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RHYNCHOGLOSSUM BLUME (GESNERIACEAE): A NEW GENERIC RECORD FOR FLORA OF ANDAMAN AND NICOBAR ISLANDS, INDIA

Abstract

The Andaman and Nicobar Islands is rich in floral diversity and high rate of endemism due to the isolations these islands group and several floral species have yet to be reported. In this paper, we report *Rhynchoglossum obliquum* Blume, which is a small flowering plant (Angiosperm) belongs to family Gesneriaceae, this genus till now unknown from these islands. Recently from Nayadera Village, Limestone Cave, Baratang Island, we collected this specimen and it represents the first record of this genus in Andaman and Nicobar Islands. A brief taxonomic description, images, distribution map, conservation status, ethnomedicinal uses are provided.

Keywords: Angiosperm, Gesneriaceae, New Generic Record, Limestone Cave, Baratang Island.

Introduction:

The genus *Rhynchoglossum* Blume is a member of the family Gesneriaceae. The native range of this genus is tropical and subtropical Asia, Mexico to Peru. It is an annual herb and grows primarily in the wet tropical biome. *Rhynchoglossum* is a small genus, which comprises ca. 14 species throughout the world (POWO, 2024). In India, so far the genus *Rhynchoglossum* is represented by only four species such as, *R. ampliatum* (C.B. Clarke) B.L. Burtt, *R. lazulinum* A.S. Rao & J. Joseph, *R. notonianum* (Wall.) B.L. Burtt and *R. obliquum* Blume (Sinha and Datta, 2016; Moller et. al., 2017; Pattharahirantricin and Poopath, 2021; Taram et. al., 2023). During a recent floristic survey in Nayadera Village, Baratang Island near Limestone Cave, the authors collected a specimen in its flowering and fruiting phase (Fig. 1). On critical examination it was identified as *Rhynchoglossum obliquum* Blume, commonly known as small-flowered tongue-lip. The scrutiny of relevant literature revealed that this genus has not been reported from Andaman and Nicobar Islands (ANI) till date (Lakshminarasimhan and Rao, 1996; Hajra et al., 1999; Sinha, 1999; Pandey and Diwakar, 2008; Diwakar et. al., 2008; Prasad et al., 2009; Sinha and Datta, 2016; Das and Sivaperuman, 2023). Hence, in the present treatment it is reported as first record of this genus in ANI. A thorough taxonomic description, phenology, distribution,

conservation status and color photographs are provided to facilitate easy identification. The voucher specimens are deposited in Port Blair for future references.

Taxonomic Treatment

Rhynchoglossum obliquum Blume, Bijdr. Fl. Ned. Ind.: 741. 1826, *Antonia obliqua* (Wall.) R.Br. in N.Wallich, Pl. Asiat. Rar. 3: 65. 1832, *Loxotis intermedia* Benth. in Scroph. Ind.: 57. 1835, *Loxotis obliqua* (Wall.) R.Br. in J.J.Bennett, Pl. Jav. Rar.: 102. 1838, *Rhynchoglossum blumei* A.DC. in A.P.de Candolle, Prodr. 9: 274. 1845, nom. superfl. *Rhynchoglossum hologlossum* Hayata in Icon. Pl. Formosan. 5: 131. 1915, *Rhynchoglossum obliquum* (Wall.) A.DC. in A.P.de Candolle, Prodr. 9: 275. 1845, nom. illeg. *Rhynchoglossum obliquum* var. *hologlossum* (Hayata) W.T. Wang in Bull. Bot. Res., Harbin 4(1): 31. 1984, *Rhynchoglossum obliquum* var. *intermedium* (Benth.) A.DC. in A.P.de Candolle, Prodr. 9: 275. 1845, *Rhynchoglossum obliquum* var. *parviflorum* C.B.Clarke in A.L.P.P.de Candolle & A.C.P.de Candolle, Monogr. Phan. 5: 162. 1883, *Rhynchoglossum papuae* Schltr. in Bot. Jahrb. Syst. 58: 299. 1923, *Rhynchoglossum rheedei* A.DC. in A.P.de Candolle, Prodr. 9: 274. 1845, *Rhynchoglossum zeylanicum* Hook. in Bot. Mag. 71: t. 4198. 1845, *Paederota obliqua* A.Dietr. in Sp. Pl., ed. 6. 1: 563. 1831, *Wulfenia intermedia* Wall. in Numer. List: n.° 408. 1829, not validly publ., *Wulfenia obliqua* Wall. in Tent. Fl. Napal. 2: 45, t. 35. 1826.

Annual herb, not rhizomatous, 30–90 cm high. Stem glabrous to sparsely puberulent, young stem pubescent. Leaves ovate to elliptic, 3–14 × 1–6 cm, margin entire to undulate, base unequal, one side rounded to cordate, other side attenuate to cuneate, apex acuminate, glabrous to hairy on both surfaces, secondary veins 10–12 pairs, petioles 1–5 cm long, terete, sparsely puberulous to glabrescent. Inflorescence terminal, up to 20–24 cm long, with 5–20 flowers, peduncles 2–5 cm long, pedicel glabrous or pubescent, 2–5 mm long, bracteoles linear, 1–2 mm long. Calyx campanulate, pale green, often tinged blue, tube 3–8 mm long, lobes triangular, 1–3 mm long, glabrous or pubescent. Corolla personates, 10–15 mm long, tube glabrous, 3–8 mm long, pale blue to dark purple or whitish blue, upper lip 2-lobed, 5–10 mm long, lower lip 3-lobed, 10–15 mm long, with a white to bright yellow pubescent dot at throat. Stamens 2, anthers 0.5–1 mm diameter, thecae nearly parallel, filaments glabrous, 1–5 mm long, staminodes 2. Disc flat, ca. 1 mm. Ovary ovoid to oblong, glabrous, ca 1.5–3 mm long, style glabrous 5–10 mm long, stigma minute, capitate. Capsule ovoid, glabrous, 3–5 mm long, enclosed by calyx, style

persistent, 5–8 mm long. Seeds minute, 0.5 mm long, ellipsoid, dark brown, surface tessellate with granules (Fig. 2).

Flowering & Fruiting: August–December.

Habitat: Annual herb which found growing mostly in Limestone areas, in evergreen and mixed deciduous forests, also in rock walls and rock stairways.

Distribution: Bangladesh, Bismarck Archipelago, Borneo, Cambodia, China South-Central, China Southeast, East Himalaya, Hainan, India (Andhra Pradesh, Karnataka, Kerala, Maharashtra, Odisha, Sikkim, Arunachal Pradesh, Meghalaya, Assam, Nagaland, Uttar Pradesh, Mizoram, Manipur, Tripura and now from Andaman Island), Jawa, Laos, Lesser Sunda Island, Malaya, Maluku, Myanmar, Nepal, New Guinea, Philippines, Sulawesi, Sumatera, Taiwan, Thailand, Tibet, Vietnam

Specimens examined: India: Andaman and Nicobar Islands, Limestone Cave path, Nayadera Village, Baratang Island, 13th November 2024, *Apurba Kumar Das* 005598 (PBL).

Location: Latitude: 12°05'36.04"N, Longitude: 92°44'38.04"E, Altitude: 30 m MSL.

Conservation Status: During our field visit at Limestone Cave in Nayadera Village, Baratang Island, we observed ca. 72 individual in a single place, the population are fragmented on Limestone. *R. obliquum* may be under threat due to human disturbance, tourism and habitat destruction as this area is not under protected areas. Hence, we propose the IUCN conservation status of *R. obliquum* as Data Deficient for ANI (IUCN, 2024).

Ethnomedicinal uses: The plant is used traditionally as antifungal against fungi disease (Manuel *et al*., 2023).

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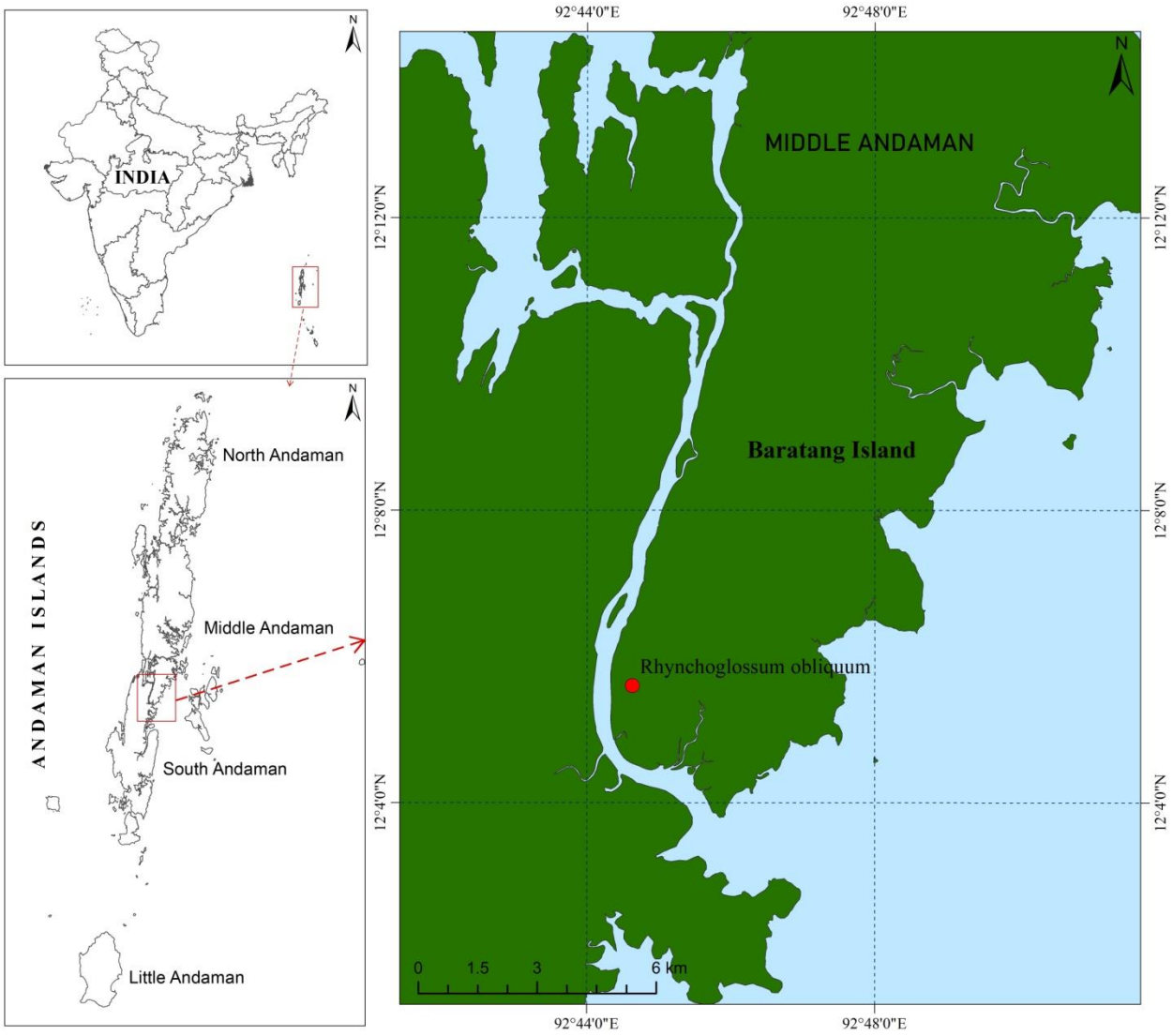

Fig. 1. Distribution map of *Rhynchoglossum obliquum* Blume, in Nayadera Village, Baratang Island.

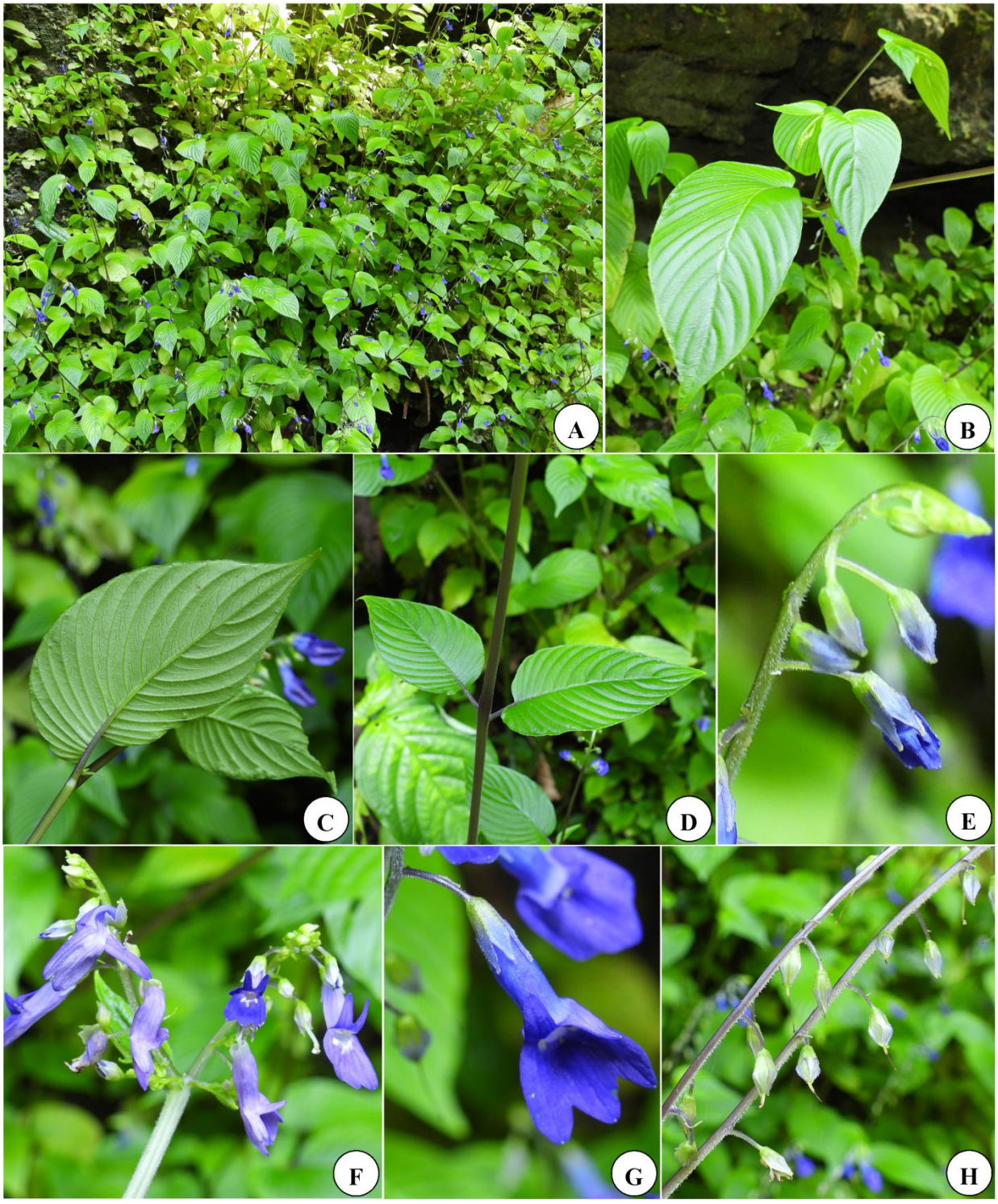

Fig. 2: *Rhynchoglossum obliquum* Blume (Gesneriaceae): A- Habit; B- Ventral leaf blades; C- Dorsal leaf blade; D, Pubescent stem; E- Flower buds; F- Flowers; G- Close-up view of the flower; H-Capsule. *Photographs by A.K. Das* (A-H).