THEACEAE

by

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Trees or shrubs. Leaves usually alternate, simple and coriaceous. Stipules wanting. Flowers solitary or in few-flowered clusters in the axils of the leaves, rarely in terminal or axillary racemes, regular, usually hermaphrodite. Bracteoles often 2 under the calyx and sepaloid. Sepals usually 5, free or slightly connate, imbricate. Petals 4-many, usually 5, free or connate into a ring or a short tube, imbricate. Stamens numerous, often united at the base and adhering to the corolla; anthers 2-celled with longitudinal dehiscence. Ovary superior or rarely semi-inferior, 2—10-celled; styles as many as the cells, free with pointed stigmas or united with a 3—5-lobed stigma. Ovules 1-many in each cell, on axillary placentas, pendulous or erect. Fruit a berry or a loculicidal capsule. Seeds 1-many, globose or horseshoe-shaped. Embryo curved or rarely straight. Endosperm scanty or wanting.

About 380 species in 30 genera in tropical and subtropical regions.

Key to the genera:

Ternstroemia Mutis ex Linn. f., Suppl. 39. 1781

Glabrous, evergreen trees or shrubs, with somewhat opposite or verticillate branchlets. Leaves alternate, opposite or subverticillate. Flowers mostly solitary, white; peduncle generally recurved. Sepals 5, imbricate, persistent. Petals 5, episepalous, united at the base or even to one-half of their length, imbricate, deciduous. Stamens numerous, usually in 2 series; the filaments short, the outer ones adhering to the base of the corolla; the anthers glabrous, with a more or less prolonged connective. Ovary 2-celled; style simple; stigma entire or 2-lobed. Ovules 1—20 in each cell, pendulous. Fruit indehiscent, coriaceous, few-seeded, often crowned by the persistent style. Seeds horseshoe-shaped. Embryo curved. Endosperm scanty, fleshy.

About 85 species, most natives of the West Indies and tropical continental America; the rest natives of tropical Asia and Africa.

Ternstroemia peduncularis DC.

P. DECANDOLLE, Mém. Soc. phys. Genève 1: 409. 1822; BOLDINGH, Fl. D. W. Ind. Isl. 1: 134. 1909; Urban, Symb. Ant. 4: 410. 1910; BOLDINGH, Fl. Ned. W. Ind. Eil. 285. 1913; Williams, Fl. Trinidad & Tobago 1(2): 69. 1929; Leon & Alain, Fl. Cuba 3: 304, fig. 134. 1953; — Taonabo peduncularis (DC.) Britton, Mem. Brooklyn Bot. Gard. 1: 70. 1918; Britton & Wilson, Sci. Surv. Porto Rico & Virgin Isl. 5: 580. 1924.

Small tree, sometimes shrubby. Leaves petiolate; blade obovate or oblong-obovate, rounded or obtuse at the apex, narrowed towards the base, 3—7 × 1.5—4 cm, subcoriaceous; petiole up to 8 mm long. Pedicels slender, about 2.5 cm long. Bracteoles ovate, acutish at the apex, 4 × 3 mm, glandular. The outer sepals broadly ovate, glandular, about 8 mm long and wide, the inner ones suborbicular, 10 mm long and wide, eglandular. Petals about 9 mm long, united to one-third or one-half of their length, the lobes obtuse. Stamens numerous; filaments 1.5 mm long; anthers about 2.5 mm long, the connective prolonged. Ovary 2-celled; style 5 mm long; stigma minute. Ovules 12—20 in each cell. Fruit subglobose, pointed, 10—12 mm in diam.

Puerto Rico to Trinidad.

Woodlands and forests.

ST. EUSTATIUS: top of The Quill above Glass Bottle, 380 m (Stoffers 3602, st. July); top of The Quill (Stoffers 3912, fl. July); id., 350-450 m (Stoffers 3672, fr. July; Boldingh 228, fr. June; 248, fr. June; 264, st. June; 323, fr. June; 359, st. June; 401, st. June; 504, fr. June); inner slope of The Quill, 350 m (Boldingh 1228, fr. June); without loc. (Boldingh s.n., fr. June).

St. Martin: Low Lands (Boldingh 3271, fr. Sept.); id. near Red Pond (Le Gallo 926, fr. July).

Freziera Swartz, emend. Choisy, Mém. Soc. phys. Genève 14: 122, 1855

Shrubs or small trees. Leaves distichous, serrate-crenate, many-veined. Inflorescence consisting of several-flowered clusters in the axils of the leaves or flowers solitary in the axils of the leaves. Bracts and bracteoles present. Flowers small, polygamous or dioecious, rarely hermaphrodite. Sepals 5, persistent, imbricate. Petals 5, alternating with the sepals, free or connate at base, imbricate. Male or hermaphrodite flowers: stamens 15—30, uniseriate, filaments connate at the base and attached to the corolla; anthers much shorter than the filaments, opening to the base. Ovary as in the female flower. Female flower: staminodes indefinite; ovary superior, 2—5-celled; style entire; stigmas 2—5; ovules numerous attached to a placenta intruding to the middle of the cell. Fruit dry, indehiscent. Seeds numerous, reniform. Embryo nearly straight or slightly curved. Endosperm fleshy.

About 30 species in the West Indies, Central America, and tropical South America.

Freziera undulata (Sw.) Sw.

SWARTZ, Fl. Ind. Occ. 2: 974. 1800; WILLDENOW, Spec. Plant. 2(2): 1179. 1800; GRISEBACH, Fl. Br. W. Ind. Isl. 104. 1859; URBAN, Bot. Jahrb. 21: 542. 1896; Duss,

Fl. phan. Ant. franç. 97. 1897; BOLDINGH, Fl. D. W. Ind. Isl. 1: 134. 1909; Fl. Ned. W. Ind. Eil. 286. 1913; FAWCETT & RENDLE, Fl. Jamaica 5(3): 187, 1926; WILLIAMS, Fl. Trinidad & Tobago 1(2): 71. 1929; — Eroteum undulatum SWARTZ, Prodr. 85. 1788; — Eurya undulata (SWARTZ) BLUME, Mus. Bot. Lugd. Bat. 2: 105. 1856.

Tree, about 10-15 m tall; branchlets slender, pubescent when young, but soon glabrescent. Leaves distichous; blade lanceolate or elliptic-lanceolate, acuminate at the apex, unequal and cuneate at the base, $5-12 \times 2-3$ cm, 3-4 times as long as wide; margin serrate or crenate-dentate, undulate, glabrous; petiole about 1 cm long, reddish-brown, glabrous, canaliculate above. Flowers axillary, 2-5 per fascicle, rarely solitary; pedicels 3-7 (-10) mm long, slightly pubescent. Bract ovate, 1.5-2 mm long, puberulent. Bracteoles 2, below the calyx, broadly ovate, concave, sepaloid, persistent, 1.5—2 mm long. Sepals broadly ovate to orbicular, 2-2.5 mm long and wide, coriaceous, ciliate. Petals white, oblong, rounded or truncate and mucronate at the apex, 5-6 X 3-4 mm, reflexed. Male flowers: stamens usually 20; filaments subequal, attached to the base of the petals, 1.0—1.5 mm long; anthers lanceolate, 1.5—2 mm long. Female flowers: staminodes about 3 mm long; ovary 3-celled, globose, terminating in the more or less conical style, glabrous; style 1.5-2 mm long; stigmas 3, oval. Fruit conical, dry, 3-celled, 4-5 mm long, pointed by the persistent style. Seeds 0.5—1 mm long, punctulate, dark brown.

Jamaica, St. Martin to Trinidad. In palm brake.

Saba: slope of The Mountain, 680-800 m (Stoffers 3472, fl. & fr. June; Boldingh 2201, fl. & fr. July).