

# OLEACEAE

by

A. L. STOFFERS

(Instituut voor Systematische Plantkunde, Utrecht)

Evergreen or deciduous trees or shrubs or sometimes woody vines. Leaves opposite, verticillate or very rarely alternate, simple or pinnately compound. Stipules wanting. Inflorescence consisting of mostly terminal dichasial panicles or cymes. Bracts and bracteoles present. Flowers hermaphrodite or rarely unisexual, fragrant, actinomorphic. Calyx mostly small and cupular with 4—8 (—12) teeth, rarely wanting. Corolla of 4(—12) petals which are basally united into a tube or free or sometimes wanting; limb obsolete. Stamens 2(—4); filaments often short, slender, inserted on the corolla-tube and alternating with the corolla-lobes; anthers oblong with broad and protruding connective, longitudinally dehiscent. Ovary superior, 2(—1)-locular; style simple, apically divided into 2, mostly flat, deltoid or fusiform stigmatic lobes. Ovules usually 2(—19) in each loculus, anatropous or amphitropous, ascending or pendulous. Fruit a loculicidal capsule, a berry, drupe or samara, often only 1-seeded. Seeds with hard endocarp. Endosperm present. Embryo erect.

About 500 species in c. 25 genera from the tropics to temperate regions, especially in Asia.

## Key to the genera:

1. Leaves 3-foliolate; scandent shrub, puberulent to tomentose; corolla white, salverform, up to 4.5 cm long . . . . . *Jasminum*  
Leaves simple; trees or shrubs; corolla with very short tube and 4 elongate, 2 cm long straplike lobes, or corolla wanting . . . . . 2
2. Leaves up to 16 × 5 cm, narrowly elliptic or slightly obovate; corolla with 4 elongate straplike lobes . . . . . *Chionanthus*  
Leaves up to 5 × 2 cm, ovate to oblong-lanceolate; corolla wanting  
. . . . . *Forestiera*

**Chionanthus** Linnaeus, Spec. Plant. 8. 1753

Deciduous or evergreen trees or shrubs. Leaves opposite, entire, petiolate. Inflorescence consisting of terminal or axillary panicles, sometimes condensed and fascicle-like or reduced and racemose. Bracteoles present. Calyx small, 4-cleft or 4-toothed. Petals 4, distinct, slightly to much elongated; united into a short tube or in pairs at the base or quite free. Stamens 2 or rarely 4, born at the bases of the petals; filaments short; anthers ovate to linear. Ovary 2-locular; style short; stigma oblong to globose. Ovules 2 in each locule. Fruit a small, oblong drupe with thin flesh and hard endocarp.

About 70 species in the tropics, a few species in temperate regions.

**Chionanthus compactus** Sw.

SWARTZ, Prodr. 13. 1788; FOURNET, Fl. Guadeloupe & Martinique 1143. 1978; — *Linociera compacta* (SWARTZ) R. BROWN, Prodr. 523. 1810; BOLDINGH, Fl. D.W. Ind. Isl. 1: 154. 1909; — *Chionanthus caribaea* JACQUIN, Coll. 2: 110. 1788; — *Mayepea caribaea* (JACQUIN) O. KUNTZE, Rev. Gen. Pl. 411. 1891; DUSS, Fl. phan. Ant. franç. 391. 1897; BRITTON & WILSON, Sci. Surv. Porto Rico & Virgin Isl. 6: 79. 1925; — *Linociera caribaea* (JACQUIN) KNOBLOCH, Bot. Centralbl. 61: 87. 1895; JOHNSTON, Proc. Bost. Soc. Nat. Hist. 34(7): 246. 1909; URBAN, Symb. Ant. 4: 488. 1910; BOLDINGH, Fl. Ned. W. Ind. Eil. 317. 1913; URBAN, Symb. Ant. 8: 533. 1921; CHEESMAN, in Fl. Trinidad & Tobago 2: 143. 1947.

Small tree, up to 12 cm tall and 15 cm in trunk-diam.; bark grey, smoothish to slightly fissured, with minute blackish lenticels. Inner bark orange-brown with bitter gritty taste; twigs slender, light grey, minutely hairy when young, with rounded, raised leafscars. Stipules wanting. Leaves opposite; petioles slender, yellow-green, less than 1.5(—2) cm long, thickened at the base; blades narrowly elliptic or slightly obovate, acuminate at the apex, tapering at the base, 7.5—16 × 2.5—5(—6) cm, slightly thick and leathery, hairless or with some scattered hairs near the midrib and hairtufts in the axils of midrib and lateral veins often present; dull green or olive green above with yellowish midrib, light green beneath. Inflorescence consisting of panicles, axillary or above the leafscars, 2.5—7.5(—10) cm long, the flowers few to several together, stalkless, at the end of long, slender branches. Bracts linear to narrow lanceolate, 2—2.5 mm long, appressed pubescent; bracteoles narrow-lanceolate, about 1 mm long, appressed pubescent. Calyx cup-shaped, less than 1.2 mm long, 4-toothed, green and with minute hairs. Corolla of 4 narrow, threadlike, white petals, 1.8—2 cm long, united at the very base. Stamens 2, less than 1.5 mm long, born at the base of the petals. Ovary 2-locular; style short; stigma 2-lobed. Fruit a drupe, green when immature, blackish and 1—2.5 cm long when mature. Seed 1.

Puerto Rico & Virgin Islands, Hispaniola, throughout the Lesser Antilles from St. Martin to Grenada and Trinidad; Venezuela and Margarita.

In evergreen seasonal and rainforest.

Vernacular name: bridgo tree (Windward Group)

**SABA:** road to Hellsgate (Arnoldo 753, fl. Aug.); between Hellsgate and Sandy Cruz, 500—600 m (Stoffers 3173, fl. May); slope of The Mountain at the side of The Bottom, 400—500 m (Stoffers 3122, fl. Ap.); lower part of Bottom Mountain, 250 m (Boldingh 1419, fl. & fr. July; 1422, fl. July); Castle Hill, seaside, 300—500 m (Stoffers 4197, fl. Aug.).

**St. EUSTATIUS:** top of The Quill, 350—500 m (Boldingh 343, st. June; 352, fr. June; 301, fl. June; 181, st. June; Stoffers 3696, fl. July; 3942, st. July; 3943, fl. July); top of The Quill above Glass Bottle (Stoffers 3599, fl. & fr. July); western slope of The Quill, 200—300 m (Stoffers 4701, fl. Aug.); slope of The Quill between Glass Bottle and White Wall, 100—170 m (Stoffers 4042, st. Aug.; 4043, st. Aug.; 4053, fl. Aug.; 4091, defl. Aug.; 4104, st. Aug.; 4055, fl. en fr. Aug.; 4066, st. Aug.; Boldingh 1117, fl. June; 1113, fl. June); slope of The Quill near Bengalen, 250 m (Stoffers 3764, st. July; Boldingh 700, fl. June); without loc. (van Groll-Meyer 169, fl.).

**St. MARTIN:** Milldrum Hill (Boldingh 3151, st.).

**Forestiera** Poiret, in Lamarck, Encycl. Suppl. 2: 664. 1812

Deciduous shrubs or trees. Leaves opposite, simple, petiolate. Inflorescence consisting of axillary clusters or on twigs of the previous season. Bracts present. Flowers very small, incomplete or commonly imperfect. Calyx-tube short, the limb deeply 4—6-lobed. Corolla wanting or rarely of 1 or 2 small petals. Stamens 2 or 4. Ovary 2-locular; stigma thick and sometimes 2-lobed. Ovules 2 in each locule, pendulous. Drúpe usually 1-seeded.

About 10 species in tropical America.

**Forestiera eggर्सiana** Kr. & Urb.

**KRUG & URBAN**, Bot. Jahrb. 15: 339. 1893; **BOLDINGH**, Fl. D.W. Ind. Isl. 1: 154. 1909; Fl. Ned. W. Ind. Eil. 317. 1913; **BRITTON & WILSON**, Sci. Surv. Porto Rico & Virgin Isl. 6: 77. 1925; **QUESTEL**, Fl. Isl. St. Bartholomew 166. 1941; **CHEESMAN**, Fl. Trinidad & Tobago 2: 143. 1947; **FOURNET**, Fl. Guadeloupe & Martinique 1142, fig. 558. 1978.

Dioecious, evergreen shrub, 3.5 m high or a small tree up to 5 m tall and up to 10 cm in trunk diam.; twigs slender, rufo-brownish when dry, finely hairy when young. Stipules wanting. Leaves opposite; petioles 2—3 mm long; blade ovate to oblong-lanceolate, acuminate at the apex, cuneate at the base, 2—5 × 0.6—2 cm, chartaceous, margin slightly wavy-toothed and crenate in the upper part, glabrous, upper surface shiny green, the lower surface paler, dotted when dry. Inflorescence axillary, racemose, 7—9-flowered. Bracts deciduous, 2—2.5 mm long and 1—1.5 mm wide. Pedicels 1—1.5 mm enlarging to 2—2.5 mm in fruit. Sepals 4, connate at the base, lanceolate to obovate-oblong, 0.2—0.3 mm long. Ovary globular; style slender, short, 1 mm long; stigma capitate and more or less bilobed. Fruit oblong-ellipsoid, 8—10 mm long and 3.5—4 mm in diam.

Puerto Rico, Virgin Islands, St. Martin, St. Bartholomew, Guadeloupe, and Trinidad.

In secondary woodland.

ST. MARTIN: Prince Quarter (Suringar s.n., fem. fl.).

**Jasminum** Linnaeus, Spec. Plant. 7. 1753

Shrubs or woody vines. Leaves alternate or opposite, simple, 3-foliolate or pinnately compound. Stipules wanting. Inflorescence mostly consisting of terminal, cymose, dichasial panicles or heads. Bracts and bracteoles mostly present. Flowers sessile or short-pedicellate, heterostylous, fragrant. Calyx campanulate, cupular or funnel-shaped with 5—8 more or less unequal teeth. Corolla salverform with slender, elongate, often curved tube, obsolete limb, and 4—many imbricate lobes. Stamens 2, included; filaments inserted near the middle of the corolla-tube; anthers oblong, basifixed, introrsely dehiscent, with broad, extending connective. Ovary 2-locular, mostly demarcated by a sulcus or separating plate of nonacrescent tissue; style branches stigmatic, fusiform. Ovules 1—4 in each locule. Fruit of 2 drupelets, connate or divaricate, 1—2-seeded but one drupelet often abortive. Endosperm scanty.

Over 200 species, native of the Old World, mainly in the tropics.

**Jasminum fluminense** Vell.

VELLOZO, Fl. Flumin. 10. 1825; GOODING *et al.*, Fl. Barbados 325. 1965; ADAMS, Flowering plants of Jamaica 578. 1972; FOURNET, Fl. Guadeloupe & Martinique 1145. 1978; — *Jasminum azoricum* auct. non LINNAEUS; DUSS, Fl. phan. Ant. franç. 392. 1897; BOLDINGH, Fl. D.W. Ind. Isl. 1: 154. 1909; Fl. Ned. W. Ind. Eil. 317. 1913; Fl. D.W. Ind. Isl. 2: 85 1914; URBAN, Symb Ant. 8: 534. 1921; BRITTON & WILSON, Sci. Surv. Porto Rico & Virgin Isl. 6: 80. 1925; QUESTEL, Fl. Isl. St. Bartholomew 166. 1941; LEON & ALAIN, Fl. Cuba 4: 151. 1957; ARNOLDO, Gekw. en nutt. pl. Ned. Ant. 81. 1954; Gekw. en nutt. pl. Ned. Ant. 205, fig. 5. 1971.

Scandent shrub; branches terete, solid, slender and puberulent to tomentose with simple, curled hairs. Leaves opposite, trifoliolate, petiolate; petiole 1.5—2(—2.5) cm long, tomentose; leaflets ovate to broadly ovate, acuminate, acute or obtuse at the apex, subcordate, truncate or short-acuminate at the base, veins arcuate but not anastomosing, glabrate but pubescent on and near the midvein on the upper surface, glabrate except for tufts of tomentum in the axils of the veins on the lower surface, the terminal leaflets 3.5—5(—9) × 2—3.5(—5) cm, its petiolule up to 2 cm long, the lateral leaflets 2.5—4.5(—5) × 2—3.5(—4) cm, their petiolules 0.5—1 cm long. Stipules wanting. Inflorescence consisting of more or less open panicles, 4—15 cm long. Bracts paired, linear, 3 mm long; bracteoles 1 or 2, linear, tomentose, small, in the lower portion of the pedicel. Flowers fragrant. Calyx cupular, about as long as wide, 2—3 mm, its teeth about 1 mm long, tomentose to glabrate. Corolla salverform with a 1.5—3 cm long tube, slightly expanding, the lobes narrow, 1—1.5 cm long. Ovary subtruncate and slightly sulcate; style slightly exerted, its branches fusiform, about 5 mm long. Fruit ellipsoid, divaricate, baccate drupelets, c. 7 mm across, paired.

Native of Africa; introduced in South America and there widely cultivated as an ornamental, escaped and naturalized in several parts of South America.

Escaped from cultivation in Bonaire, Saba, and St. Eustatius.

Vernacular name: hasmin (Leeward Group).

ARUBA: San Nicolas (Arnoldo 234, fl. Dec.; Stoffers 1944, fl. Jan.).

BONAIRE: Put Bronswinkel (Stoffers 8348, fl. Jan.).

CURAÇAO: Mondo Nobo (Arnoldo 1109, fl. Sept.); St. Thomas College (Arnoldo s.n., fl. Feb.); hofje near Weis Afo (Nagelkerken 152, fl. & fr. March).

ST. EUSTATIUS: Oranjestad (Boldingh 537, fl. June).

ST. MARTIN: Philipsburg (Stoffers 2412A, fl. March).

Several species of *Jasminum* are cultivated as ornamentals; see Arnoldo, *Gekweekte en nuttige planten van de Nederlandse Antillen*, 1971.