

A CONSPECTUS OF BALINESE OLEACEAE

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Yessi Santika. 2016. Ikhtisar suku *Oleaceae* di Bali. *Floribunda* 5(5): 175–177. — Uraian pendek suku *Oleaceae* di Bali disajikan dan tujuh jenis tumbuhan dicatat. Jenis-jenis tersebut adalah *Chionanthus ramiflorus* Roxb., *Fraxinus graffithii* C.B. Clarke, *Jasminum multiflorum* (Burm.f.) Andr., *Jasminum sambac* (L.) Aiton, *Ligustrum glomeratum* Blume, *Olea paniculata* R.Br. dan *Myxoporum nervosum* Blume. Keberadaan *Myxoporum nervosum* dan *Jasminum sambac* merupakan rekaman baru untuk Bali. Kunci identifikasi, pertelaan singkat dan area distribusi dari masing-masing jenis disajikan.

Kata kunci: Bali, *Jasminum sambac*, *Myxoporum nervosum*, *Oleaceae*.

Yessi Santika. 2016. A Conspectus of Balinese *Oleaceae*. *Floribunda* 5(5): 175–177. — A short account of Balinese *Oleaceae* is presented and seven species are recorded. There are *Chionanthus ramiflorus* Roxb., *Fraxinus graffithii* C.B. Clarke, *Jasminum multiflorum* (Burm.f.) Andr., *Ligustrum glomeratum* Blume, *Olea paniculata* R.Br., *Jasminum sambac* (L.) Aiton and *Myxoporum nervosum* Blume. The last two species are new recorded for Bali. Identification key, short descriptions and distribution areas for each species are given.

Keywords: Bali, *Jasminum sambac*, *Myxoporum nervosum*, *Oleaceae*.

This short account of Balinese *Oleaceae* is presented in conjunction with the preparation of a definitive *Flora of Bali* now being undertaken by Herbarium Bogoriense. During the present study, to the six species already enumerated in Girmansyah et al. (2013) annotated check list, two more species added. One of those six species,

Jasminum acuminatum (Lam.) Persl. is doubtful since there is no specimen available in BO either in L based on its digital collections. In the following, an identification key to Balinese *Oleaceae*, short descriptions and distributions areas for each species are given.

Identification key to Balinese *Oleaceae* Hoffm. & Link

- 1.a. Shrub or tree
 - 2.a. Leaves compound imparipinnate, fruit samara *Fraxinus graffithii*
 - 2.b. Leaves simple, fruit drupe or berry
 - 3.a. Fruit berry, *Ligustrum glomeratum*
 - 3.b. Fruit drupe
 - 4.a. Corolla with tube, domatia present *Olea paniculata*
 - 4.b. Corolla without tube, calyx shallow 4-lobes *Chionanthus ramiflorus*
- 1.b. Climber/shrub scandent.
 - 5.a. Leaves simple, 3-nerved, elliptical to lanceolate *Myxoporum nervosum*
 - 5.b. Leaves simple, penninerved, 3–4 pairs, ovate *Jasminum*
 - 6.a. Branchlet and leaves pubescent, many flowers, covered with leafy bract *J. multiflorum*
 - 6.b. Branchlet and leaves glabrous except in vein axils, a few flower, leafy bract absent, scented ...
..... *J. sambac*

Fraxinus L. Sp. Pl. 1: 7. 1753

Fraxinus graffithii C.B. Clarke, Fl. Brit. India 3: 605. 1882; Backer & Bakhuizen v/d Brink, Fl. Java 2: 213. 1965; Chang et al., Fl. China 15. 275. 1996; Van der Vossen & Wessel, Prosea 16. 129. 2000; Girmansyah et al., Fl. Bal. Checklist 86. 2013.

Tree up to 10 m height. Branchlet whitish, lenticellate, compressed in some part. Petiole c. 4 cm, pubescent, dark brown base. Leaves opposite, imparipinnate 9–11 leaflets, lanceolate to elliptic-oblong, entire. Lower leaflets smaller than apex. Infructescence terminal and axillary panicle, spreading, many fruit. Fruit a samara with a

unilateral wing c. 3 x 0.5 cm long, lanceolate, rounded apex. Seed flat, lanceolate, almost half size of total fruit length. Inflorescence not seen, but according to Chang et al. (1996), this species has panicle inflorescence, spreading with many flowers; bracts spatulate-linear, 3–10 mm, leafy, puberulent at first. Flowers bisexual, appearing after leaves; pedicel slender, 2–4 mm; calyx cupular, ca. 1 mm, puberulent or glabrous, sub-entire to broadly deltate toothed; corolla white; lobes navicular, ca. 2 mm. Stamens ca. equal to corolla lobes.

Distribution: Himalaya and north-eastern India, China (Hupai), the Ryukyu Islands, Taiwan, Philippines (Luzon), Central Sulawesi, East Java, Bali, Flores.

Specimen examined: INDONESIA. Bali, Tabanan, Penatahan. Kostermans, Kuswata, Soegeng, Soepadmo. KKSS234. 30 June 1958 (BO: Fr.)

Ligustrum L. Sp. Pl. 1: 7. 1753

Ligustrum glomeratum Blume, Mus. Bot. 1: 314. 1851; Backer & Bakhuizen v/d Brink, Fl. Java 2: 215. 1965; Girmansyah et al., Fl. Bal. Checklist 87. 2013.

Shrub or tree with terete branchlets, covered with short hairs, especially at the apex, lower part lenticellate. Petiole (4–) 6–8 mm. Leaves opposite, simple, entire, elliptic to ovate-lanceolate, base acute to obtuse, apex acute-acuminate, 4–7 (–10) x 1.5–2.5 (–4) cm, secondary veins not seen clearly. Inflorescence terminal, panicle with many flowers, 10–15 cm long with 7–9 pair branches, densely hairy; calyx truncate or dentate, ± 1mm, 4-lobed, shallow, green; corolla white, 4-lobed, tube 1–3 times the length of calyx; ovary superior. Fruit berry-like, ovoid, 0.7 x 0.3 cm, black when ripen.

Distribution: S. Thailand, N. Malaya, Sumatra, Borneo, Philippines, Java, Lesser Sunda Is., Celebes, Moluccas, and New Guinea.

Specimen examined: Bali, Lake Batur. W. Meijer 10323. 16 June 1976 (BO: Fr.); Bali, Bangli, Kintamani Timur, Pinggan. 1050 m asl. IGM. Raditha 235. 28 March 1980 (BO: Fl. & Fr.).

Olea L. Sp. Pl. 1: 7. 1753

Olea paniculata R.Br. Prodr., Fl. Nov. Holl. 528. 1810; Backer & Bakhuizen v/d Brink, Fl. Java 2: 214. 1965; Kiew R, Blumea 25(1). 312. 1979; Chang et al., Fl. China 15. 298. 1996; Girmansyah et al., Fl. Bal. Checklist 87. 2013.

Trees 6–20 m. Branchlets compressed, glabrous, lenticellate. Petiole 1–1.5 (–3) cm, gla-

brous. Leaves apposite, simple, ovate-elliptic to elliptic-lanceolate, 5–11 (–18) x 2.5–5.3 (–6.5) cm, papery, penninerved with domatia in axils of primary veins, base cuneate, margin entire, apex acuminate. Inflorescence not seen. Infructescence panicle terminal or axillary, ovoid.

Note: Based on Chang et al. (1996), it has bisexual flower; pedicel 0–3 mm; calyx ca. 1 mm; corolla white; tube ca. 1 mm; lobes elliptic, 1.5–2 mm, obtuse.

Distribution: Australia, Yunnan (China), India, Nepal, Pakistan, Sri Lanka, Indonesia, Malaysia and New Guinea,

Specimens examined: INDONESIA. Bali, Bedugul forest region, Mt. Batukau complex, alt. 1300 m asl. Kostermans, Kuswata, Soegeng, Soepadmo. KKSS143. 24 April 1958. (BO: Fr.); Bali, East Bali, Karangasem. South slope of Gunung Agung 1–2 m SW of Besakih 1750 m asl. Mc Donald & Ismail, 4802. 07 September 1994. (BO: Fr.).

Chionanthus L. Sp. Pl. 1: 8. 1753

Chionanthus ramiflorus Roxb., Fl. Ind. 1: 106. 1820; Chang et al., Fl. China 15. 294. 1996; Kiew R, Prosea 5(3). 159. 1998; Girmansyah et al., Fl. Bal. Checklist 86. 2013.

Shrubs or trees 3–25 m. Branchlets terete, lenticellate. Petiole 2–5 cm, glabrous. Leaves opposite, simple, elliptic or ovate-elliptic, 8–17 (–20) x 4–6 (–7) cm, leathery, glabrous, base attenuate, apex acuminate, acute, or obtuse. Inflorescence axillary or rarely terminal, panicles, loose, 9–14 cm; pedicel 2–3 cm long; calyx minute, 4 shallow lobed, acute; corolla 2–3 mm, 4-lobed, oblong with rounded apex; ovary superior. Fruit not seen but based on Chang, et al. (1996) description, its drupe, glaucous, ovoid-ellipsoid.

Distribution: India (E part), Indo China, Taiwan, Thailand, throughout Malesia, Australia (Queensland) and the Solomon Islands.

Specimens examined: Bali, Bedugul, Bukit Tapui, alt. 2000 m asl. W. Meijer 10471. 18 June 1976 (BO: Steril); Bali, Bedugul, Bukit Tapui 1700 m asl. W. Meijer 10496, (BO: Steril); Batukau National Reserve, P. Pohen, primary forest. JJ. Afriastini 179 (BO: Steril); Ubud, 20 Km Denpasar, Kampung Mas. W. Meijer & Noerta 8093 (BO: Fl.)

Myxopyrum Blume, Bijdr. 683. 1826

Myxopyrum nervosum Blume, Bijdr.: 683. 1825; Backer & Bakhuizen v/d Brink, Fl. Java 2: 215. 1965; Kiew R, Blumea 29. 505. 1984; Kiew R,



Figure 1. *Myxopyrum nervosum* Blume, collected from Mount Mesehe, West Bali.

Prosea 13(3). 315. 2003; Girmansyah et al., Fl. Bal. Checklist 86. 2013 (Figure 1).

M. nervosum is characterized by its scandent habit with square stem in cross-section. Leaves opposite, simple, elliptical sometimes narrowly lanceolate, 3-veined. Inflorescence terminal or axillary. Fruit an ellipsoid berry, ripening dark red or black. Inflorescence not observed but according to Kiew (1984) it has lax panicle 3–14 cm long. Flowers bisexual, minute; calyx 4-lobed; corolla urceolate. Ovary superior.

Note: This species is newly recorded for the flora of Bali.

Distribution: Peninsular Malaysia, Sumatra, Jawa, Bali, Borneo, Filipina (Palawan), Sulawesi, Maluku and West New Guinea.

Specimen examined: Bali, West Bali, Gunung Mesehe. Y. Santika, YS521, 13 May 2013 (BO)

Jasminum L. Sp. Pl. 1: 7. 1753

Jasminum multiflorum (Burm.f.) Andr., Bot. Repos. 8: t. 496. 1807; Backer & Bakhuizen v/d Brink, Fl. Java 2: 218. 1965; Rahajoe et al., Prosea 12(1). 319. 1999; Girmansyah et al., Fl. Bal. Checklist 86. 2013.

Shrub scandent, to 3 m. Branchlet terete, pubescent, young shoots densely pubescent. Petiole pubescent 0.5–0.7 cm. Leaves opposite, simple, ovate 1–4.5 x 1.5–2 cm, base rounded, apex acute or mucronate, glabrescent, except on midrib and veins, with 3–4 pairs of secondary

veins; petiole 3–5 mm long, densely pubescent. Flower with pedicel 0–2 mm; calyx densely pilose, tube ca. 1 mm, lobes 6–9, filiform, 2–5 mm; corolla white, 1 layer, tube 1.2–1.7 cm; lobes 5–7, acute, 0.6–0.8 cm. Fruit not seen. Position of inflorescence not observed since the only specimen examine has not in perfect condition. Based on Chang et al. (1996), it has terminal on side shoots, many flowered, congested; covered with leafy bracts.

Distribution: A native of India, but cultivated in western Malaysia.

Specimen examined: Bali, West Bali, near Gilimanuk, remnant forest. van Balgooy 5267. 14 Oktober 1985 (BO: Fl.).

Jasminum sambac (L.) Aiton, Hort. Kew. 1: 8. 1789; Backer & Bakhuizen v/d Brink, Fl. Java 2: 218. 1965; Rahajoe et al., Prosea 12(1). 319. 1999; Girmansyah et al., Fl. Bal. Checklist 86. 2013.

Shrubs erect or scandent, to 3 m. Branchlets terete, sometimes hollow, sparsely pubescent on young shoots. Leaves opposite, simple; petiole 2–5 mm, articulate, pubescent; leaf blade orbicular to elliptic or obovate, 3.5–6 x 2–4.5 cm, papery, glabrous except vein axils abaxially, round base, sometimes base subcordate; primary veins 4–5 on each side of midrib. Inflorescence terminal, cymes, often 3 to 5-flowered. Flowers very fragrant; pedicel 0.3–1 cm; calyx glabrous or sparsely pubescent, lobes 8–9, linear, 4–7 mm; corolla white, tube 0.5–0.8 cm, lobes oblong to sub-orbicular, 3–5 mm broad.

Note: This species is not recorded yet in Girmansyah et al. (2013).

Distribution: Originated from India and cultivated throughout Malaysia.

Specimen examined: the above description is based on Javanese specimen (Java, Residentie Besoeki, Kooders 21472B, 3 Feb 1898 (BO: Steril); Java, Res. Batavia, SH. Kooders, 40360 (BO: Fl.)), since no Balinese specimen is kept in BO of this commonly cultivated and much used species.

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