

## CLEISOSTOMA TENUIFOLIUM (L.) GARAY, A NEW RECORD TO NORTHEAST INDIA FROM ARUNACHAL PRADESH

Chaya Deori and N Odyuo

Botanical Survey of India, Eastern Regional Centre, Shillong- 793 003, India

### Abstract

*Cleisostoma tenuifolium* (L.) Garay is being reported for the first time in Northeast India from Arunachal Pradesh

### Introduction

A CLEISOSTOMA species collected from Sessa during a field trip to Arunachal Pradesh in July, 2004 was observed blooming during the month of August 2011 in the Botanical garden of Botanical Survey of India, Eastern Regional Centre, Shillong. Based on critical observations, literature studies (Seidenfaden, 1975) and comparison with published illustrations, its identity was established as *Cleisostoma tenuifolium* (L.) Garay. The species was reported to be restricted in distribution to southern and western India, having been recorded only from Karnataka, Kerala, Maharashtra (Phukan, 2011; Pradhan, 1979; Singh et al., 2001). Since, Chowdhery (1998, 2009) and Rao (2007) did not list the species from any state of Northeast India, the present collection from Arunachal Pradesh represents a new distributional record for *Cleisostoma tenuifolium* from Northeast India. Considering the rarity of the species, the paper provides detailed description, up-to-date nomenclature with illustrated photographs to facilitate easy identification and location elsewhere in the country. Photographs of the allied species, *C. subulatum* Blume are also included for differentiating the two taxa.

### Species Description

*Cleisostoma tenuifolium* (L.) Garay in Bot. Mus. Leaf. 23:175. 1972; Seidenf. in Dansk Bot. Ark. 29(3):30, t. 11. 1975; Pradhan, Indian Orch. 2: 514. 1979. Phukan in Nelumbo 53:178. 2011. *Epidendrum tenuifolium* L., Sp. Pl. 2: 952. 1753. *Cymbidium tenuifolium* (L.) Willd., Sp. Pl. 4, 1:103, no. 39. 1805. *Luisia tenuifolia* (L.) Bl. in Mus. Lugd. Balv. 1:64. 1849. *Sarcanthus peninsularis* Dalzell in Hooker's J. Bot. Kew Gard. Misc. 3:343. 1851; Hook.f., Fl. Brit. India 6:67. 1890; Santapau & Kapadia, Orch. Bombay: 230, t. 53. 1963. *Sarcanthus pauciflorus* Wight, Icon. Pl. Ind. Orient. 5:t.1747. 1851. *Saccolabium acuminatum* Thwaites, Enum. Pl. Zeyl. 304. 1861. *Sarcanthus tenuifolius*(L.) Seidenf. in Dansk Bot. Ark. 27(4):37. 1971.

Habit epiphytic herb. Roots 1-2 mm in dm. Stem up to 30 cm long, dirty green. Internodes 1 cm long, 3-5 mm

thick, ribbed. Leaves alternate, 6-14 × 0.7-1 cm, narrowly linear-oblong, acute, thickly coriaceous, 3-5-nerved. Inflorescence short, upright or vertical on stem, few-flowered, 2-3.5 cm long. Flowers 7-9 mm long from the tip of the dorsal sepal to the tip of the spur; pedicel and ovary c. 2-3 mm long, pale yellowish. Floral bracts shorter than pedicel and ovary, 1.5-2 mm long, triangular, sub acute, 1-nerved. Sepals and petals yellow with 2 broad-oblong reddish bands along the margins. Dorsal sepal 3-4.5 × 1.5-2.5 mm, broadly oblong obtuse. Petals 3.5-4 × 1.5-2 mm, slightly smaller than sepals, narrowly oblong, obtuse. Lip 3-lobed, 2-2.5 mm long, base produced into an oblong-conical spur c.2.5 × 1.5 mm; side lobes wavy, truncate at distal corner deep purple; apical lobes fleshy, ovate sagittate with short slightly upturned apex; spur divided inside by a longitudinal septum; mouth of the spur occluded by a large rounded callus in between the lateral lobes meeting with the back wall callus. Column short, stout, pale yellowish. Anther 1.5 mm long, beaked. Pollinia 4 in pairs, globular with a narrow caudicle and a small gland.

Flowering : August-September

Distribution : India (Karnataka, Kerala, Maharashtra); Sri Lanka, Thailand.

Specimen Examined : Arunachal Pradesh, Sessa, C. Deori 101197 (ASSAM)

Note : *Cleisostoma tenuifolium* (L.) Garay is allied to *Cleisostoma subulatum* Blume but the two species stand distinct from each other. In *C. tenuifolium*, the inflorescence is short and erect and the side-lobes of the lip truncate and wavy with deep purple tips, whereas in *C. subulatum*, the inflorescence is pendulous and the side-lobes of the lip with nearly subulate and forward and inward pointing tips.

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Fig. 1. a-j. *Cleisostoma tenuifolium* (L.) Garay : a, Habit; b, Inflorescence (close up); c, Inflorescence; d and e, Flower front and side views; f, Sepals and petals; g, Spurred lip with column and anther; h, Lip front view; i, Anther; j, Pollinia with caudicle; k-n, *Cleisostoma subulatum* Blume; k, Habit; l, Inflorescence; m-n, Flower front and side views.

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