Impatiens siangensis (Balsaminaceae), a new species from Arunachal Pradesh, India

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Abstract

Impatiens siangensis Gogoi, a new species, is described and illustrated from Arunachal Pradesh, India. The new species differs from I. marianae Hooker by the absence of white blotches on the upper leaf surface, flowers only partially purple, bracts ovate, glabrous, lateral sepals glabrous, dorsal petal glabrous, navicular, lower sepal with straight purple streaks and spur almost straight. The new species differs from I. porrecta Wallich in having stems, leaves, and floral parts glabrous, stems branched, flowers partially purple, lower sepal navicular with straight purple streaks and spur almost straight.

Key words: Balsaminaceae, new taxa, taxonomy, Siang valley

Introduction

Impatiens Linnaeus (1753: 937) is the largest genus in the Balsaminaceae, with more than 900 species distributed worldwide except in Latin America (Chen et al. 2008). Most of the species occur in Africa and Asia. The centre of origin has been suspected in south China (Yuan et al. 2004, Janssens et al. 2007, Chen et al. 2008, Mabberley 2008), although Bhaskar (2012) noted that the most primitive species of Impatiens, with lowest chromosome numbers and the largest sized chromosomes, are recorded from the Western Ghats and thus argued that the centre of origin lies in the Western Ghats, South India.

There are 203 species of Impatiens recorded in India, of which 137 species are endemic (Vivekananthan et al. 1997, Swaminathan et al. 2001). New species continue to be discovered and added to the Impatiens flora of India (e.g., Pusalkar & Singh 2010, Dessai & Janarthanam 2011, Bhaskar 2012, Gogoi & Borah 2013a,b). In the past few years, Impatiens were collected in Arunachal Pradesh by the authors under the Annual Action Plan of the Botanical Survey of India for the project “Impatiens L. (Balsaminaceae) of Arunachal Pradesh”. After examination of the specimens and studies of the literature (Hooker 1875, 1905, 1908, 1910, Toppin 1920, Grey-Wilson 1991, Vivekananthan et al. 1997, Swaminathan et al. 2001, Huang 2003, Huang et al. 2006, Chen et al. 2008, Yu 2012, Pusalkar & Singh 2010, Dessai & Janarthanam 2011, Bhaskar 2012, Gogoi & Borah 2013a,b), one of the collections could not be referred to any known species. It is described here as a new species with illustrations based on living material.

Impatiens siangensis Gogoi sp. nov. (Figure 1)

Diffs from I. marianae Hooker (1905:27) by the absence of white blotches on the upper leaf surface, flower only partially purple, bract ovate, glabrous, lateral sepals glabrous, dorsal petal glabrous, navicular, lower sepal navicular with straight purple streaks and spur almost straight. From I. porrecta Wallich (1832:7275), it differs in having stem, leaves, and floral parts glabrous, stem branched, flower partially purple, lower sepal navicular with straight purple streaks and spur almost straight.

Type: —INDIA. Arunachal Pradesh: East Siang, between Pasighat and Along, 95°3’26.56”E, 28°07’44.29”N, 18 July 2013, R. Gogoi 30501 (holotype CAL!; isotypes ARUN!, ASSAM!).

Annual erect to prostrate, succulent herbs, sparsely branched, to 25 cm tall. Stem green or pinkish, terete, nodes not swollen. Leaves confined to upper portion of the stem, alternate, petiole 0.7–4.5 cm long, pinkish, with few filiform glands, stipule absent; blade simple, elliptic to broadly elliptic, 1.5–7 × 1–4.5 cm, glabrous, vein pairs 7–8, opposite, base cuneate, apex acute, margin crenate, bristle present terminal on the teeth. Inflorescence axillary, single flowered,
Etymology:—The specific epithet refers to “the Siang Valley”, where from it was collected.

Conservation status:—Presently *Impatiens siangensis* is not threatened in its natural habitat, hence its conservation status is Least Concern (LC), according the IUCN Red List criteria (IUCN 2010).

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References


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