



Impatiens ashihoi, a new species of Balsaminaceae from Dibang Valley of Arunachal Pradesh, India

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Abstract

Impatiens ashihoi Gogoi & Borah (Balsaminaceae), a new species from the Lower Dibang valley district in Arunachal Pradesh, India, is described and illustrated. The new species is similar to *I. bracteolata* Hook.f. but differs in having horn-like stipular glands at the base of petiole, leaves lanceolate to elliptic lanceolate, ventral side of leaf purplish-green with prominent white midrib, prominent awn or appendage in the apex of bract and lateral sepals, awn or appendage in the mouth of lower sepal. It is also similar to *I. drepanophora* Hook.f. but differs in having horn like stipular glands at the base of petiole, dorsal side of leaf wine red in colour, ventral side of leaf purplish-green with white midrib, lamina lanceolate to elliptic lanceolate.

Key words: *Impatiens*, *Balsaminaceae*, new species, Eastern Arunachal Pradesh

Introduction

Impatiens L. (Linnaeus 1753: 937) with more than 1000 species is one of most species-rich genera of angiosperms (Fischer 2004, Yu *et al.* 2015). The genus is distributed predominantly in the tropics and subtropics of the Old World, extending into temperate Asia, Europe and North America (Grey-Wilson 1980, Fischer 2004). According to the literature *Impatiens* originated in south-west China (Yuan *et al.* 2004; Janssens *et al.* 2006, 2009), but many details of its phylogeny are still hardly known. Due to its rapid radiation during Pliocene and Pleistocene many species are endemic for particular geographic areas, e.g. mountain ranges or valleys (Janssens *et al.* 2009). This phenomenon gives opportunity for new discoveries, especially in some botanically underexplored, hardly accessible regions. Indeed, numerous new species of *Impatiens* were found recently in south-west China (Zhang *et al.* 2013, Yu *et al.* 2013, Luo *et al.* 2014), Thailand (Suksathan and Triboun 2009, Ruchisansakun *et al.* 2014), Western Ghats (Dessai and Janarthanam 2011, Bhaskar 2012, Hareesh *et al.* 2015) or Eastern Himalayas of India (Gogoi and Borah 2013, 2014, 2015a,b,c,d). During an expedition to Lower Dibang Valley district of Arunachal Pradesh in September 2012, the authors collected one small, annual *Impatiens* not matching any of the known species. After critical examination of specimens and perusal of literature dealing with *Impatiens* of Indian subcontinent and adjacent areas (Hooker 1875, 1905, 1908, 1910, Toppin 1920, Grey-Wilson 1989, 1991, Vivekananthan *et al.* 1997, Swaminathan *et al.* 2001, Huang 2003, Huang *et al.* 2006, Chen *et al.* 2008, Yu 2012, Pusalkar and Singh 2010, Dessai and Janarthanam 2011, Bhaskar 2012, Gogoi *et al.* 2013, 2015, Gogoi and Borah 2013a,b, 2014, 2015a,b,c,d, Borah *et al.* 2015), the authors found that this species can be readily distinguished from related taxa and is thus here described as a new species.

Impatiens ashihoi Gogoi & Borah *sp. nov.* (Figure 1 and 2 A–D)

similar to *I. bracteolata* Hook.f. due to its annual habit, the yellow flowers with upcurved spur, as well as the wine red colour of the dorsal side of leaves but differs in having horn like stipular glands at the base of the petiole, lanceolate to elliptic lanceolate leaves, the ventral side of leaf purplish-green with prominent white midrib, a prominent awn or appendage at the apex of the bract and the lateral