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Cover: A digital art of water birds of Noyyal River and its wetlands in Coimbatore District by Megha A. Kashyap.

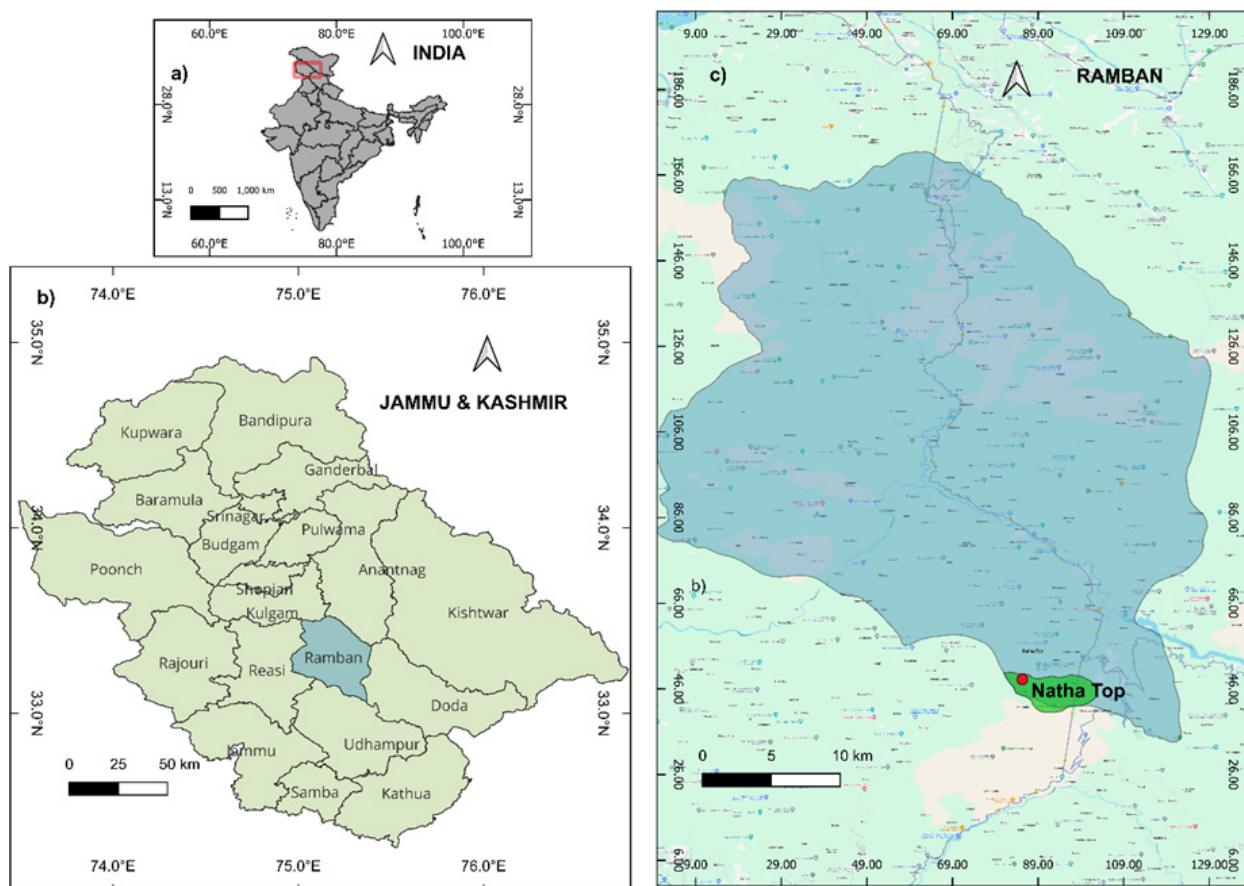


Figure 1. Distribution record of *Trillium govanianum* in Arunachal Pradesh, India.

and photographed. The specimen was examined for detailed micromorphological characters using a Leica stereo microscope (S8 APO). The scrutiny of protologue (Pusalkar & Singh 2010) and available relevant literature Polunin & Stainton (1984), Naithani (1984), Pusalkar & Singh (2012), Rana et al. (2003), Singh & Kachroo (1987), Sharma & Kachroo (1981), Swami & Gupta (1998), Kapur & Sarin (1990), Ishwari et al. (2017), Naithani (2019), Collett & Botting (1921), Singh & Prakash (2002), Sharma & Jamwal (1988), and Roxburgh (1875) has confirmed the identity of the specimen as *Impatiens devendrae* Pusalkar. The species was first collected from Nathatop on the way to Sanasar, in the Bataote forest range of Ramban district. Earlier, this species was reported from the state of Uttarakhand, India (Pusalkar & Singh 2010); it has not yet been reported from the Jammu & Kashmir Union Territory. The present study therefore revealed that the species would be an addition to the flora of Jammu & Kashmir, India. The collected plant herbarium specimen was prepared following the standard methods of De Vogel (1987) and Bridson & Forman (1998), and deposited in

the LWG herbarium of CSIR-National Botanical Research Institute, Lucknow for future reference (Image 2). The habit, habitat, and flower close-up photographs are provided for easy identification (Image 1).

Taxonomic treatment

Impatiens devendrae Pusalkar.

Type: India, western Himalaya, Uttarakhand, Chamoli District, Nanda Devi Biosphere Reserve, Alkananda Valley, on way to Ghangria, 1 km behind Ghangaria towards Govindghat, 2,900–3,100 m, 06 August 2008, Pusalkar 111017 (holotype et isotype: BSD).

Terrestrial, erect annual herb, 30–80 cm in height. Stem branched sparsely, erect, cylindrical, green, glabrous; sessile glands rounded. Leaves simple, alternate below, aggregated at the top of the stem, 5–20 × 2.5–10 cm, elliptic-lanceolate, base cuneate, apex acuminate, margin crenate with basal teeth or bristle, glabrous abaxially and adaxially, petiolated 1–4 cm long. Inflorescence both axillary and terminal, interrupted racemes, 5–15 flowered. Bract at base of pedicel, ovate, 2.5–5 × 1.5–2 mm, apex acuminate, glabrous. Flowers

2.5–3.0 cm long, pink, pedicellate; pedicel 1.8–2 cm long, glabrous. Lateral sepals 2, broadly ovate, 3.5 × 2.5 mm, green with pinkish tinge, apex acuminate, gland-tipped, glabrous. Lower sepal bacciform, 2.2 × 1.5 mm pink, abruptly constricted into spur, apex beaked, glabrous; Spur hooked, curved downwards, ca. 7–10 mm long, yellow pinkish, tip unifid. Standard petal ellipsoid, cucullate, 13–15 × 23–26 mm, pinkish, dorsally keeled; keel beaked at its apex, glabrous. Lateral united petals bilobed, 19–22 mm long, pink flushed with white and red or brown streaks on the lower portion of basal lobe; basal lobe broadly triangular 9 × 12 mm, distal lobe, 12 × 8 mm, orbicular; dorsal auricle 2 mm, rounded. Stamens 5, filaments 6.0–7.1 mm long, pinkish. Ovary ca. 6 mm long, linear, apex acuminate, green, glabrous. Capsule 18–25 mm long, linear or cylindrical, green; fruiting pedicel 22 mm long. Seeds 5–9 per capsule, 3 × 2 mm, brown, rough surface.

Specimens examined: India. Jammu & Kashmir, Ramban District, Nathatop, on the way to Sanasar,

33.115°N, 75.247°E, 2,290m, 7 June 2019, Naresh Kumar 119393 (LWG); Uttarakhand, Chamoli District, Nanda Devi Biosphere Reserve, Alkananda Valley, on way to Ghangria, 1 km behind Ghangaria towards Govindghat, 2,900–3,100 m, 6 August 2008, Pusalkar 111017 (BSD).

Phenology: June–September

Habitats: Common in moist humid places, near the passage of water, along the roadside at an elevation range of 1,800–2,290 m.

Distribution: India (Uttarakhand and Jammu & Kashmir).

DISCUSSION

Impatiens devendrae Pusalkar was previously reported from the Uttarakhand District of Chamoli, the Nanda Devi Biosphere Reserve, the Alkananda Valley, on the way to Ghangria, behind Ghangaria towards Govindghat in Uttarakhand (Pusalkar & Singh 2010). The species is distinguished from all the allied species by its pinkish-white flowers; oblong-bucciniform lower sepal;



Image 1. *Impatiens devendrae* Pusalkar: A—Habit | B—Plant with flower & fruits | C—Close up of the flower | D—Habitat of the species. © Naresh Kumar.

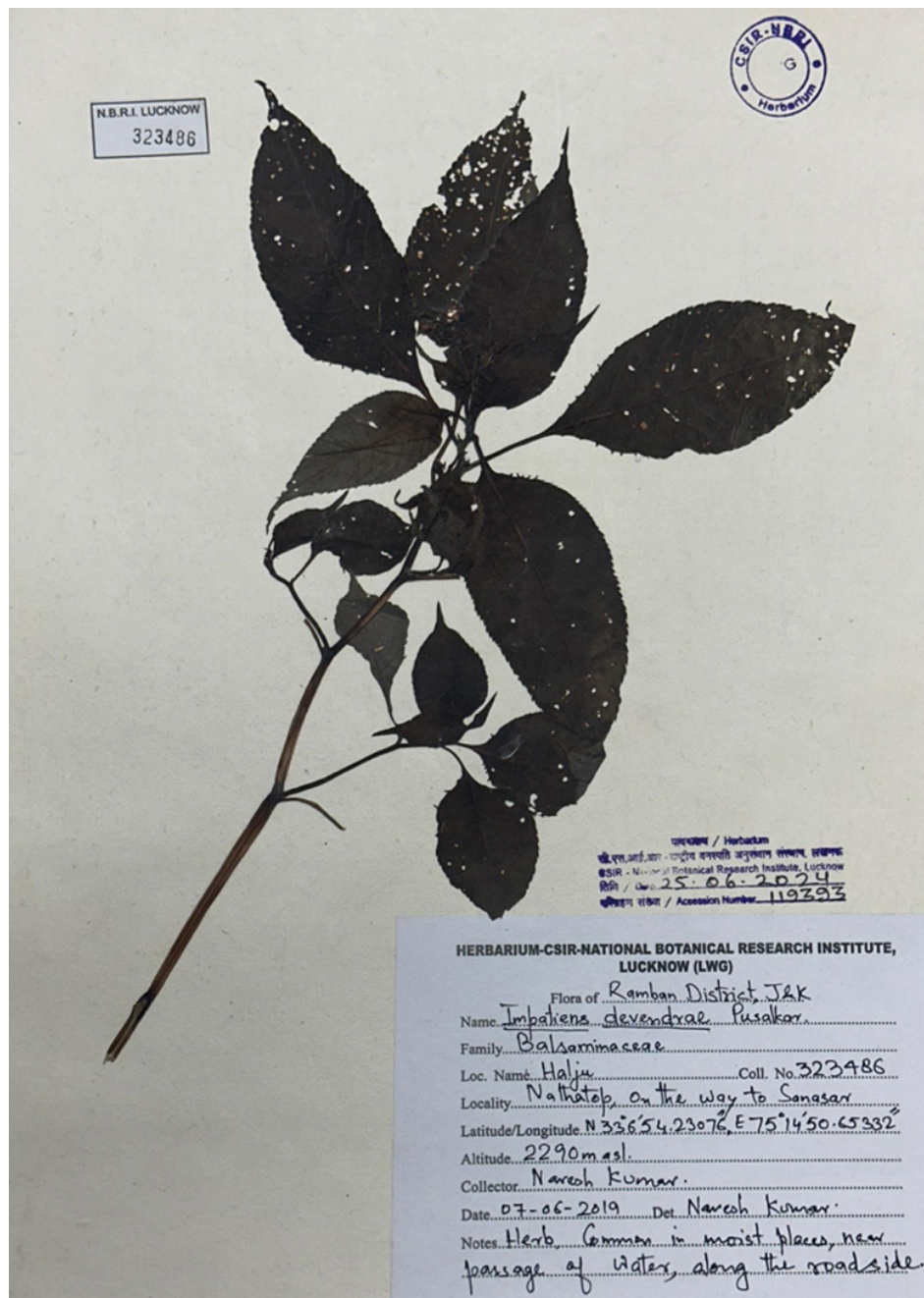


Image 2. *Impatiens devendrae* herbarium specimen [119393 (LWG)].

abruptly constricted into the hooked spur, lip white with yellowish-orange and purple spots or purple streaks within, appears pale from the outside, upper petal keeled with keel purplish-maroon on back, upper lateral petals, somewhat triangular in outline with orange, purple-colored and lower lateral petals lobed with oblong or oblong-triangular lobes, lateral lobes of lower petals are not auricle-like, usually as long as or larger than lower lobes and lower lobes of lower wings. The species was first collected from Nathatop on the way to Sanasar,

in the Bataote Forest Range of Ramban District, it has not yet been reported from Jammu & Kashmir Union Territory. The present study therefore revealed that the species would be an addition to the flora of Jammu & Kashmir, India. The species is used as a fodder plant for domesticated animals and as an ornamental plant by the local inhabitants.

IUCN Status: Not assessed.

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