, Trinidad and Tobago.

West Indies. Continental Tropical America.

22. *M. dodecandra* (Desr.) Cogn.

Melastoma dodecandra Desr.

Fawc. & Rendl. Fl. Jamaica, 5. 369-370.

Shrub or small *tree* up to 15 m.; *branches* densely tomentose; *lvs.* ovate to lanceolate-oblong, acuminate at the apex, roundish at the base, 1-2 dm. long, glabrate above, densely and very shortly stellate-velvety beneath, entire or sometimes slightly toothed, usually 5-nerved; *petioles* 2-6 cm. long, densely woolly; *panicle* 1-2 dm. long, densely woolly; *fl.* parts usually in sixes; *pedi.* 4-10 mm. long; *bracteoles* 6-7 mm. long, white woolly, caducous; *cal.* oblong or oblong-cylindrical, 4-6 mm. long, whitish woolly; *pet.* whitish, orange or scarlet, 5-8 mm. long; *style* 10-12 mm. long; *berry* sub-globose, 5 mm. diam.

Broadway 6151, in Herb. Kew, Morne Bleu, Trinidad.

West Indies. Trop. Cont. America.

23. *M. argyrophylla* DC.*M. longistyla* Steud.Griseb. Fl. 256 as to the Crueger citation of *M. argyrophylla*.

Shrub or small *tree*; young *branches* sharply tetragonal, densely rusty-scurfy; *lvs.* oblong-elliptical, elliptical or somewhat obovate-elliptical, long acuminate at the apex, rounded to obtuse at the base, up to 27.5 cm. long and 12.2 cm. broad, entire or wavy-toothed, glabrous above, brownish or whitish beneath, the mesophyll thickly covered with close scurf, the sides of the mid-rib and main nerves woolly with stellate hairs, papery, 5-nerved, the inner pair usually arising very slightly above the base, the outer pair very close to the margin and inconspicuous; *petioles* densely rusty-scurfy, 1-3 cm. long; *panicles* densely scurfy, narrow, similar to those of *M. albicans* and *M. stenostachya*, with short flexuous branches and secund, sessile flowers; *cal.* about 2 mm. long, cylindrical, ribbed, scurfy; *teeth* obscure; *pet.* white, oblong, up to 2.5 mm. long, fringed with glandular hairs; *anths.* 2-3 mm. long, the *connective* produced and slightly lobed at the base; *berry* depressed-globose, rather sparsely scurfy, 4-5 mm. diam.

This species is easily distinguished from *M. stenostachya* by the long acumen of the leaf and by the wool which collects at the sides of the mid-rib and nerves on the lower surface.

Herb. Kew., May 1845, St. Anne's, Crueger det. Griseb.; *ibid.*, Herb. Trin. 1707, 1846; Broadway 6055, Quare Rd., March, 1926; Herb. Brit. Mus. Broadway, 6565, Aripo Rd.; Trinidad.
Guiana. Brazil.

24. *M. hypoleuca* (Benth.) Triana.*Chaenopleura hypoleuca* Benth.*C. ferruginea* Crueg.

Griseb. Fl. 259.

Shrub or *tree* up to 5 m.; young *branches* very shortly rusty or whitish woolly; *lvs.* elliptical, elliptical-oblong, or sometimes somewhat obovate, the apex abruptly acuminate, narrowed to the obtuse base, up to 26 cm. long and 12 cm. broad, shallowly toothed, glabrous above, densely and very shortly whitish or rusty-woolly beneath, papery, 7-nerved, the outer pair close to the margin and much less conspicuous than the others, all arising from the base; *petioles* 2-4 cm. long, very shortly rusty or whitish woolly; *panicles* pyramidal, spreading, densely rusty-woolly, 1-2 dm. long, the branches opposite; *fls.* small, sessile, numerous; *cal.* bell-shaped, densely rusty-woolly, 1.5-2 mm. long; *berry* orange-coloured, globose, 2-2.5 mm. diam.

Forests in wet districts, Trinidad.
Guiana and North Brazil.

25. *M. serrulata* Naud.*M. macrophylla* Triana non Macfadyen nec Steud.*Chitonia macrophylla* D. Don.*Acinodendron macrophyllum* Kuntze.*Diplochita serrulata* Griseb. in part.Griseb. Fl. 252: Fawc. & Rendl. Fl. Jam. 5. 369: Urb
Symb. Ant. 4. 455.

Shrub or *tree* up to 14 m., young stems and petioles densely brownish-woolly; *lvs.* lanceolate, elliptical-lanceolate or somewhat ovate-lanceolate, 1.3 dm. long, up to 9.5 cm. broad, the apex acute or shortly acuminate, the base more or less heart-shaped, glabrous or nearly so above, densely and very shortly brownish stellate-pubescent beneath, 5-7 nerved, the margin conspicuously toothed; *petioles* up to 5 cm. long; *panicles* about as long as the leaves, rather narrow with opposite or whorled branches, shortly and densely woolly; *fl.-clusters* in bud enclosed in a whorl of deciduous woolly bracteoles; *bracteoles* up to 12 mm. long, early deciduous; *fls.* sessile or nearly so, 6-parted; *cal.* cylindrical, constricted below the shortly-lobed truncate limb, about 8 mm. long, densely woolly; *pet.* pinkish-white, oblong, truncate, 6-8 mm. long, 4 mm. broad; *stam.* 12, 6 long about 15 mm. long, 6 short 8-10 mm. long; *fil.* white, slightly hairy; *anths.* magenta; *style* curved, about 15 mm. long; *berry* ovoid or subglobose, about 1 cm. diam., scurfy more especially on the persistent calyx.

The varieties *latifolia*, *serrulata* and *Hostmanni* distinguished by Cogn. and recorded by him from Trinidad do not appear worthy of separation.

Maracas, Caura, Arima, Oropouche, Trinidad.

West Indies and Cont. Trop. America.

26. *M. holosericea* (L.) Triana.*Melastoma holosericea* L.*Diplochita mucronata* DC.:*Acinodendron holosericeum* Kuntze.

Griseb. Fl. 252.

Small tree; young branches very shortly rusty-woolly, soon becoming glabrous; *lvs.* elliptical or ovate, mostly acutely acuminate at the apex, usually narrowed and obtuse at the base, sometimes acute or rounded, up to 27 cm. long and 14 cm. broad, entire or very minutely wavy-toothed, glabrous above, densely and very shortly whitish or brownish-woolly beneath, parchmenty, 5-nerved, all arising from the base or more usually the central pair arising more or less above the base; *petioles* 13-30 mm. long, very shortly woolly; *panicle* terminal or axillary at the tops of the branches,

5-9 cm. long, usually branched at the base, upper branches usually whorled, shortly rusty-woolly; *fls.* clustered, sub-sessile, bi-bracteate; *cal. tube* cylindrical, 5.5 mm. long, *lobes* ovate, obtuse, deciduous, 3 mm. long, densely and shortly woolly; *pet.* white or lilac-coloured; *anths.* about 5 mm. long, with two warts at the base; *berry* ovoid, 5-7 mm. diam., crowned with a conspicuous ring caused by the shedding of the calyx limb, more or less covered with small stellate hairs, soon glabrate.

Forests in moist or wet districts, Trinidad.
Guiana and Brazil.

27. *M. pubipetala* Miq.

M. parviflora (Benth.) Cogn.

Diplochita parviflora Benth.: *M. verticilliflora* Steud.
ex Naud.

Griseb. Fl. 252.

Tree up to 6 m.; young *branches* scurfy; *lvs.* elliptical, rather abruptly acuminate at the apex, broadly rounded to wedge-shaped at the base, 13.5-21 cm. long, 6.5-11.5 cm. broad, entire or nearly so, glabrous above, densely rusty or whitish mealy-woolly beneath, membranous, 5-nerved, the nerves arising from the base; *petioles* shortly woolly, 2.5-5 cm. long; *panicles* spreading, 9-17 cm. long, mealy-woolly, the branches whorled; *fls.* clustered, sub-sessile, with 2 blunt deciduous bracts; *cal.* top-shaped, 3-4 mm. long, mealy-woolly, minutely toothed; *pet.* 5, white, oblong, truncate, 5 mm. long; *stam.* 10, 1 cm. long; *fil.* orange; *anths.* brown and yellow; *connective* glanduliferous, the glands sessile; *berry* orange-coloured, flattened globose, about 4-6 mm. diam.

Forests in wet districts, Trinidad.
Guiana.

28. *M. macrotis* Cogn.

Diplochita macrotis Griseb. Fl. 711. nomen.

Small *tree*, young *branches* densely brownish stellate-woolly, *lvs.* oblanceolate-oblong, acuminate at the apex, narrowed to the deeply eared and stem-clasping base, up to 6.4 dm. long and 2.6 dm. broad, the margin prominently toothed, at first woolly above becoming glabrous except on the nerves, brownish stellate-pubescent beneath, leathery, 5-7 nerved, the nerves arising from the base; *petioles* about 15 mm. long, densely woolly; *panicles* 2-4 dm. long, 9-15 cm. broad, densely brownish stellate-woolly; *fls.* numerous, sessile or sub-sessile; *cal.* more or less cylindrical, woolly, *tube* 5-7 mm. long, *limb* broadened, cup-shaped, 5-6 lobed; *pet.* 5 or 6, spatulate, truncate at the apex, 7 mm. long, densely pubescent outside, glabrous within; *stam.* 8 mm. long; *fil.* slightly pilose; *berry* (immature) globose, densely woolly, surmounted by the cup-shaped calyx limb.

Forests in wet districts, Trinidad. Probably endemic.

29. *M. rubiginosa* (Bonpl.) DC.*Melastoma rubiginosa* Bonpl.

Britt. & Wils. Sc. Surv. Porto Rico, 6.8.

Small tree; young stems densely brownish stellate-woolly; *lvs.* ovate or ovate-elliptical, acute or acuminate at the apex, rounded or somewhat heart-shaped at the base; 6-13 cm. long, 3-6 cm. broad, entire, minutely rusty-stellate-pubescent, soon glabrescent, black when dry above, densely rusty-stellate-woolly beneath, parchmenty, prominently 3-nerved and sometimes with a very inconspicuous marginal pair, all arising from the base; *petioles* 3-10 mm. long, densely rusty-stellate-woolly; *panicle* spreading, 5-15 cm. long, the branches whorled and densely rusty stellate-woolly; *fls.* sessile or shortly stalked; *cal.* rusty-stellate-woolly, 2.5-3 mm. long, obscurely lobed; *pet.* 5, white, obtuse or rounded at the apex, about 2 mm. long; *anths.* about 2.5 mm. long with one pore at the apex; *style* thickened above; *berry* (black ex Broadway), 2.5 mm. diam.

Herb. Trin. 8494, Buenos Ayres to Erin, Broadway; Broadway 8973 from the same locality in Herb. Brit. Mus., Trinidad.

Porto Rico, Hispaniola, Northern South America.

30. *M. Solmsii* Cogn.*Eurychaenia fulva* Griseb. Fl. 259.*M. dolichorrhyncha* Triana partim non Naud.

Shrub up to 9 m.; young branches compressed, densely and roughly rusty-woolly; *lvs.* ovate or oblong, acuminate at the apex, rounded or obtuse at the base, 15-31 cm. long, 6-18 cm. broad, entire or nearly so, glabrate above, rough with scattered rusty-wool more densely so on the nerves or glabrescent beneath, parchmenty, 5-nerved, all arising from the base; *petioles* 8-16 mm. long, roughly and densely rusty-woolly; *panicle* pyramidal, spreading, many-flowered, shorter than the leaves, rusty-woolly or powdery, the branches whorled; *fls.* sessile, shortly stalked; *cal.* shortly tubular or bell-shaped, 1-1.5 mm. long, with short stellate hairs, lobes shallow; *pet.* obtuse, 1.5 mm. long; *anths.* about 1.5 mm. long, dehiscent by 2 slits at the apex, not appendaged; *berry* globose, 2-3 mm. diam., ridged, minutely scurfy or glabrate.

Herb. Trin. 983, Crueg., Maraval; Crueg., 293; Lockhart; deShack; and Broadway 6136, Maracas, 1926, in Herb. Kew, Trinidad.

Venezuela.

31. *M. lanata* (DC.) Triana.

Clidemia lanata DC.: *Tschudya lanata* Griseb.

Griseb. Fl. 250: Urb. Symb. Ant. 4. 459: Sc. Surv. Porto Rico, 6. 9.

Shrub; young *branches* densely rusty-woolly with stellate hairs; *lvs.* ovate, shortly acuminate at the apex, rounded at the base, 10-24 cm. long, 5.5-12 cm. broad, distantly and minutely toothed and fringed with stellate hairs on the margin, rather densely stellate-woolly on both sides, thickly papery, 5-nerved, the marginal ones less prominent, all arising from the base; *petioles* densely woolly, 1-2 cm. long; *panicles* 5-13.5 cm. long, densely rusty-woolly, the branches opposite and terminated by dense clusters of sessile flowers; *cal.* about 4 mm. long, densely woolly, about 4 mm. long, *lobes* acute; *pet.* 5, white, oblong or obovate, truncate, 3-4 mm. long; *stam.* 10, 5 about 1 cm. long, the others 8-9 mm.; *anths.* 2-lobed at the base; *style* about 8 mm. long; *berry* black, 5-8 mm. diam., stellate-woolly or puberulous.

Forests in wet districts, Trinidad.

West Indies. Guiana. Brazil.

32. *M. ciliata* (Rich.) DC.

M. calophylla Crueg. non Triana.

M. Cruegeri Triana.

Melastoma ciliata Rich.

Miconia racemosa ciliata Griseb.

Griseb. Fl. 258: Fawc. & Rendl. Fl. Jam. 5. 376.

Shrub or small *tree* up to 5 m.; young *branches* glabrous; *lvs.* narrowly elliptical, oblong-elliptical or ovate to lanceolate, acute or acuminate at the apex, narrowed to the obtuse or somewhat rounded base, 7-25 cm. long, 3-7.5 cm. broad, the margin entire or very minutely toothed and fringed with a row of bristles, glabrous above, green or red beneath and glabrous or with scattered, spreading, very distinct, long, brown hairs similar to those on the margin, papery, 5-nerved, the outer pair inconspicuous, all arising from the base, transverse venation not, or barely, evident above; *petioles* 1-4 cm. long, glabrous except for a tuft of shaggy hairs at the base of the blade; *panicles* 5-18 cm. long, glabrous, the branches opposite, forked; *fls.* sessile, borne on one side of the branches; *cal.* bell-shaped, 2 mm. long, the *teeth* jagged; *pet.* 5, purplish-white, oblong, truncate and notched at the apex, 3 mm. long and 2 mm. broad; *stam.* 10; *fil.* red, all on one side and bent over; *anths.* purple, white-tipped and without appendages; *berry* globose, shining, purple to black, 6-7 mm. diam.

M. calophylla Crueg. which was reinstated by Riley in Kew Bull. 1925 136-7 does not appear to be sufficiently distinct from *M. ciliata* (Rich.) DC. as there is a complete gradation in leaf material.

Forests in wet districts, Trinidad.
West Indies. Cont. Trop. America.

33. *M. racemosa* (Aubl.) DC.

Melastoma racemosa Aubl.

Acinodendron racemosum Kuntze.

Griseb. Fl. 258: Sc. Surv. Porto Rico, 6: 9.

Shrub or small *tree*, 2-5 m.; young *branches* glabrous except for a ring of long weak hairs at the nodes; *lvs.* obovate to elliptical, acute, shortly acuminate or obtuse at the apex, mostly obtuse at the base, up to 28 cm. long and 12 cm. broad, the margin finely toothed and fringed with a row of bristles, pubescent on both sides when young becoming glabrous or nearly so, parchmenty, 5-nerved, the nerves all arising from the base, transverse venation conspicuous above; *petioles* 1-6.3 cm. long, glabrescent, usually shaggy at the junction with the leaf; *panicle* up to 12 cm. long, the branches opposite or whorled, glabrate; *fls.* sessile, borne on one side of the branches; *cal. tube* sub-globose, about 2 mm. long, glabrous, the *teeth* minute; *pet.* transparent white, quadrate, developed more on one side at the truncate apex, 1-1.5 mm. long; *stam.* 10, pink, about as long as the petals, not appendaged at the base; *fruit* globose, shining purple to black, 7 mm. diam.

The above description includes the var. *barbigera* of Cogn. (*M. barbigera* DC.) which was recorded from Trinidad by Cogn. on the evidence of a Lockhart sheet.

Forests in wet and moist districts, Trinidad and Tobago.
West Indies. Northern South America.

34. *M. disparilis* (Standley) comb. nov.

Ossaea disparilis Standley.

Davya ciliata Griseb. Fl. non Naud.;

Ossaea ciliata Cogn.

Shrub about 1 m.; *stems* round, glabrous, swollen at the nodes; *lvs.* elliptical, abruptly cuspidate-acuminate at the apex, the acumen acute or obtuse, broadly wedge-shaped at the base, 8.5-17.5 cm. long, up to 10 cm. broad, the margin shallowly and broadly crenulate and with short bristles arising from the sinuses, glabrous or shining on both surfaces, membranous, 5-nerved, the outer pair less conspicuous, all arising from the base; *petioles* glabrous, 6-25 mm. long; *panicle* pyramidal with ascending branches, 3-9 cm. long, glabrous or very minutely scurfy; *fls.* sessile or subsessile in 2 or more flowered clusters; *bracts* and *bracteoles* triangular

with a long thread-like point, 1-1.5 mm. long; *cal.* cylindrical, ribbed, about 3.5 mm. long, glabrous or with obscure scurfy dots; *teeth* triangular, acute, less than 1 mm. long; *pet.* 4 or 5, white, about 1.5 mm. long; *anths.* 8 or 10, subequal, 3-3.5 mm. long, somewhat S-shaped, narrowed to the apex and opening by a minute pore, the *connective* not or barely produced; *style* 4-4.5 mm. long; *berry* (dull blue when fresh ex Davis in B. Guiana), ovoid, strongly ribbed, up to 3.5 mm. diam. when dry, sparsely clothed with gland-tipped hairs when mature.

Herb. Kew, Crueg, Moruga, Oct., 1847; Broadway 5751, Aripo Road, 4-5th mile posts (near the bathing pool), Aug. 1925, Trinidad. Rare and widely scattered from British Honduras to Panama and Surinam.

35. *M. virescens* (Vahl.) Triana.

Melastoma virescens Vahl.

Melastoma ambigua Bonpl.

Miconia ambigua DC.

Miconia laevigata Griseb. Fl. 257 in part.

Shrub 1-2 m., the older *branches* round, glabrous, the younger compressed, scurfy; *lvs.* lanceolate, ovate-lanceolate or oblong-lanceolate, acuminate at the apex, narrowed to the obtuse or acute base, 5-20 cm. long, 1.5-4.6 cm. broad, minutely toothed and with weak scattered bristles on the margin, glabrous or with a few stellate scurfy hairs when young above and with scattered stellate scurfy hairs principally on the nerves beneath, membranous, 5-nerved, the marginal pair inconspicuous, all arising from the base; *petioles* 7-28 mm. long, scurfy or glabrate; *panicles* slender, 4-14 cm. long, scurfy, branches opposite, spreading; *fls.* sessile on the upper side of the branches; *cal.* cylindrical to bell-shaped, 1.5 mm. long, minutely 5-toothed, densely scurfy; *pet.* 5, white, oblong, 2-2.5 mm. long; *stam.* 10, 5 about 4 mm. long, 5 slightly shorter, bi-lobed at the base; *anths.* 1.5 mm. long; *style* about 4 mm. long; *berry* globose, 2.5-3 mm. diam., warty.

Mountains and coastal districts, Trinidad and Tobago.
West Indies. Trop. Cont. America.

36. *M. laevigata* (L.) DC.

Melastoma laevigata L.

Miconia ambigua (Bonpl.) DC.

Griseb. Fl. 257; Fawc. & Rendl. Fl. Jam. 5: 373;

Sc. Surv. Porto Rico, 6: 8.

Shrub 2-6 m.; young *branches* minutely scurfy; *lvs.* ovate, oblong-ovate or lanceolate, long acuminate at the apex, rounded or narrowed at the base, 1-2 dm. long, membranous, glabrous except for the nerves beneath which are powdery, 5-nerved, often

with an obscure nerve, all arising from the base, margin entire or sometimes minutely toothed; *petioles* 1-3 cm. long, scurfy; *panicle* pyramidal, 10-15 cm. long, scurfy, the branches opposite; *fls.* sessile or subsessile, somewhat crowded; *cal.* shortly bell-shaped, scurfy, 2-3 mm. long, lobes triangular; *pet.* 5, white or pale pink, obovate, rounded at the apex, 3-4 mm. long; *stam.* 10, 5 longer than the rest; *anths.* 2-lobed at the base; *style* 6-7 mm. long, thickened above; *berry* globose, blue or black, slightly 10-ribbed, 3 mm. diam.

Sieb. 67 and de Shack in Herb. Kew; Herb. Trin. 989, Crueger, Laventille, Trinidad. Herb. Brit. Mus., Broadway 3522; Berlin Herb. Eggers 5547 and 5591, Frenchfield; Broadway 2471, Scarborough and Broadway 3504, Rockley Vale, Tobago.

West Indies. Cont. Trop. America.

37. *M. longifolia* (Aubl.) DC.

Melastoma longifolia Aubl.; *Chaenopleura longifolia* Griseb. Aubl. Pl. Guiana 1. 432. t. 170; Griseb. Fl. 260.

Shrub, glabrous or glabrescent; young *branches* tetragonal; *lvs.* the lower opposite, the upper in whorls of 4, lanceolate or oblong-lanceolate, acute or acutely-acuminate at the apex, narrowed into the petiole, 10-17 cm. long, 3-5 cm. broad, entire, glabrous on both sides or with a few scattered hairs when young, membranous, 3-nerved, the nerves arising from, or very near the base; *petioles* 5-13 mm. long, glabrescent; *panicle* spreading, scurfy, about 1-1.5 dm. long, the branches whorled; *fls.* small; *cal.* 1.2-1.5 mm. long; *pet.* white, 1-1.5 mm. long; *stam.* 10, 2-lobed at the base; *berry* small, globose, 3-4 mm. diam., crowned by the 5-lobed persistent calyx.

Herb. Trin. 1706 and 841, Crueger, Caroni; Herb. Trin. 1742, Arima, 1861, Trinidad.

St. Vincent. Northern South America.

38. *M. vulcanica* Naud.

Cremanium Sieberi Griseb. Fl. 262.

Arborescent *shrub* 6-8 m., glabrous or nearly so; young *branches* tetragonal, usually with dense tufts of threadlike scaly hairs at the nodes; *lvs.* elliptical-oblong, acuminate at the apex, broadly wedge-shaped to rounded at the base, 10-14 cm. long up to 5.5 cm. broad, 5-nerved, the outer pair rather inconspicuous, regularly and closely callously-serrated; *petioles* 2.5-4 cm. long, *panicles* compound, many-flowered, shorter than the leaves; *fls.* subsessile or shortly stalked, densely clustered; *bracteoles* oblong or spatulate, blunt, yellowish, exceeding the buds; *cal.* about 1 mm. long, very shortly and obtusely lobed; *pet.* 5 (1 mm. long); *berry* 4 mm. diam. ex Cogn.)

Sieb. 128 ex Cogn. not seen. Not otherwise known from Trinidad. Dominica, Guadeloupe, Venezuela.

39. *M. globuliflora* (Rich.) Cham.*Melastoma globuliflora* Rich.*M. Sieberi* DC.

Shrub; stems acutely tetragonal and swollen at the nodes, occasionally with spreading hairs and apparently deciduous tufts at the nodes; *lvs.* elliptical, acuminate at the apex, obtuse at the base, 4-7 cm. long, 1.3-3 cm. broad, regularly and closely callously-serrated, leathery, 5-nerved, the outer pair inconspicuous; *petioles* 1-1.8 cm. long, occasionally less in the upper leaves; *panicle* short, densely-flowered, *branches* tetragonal; *cal.* 1.5 mm. long, distinctly lobed; *pet.* 1.5 mm.; *berry* 3 mm. diam. ex Cogn.)

This species is possibly conspecific with *M. vulcanica* Naud. Sieb. 260 ex Cogn. Not otherwise known from Trinidad.

Lesser Antilles, Costa Rica, Venezuela, French Guiana, ex Cogn.

40. *M. striata* (Vahl.) Cogn.*Melastoma striata* Vahl.

Shrub, glabrous; *lvs.* ovate-oblong, acuminate at the apex, narrowed or rounded at the base, up to 15 cm. long and 6 cm. broad, entire or wavy-toothed, glabrous on both sides, membranous, 3-nerved, arising from or very near the base; *petioles* 1-4.5 cm. long, glabrous; *panicle* slender, glabrescent, about 1 dm. long, *branches* opposite, thread-like, few-flowered; *fls.* very shortly stalked; *cal.* glabrous, *tube* cylindrical, ribbed, 3.5 mm. long, *limb* saucer-shaped, truncate or shallowly lobed; *pet.* 5, oblong or broadly oblong, about 1 cm. long; *anths.* about 4 mm. long, dehiscent by a terminal pore, the *connective* shortly produced and slightly lobed; *berry* strongly ribbed, 4-5 mm. diam.

Dannouse, Aug. 1904, Guapo, Trinidad.

Lesser Antilles.

41. *M. multispicata* Naud.*M. valenciana* Kränzl.

Griseb. Fl. 257; Fawc. & Rendl. Fl. Jam. 5. 371.

Bushy *tree* up to 8 m.; young *branches* densely stellate-woolly; *lvs.* elliptical to oblanceolate, acuminate at the apex, rounded or obtuse at the base, 1-1.5 dm. long, entire, glabrous or with a few scattered hairs principally on the nerves beneath, papery, 5-nerved, the marginal pair obscure, all arising at or near the base; *petioles* densely stellate-woolly, 1-2 cm. long; *panicle* contracted, 5-10 cm. long, densely stellate-woolly; *fls.* sessile, in clusters on very short reduced branches; *cal.* 3-3.5 mm. long, densely stellate-woolly, *teeth* 5, ovate; *pet.* 5, broadly obovate, 2-3 mm. long; *anths.* 10, bi-lobed at the base; *berry* black, broadly globose, 5-7 mm. diam.

Herb. Kew, Eggers 1405, Valencia Woods; Herb. Trin. 12836, Siparia, Williams; Eggers 1117, Valencia Woods, type of *M. valenciana* Kränzl in Berlin Herb.; Trinidad.

Jamaica.

42. *M. myriantha* Benth.

M. minutiflora of various authors, fide Gleason Bull. Torr. Bot. Club. 55. 117.

Shrub; young *branches* with short scattered stellate hairs, soon becoming glabrous; *lvs.* ovate to lanceolate, abruptly and long acuminate at the apex, rounded at the base, 7-11 cm. long, 2.3-5 cm. broad, entire or minutely toothed, glabrous above, glaucous and with a few scattered hairs beneath, membranous, 5-nerved, the marginal pair inconspicuous, all arising from the base; *petioles* 3-5 mm. long, shortly whitish or rusty stellate-woolly; *panicle* pyramidal, 7-12 cm. long with dense or scattered stellate hairs, branches opposite, horizontal; *bracts* linear, about 8 mm. long, caducous; *bracteoles* thread-like, 2 to each bud, slightly exceeding the buds, deciduous; *cal. tube* stellate-pubescent, lobes 5, triangular-acute with narrow acute sinuses and conspicuous thread-like external teeth; *berry* globose, smooth, glabrous, 3-4 mm. diam.

Herb. Trin. 12254, Brooks, Valencia; Herb. Trin. 10175, Broadway, Cumuto; Herb. Trin. 12867, Cumuto Rd., P.O. Williams; Herb. Kew, Lockhart det. as *Cremanium collinum* by Griseb; Eggers 1469, Aripo River; Broadway 5404, Aripo Rd., 5771 Mora Forest and 6833, Long Stretch, Sangre Grande, Trinidad.

Guiana, Bolivia, Brazil.

43. *M. minutiflora* (Bonpl.) DC.

Melastoma minutiflora Bonpl.

Glossocentrum collinum Crueg. fide Gleason.

Cremanium trinitatis Crueg. fide Crueg. in sched.

Miconia myriantha Griseb. fide Gleason non Benth.

Gleason Bull. Torr. Bot. Club, 55. 117.

Shrub; young *branches* slender, compressed, glabrous or with a few scattered stellate hairs; *lvs.* mostly oblong, abruptly and very long acuminate at the apex, broadly rounded to wedge-shaped at the base, 6-13 cm. long, 18-32 mm. broad, entire or very minutely wavy-toothed, glabrous above, sometimes with a few scattered stellate hairs beneath, membranous, 5-nerved, the marginal pair inconspicuous, arising slightly above the base of the leaf, or sometimes at the base; *petioles* 5-8 mm. long, glabrescent; *panicle* pyramidal, glabrous or with a few scattered stellate hairs, up to 2 dm. long, the *branches* usually in whorls of four arranged obliquely with the main axis, the two inferior shorter than the two upper, rather loosely-flowered; *fls.* shortly stalked; *bracteoles* inconspicuous or none; *cal.* cup-shaped, scarcely 1 mm. long, nearly truncate with very short acute lobes, and broad shallow sinuses, the *external teeth* very minute or absent, glabrous or nearly

so; *pet.* 5, white, oblong, acute or obtuse, 1.5 mm. long; *anths.* 10, tapering towards the appendage; *style* thickened above, 2 mm. long; *berry* globose, 1.5-2 mm. diam., smooth, glabrous.

Herb. Trin. 2859, 2863, 4769, 3719, 4611, 4348, 1474, 1865 and 6575; Herb. Kew, Fendler 989 and 1003, Britt. 1551, Broadway 6681. Common in northern mountain range and vicinity and at Debe.

Venezuela, Colombia, and Brazil.

44. *M. Kapplerii* Naud.

M. lepidota Steud. non DC.

Small tree; stems glabrate with rusty-scurfy pubescence; *lvs.* ovate-lanceolate to lanceolate-elliptical, narrowly long acuminate at the apex, decurrent into the petiole and acutely or rather broadly wedge-shaped at the base, 9-17 cm. long, 3.5-6 cm. broad, entire, minutely scaly or glabrous, not glaucous, leathery, 5-nerved, the outer pair obscure, the lateral venation impressed beneath; *petioles* 1-1.5 cm. long, rusty-scurfy; *panicle* broadly pyramidal with ascending branches up to 10 cm. long, rusty-scurfy to glabrate; *fls.* sessile in densely clustered cymes, ebracteolate; *cal.* 1-1.5 mm. long, conspicuously stellate-scurfy at the base, otherwise blackish and glabrate when dry, obscurely toothed; *open flowers* not seen on Trinidad material (*pet.* white, 1.25-1.5 mm. long, ex Cogn.) *anths.* 1.5-2 mm. long, with one pore at the apex; *berry* lavender-coloured, glabrate, sub-globose, up to 3 mm. diam.

Compared with Sagot 227, and Wachenhein 137, from French Guiana in Herb. Kew.

Herb. Trin. 1705, St. Anne's, Aug. 1848; Dannouse, Santa Cruz, 1902; Herb. Kew, Broadway 6475, Oropouche Rd., via Valencia, 1926, Trinidad.

Surinam and French Guiana.

45. *M. tetrandra* (Sw.) D. Don.

Melastoma tetrandra Sw.:

Cremanium tetrandrum Griseb.

Griseb. Fl. 262: Fawc. & Rendl. Fl. Jam. 5. 377-378.

Shrub or tree up to 15 m.; young branches finely rusty-scurfy; *lvs.* oblong to oblong-lanceolate, acuminate at the apex, narrowed or rounded at the base, 1-2 dm. long, 2.5-5 cm. broad, entire, glabrous or nearly so above, finely rusty-scurfy beneath, thinly leathery, 3-nerved, and with an obscure marginal pair, the central pair arising slightly above the base; *petioles* finely scurfy, 2-4 cm. long; *panicle* pyramidal, 1-1.5 dm. long, densely rusty-scurfy, branches opposite; *fls.* sessile, numerous; *cal.* 1.5-2 mm. long, the limb 4-toothed or sub-truncate, densely rusty-scurfy; *pet.* 4, white, 1-2 mm. long; *stam.* 4 or 5; *anths.* not appendaged; *style* 4 mm. long; *berry* black, globose, 3-4 mm. diam.

Not seen, Sieb. 129 ex Cogn. Not otherwise known from Trinidad. West Indies.

46. *M. trichotoma* (Desr.) DC.

Melastoma trichotoma Desr.

Cremanium Rivoeriae Griseb. Fl. 262.

Branchlets powdery, glabrescent; *lvs.* elliptical or elliptical-oblong, heart-shaped or rounded at the base, 10-20 cm. long, up to 10 cm. broad, entire, glabrous or minutely stellate-pubescent on the nerves, 5-nerved, the outer pair inconspicuous; *petiole* 1-3 cm. long; *panicle* large, pyramidal, spreading, many flowered, the central flowers sessile; *bracteoles* minute; *cal. tube* top-shaped, 1-5 mm. long; *pet.* about 1.5 mm. long; *berry* purplish-black, depressed globose, up to 3 mm. diam., 8-ribbed.

Not seen, Sieb. 210 ex Cogn. Not otherwise known from Trinidad. Lesser Antilles.

47. *M. affinis* DC.

M. Beurlingii Triana as to the Purdie specimen.

M. laevigata forma *grandifolia* Griseb. in sched.

Shrub or small *tree* up to 8 m.; young *branches* scurfy; *lvs.* oblong to elliptical, shortly acuminate at the apex, obtuse or acute at the base, 12-22 cm. long, 6-10.3 cm. broad, entire or wavy-toothed, glabrous above, dotted with minute stellate hairs beneath, rather densely so upon the nerves, thinly leathery, 5-nerved, all arising from the base; *petioles* scurfy, 1-2 cm. long; *panicle* pyramidal, spreading, 9-17 cm. long, scurfy, branches opposite; *fls.* sessile or very shortly stalked; *cal.* urn-shaped, 2-3 mm. long, densely scurfy-woolly; *teeth* 5, awl-shaped, minute; *pet.* white, oblong, obtuse, about 3 mm. long; *stam.* 10, 5 about 5.5 mm. long, the rest about 4 mm.; *anths.* appendaged at the base; *style* 3.5-6 mm. long; *berry* dark blue when ripe, flattened-globose, 4-7 mm. diam. scaly-dotted.

The type of *M. Beurlingii* Triana (*M. pusilliflora* Beurl.) has not been seen but all Trinidad material is clearly conspecific with authentic material of *M. affinis* collected by Poiteau in French Guiana. As to the Trinidad sheets cited under *M. Beurlingii* by Triana and Cogn. the Purdie specimen is *M. affinis* and Eggers 1474. is *M. prasina* (Sw) DC. It is questionable whether *M. Beurlingii* is a distinct species.

Common in woods, Trinidad.

Porto Rico, Cuba, French Guiana.

Doubtful Species.

M. barbinervis (Benth.) Triana.

Recorded by Cogniaux from Trinidad on the evidence of a specimen collected by Andersen. The specimen has not been traced and no Trinidad or Tobago material has been seen referable to *M. barbinervis*.

M. bubalina (D. Don.) Naud.

Recorded by Cogniaux from Trinidad on the evidence of a Lockhart specimen. The specimen has not been traced and no Trinidad or Tobago material has been seen referable to the species.

16. **BLAKEA**. L.

Shrubs, erect or climbing. *Lvs.* subsessile or stalked, large, leathery, oblong or elliptical, subentire, 3-5-nerved, the transverse veins numerous and close together. *Fls.* large, axillary, solitary or rarely clustered. *Bracteoles* 4-6, opposite in pairs, enveloping the calyx. *Cal.* bell-shaped or hemispherical; *lobes* 6. *Pet.* 6. *Stam.* 12, equal; *anths.* with 2 pores; *connective* very thick, prolonged into a spur. *Ovary* adhering to the base of the calyx, 4-6-celled. *Ovules* numerous. *Berry* fleshy. *Seeds* ovoid-pyramidal.

1. **B. pulverulenta** Vahl.

B. laurifolia Naud.

Griseb. Fl. 263.

Shrub or small *tree*; *stems* glabrous; *lvs.* obovate, oblong or elliptical, rather abruptly and shortly acuminate at the apex, more or less wedge-shaped at the base, 4.5-11 cm. long, 2-5 cm. broad, glabrous, 5-nerved, the inner pair more conspicuous than the outer and with a pit on either side of the midrib at the base beneath, sub-leathery; *petioles* 1-2.5 cm. long, glabrous; *fls.* solitary; *pedu.* 2-3 cm. long, scurfy at the apex; *bracts* obovate, obtuse or rounded, 1-1.8 cm. long; *cal. tube* broadly bell-shaped, 6 mm. long, 10 mm. diam., *teeth* 5, less than 1 mm. long; *pet.* unequal-sided, obtuse, about 1.5 cm. long; *anths.* including the spur 4-7 mm. long, 1-3 mm. broad, the *spur* thick, 1.5 mm. long; *fil.* strap-shaped, about 5 mm. long; *style* 12-18 mm. long.

Herb. Brit. Mus., Broadway 4697, Tobago; Herb. Trin. 12949, Swabey, Mt. St. George-Castara Road, Tobago.

Lesser Antilles.

17. **MAIETA** Aubl.

Shrubs or small *trees*, hirsute or pilose. *Lvs.* unequal in size, the largest bladdery at the base of the limb. *Fls.* solitary or few in the axils, sessile or shortly stalked. *Bracts* and *bracteoles* 4-6, forming an involucre. *Cal. tube* obconical to bell-shaped, glandular-hirsute; *teeth* 5, erect, slender. *Pet.* 5, obovate, obscurely and broadly clawed. *Stam.* 10, equal; *anths.* with 1 pore; *connective* short and with two ears at the base. *Ovary* 5-celled, bristly at the tip. *Berry* leathery. *Seeds* minute, obovoid-pyramidal.

1. *M. guianensis* Aubl. *Pl. Guiane* I. 443, t. 176.

Shrub; branches with spreading, gland-tipped, bristly hairs; *lvs.* shortly petioled, those in the pair very unequal in size, the larger elliptical or elliptical-oblong, acuminate at the apex, broadly narrowed into the petiole at the obtuse base, 1-2 dm. long, 4-8 cm. broad, bearing a large conspicuous bladder at the base of the limb, the smaller usually without a bladder; sub-entire or minutely toothed and fringed, with scattered weak bristly hairs on both sides, 5-nerved, the nerves merging into the bladder, papery; *petioles* 3-8 mm. long, bristly; *fls.* axillary, solitary to three together on short pedicels; *bracteoles* acuminate; *cal. tube* 6 mm. long; *teeth* awl-shaped, elongated, 1.5-3 mm. long; *pet.* 6-8 mm. long; (*fruit* brilliant red, *cal.* (in fruit) orange-yellow ex Alston) 6-7 mm. diam., with gland-tipped bristles.

Not seen. Sieb. ex Cogn. Not otherwise known from Trinidad. Northern South America.

18. *CLIDEMIA* Don.

Shrubs, mostly hairy. *Lvs.* 3-7 nerved. *Fls.* small, in axillary panicles, racemes or clusters, very rarely terminal, 4, 5 or rarely 6-parted. *Cal. tube* more or less bell-shaped, limb usually prolonged beyond the ovary, lobed or truncate, usually provided with elongated appendages. *Pet.* usually obovate or oblong. *Stam.* usually equal, twice as many as the petals; *anths.* linear or awl-shaped with one minute pore at the apex, the *connective* usually not prolonged at the base and without appendages, or with two small tubercles at the base. *Ovary* 3-5 celled, more or less adherent to the calyx tube; *style* slender, *stigma* minute. *Berry* usually hairy, crowned with the calyx limb. *Seeds* numerous, small.

Fls. 4-parted.

Lvs. sessile or subsessile.

Lvs. tapering towards the linear base 1. *C. trinitensis*.

Lvs. rounded at the base 2. *C. Cruegeriana*.

Lvs. petioled.

Fls. in loose panicles.

Plant softly hairy; panicles up to 2.5 cm. long 3. *C. microthyrsa*.

Plant bristly-hairy; panicles usually 5-10 cm. long 4. *C. umbrosa*.

Fls. in sessile or subsessile axillary clusters.

Petioles 5-10 mm. long 5. *C. rubra*.

Petioles 10 mm. long, or more 6. *C. debilis*.

- Fls. 5 or 6-parted.
 Infl. subsessile clusters or stalked heads
 of sessile fls.
 Plant with plumose bristles; heads
 not involucrate..... 7. *C. conglomerata*.
 Plant with simple gland-tipped hairs;
 heads involucrate 8. *C. involucreta*.
 Infl. spicately racemose..... 9. *C. dependens*.
 Infl. paniculate, mostly loosely-flowered
 Lateral nerves arising from the leaf
 base.
 Branches with glandular hairs.
 Lvs. with simple minute teeth,
 the margins fringed with
 glandular and eglandular
 hairs.
 Appendages of the cal. lobes
 3-4 mm. long..... 10. *C. neglecta*.
 Appendages of the cal. lobes
 1.5 mm. long 11. *C. pustulata*.
 Lvs. with a double row of teeth
 and a fringe of eglandular hairs 12. *C. bullosa*.
 Branches without glandular hairs.
 Lvs. 7-nerved..... 13. *C. hirta*.
 Lvs. 3-nerved..... 14. *C. macropetala*.
 Lateral nerves arising above the leaf
 base 15. *C. dentata*.

1. *C. trinitensis* (Crueg.) Griseb.

Ossaea trinitensis Crueg.

Griseb. Fl. 249.

Shrub. 1.2-1.8 m.; young branches with distinct spreading hairs, glabrescent; *lvs.* oblong-lanceolate, acuminate at the apex, tapering towards the linear, sub-sessile base, 4.5-23 cm. long, 1.5-5 cm. broad, 3-nerved and with an obscure marginal pair, the pairs arising distant from each other above the leaf base, glabrescent or with distinct, spreading hairs on the mid-rib beneath, membranous, entire; *fls.* white, in axillary clusters, shortly stalked; *cal. tube* bell-shaped, 2 mm. long, much longer than the pedicel, bearing long stalked glands, the *teeth* awl-shaped with a short point, much shorter than the tube; *pet.* 4, pointed; *ovary* 2-celled.

Herb. Kew, Crueger, St. Anne's, Oct. 1845 and Saut d'eau, July, 1846; Broadway 7244, Maracas, June 1929; Herb. Trin. 5615, Baptiste, Maraval, 1891, Trinidad. Endemic.

2. *C. Cruegeriana* Griseb.*C. salicifolia* Cogn. non Naud.*Ossaesa salicifolia* Crueg.

Griseb. Fl. 249.

Shrub up to 1.5 m.; *branches* glabrous; *lvs.* lanceolate, long-acuminate at the apex, rounded at the sub-sessile base, up to 22 cm. long, 1.5-4.5 cm. broad, glabrous, 3-nerved and with an obscure marginal pair, the pairs arising distant from each other above the leaf base, membranous, entire; *fls.* in axillary, few-flowered clusters, shortly stalked; *cal. tube* bell-shaped, narrow, 2 mm. long, much longer than the pedicel, without glands, the *teeth* reduced to a short point; *pet.* 4, pointed; *berries* black, one or two in the axils, sessile or nearly so, globose, about 4 mm. diam.

St. Anne's, Morne Bleu and Tucuche, Trinidad. Endemic.

Fendler 987 which was cited by Cogn. as *C. trinitensis* Griseb. is *C. Cruegeriana*.

3. *C. microthyrsa* sp. nov.

C. umbrosae (Sw.) Cogn. affinis, pilis ramulorum petiolorum inflorescentiaequae debilibus flexuosis nec setosis rigidiusculis, paniculis semper brevissimis, bracteolis subulatis, appendicibus calycinis longioribus, petalis ovatis vel ovato-oblongis (haud obovato-oblongis), filamentis quam antheris brevioribus, stigmatibus haud capitato differt.

Low shrub; young *branches* round, densely hairy with long whitish-mauvish spreading hairs and minute glistening gland-like scales; *lvs.* ovate, acuminate at the apex, rounded or obtuse at the base, sometimes very obscurely cordate, distinctly unequal in the pair, 6-19 cm. long, 3-9.3 cm. broad, the margin strongly toothed and fringed, more or less densely hairy above with rather soft simple hairs which are usually, but not always, bullate at the base, the lower surface rather densely weakly hairy especially on the nerves, 5-7 nerved, very rarely 9-nerved in the wider leaves and in any case inconspicuously so, the inner pairs arising slightly above the base, membranous; *petioles* 0.8-5 cm. long with the indumentum of the branches; *fls.* few, in short panicles of solitary or few, 1-3 flowered cymes, shorter than the petiole, with the same indumentum as the young branches but more sparse; *bracts* awl-shaped, rarely somewhat spatulate; *bracteoles* awl-shaped, about 1 mm. long; *cal. tube* cylindrical-bell-shaped, about 4 mm. long, with long shaggy hairs like those of the branchlets and petioles and with similar gland-like scales; *lobes* 4, obtuse, less than 1 mm. long, the *appendages* awl-shaped, slightly longer; *pet.* 4, white,

ovate or ovate-oblong, 2 mm. long, 1.5 mm. broad; *anths.* 8, 2.5-3 mm. long; *fil.* 1.5 mm. long; *style* 3-4 mm. long; *stig.* not capitate; ripe fruit not seen.

Herb. Trin. 12922, Bruins-Lich, Caura, July, 1933 (type in Herb. Trin., dup. in Herb. Kew); *ibid.*, 12887, April 1933; Herb. Kew, Broadway 6573, Maracas road to the waterfall, Feb. 1927; Trinidad. Endemic.

4. **C. umbrosa** (Sw.) Cogn.

C. latifolia Griseb. Fl. 247 partim, non DC.

Melastoma umbrosa Sw.

Shrub; young *branches* scurfy and with long, spreading, brown, bristly hairs; *lvs.* ovate to broadly ovate, acuminate at the apex, rounded to somewhat heart-shaped at the base, 13-30 cm. long, 7-19 cm. broad, the margin toothed and fringed, rather densely bristly on both sides, densely so with spreading bristles on the nerves beneath, 7-9 nerved, all arising from the base, membranous; *petioles* 3-9 mm. long with long, spreading, bristly hairs; *panicles* lax, up to 10 cm. with rather weak branches and somewhat dense spreading bristles; *fls.* very shortly stalked, or the single flowers of reduced cymes with conspicuous pedicels; *bracteoles* spatulate; *cal.* cylindrical-bell-shaped, scarcely 3 mm. long, densely bristly, the *appendages* awl-shaped less than 1 mm. long; *pet.* obovate-oblong, 2 mm. long, 1 mm. broad; *anths.* 2 mm. long; *fil.* about 2.5 mm.; *stig.* distinctly capitate; *berry* blackish, 5-8 mm. diam., bristly.

Sieb. 59. Not otherwise known from Trinidad.
Lesser Antilles.

5. **C. rubra** (Aubl.) Mart.

Melastoma rubra Aubl.

C. attenuatum (Naud.) Cogn.

Shrub, about 1 m.; *branches* densely woolly; *lvs.* narrowly elliptical, acute at the apex, more or less rounded or sometimes narrowed at the base, up to 13.5 cm. long and 7 cm. broad; densely woolly on both sides, minutely toothed and fringed, 7-nerved, the pairs arising slightly distant from each other above the base, the two outer pairs less conspicuous and not continued to the apex, parchment; *petioles* 3-10 mm. long, densely woolly; *fls.* sessile, numerous, in dense axillary sessile clusters; *cal.* pilose, 3 mm. long, lobes triangular, glabrous within with short greenish appendages; *pet.* 4, white, oblong, 1.5-2 mm. long, 1.5 mm. broad, obtuse and notched at the apex; *stam.* 8, about 5 mm. long, equal; *fil.* white; *anths.* pink; *berry* globose-ellipsoidal, reddish-purple, 1 cm. long, 8 mm. diam.

Plants collected on the Trinidad savannahs are usually small-leaved.

The variety *C. rubra* var. *macrophylla* Cogn. in Urb. Symb Ant. 7.315 is not distinguished.

Savannahs and roadsides. Trinidad.

Trop. Cont. America.

6. *C. debilis* Crueg.

C. aphanantha (Naud.) Sagot.

C. Bonplandii (Naud.) Cogn.

Staphidiastrum aphananthum Naud.

S. Bonplandii Naud.

Shrub; young branches woolly; *lvs.* ovate to ovate-elliptical, acuminate at the apex, rounded at the base, up to 16 cm. long and 7 cm. broad, the margin minutely toothed and fringed, shortly bristly-hairy and rough with the raised bases of hairs above, more or less woolly beneath, 7-nerved, the nerves arising slightly distant from each other above the base, the 2 outer pairs less conspicuous and not continuous to the apex, membranous; *petioles* 1.5 cm. long, woolly; *infl.* 1-few-flowered sessile or shortly stalked axillary clusters of sessile flowers much shorter than the petiole, woolly; *cal.* cylindrical, broadened at the base, 3.5 mm. long, *limb* subtruncate, the *appendages* bristly, about 1 mm. long; *pet.* 4, white, oblong, obtuse, 1.5-2.5 mm. long, 2 mm. broad; *stam.* 8, white, equal; *fil.* slightly longer than the petals; *anths.* 3 mm. long; *berry* globose, purple to black, 8 mm. diam. when fresh.

Northern mountain range, St. Anne's to Morne Bleu. Trinidad.

Northern South America.

An authentic specimen of *C. debilis* is at Kew and proves that Cogniaux was incorrect in referring this name to *C. rubra*.

7. *C. conglomerata* DC.

Shrubby herb; young stems with plumose bristles towards the apex; *lvs.* oblong-elliptical, acuminate at the apex, narrowed to the base, 12-20 cm. long, 4.5-8 cm. broad, the margin toothed and bristly; glabrous or very sparsely bristly above, conspicuously plumose-bristly on the nerves beneath, otherwise glabrous, 5-nerved, all arising from the base, papery; *petioles* 1-3 cm. long, plumose-bristly; *fls.* sessile, in dense axillary sessile or shortly stalked clusters, very densely bristly-woolly; *cal.* 4-5 mm. long, densely bristly-hairy; *pet.* oblong-obovate, 5-6 mm. long; *anths.* 3 mm. long; *berry* 4-5 mm. (perhaps more), in diameter. (*fruiting calyx* green, turning pale blue to bluish-purple ex Sandwith.)

Herb. Trin. 529, no data; Crueg. ex Cogn. Not otherwise known from Trinidad.

Guiana.

8. *C. involucrata* DC.

Shrub up to 1.5 m., young branches with spreading gland-tipped hairs; *lvs.* ovate to ovate-elliptical, acutely acuminate at the apex, broadly wedge-shaped to rounded at the base, up to 10.5 cm. long and 5 cm. broad, fringed and minutely toothed, 5-nerved, and with an inconspicuous outer pair not extending to the apex, the mid-rib and often the nerves conspicuously fringed above, and with soft scattered hairs on both sides, membranous; *petioles* slender, 5-25 mm. long, thickly hairy, with spreading, often glandular, hairs; *fls.* in a dense shortly-stalked head with an involucre of 2 reduced leaves; *pedu.* 3-5 mm. long; *cal.* shaggy, *tube* 3-4 mm. long, *lobes* 5, pointed, about 3 mm. long, with short *appendages*; *pet.* 5, oblong, obtuse or acute, 3-4 mm. long; *stam.* 10, about 6 mm. long; *style* straight, 4-5 mm. long; *berry* pale blue, 5 mm. or more in diam. crowned with the persistent foliaceous lobes of the calyx.

Forests, Morne Bleu, and Aripo Road, Trinidad.
Guiana.

9. *C. dependens* D. Don.

C. spicata (Aubl.) DC. non D. Don.

Melastoma spicata Aubl. Pl. Guiana 1423, t. 165.

Griseb. Fl. 247 in part: Fawc. & Rendl. Fl. Jam 5. 388.

Shrub up to 1 m. high, shaggy-hairy with long, simple, spreading, white, yellowish or reddish hairs, mostly interspersed with short stellate hairs; *lvs.* ovate or ovate-elliptical, acutely-acuminate at the apex, rounded at the base, up to 15 cm. long and 6 cm. broad, fringed and minutely toothed, with long spreading hairs above, densely woolly beneath, 5-7 nerved the nerves arising at the base, papery; *petioles* 2-20 mm. long, shaggy; *infl.* axillary, usually contracted into a spike; *fls.* sessile or sub-sessile; *cal.* shaggy, *tube* 3 mm. long, *lobes* 5, roundish, 1.5-2 mm. long, the *appendages* 3-4 mm. long; *pet.* 5, white, oblong, rounded at the apex, 4-5 mm. long; *stam.* 10; *berry* ovate, black about 7 mm. long, 6 mm. diam.

Thickets in moist districts, Trinidad.
Jamaica. Cuba. St. Thomas. Trop. Cont. America.

10. *C. neglecta* D. Don.

C. neglecta var. *squarrosa* Kuntze.

Shrub, up to 1.5 m., woolly with long and short glandular, very sticky hairs and shorter stellate ones; *lvs.* ovate to elliptical, unequal-sided acuminate at the apex, rounded or somewhat heart-shaped at the base, up to 18.5 cm. long and 9 cm. broad, thickly covered with simple, glandular hairs with swollen bases and

stellate hairs above, densely stellate-woolly beneath, fringed with glandular hairs of unequal length, entire or very minutely toothed, 7-nerved, all arising from the base, the two outer pairs not continuous to the apex, parchmenty; *petioles* 1-4 cm. long, densely hairy with long and short simple, glandular hairs and short stellate ones; *panicle* loosely-fl'd., 2-7 cm. long; *fls.* subsessile or shortly stalked; *cal.* densely woolly, *tube* about 6 mm. long; *lobes* green becoming reddish within, 3 mm. broad; *appendages* 3-4 mm. long; *pet.* 5, greenish-white, oblong, notched at the apex, about 6 mm. long and 4 mm broad; *stam.* 10, white, equal, 7 mm. long; *style* 6 mm. long; *berry* black, globose, 1 cm. diam. covered with glandular spreading hairs.

Savannahs and forest borders, Trinidad.
Cuba. Margarita. Brazil.

11. *C. pustulata* DC.

C. spicata DC. var. *pustulata* DC., Griseb. Fl. 247.

Shrub about 1 m.; young *branches* covered with simple, short, spreading, glandular hairs of unequal length and shorter stellate ones; *lvs.* ovate, acuminate at the apex, rounded at the base, up to 16 cm. long and 8 cm. broad, 7-nerved, the two outer pairs less conspicuous, all arising from the base, thickly covered with rather weak bristles having swollen bases above, pustulate and more or less woolly with glandular, simple hairs and stellate ones beneath, serrulate with simple teeth, and fringed, membranous; *petioles* 4-12 mm. long, shaggy with spreading glandular hairs; *panicle* hairy as the young branches, loosely-fl'd., 5-9 cm. long; *cal.* green, woolly, *tube* 4 mm. long; *lobes* short, obtuse, *appendages* 1.5 mm. long; *pet.* 5, greenish-white, oblong, notched, 3.5-4 mm. long; 2.5 mm. broad; *stam.* 10, equal or 2 somewhat shorter, 5 mm. long; *fil.* white; *anths.* pinkish.

Savannahs and hillsides, Trinidad and Tobago.
Northern South America.

12. *C. bullosa* (Spreng.) DC.

C. biserrata DC.

Melastoma bullosa Spreng.

Young *branches* densely stellate-pilose with sessile or stalked stellate hairs and with scattered glandular-hairs; *lvs.* ovate, acuminate at the apex, rounded to shallowly heart-shaped at the base, 7-16 cm. long, up to 7.2 cm. broad, 7-nerved, the two outer pairs less conspicuous, all arising from the base, very conspicuously warty above with distinct bristles springing from the warts, deeply and conspicuously pitted and with loose weak stellate hairs beneath, the margin conspicuously and doubly-toothed, fringed with

eglandular bristles, membranous; *petioles* 1-3.5 cm. long, the indumentum similar to the branches but rather denser; *panicle* hairy as the branches, pyramidal, loosely-flowered, 5-9 cm. long; *cal.* densely hairy with mixed short stellate and simple gland-tipped hairs, *tube* 3-3.5 mm. long; *lobes* short, obtuse; *appendages* about 1 mm. long; *pet.* 5, oblong, about 3.5 mm. long; *stam.* 10; *anths.* subequal, about 1.5 mm. long; *berry* up to 5 mm. diam.

Herb. Kew, Lockhart, no data. Not otherwise known from Trinidad.

Guiana. Brazil.

13. **C. hirta** (L.) D. Don. Koster's Curse.

Melastoma hirta L.

M. elegans Aubl.

Clidemia elegans D. Don.

C. hirta var. *elegans* Griseb.

Griseb. Fl. 246; Fawc. & Rendl. Fl. Jam. 5. 386.

Shrub about 1 m. or less, sometimes more; *stems* with long, straight, spreading and short stellate hairs; *lvs.* ovate to ovate-elliptical, acute or shortly acuminate at the apex, usually heart-shaped at the base, up to 17.5 cm. long and 9.5 cm. broad, with weak spreading hairs on both sides, minutely to conspicuously toothed, membranous, 7-nerved, the two outer pairs less conspicuous and not continued to the apex, all arising from the base; *petioles* shaggy, 5-25 mm. long, occasionally much longer, up to 5 cm.; *infl.* few-flowered cymes, 1-4 cm. long, shaggy; *fls.* subsessile or with pedicels 1-6 mm. long; *cal.* covered with long spreading hairs; *tube* up to 5 mm. long; *lobes* shallow; *appendages* thread-like, bristly, 2-4 mm. long; *pet.* 5, white, oblong, obtuse, 10 mm. long, 4.5-5 mm. broad; *stam.* 10, white, 7-8 mm. long with 2 small tubercles at the base of the connective; *berry* ovate, blackish-purple, thinly shaggy, the calyx persistent.

C. elegans D. Don is not considered to be worthy of distinction even as a variety. Sieb. 65, recorded by Cogn. as *C. dentata* D. Don is *C. hirta* from the evidence of the specimen at Kew.

Banks and hillsides in moist and dry districts, Trinidad and Tobago.

West Indies. Trop. Cont. America.

14. **C. macropetala** *sp. nov.*

Affinis *C. hirtae* (L.) D. Don atque *C. dentatae* D. Don, ab illa pilis ramulorum petiolorumque brevioribus flexuosis, foliis lanceolatis, basi attenuatis, trinerviis; ab hac foliis basi haud obliquis trinerviis tantum neque conspicue quintuplinerviis, appendicibus calycinis brevioribus, petalis multo longioribus anguste spathulatis, antheris filamentisque longioribus, stylo duplo longiore differt.

Small shrub; young branches with brownish, dense, flexuose, eglandular, bristly hairs and very short stellate ones, rather scabrous with age; *lvs.* lanceolate, acuminate or acutely acuminate at the apex, narrowed to the base, 5-13 cm. long, 2-4 cm. broad, perhaps larger, glabrous or with a few scattered bristly hairs and more or less fringed on the midrib above, rather thickly hairy with flexuose hairs beneath more especially on the nerves, the margin fringed and entire or minutely wavy-toothed, membranous, 3-nerved, the nerves all arising from the base, an obscure marginal nerve occasionally visible in the wider leaves; *petioles* brownish-hairy as the young branches, 5-27 mm. long; *infl.* axillary, cymose, densely brownish-hairy as the young branches, 2-2.5 cm. long; *fls.* very shortly stalked or the single flowers of reduced cymes with conspicuous pedicels; *cal.* densely hairy with long spreading hairs and short stellate ones, *tube* 4.5 mm. long, *appendages* 5 or 6, about 3 mm. long; *pet.* 5 or 6, narrowly spathulate, 11 mm. long, 3-4 mm. broad; *stam.* 12; *anths.* about 4.5 mm. long; *fil.* 3-3.5 mm. long; *style* 9 mm. long; *berry* ovoid, up to 5 mm. diam., densely bristly hairy.

This species has been confused with *C. dentata* D. Don and Herb. Trin. 5001 was identified as such by Urban in 1898 but it differs widely in foliage and floral characters as will be seen from the Latin diagnosis.

Herb. Kew, Fendler 973 (type); Crueger, St. Ann's, July 1845, labelled *C. hirta* Don; Broadway 6752, Maracas Falls, 1927; Herb. Trin. 5001, no locality; Dannouse, Santa Cruz, 1902. Trinidad. Endemic.

15. ***C. dentata*** D. Don.

C. leptoclades Crueg.

Shrub 2 m.; young branches bristly hirsute with flexuose hairs; *lvs.* lanceolate, ovate or elliptical, acuminate at the apex, narrowed to the obtuse and usually somewhat oblique base, up to 19 cm. long and 8.5 cm. broad, with scattered bristly hairs on the mesophyll and a dense fringe on the midrib above, rather densely bristly hairy beneath especially on the nerves, shortly fringed and minutely toothed, membranous, 5-7 nerved, the outer 1 or 2 pairs not continued to the apex, the inner pair alternate and arising at some distance above the base; *petioles* 5-20 mm. long, roughly shaggy; *fls.* in many-flowered clusters about as long as the petiole; *cal.* densely shaggy-hairy, *tube* 5 mm. long, the *appendages* thread-like, bristly, 5 mm. long; *pet.* 5, obovate, obtuse, 6 mm. long, 3-4 mm. broad; *stam.* 10; *anths.* 3 mm. long; *fil.* 2 mm. long; *style* 4.5 mm. long; *berry* bristly-hairy up to 5 mm. diam.

Hillside thickets and forest borders in moist districts. Trinidad. Cont. Trop. America.

19. HENRIETTEA DC.

Shrubs or trees. Lvs. large, entire, leathery, 3-5 nerved, petioled. *Fls.* usually in clusters at the nodes or sometimes solitary. *Cal. tube* thick, leathery; *limb* spreading, 5-6 lobed, with a minute, sharp tooth outside beneath the apex of each lobe. *Pel.* 5 or 6, oblong or obovate, clawed, the apex usually obtuse or rounded, and apiculate at the apex of each lobe. *Stam.* 10 or 12, equal; *fil.* glabrous; *anths.* straight, or curved with one pore, not or slightly eared at the base. *Ovary* 5-6-celled, completely united to the calyx tube; *style* thickened towards the apex. *Berry* leathery-fleshy. *Seed* oblong-pyramidal.

Cal. 13-15 mm. long 1. *H. succosa*.

Cal. 6-7 mm. long:

Peduncles 6-9 mm. long 2. *H. multiflora*.

Peduncles 3 mm. long or less.

Lvs. densely stellate-mealy and
addressed bristly beneath 3. *H. ramiflora*.

Lvs. with scattered bristle-like hairs
arising from brown stellate tufts... 4. *H. Patrisiana*.

1. *H. succosa* (Aubl.) DC.

Melastoma succosa Aubl. Pl. Guiane 418 t. 162.

Small tree up to 10 m.; young branches densely covered with addressed, bristle-like hairs; *lvs.* elliptical, shortly and acutely acuminate at the apex, narrowed to the obtuse base, 12-26 cm. long, 6-11 cm. broad, 5-nerved, the outer pair rather obscure and close to the margin, the inner pair arising at some distance above the base, rough with bristly hairs or bases of hairs above, brownish or whitish-woolly with stellate and bristle-like hairs beneath; *petioles* 12-20 mm. long, covered with bristles; *fls.* clustered or solitary at leafless nodes; *pedu.* 5-7 mm. long; *cal.* 13-15 mm. long, densely covered with addressed bristle-like hairs; *lobes* roundish, the awl-shaped tooth 1-1.5 mm. long; *pet.* 5, white, obovate, pubescent on both sides, 18 mm. long, 10 mm. broad, the bristle 1 mm. long; *stam.* 10, slightly shorter than the petals; *fil.* white; *anths.* mauve, curved, with two roundish lobes at the base; *style* 22 mm. long, curved at the top, covered with loose weak hairs; *berry* reddish-purple, globose, 17 mm. diam., densely covered with addressed stiffish hairs, crowned with the persistent foliaceous calyx lobes.

Forests, Northern mountain range, Trinidad.

Panama. Guiana. Brazil.

2. *H. multiflora* Naud.

Tree 6 m.; young *branches* densely covered with adpressed bristle-like hairs; *lvs.* roundish-elliptical, very shortly acute at the apex, broadly wedge-shaped at the base, 10-26 cm. long, 8-15 cm. broad, 5-nerved, the outer pair rather obscure and close to the margin, the inner pair arising far above the base, with a few adpressed hairs principally on the nerves above, minutely warty and stellate-pubescent and with scattered bristly hairs principally on the nerves beneath; *petioles* 1-5 cm. long, bristly; *fls.* clustered at the leafless nodes; *pedu.* 6-8 mm. long; *cal.* green, broadly top-shaped with short roughish bristles, 6-7 mm. long, broadly and shallowly and rather obscurely 5-toothed, the *tooth* minute; *pet.* 5, white, oblong, obtuse at the apex, 8-10 mm. long, 6 mm. broad, pubescent on both sides; *stam.* 10, equal, 12-14 mm. long; *fil.* white; *anths.* purple, slightly 2-lobed at the base; *style* white, 14 mm. long, thickened and curved at the apex, glabrous; *berry* globose, 5-8 mm. diam., covered with scurfy scales and scattered hairs with swollen bases.

Forests in wet or moist districts, Trinidad.

Guiana.

3. *H. ramiflora* (Sw.) DC.

Melastoma ramiflora Sw.

Fawc. & Rendl. Fl. Jam. 5. 392.

Shrub or tree up to 10 m.; young *branches* densely covered with adpressed bristle-like hairs; *lvs.* elliptical or narrowly elliptical, shortly and acutely acuminate at the apex, narrowed to the acuminate or obtuse base, 10-15, or occasionally 20 cm. long, up to 6 cm. broad, 5-nerved, the outer pair rather obscure and close to the margin, the inner pair arising above the base with a few adpressed bristle-like hairs and becoming glabrescent above, brownish or yellowish mealy with stellate and adpressed bristle-like hairs beneath; *petioles* 10-18 mm. long covered with adpressed bristles; *fls.* in clusters of 10-15 at leafless nodes; *pedu* 2-3 mm. long; *cal.* densely adpressed bristly and scurfy; *tube* 7 mm. long, becoming constricted above in fruit, *lobes* 5, roundish-ovate, about 2 mm. long; *pet.* 5, pink, 8-10 mm. long, unequal-sided, one side with a minute appendage; *anths.* 7-8 mm. long; *style* 10-12 mm. long.

Herb. Trin. 927, no locality; Crueg, Caura, Trinidad.

Jamaica and Surinam.

4. **H. Patrisiana** DC.

Shrub or small *tree*; young *branches* densely covered with adpressed bristle-like hairs; *lvs.* elliptical, very shortly acutely acuminate at the apex, broadly wedge-shaped at the base, 10-20 cm. long, 4.5-10 cm. broad, 3-nerved and with an inconspicuous marginal pair, the inner pair arising above the base, with adpressed bristle-like hairs on the nerves above, otherwise soon glabrescent, the lower surface with scattered bristles arising from brown stellate tufts, the ribs with scattered adpressed bristles; *petioles* 1-1.5 cm. long, densely adpressed bristly hairy; *fls.* (not seen on Trinidad material) subsessile, in few-flowered clusters at the nodes; *cal.* tawny, adpressed-bristly, about 4 mm. long, the lobes obscure; *pet.* (ex Cogn.) 6 mm. long; *anths.* 4 mm. long; *berry* 3-4 mm. diam.

H. parviflora Griseb. (*Henriettella parviflora* Triana) based on Wright 2478 from Cuba appears to be conspecific.

Herb. Trin. 3716, Broadway, Chaguanas; Broadway, Dec. 1919, Dabadie in Herb. Kew, Trinidad.

Surinam and French Guiana.

20. **NECRAMIUM** Britt.

Shrub, erect. *Lvs.* opposite, large, membranous, with a strong midrib and three pairs of veins, the first pair arising near the base, the second pair from a short distance above, the third pair from below the middle, the transverse venation widely spreading. *Infl.* sessile panicles with thread-like branches, axillary on the woody stems much below the leaves. *Fls.* 2 or 3 together, sessile, with subfoliaceous bractlets. *Cal.* subcampanulate; *teeth* 4, awl-shaped. *Pet.* 4, free. *Stam.* 8, equal, the connective not produced. *Fruit* a berry. *Seeds* numerous, oblong.

1. **N. gigantophyllum** Britt.

Bull. Torr. Bot. Club 51.7.

Shrub, 3-4 m.; *stems* slender, quadrangular, densely scurfy-pubescent above; *lvs.* oblong to oblong-lanceolate, acuminate at the apex, narrowed at the base, 2-4 dm. long, 12 cm. wide or less, entire, glabrous above, scurfy-puberulent on the veins beneath; *petioles* stout, scurfy, 1-2 cm. long; *panicles* up to 5 cm. long, branched from the base, densely pubescent, several-flowered;

bracteoles oblong-lanceolate, concave, acute, pubescent, 3 mm. long; *cal. tube* 2 mm. long, *teeth* 1-1.5 mm. long, erect; *pet.* 4, transparent-white, oblong, acuminate, strongly reflexed; *fil.* 1.5 mm. long; *anths.* slightly longer; *style* 4 mm. long; *stig.* simple; *fruit* globose, 3-4 mm. diam., pink to scarlet; *seeds* minute.

Forests, Northern mountain range at high elevations, Trinidad. Endemic.

21. HENRIETTELLA Naud.

Shrubs or *trees.* *Lvs.* large, leathery, 3-5 nerved. *Fls.* in clusters at leafless nodes; (stalked in the Trinidad species). *Cal. tube* bell-shaped; *limb* truncate or 5-lobed or toothed, persistent. *Pet.* 5. *Stam.* 10, equal; *fil.* thread-like, glabrous; *anths.* obtuse and with one pore at the apex, the *connective* not prolonged and without appendages at the base. *Ovary* 5-celled, almost entirely united to the calyx. *Berry* leathery-fleshy, 5-celled. *Seeds* helmet-shaped in the Trinidad species.

1. *H. sessilifolia* (L.) Triana.

Melastoma sessilifolia L.

Loreya trinitensis Crueg.

Griseb. Fl. 245: Fawc. & Rendl. Fl. Jam. 5, 395:

Browne, Hist. Jam. t. 24. f. 1 and 2.

Shrub or small *tree* up to 6 m.; young *branches* with short adpressed hairs, the hairs with swollen bases; *lvs.* subsessile, elliptical, obtuse and mucronate at the apex, tapering and eared at the base, 1.7-3.5 dm. long, up to 2 dm. broad, 5-nerved, the outer pair near the margin and less conspicuous, the inner pair arising at from 3-4.5 cm. above the base, entire, or occasionally minutely toothed, glabrous above and almost so beneath; *fls.* usually in clusters of 3-7; *pedi.* thread-like, 5-15 mm. long; *cal.* truncate, 4 mm. long; *pet.* white, roundish or irregularly oblong, apiculate or somewhat obtuse, 8-10 mm. long; *anths.* 4 mm. long; *stig.* conical; *berry* subglobose, 5-7 mm. diam., glabrous; *seed* less than 1 mm. long.

Crueg. St. Anne's; Herb. Trin. 5839, McLean, Blue Basin; Broadway, 7261, Maracas, Trinidad.

Jamaica. Venezuela.

22. **MOURIRI** Aubl.

Shrubs or trees, glabrous. *Lvs.* sessile or shortly petioled, entire, inconspicuously pinnately veined. *Fls.* usually 5-parted, in stalked or sessile axillary umbels or clusters. *Cal. tube* top-shaped, hemispherical or bell-shaped; *limb* cup-shaped, lobed or sub-truncate. *Pet.* acute or acuminate. *Stam.* twice as many as the petals, usually exerted; *fil.* threadlike; *anths.* dehiscent by two pores or slits; *connective* prolonged at the base of the cells, forming a spur with a gland in the middle of the back. *Ovary* 1-5 celled; *style* slender; *ovules* 2 or more in each cell. *Berry* globose, 1-4 seeded.

Cal. 5-cleft on opening.

Fls. umbellate-cymose, 3-6 fld. 1. *M. Marshalli*.

Fls. not umbellate, in compound cymes.. 2. *M. guianensis*.

Cal. bursting transversely and falling off

in one piece..... 3. *M. rhizophorifolia*.

1. **M. Marshalli** Burt-Davy & Sandwith. Bois Lisette.

Kew Bull. 1932, 317-318.

Tree up to 30 m. high and 3.5 m. diam., *branches* glabrous; *lvs.* lanceolate, rarely ovate-lanceolate or elliptical, acuminate at the apex, wedge-shaped, obtuse or sometimes rounded at the base, 6-12 cm. long, 2-5.5 cm. broad, papery, glabrous; *petiole* glabrous, 4-6 mm. long; *infl.* in axillary umbellate cymes on the older branches, usually 3-6 flowered, glabrous; *pedu.* 1-3 mm. long or almost none; *pedi.* 8-15 mm. long, slender, with the scars of fallen bracts at the base; *cal.* broadly top-shaped, *tube* 3-4 mm. long, up to 7.5 mm. broad, *lobes* triangular, about 1 mm. long; *cor.* ovoid-acuminate, before expansion, up to 8.5 mm. long and 7 mm. broad at the base, glabrous; *pet.* 5, yellow when dry, ovate-acuminate, up to 9 mm. long and 6 mm. broad; *fil.* up to 7.5 mm. long; *anths.* scarcely 2 mm., the dorsal glands nearly 1 mm. long, *spur* about 3 mm. long; *ovary* 2-celled, *style* 1.5 cm. long, *ovules* 6; *berry* globose, up to 2 cm. diam., 1-seeded.

"The wood is yellowish, with a curious white streak, almost as if it were attacked by fungus; there is no doubt, however, that the streak is not due to fungus; it is typical of the species".—Marshall.

Central and Southern districts, Trinidad. Endemic.

2. *M. guianensis* Aubl.

Aubl. Pl. Guiana 453, t. 180.

Shrub or tree, 10-12 m. high; *stems* slender; *lvs.* ovate, acute to acutely acuminate at the apex, usually rounded at the base, up to 7 cm. long and 3.5 cm. broad, leathery, at first minutely stellate, soon glabrous; *petioles* glabrous, 2-3 mm. long; *fls.* in rather loose, axillary, compound cymes on the young branches, *pedu* short or none, the lateral flowers of the cymes often not developed in the axils of the bracts so that the cyme resembles a single-jointed pedicel; *cal.* bell-shaped, minutely scaly outside, about 4 mm. long, hallowly lobed; *cor.* (in bud) rather narrowly-ovoid, acuminate, up to 7 cm. long and 3-4 mm broad, minutely scaly outside; *slam.* unequal; *fil.* up to 7 mm. long; *anths.* about 2 mm. long, *dorsal gland* oblong, about 0.6 mm. long; *connective* less than 1.5 mm. long; *style* 8-10 mm. long, curved above; *berry* globose, up to 1 cm. or perhaps more diam.

R. Carr, Caparo; Herb. Trin. 2329, Finlay, no locality, Trinidad.
Northern South America.

3. *M. rhizophorifolia* (DC.) Triana. White Monkey Bone.*Olisbea rhizophorifolia* DC.

Medium sized *tree* up to 1.5 m. diam; *lvs.* elliptical, abruptly acute or somewhat acuminate at the apex, more or less wedge-shaped at the base, leathery, 5-14 cm. long, 3-7.2 cm. broad; *petioles* 2-7 mm. long; *infl.* axillary, umbellate-cymose amongst the leaves, minutely scaly; *pedi.* 7-12 mm. long, jointed below the middle; *bracts* not seen; *cal.* (in bud) ovoid, apiculate, at maturity about 1 cm. long, bursting transversely and falling off in one piece; *pet.* 5, broadly orbicular, 8 mm. long, up to 9 mm. broad; *fil.* up to 1 cm. long; *anths.* curved, obliquely-ovoid, 4-4.5 mm. long, the dorsal gland nearly 1 mm. long, the *spur* curved upwards, only about 1 mm. long; *berry* yellow-orange, up to 22 mm. diam., depressed above within the conspicuous seat of the calyx limb; *seeds* 5 or less.

Herb. Trin. 1415, Chaguanas; Herb. Trin. 12440, Mt. Harris;
Herb. Trin. 12540, Cat's Hill Reserve, Swabey; Trinidad. Broadway
4847 and 4366, The Widow, Tobago.

Martinique ex Cogn.