



Plant Archives

Journal homepage: <http://www.plantarchives.org>
DOI Url : <https://doi.org/10.51470/PLANTARCHIVES.2023.v23.no1.032>

Short Communication

A REPORT ON COLLECTION OF *IMPATIENS LATIFLORA* HOOK. f. & THOMSON FROM ASSAM, INDIA

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(Date of Receiving : 21-11-2022; Date of Acceptance : 28-01-2023)

ABSTRACT

In Assam, the distribution of *Impatiens latiflora* was found complicated. In a checklist of angiospermic flora of Assam, its distribution was reported without mentioning any specific location of the collection. A revision on Balsams of the Eastern Himalayan region excluded its distribution from Assam. During a field trip, we collected the species from the Nagaon district of Assam. The purpose of the collection of the species is to indicate distribution in the state. In the present communication, a short description and suitable photo plates of the species are provided for easy identification.

Keywords : *Impatiens latiflora* Balsam, distribution, Nagaon, North East India

Introduction

The genus *Impatiens* Riv. ex.L. is represented by about 1000 species (Mabberley, 2008; Gogoi *et al.*, 2020) which is distributed basically in the tropical, sub-tropical and temperate forests and is well known due to its ornamental value (Gogoi *et al.*, 2018). The species *Impatiens latiflora* Hook. f. & Thomson was reported from Arunachal Pradesh, Nagaland, and Meghalaya (Gogoi *et al.*, 2018). The presence of this species in Assam was listed by Barooah and Ahmed (2014) stating that “the location of this species is either unknown or in entire Assam”, it is important to note that no information on its exact site of occurrence was mentioned. Therefore, the occurrence of this species in present-day Assam was uncertain. Further, the revision of the genus *Impatiens* in the Eastern Himalaya by Gogoi *et al.* (2018) excluded the distribution of *I. Latiflora* in Assam. Dey and Devi (2022) recorded *I. Bracteolate* Hook. f. for the first time from Assam and also stated few taxonomic works on the genus was conducted so far from the state. During our study, we collected *I. latiflora* from the Nagaon district of Assam. This species was observed near a waterfall on the rocky cliff which was found exposed to the continuous shower of the waterfall. We traced a herbarium specimen belonging to the species, housed at P (digital image barcode P04543230!) was found to be collected near “Dekho River” (probably Dikhow River of present Assam) of undivided Assam in the year 1895. Some other specimens were also collected from Khasia hills of undivided Assam and are housed at herbarium P and US. Hence, the present collection of the species from the Nagaon district authenticates the occurrence of the taxa in Assam which supports the study of Barooah and Ahmed (2014). A short description of the species, a note on its distribution, and photographs of the habitat and floral parts (Fig. 1) are given for easy identification.

Materials and Methods

The field survey proceeded by collection, herbarium specimen preparation and preservation of collected specimens following the standard protocol mentioned by Jain and Rao (1977). Specimens were identified with the help of relevant literature (Hooker, 1875; Gogoi *et al.*, 2018) and the consultation of virtual herbaria through the GBIF web portal (www.gbif.org). Voucher specimens were stored in the herbarium of the Department of Botany, Cotton University, Assam, India.

Results and Discussion

Impatiens latiflora Hook.f. & Thomson J. Proc. Linn. Soc., Bot. 4: 139. 1859; Hook.f., Fl. Brit. Ind. 1: 459. 1875; Gogoi *et al.* Balsams East. Hima. - A Regio. Revi. 109. 2018.

Herbs, 20–30 cm high; stem red and fleshy. Leaves alternate, petiole 1–1.5 cm long, purple-red lumina ovate to lanceolate, 4–8 × 1.5–2 cm, base attenuate, margin serrate, apex acuminate, adaxially dark green, hairy, abaxially light green, glabrous, mid vein prominent, lateral veins 6–7 pairs. Inflorescences axillary, 5–6 cm long, peduncle 1.5–2 cm long, rachis single or branched, bracts ovate, ca. 2.5 mm long. Flower bud 1 × 0.75 cm. Flowers violet-red, 4–6 cm long; lateral sepals 2, ovate, to 0.8 × 0.6 cm, apex acute, green with purple margin; lower sepal navicular up 5.8 cm long, spur filiform, generally bent, rarely straight, pink; dorsal petal orbicular, ca. 2 × 1.7 cm, violet; lateral united petals 2, 4–4.3 cm long two-lobed, basal lobe oblong-ovate, 2 × 1.7 cm, distal lobe obovate-dolabriform, 2.7 × 1.5 cm, auricle yellow; stamens united; capsule fusiform, 2 × 0.5 cm, green; seeds many, ovate, brown.

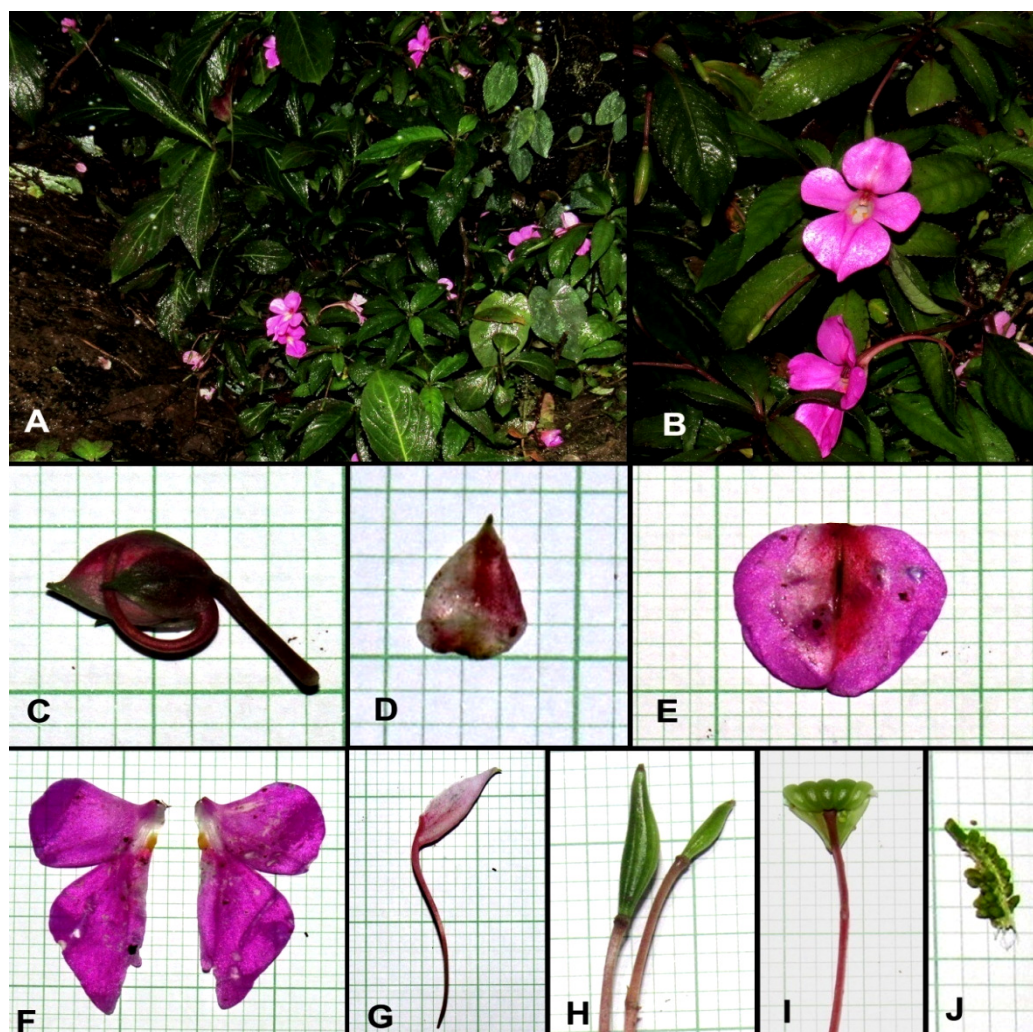


Fig. 1: *Impatiens latiflora* Hook.f. & Thomson; **A:** Habit **B:** Flowers **C:** Flower bud **D:** Lateral sepal **E:** Dorsal petal **F:** Lateral united petals **G:** Lower sepal **H:** Fruit (capsule) **I:** Dehiscent fruit **J:** Seeds. (Graph unit: 2.5 mm).

Flowering and fruiting: January to February.

Distribution: Bhutan (Gogoi *et al.*, 2018) and India [Arunachal Pradesh, Meghalaya (Gogoi *et al.*, 2018) and Assam].

Habitat: This species occurs in the tropical zone and grows in wet areas, on moist rocky cliffs and stream sides.

Specimen examined: INDIA. Khasia: Nungklow, 3000 feet, 14.09.1886, *C. B. Clarke 4480813B* (US, digital image barcode 03471828!); 3–4000 feet, *s.d., J.D. Hookers.n.* (P, digital image barcode P04543229! & PL03888100!). Assam: Dekho River, 800 feet, 29.03.1895, *G. Watt11065* (P, digital image barcode P04543230!); Nagaon, Champawati Kunda, 23.01.2021, *S. Mehmud & T. Chetia279* (Herbarium of the Department of Botany, Cotton University!).

Acknowledgement: The authors are grateful to the Heads of the Department of Botany, Cotton University and Handique Girls' College respectively. Dr. Rajib Gogoi, Scientist E, Botanical Survey of India, Sikkim Himalayan Regional Centre for valuable suggestions and comments during the preparation of the manuscript. Finally, we are thankful to the authorities of herbaria US and P for examining virtual voucher specimens of the species.

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