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THE GENUS *LASIANTHUS* (Rubiaceae) IN WAWONII ISLAND, SOUTHEAST SULAWESI, INDONESIA

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ABSTRACT
RUGAYAH & SUNARTI, S. 2017. The genus *Lasianthus* (Rubiaceae) in Wawonii Island, Southeast Sulawesi, Indonesia. *Reinwardtia* 16 (2): 97–101. — Recent botanical excursions carried out at Wawonii island, Southeast Sulawesi yielded two *Lasianthus* novelties distinct from other *Lasianthus* species enumerated for Sulawesi. These two new species are described here as *Lasianthus wawoniensis* Rugayah & Sunarti and *L. macrobracteatus* Rugayah & Sunarti. Descriptions and illustrations of the two new species are provided, including an identification key to all *Lasianthus* species occurring in the area.

Key words: Indonesia, *Lasianthus*, Rubiaceae, Southeast Sulawesi, Wawonii island.

ABSTRAK


INTRODUCTION

*Lasianthus* Jack is one of the largest genera within Rubiaceae with about 180-228 species listed throughout the tropical regions (Davis et al., 2009; Zhu et al., 2012). However, the centre of its diversity is concentrated in the Malesian region with 131 species enumerated (Zhu et al., 2012), with new species still being discovered as more botanical explorations were conducted in Southeast Asia.

The flora of Sulawesi is considered to be very poorly documented in comparison to other islands in Malesia. In the preliminary checklist of plants for Sulawesi, *Lasianthus* was not recorded (Sidiyasa et al., 1989). The subsequent checklist by Kessler et al. (2002) enumerated 15 species of *Lasianthus* for Sulawesi. Whilst, *The World Checklist of Rubiaceae* recorded a total of 17 species in Sulawesi (Govaerts et al., 2017).

A recent botanical exploration to Wawonii, an island located in Banda Sea on the southeast coast of Sulawesi, led by Research Center for Biology, Indonesian Institute of Sciences, enumerated 64 species of plants from Rubiaceae. Of these, three species were identified as *Lasianthus*, namely *L. laevigatus* Blume, *Lasianthus* sp.1 and *Lasianthus* sp. 2 (Rugayah et al., 2015). In January 2017, we re-studied the Rubiaceae collections gathered from Wawonii with a specific interest focusing on *Lasianthus*. After having examined the materials thoroughly using the treatment by Zhu et al. (2012), we concluded that *Lasianthus* sp. 1 (represented by specimen number: Siti Sunarti SS 206) and *Lasianthus* sp. 2 (represented by specimen number: Siti Sunarti SS 175) as distinct and described here as *L. macrobracteatus* Rugayah & Sunarti and *L. wawoniensis* Rugayah & Sunarti respectively, while *L. laevigatus* is re-determined as *L. stercorarius* Blume (represented by specimen numbers: Rugayah R 968 and Siti Sunarti SS 208).

DESCRIPTION

1. *Lasianthus macrobracteatus* Rugayah & Sunarti, spec. nov. — Type: Indonesia, Southeast Sulawesi, Wawonii, 30 August 2005, Siti Sunarti SS 175 (Holotype: BO). Fig. 1.

Similar to *L. cailinianus* H. Zhu but differs in having angular and glabrescent branches and branchlets (vs. terete and densely pubescent branches and branchlets in *L. cailinianus*), long triangular stipules ca. 8 mm long (vs. short lanceolate-triangular stipules ca. 3 mm long in

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L. cailinianus 8–10), sessile inflorescences (vs. distinctly stalked inflorescences in L. cailinianus), larger leaf-like bracts (3.5–4.5 × 1.3–1.5 cm) with long cuspidate apex (vs. ovate leaf-like bract (ca. 1.5 × 1 cm) with shortly cuspidate apex in L. cailinianus), and globose and glabrous fruit (vs. subglobose and hairy fruits in L. cailinianus).

Shrub, generally covered with long hirsute hairs throughout. Branchlets angular and glabrescent, ca. 3 mm diam., with white lenticelled. Leaf blade elliptic-lanceolate, 12–17 × 3–6 cm, thick chartaceous, densely hairy on both surfaces; base acute, apex acuminate, densely hairy on both surfaces; midrib flat above, raised below, densely hairy both side; secondary nerves 8–10 pairs, ascending at an angle of 40°, curved gradually to margin; tertiary nerves obscure above, distinct beneath; margin entire, densely hairy. Petiole 6–8 mm long, densely hairy. Stipule triangular, 8 mm long, densely covered with long hirsute hairs inside. Inflorescences axillary, cymes sessile; outer bracts 2, leaf-like, ovate-elliptic, ca. 3.5–4.5 × 1.3–1.5 cm, apex long acuminate, densely covered with hairs at basal portion and sparsely hairy towards the apex. Bracteoles numerous and densely covered with long silky hairs; outer bracteoles almost bract-like but smaller, narrowly lanceolate 2 × 0.3 cm, inner bracteoles linear ca. 1 cm long. Fruits not seen. Fruit drupe, blue, globose, ca. 8 mm diam., inconspicuously 5–7 ridged, crowned with a persistent calyx; calyx lobes linear, ca. 2 mm long. Pyrenes 5.

Distribution. The species is so far known only from Wawonii, Waworete in the hill forest about 810 m asl.

Uses. Leaves of L. macrobracteatus was used by the local people to make decoction to treat asthma and breathing difficulty (dyspnoea).

Vernacular name. Oombu (Wawonii language).

Notes. Lasianthus macrobracteatus is known only from the type collection. In Rugayah et al. (2015), Siti Sunarti SS 175 was preliminary identified as Lasianthus sp. 2, but now proven to be distinct. The species also resemble with L. hirsutus (Roxb.) Merr. It differ from the latter in having shorter petioles and stipules, bigger outer bracts and globose fruit shape with inconspicuously 5–7 ridged, glabrous. Lasianthus hirsutus has petioles 10–15 mm long; stipules lanceolate or triangular-lanceolate, 8–10 mm long; outer bract ovate-lanceolate, 2–3 cm long; fruit ovoid-globose hirsute to glabrous.

2. Lasianthus wawoniensis Rugayah & Sunarti, spec. nov. — Type: Indonesia, Southeast Sulawe-
Fig. 1. *Lasianthus macrobracteatus* Rugayah & Sunarti spec. nov. A. Habit; B. Detail of node showing stipule, outer bract and fruit; C. Outer bract (1), bracteoles (1 & 2); D. Fruit; E. Persistent calyx on its fruit. From *Siti Sunarti SS 175* (BO), drawing by Wahyudi Santoso (BO).
Fig. 2. Lasianthus wawoniensis Rugayah & Sunarti spec. nov. A. Habit; B. Detail of node showing the stipule and inflorescence; C. Lower surface of leaf showing the reticulation of tertiary nerves; D. Flower (without corolla). From Siti Sunarti SS 206 (BO), drawing by Wahyudi Santoso (BO).
Key to the *Lasianthus* of Wawonii

1  
a. Leaves drying olive brown; lateral nerves 4–5 pairs; flowers pedicled, calyx campanulate .................................................................  
b. Leaves drying dark brown-black; lateral nerves > 5 pairs ...............  

2  
a. Branchlets angular; outer bracts 2, leaf-like; bracteoles numerous, lanceolate to filiform; fruits globose ca. 8 mm diam., blue ...............  
b. Branchlets terete; bracts and bracteoles absent; fruit globose- subglobose ca. 7 mm diam., whitish yellow  ..............................................................................

Shrub to treelet, 3 m high, generally covered with puberulous indumentum. Branchlets terete and tetrangular to the apex, sparsely hairy to glabrescent, ca. 2.5 mm diam, dark brown when dry. Leaf blade oblong-lanceolate, 8–17 × 2–4.5 cm, thickly chartaceous or subcoriaceous, glabrous above, sparsely hairy beneath; base acute to oblique, apex acuminate to caudate, midrib slightly depressed above, prominent beneath, sparsely to densely hairy on both sides; secondary nerves 9–12 pairs, ascending at an angle of 40°–50°, curved gradually to margin; tertiary nerves prominent on both sides, glabrous above, sparsely hairy to glabrous below; margin entire. Petiole 3–5 mm long, densely hairy. Stipules triangular, 6 mm long, coriaceous at base (only in the old ones), densely hairy. Inflorescences axillary, cymes sessile, with numerous minute bract and bracteoles. Fruit drupe, subglobose-globose, glabrous, ca. 7 mm diam., conspicuously 6–9 lobes, crowned with a persistent calyx, calyx lobes subulate, 1.5 mm long.

**Distribution.** Malaysia (Peninsular, Borneo) and Indonesia: Sumatra, Kalimantan and Sulawesi. In Wawonii, *L. stercorarius* is recorded from Lansilowo and Waworete in primary forests at 490 m asl.

**Specimens examined.** Wawonii, Lansilowo, 24 April 2004, Rugayah R 968 (BO); Wawonii, Kalimosolo, 1 September 2005, Siti Sunarti SS 208 (BO).

**Notes.** In Rugayah et al. (2015), these specimens, Rugayah R 968 and Siti Sunarti SS 208, were erroneously identified as *L. laevigatus* Blume.

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**REFERENCES**


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