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New state record of *Begonia trichocarpa dalzell* (family begoniaceae) from Madhya Pradesh, India

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ABSTRACT

The present study is providing the new distributional records of *Begonia trichocarpa* from Mandla district Madhya Pradesh. This is first state record from ridges of Maikal Satpura hills central India Madhya Pradesh. Information on distribution and ecology is provided along with a detailed overview and pictures.

Keywords: *Begonia trichocarpa*, Mandla, Satpura Hills, New Record, Madhya Pradesh

1. INTRODUCTION

The Begonia is a large tropical and subtropical genus consists of more 1800 known species (Hughes et al., 2015). Asia has 900 species that have previously been reported, the flora of the begonia plant is quite well known in China and other regions of Southeast Asia (Gu et al., 2007; Hughes, 2008; Kiew, 2010). 57 species of Begonia have now been found in India, primarily in the Himalayan, Northeast and Western ghat regions. It is unusual for this species to occur in Northeast India because it is endemic to Southern India, close to Bombay (Dalzell, 1851; Sudhakar Reddy & Raju, 2008; Jagtap et al., 2009; Sasidharan, 2012; Datar and Lakshminarasimhan, 2013; Arun, 2015; Datar & Watve, 2018).

2. MATERIAL AND METHODS

During the documentation of biodiversity of Mandla, a flowering plant is observed in streams bank areas on exposed rock. The place is mostly shady and wet in nature. Along with the streams bank the plant is also found in exposed rock with little cover of soil. Prior to this record the Species is considered as endemic to western ghat (Arun, 2015; Sudhakar Reddy & Raju, 2008; Sasidharan, 2012).

3. RESULTS

Based on literature review is confirmed that this is the first state record *Begonia trichocarpa* from Madhya Pradesh. According the literature review this Begonia Genus is found in above 1000 mm rainfall. The mean rainfall of area is 1600 mm and area come under in Maikal ridges of Satpura ranges. According to Champion

and Seth, (1968), the forests of the area have been categorized in to southern tropical moist mixed deciduous forest (3A/c2a) and southern tropical dry mixed deciduous forest (5A/c2).

Begonia trichocarpa (Hairy-Fruit Begonia) is an annual, big herb with reddish stems that are flaccid, almost upright and covered with tiny hairs. Up to 8 cm long by 3 cm wide, ovate-oblong, long-pointed, diagonally heart-shaped at base, hairy, membranous, 5-nerved from base; stalk: 1-3 cm long, leaves are ovate-oblong, long-pointed and have a stalk that is 1-3 cm long. Stipule is lance shaped. Flower cymes are 2 cm across, lateral, carried on stalks 1-2 cm long. 1-3 flowers are borne together with 4 male sepals, hairless, hispid, inner smaller and curved; on the other hand female sepals are 4 or 5 in numbers and similar to male flowers, ovary is hairy, 3-locular, placenta single, styles 3 and each divided in to two branches at tip. Capsule is 1 x 2 cm in size and obovate in shape, flat at tip, wings acute above, seeds are very minute, hexagonal in shape. Hairy-Fruit Begonia is observed from Matiyari Nala, Ram Nagar Road along with forest edges and near buffer area of Kanha Tiger Reserve. Begonia is considered as an endemic to Western Ghat but now its range is extended to central Indian Highland. The nearest description location is Nandurbar district of Maharashtra.

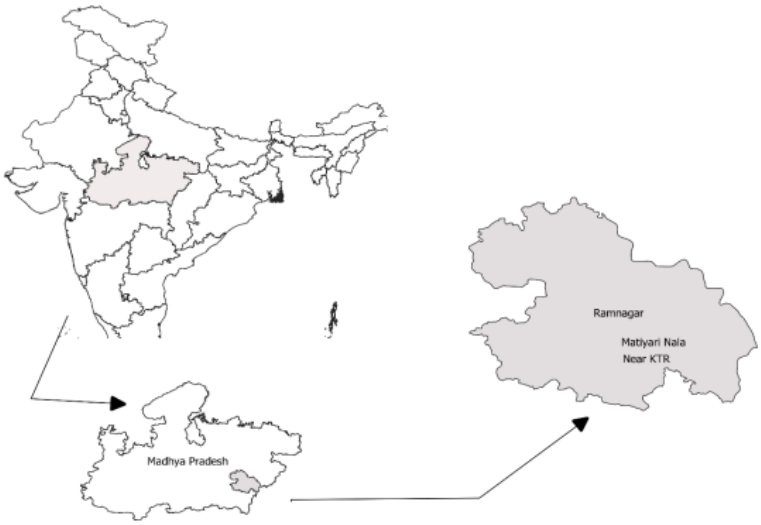

Figure 1 Occurrence Map of *Begonia trichocarpa* in Mandla, Madhya Pradesh

Figure 2 *Begonia trichocarpa* stem (Left), Flower (Upper Right), Leaf (Lower Right)

Figure 3 *Begonia trichocarpa* Habit (Left), Root Tuber (Upper Right), Flower & Fruit (Lower Right)

Etymology

The Specific epithet trichocarpa refers to the presence of hairs on fruits.

Phonology

Flowering and fruiting from August to December in the field.

Ethnobotanical use of *Begonia trichocarpa*

The Tribal's of the area used *Begonia trichocarpa* in treatment of skin diseases, cough, toothache, obstructed menstruated, scorpion & wasp bites, impotence etc.

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Ethical approval

Begonia trichocarpa plants were used in the study. The ethical guidelines for plants & plant materials are followed in the study for sample collection & identification.

Informed consent

Not applicable.

Conflicts of interests

The authors declare that there are no conflicts of interests.

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Data and materials availability

All data associated with this study are present in the paper.

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