

Leptoboea multiflora subsp. *grandifolia* (Gesneriaceae), a new record for India

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Abstract: *Leptoboea multiflora* (C.B. Clarke) Benth. ex Gamble subsp. *grandifolia* B.L. Burtt is reported for the first time from the Andaman and Nicobar Islands, India. This subspecies, so far considered as endemic to Thailand, was collected from inland evergreen forests of South Andaman Island. A detailed description and photographs are provided to facilitate easy identification in the field.

Keywords: Andaman Islands, Gesneriaceae, India, *Leptoboea multiflora* subsp. *grandifolia*, New record.

Introduction

Leptoboea Benth. is a small genus of the family Gesneriaceae with two species and one subspecies distributed in Nepal, Bhutan, China, India, Myanmar and Thailand (Möller *et al.*, 2017). In India, the genus is represented by two species, *L. glabra* C.B. Clarke and *L. multiflora* (C.B. Clarke) Benth. ex Gamble (Sinha & Datta, 2016; Möller *et al.*, 2017). No species of *Leptoboea* has so far been reported from Andaman & Nicobar Islands (Pandey & Diwakar, 2008; Murugan *et al.*, 2016).

During floristic explorations in the Andaman group of Islands, a few specimens belonging to the genus *Leptoboea* were collected from South Andaman Island. Based on a critical study of the specimens and expert opinions received, the specimens were identified as *Leptoboea multiflora* (C.B. Clarke) Benth. ex Gamble subsp. *grandifolia* B.L. Burtt. A thorough scrutiny of the relevant literature (Clarke, 1884; Wang *et al.*, 1998; Sinha, 1999; Burtt, 2001; Pandey & Diwakar, 2008; Sinha & Datta, 2016; Murugan *et al.*, 2016; Möller *et al.*, 2017) revealed

that this subspecies was hitherto unrecorded from India, but known only from Thailand. Hence, it is reported here as a new addition to the flora of India. A brief description along with photographs is provided to facilitate easy identification of this taxon.

Leptoboea multiflora (C.B. Clarke) Benth. ex Gamble subsp. ***grandifolia*** B.L. Burtt, Thai For. Bull. (Bot.) 29: 99. 2001. *Type:* THAILAND, Chanthaburi, Khao Phra Bat, Kathing Falls, 26.08.1972, Larsen *et al.* 32065 (holo AAU; iso E, K).

Fig. 1

Perennial herbs, to 60 cm tall. Stems branched, spreading. Leaves opposite, oblique, serrate, equal to subequal in a pair; petioles upto 4 cm long; lamina elliptic to ovate, 11–14 × 3–5 cm, base cuneate to broadly cuneate, apex acute to acuminate, margins shallowly serrate, adaxially appressed pilose, especially along veins, abaxially appressed pubescent; lateral veins 9–12 on each side of midrib. Cymes axillary, 3–5-flowered, umbellate; peduncles 7–8 cm long, filiform, puberulent; bracts linear to subulate, 3–4 × 0.2–0.4 mm, puberulent. Pedicels 1.5–2 cm long, filiform, often bracteolate. Sepals 5, linear to narrowly triangular, free to base, equal, 2.0–2.5 × 0.5–1.0 mm. Corolla shallowly campanulate, white with pink blotches on the adaxial side at the base of two upper lobes, *c.* 1.0 × 1.5 cm, glabrous outside; tube 4–5 mm long; limb obscurely bilabiate, lobes sub-equal, sub-orbicular to oblong, 5–6 × 4–6 mm. Stamens 4, inserted at corolla base, included; filaments 1.0–1.5 mm long; anthers free, *c.* 2 × 1.5 mm, basifixed, thecae sub-parallel, confluent at apex, dehiscing apically; staminodes sometimes present. Ovary ellipsoid, *c.*

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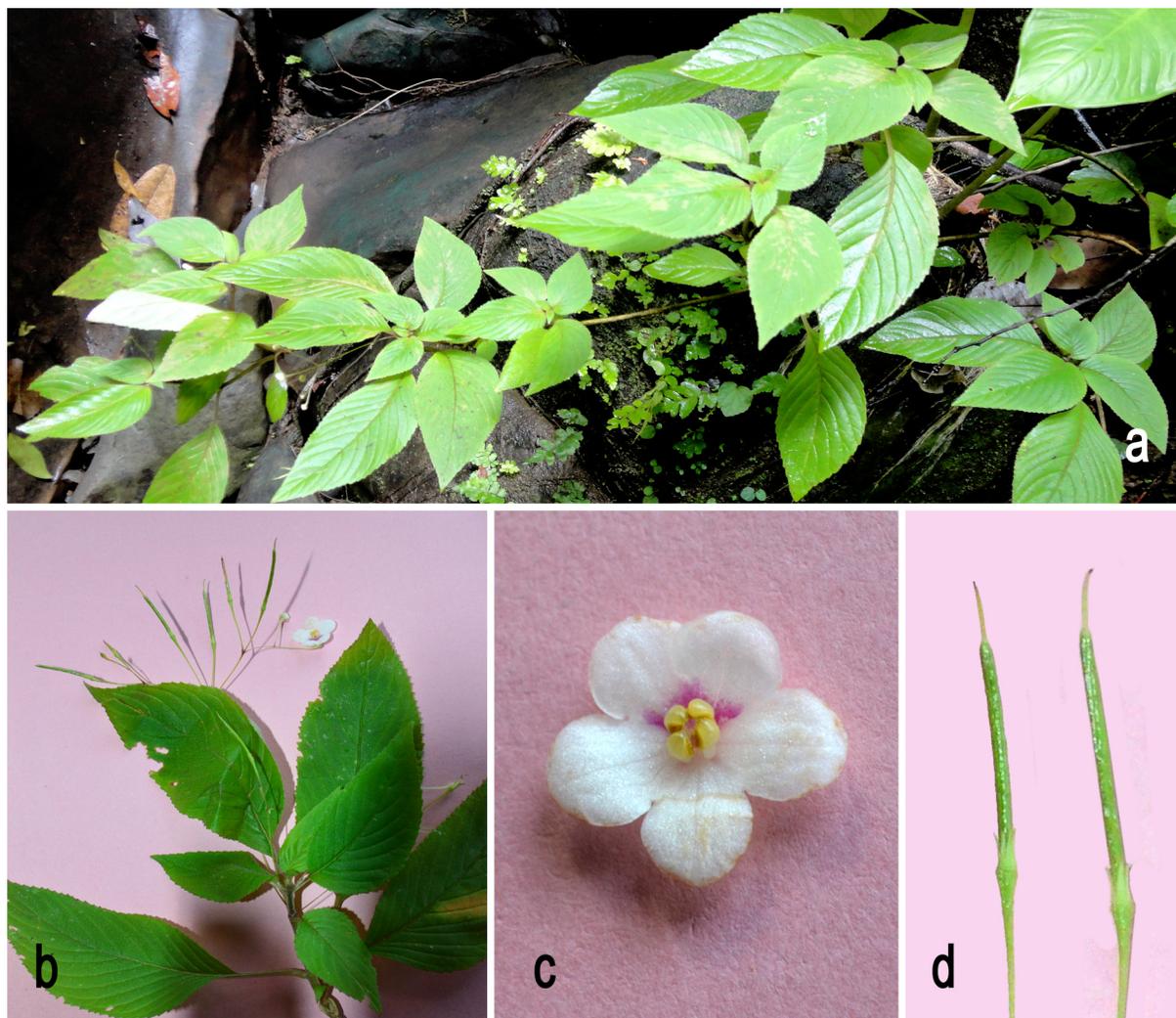


Fig. 1. *Leptoboea multiflora* (C.B. Clarke) Benth. ex Gamble subsp. *grandifolia* B.L. Burt: **a.** Habit and habitat; **b.** Flowering and fruiting branch; **c.** Flower; **d.** Young capsules (from Joju P. Alappatt 552).

1.5 × 0.5 mm, sparsely puberulent; style 4 mm long, glabrous; stigma capitate. Capsules straight, linear with persistent calyx and style, 1.5–2 cm long. Seeds minute, black.

Flowering & fruiting: Flowering from August to September and fruiting from September to November.

Habitat: Rare in inland evergreen forests growing in shady, rather cool, humid and moist rock crevices on the sides of small perennial streams along with *Globba pauciflora* King ex Baker, *Begonia andamensis* Parish ex C.B. Clarke, *Argostemma neurocalyx* Miq., *Boesenbergia siphonantha* (King ex Baker) M. Sabu, Prasanthk. & Skornick., *Amorphophallus longistylus* Kurz ex Hook.f. and *Bolbitis appendiculata* (Willd.)

Iwatsuki, at an elevation of about 50 m.

Distribution: Thailand and India (South Andaman Island).

Specimens examined: INDIA, **Andaman & Nicobar Islands**, South Andaman Island, Western slopes of Mt. Harriet Hill Ranges near Wrightmyo, Parachattan water falls, 26.09.2015, Joju P. Alappatt 552 (PBL). THAILAND, **Chanathaburi**, Khao Khitchakut National Park, Khao Phra Bhat, 27.08.2012, David J. Middleton, P. Karaket, S. Suddee & P. Triboun 5680 (E [E00547429 digital image]) Prachin Buri, Na Di, Khao Yai National Park, trail to Heo Narok waterfall, 20.08.2012, David J. Middleton, C. Hemrat, M. Poopath & P. Triboun 5627 (E [E00629427 digital image]).

Table 1. Morphological comparison of *L. multiflora* subsp. *grandifolia* with *L. multiflora* subsp. *multiflora*

Characters	<i>L. multiflora</i> (C.B.Clarke) Benth. ex Gamble subsp. <i>grandifolia</i> B.L.Burtt	<i>L. multiflora</i> (C.B.Clarke) Benth. ex Gamble subsp. <i>multiflora</i>
Size of leaves	11-18 × 3-9 cm	2.5-11 × 1.3-5 cm
Position of inflorescence	Axillary to the leaves of main shoots	Axillary to the leaves of short shoots
Dwarf shoots	Absent	Present

Notes: *Leptoboea multiflora* subsp. *grandifolia* differs from the other subspecies by having larger leaves and inflorescences that are axillary to the leaves of main shoots. In *Leptoboea multiflora* subsp. *multiflora* flowers are borne in inflorescences axillary to the leaves of short shoots that are themselves axillary to the leaves of the main shoot. Dwarf shoots are not formed in *Leptoboea multiflora* subsp. *grandifolia*.

Leptoboea Benth. has a relatively narrow distribution with its two species and one subspecies distributed from Nepal, Bhutan, China, India and Myanmar to Thailand. *Leptoboea multiflora* (C.B.Clarke) Benth. ex Gamble subsp. *multiflora* is reported from Nepal, Bhutan, China, India, Myanmar and Thailand while subsp. *grandifolia* B.L.Burtt had until now only been reported from Thailand and now from Andaman and Nicobar Islands. *Leptoboea glabra* C.B.Clarke is reported from Northeast India (Sikkim, West Bengal & Assam).

There are a number of plants reported from the Andaman and Nicobar Islands that also occur in Thailand. The Andaman and Nicobar group of islands are situated between two major biodiversity hotspots, the Indian subcontinent and the Malaysian-Indonesian region (Malesia) and consequently contains floristic elements representative of the Indian, Myanmarese, Thai, and Malesian floras. For the Nicobar Islands, the flora resembles closer to that of Malesia rather than India (Balakrishnan & Ellis, 1996).

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