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Two New Distributional Records of *Clerodendrum* L. Species for Andaman and Nicobar Islands, India

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ABSTRACT

Andaman and Nicobar Islands are one of the hot spot biodiversity in terms of its flora and fauna. Due to the tropical climate, it flourishes with interesting and richest flora in this region. We are reporting *Clerodendrum colebrookianum* Walp., from Narcondam Island wildlife sanctuary and *Clerodendrum villosum* Blume, from Great Nicobar Island, these two angiosperms belong to family Lamiaceae are being reported as new additions to the flora of the Andaman and Nicobar Islands. Taxonomic description with image, phenology and distribution are provided.

Key words: Angiosperm, Lamiaceae, New record, Great Nicobar Island, Narcondam Island.

INTRODUCTION

The genus *Clerodendrum* Linnaeus (Family: Lamiaceae) comprises of c. 150 species confined to tropical and subtropical regions of the Old World (Yuan *et al.*, 2010). In India, the genus is represented by 23 species and 2 varieties, most of the species are reported from the Northeast region (Deori *et al.*, 2013). So far, 7 species of *Clerodendrum* L. reported from Andaman and Nicobar Islands, such as *Clerodendrum andamanense* (Mold.) Rajendran & Daniel, *C. calamitosum* L., *C. chinensis* (Osbeck) Mabb., *C. indicum* (L.) O. Kuntze, *C. infortunatum* L., *C. paniculatum* L. and *C. thomsoniae* Balf. Whereas *C. andamanense* (Mold.) Rajendran & Daniel is very rare in distribution. Moldenke collected this specimen from Corbyn's Cove, South Andaman in 1975, after that no new collection was made by other collectors. Present existence of this species may conform after rediscovery.

During a floristic survey at Narcondam Island wildlife sanctuary and Great Nicobar Island (Fig. 1). The authors collected two species of *Clerodendrum*

L., after critical examination of the specimen with the available literature; it was identified as *C. colebrookianum* Walp., which was collected from Narcondam Island wildlife sanctuary along the water source Nalla, there 5 individuals were observed. Whereas, *C. villosum* Blume, collected from Magar Nalla in Great Nicobar Island, only 3 individuals were observed. Published literature from this region (Lakshminarasimhan and Rao, 1996; Sinha, 1999; Pandey and Diwakar, 2008; Reddy and Prasad, 2008; Prasad *et al.*, 2009 and Naik *et al.*, 2020) reveals that these two species so far not described from Andaman and Nicobar Islands. These two species of *Clerodendrum* L. are new additions to the flora of the Andaman and Nicobar Islands. Taxonomic details with image, phenology and distribution are demonstrated for easy identification.

TAXONOMIC TREATMENT

Clerodendrum colebrookianum Walp. Repert. Bot. Syst. 4: 114 1845. *Clerodendrum colebrookianum* var. *henryanum* Moldenke. Phytologia 52: 330 1983.

Clerodendrum ixoriflorum Hassk. Retzia 1: 60 1855. *Clerodendrum microcalyx* Ridl. J. Malayan Branch Roy. Asiat. Soc. 1: 84 1923 (**Fig. 2**).

Perennial shrub grows up to 1.5–3 m tall. Branchlets robust, quadrangular, sparsely pubescent when young. Leaves simple, opposite, broadly ovate to heart shaped, 8–30 × 7–25 cm, margin entire to slightly wavy, apex acute, base wedge-shaped to heart-shaped, petioles 3–24 cm long. Inflorescence terminal, corymbose cymes, flowers white, numerous, with a long narrow tube 1.2–2.5 cm, at the end of branches, pedicelate. Bracts lanceshaped or narrowly ovate, 1.5 cm, caduceus. Sepals 5, short, triangular. Petals 5, oblong, tube glabrous. Stamens 4, didynamous, filiform, anthers marron, introse, stamen and style protrude out. Fruiting sepal cup is greenish to purple, inflated. Fruit subglobose, about

1 cm in diameter, glossy and bluish green in colour turning black on drying.

Phenology: August – December.

Habitat: Perennial shrub mainly grows in moist shady places, forest edges and along the fresh water Nalla.

Distribution: India, Bangladesh, China South-Central, China Southeast, East Himalaya, Laos, Myanmar, Nepal, Sumatera, Thailand, Tibet, Vietnam, Lesser Sunda Island and Malaya.

Specimen examined: India: Andaman and Nicobar Islands, Narcondam Island wildlife sanctuary (13°26'56.83"N & 94°16'22.09"E), 15th September, 2020, *Apurba Kumar Das* 005586 (PBL).

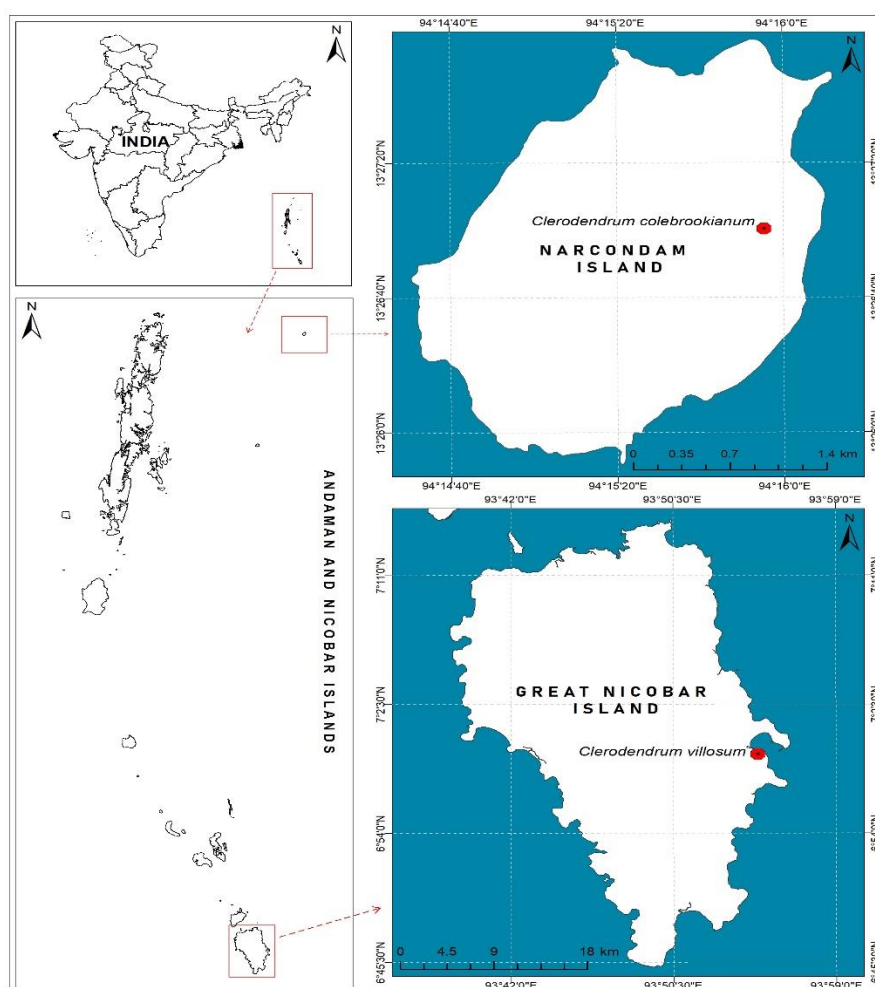


Fig. 1. Distribution of *Clerodendrum colebrookianum* Walp., in Narcondam Island and *Clerodendrum villosum* Blume, in Great Nicobar Island.

Clerodendrum villosum Blume, Bijdr. 811. 1826. *Clerodendrum confusum* Hallier f. Meded. Rijks-Herb. 37: 65 1918. *Clerodendrum ferrugineum* Turcz. Bull. Soc. Imp. Naturalistes Moscou. 36(2): 221 1863. *Clerodendrum infortunatum* Dennst.

Schlusssel Hortus Malab. 27 1818. *Clerodendrum molle* Jack, Malayan Misc. 1(1): 15 1820. *Clerodendrum velutinum* B. Thomas Bot. Jahrb. Syst. 68: 99 1936 (**Fig. 3**).

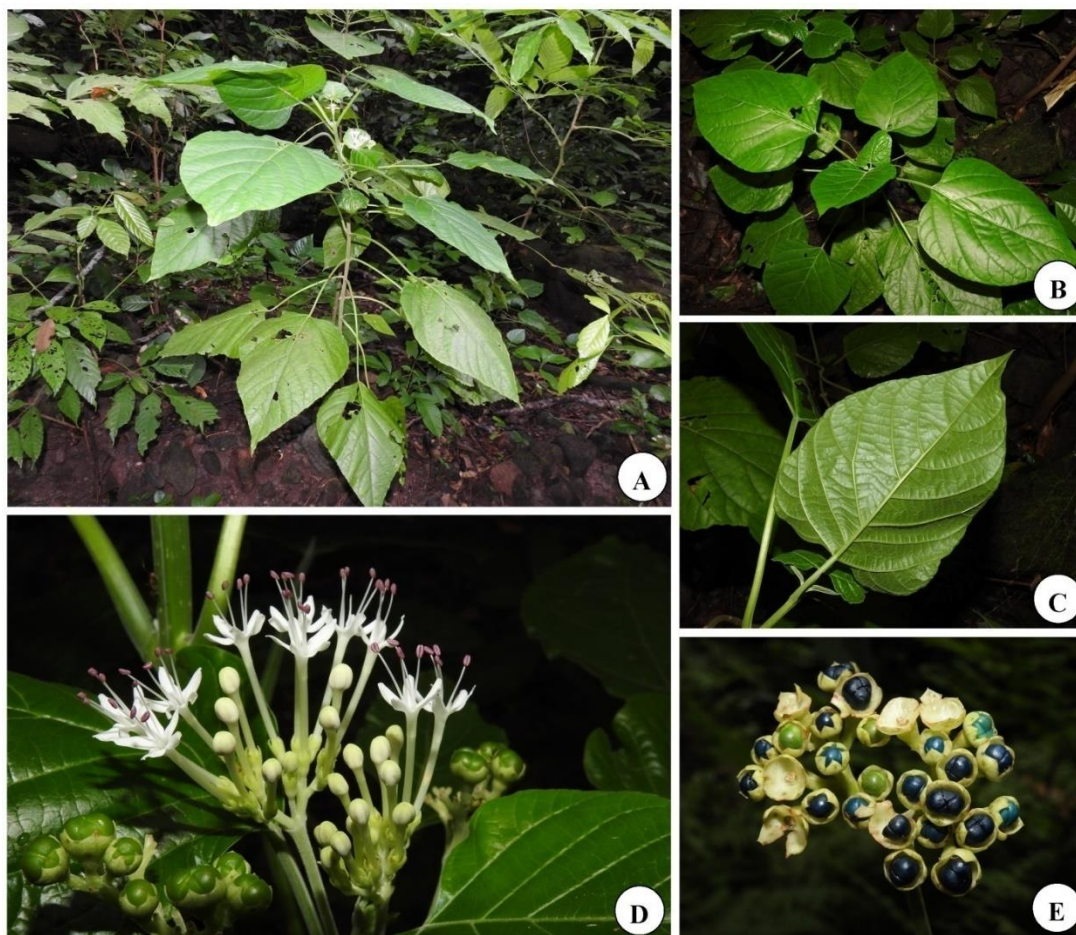


Fig. 2. *Clerodendrum colebrookianum* Walp. (Lamiaceae): A- Habit; B- Ventral leaf blade; C- Dorsal leaf blade; D- Flowers and buds; E- Fruits. Photographs by AK. Das (A-E).

Perennial shrub grows up to 2–4 m tall. Branchlets quadrangular, densely yellowish-brown sericeous, internodes slightly long, accessory buds present. Leaves simple, opposite, light green, broadly ovate to cordate, 10–18 × 4–13 cm, margin entire, apex acuminate, base truncate to cordate, velvety or pubescent on both surfaces, venation prominent beneath, petiole terete, 4–8 cm long. Inflorescences terminal lax panicle 5–18 cm long, bracts present, densely sericeous. Calyx campanulate, 1.2 cm long, 5-lobed, ovate-triangular, densely sericeous outside, pubescent inside and with discoid-cupular glands. Corolla white with pinkish, villous, tube 0.8–1 cm long, lobes unequal in length 0.7–1 cm long. Stamen 4, exserted, 1.7–2 cm long, anthers violet, style 1.5 cm long, ovary 4-locular. Drupes globose, 8–10 mm in diameter, black on maturity, seated on cup like structure, white or greenish-white, formed by the persistent calyx.

Phenology: March – April.

Habitat: Perennial shrub mainly grows in forest margin, rain forest, slightly shaded to sunny places.

Distribution: India, Bangladesh, Borneo, China South-Central, Jawa, Laos, Myanmar, Sumatera, Thailand, Vietnam, Lesser Sunda Island, Malaya, Singapore, Philippines, Cambodia and Solomon Island.

Specimen examined: India: Andaman and Nicobar Islands, Great Nicobar Island, Magar Nalla (06°59'32.35"N & 93°55'01.63"E), 25th April, 2021, Apurba Kumar Das 005593 (PBL).

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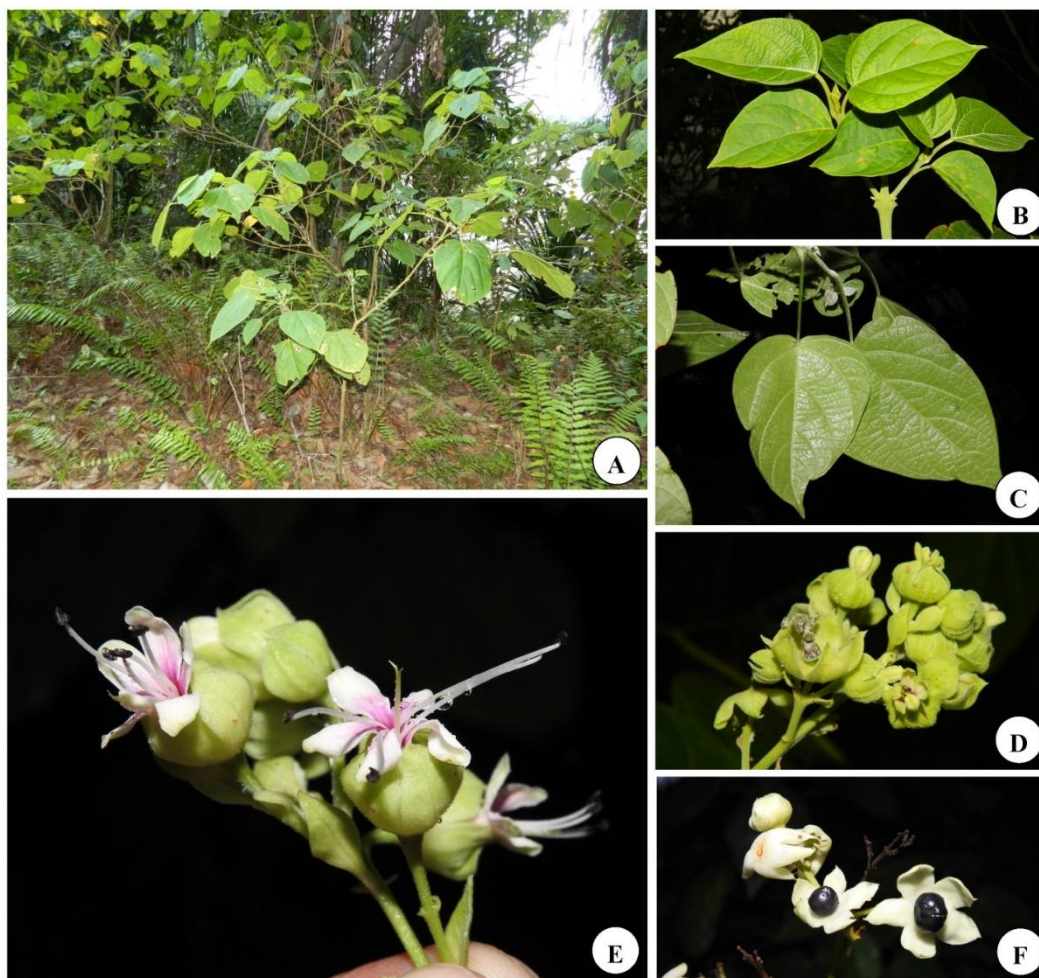


Fig. 3. *Clerodendrum villosum* Blume, (Lamiaceae): A- Habit; B- Ventral leaf blade; C- Dorsal leaf blade; D- Flower buds; E- Flowers; F- Fruits. Photographs by AK. Das (A-F).

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