

***Begonia picta* Sm.: A NEW RECORD TO NANDURBAR AND DHULE DISTRICT FLORA OF MAHARASHTRA (INDIA)**

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ABSTRACT

The current work is about the new record of flowering plants of Angiosperms that belongs to the Begoniaceae family named as *Begonia picta* Sm. It is a new record for the flora of the districts of Nandurbar and Dhule, belonging to the state of Maharashtra in India. The work provides a new geographic habitat, location, detailed taxonomic enumeration; Photographs and relevant information by new collections of samples from *B. picta* Sm. With the comparative literature, they are recorded.

Keywords: New Records; Begoniaceae; *Begonia picta* Sm; Nandurbar; Dhule District; India.

INTRODUCTION

Begonia picta Sm. is a plant native to the Himalayan region of India and Nepal [1]. More than 1400 species of *Bignonia* are widely distributed in tropical and subtropical regions of the world, with more than 600 species in Asia, approximately 600 species in Central and South America and approximately 150 species in Africa were 141 endemic to China [2].

Most *Begonia* species are succulent and succulent hydrophilic herbaceous plants, so the availability of water is necessary for their growth. Therefore, the main determinants of

the configuration of the distribution in the area are strongly monsoon climates, as in Nepal [1,3].

The species of *Begonia* are used wildly as ornamental purposes and, therefore, make it a great horticultural and botanical interest throughout the world. Thus, research work on *Begonia* provides very useful publications. According to Burkill's [4] research, *Begonia* leaves are used as flavouring for fish and meat mixtures. *Begonia* has been prepared as potherbs in Myanmar (Burma), India, Indonesia and Japan [5].

Study Area

The mountainous area of Akkalkuwa Tehsil in the Nandurbar district covers the mountainous Satpuda regions of northern Maharashtra [6]. During the botanical excretion in July, August and September 2018, *Begonia picta* Sm. (Begoniaceae) was recorded in flowering condition (Photo Plate 1) at GPS locations **21°38'45.3 "N 74° 01'19.4" E** (Elevation 499m) and its nearby surroundings.

MATERIALS AND METHODS

During this botanical exploration of the Nandurbar district in Maharashtra, a new species of *Begonia* was observed that was never seen or registered in the flora of the Dhule and Nandurbar district of Dr. D. A. Patil [7]. The systematic enumeration of plants confirmed that the plant species is *Begonia picta* Sm. (Begoniaceae), which was collected on a hill slope of the Dab area of Akkalkuwa Tehsil from Nandurbar Dist.

Begonia picta Sm., Exot. Bot.2: 81.t.101.1805; Clarke in Hook. f., Fl. Brit. Ind. 2: 638.1879; Verma et al. in Fl. M. P. 1: 506. 1993; Singh et al. Fl. Maharashtra St. Dicot. 2: 79. 2001 [8] (Photo Plate 1) (Voucher Specimen Number: MH-A-4018).

Herbs, deciduous, Tubers globose, 5–8 mm in diameter. The stem is very short or absent. Leaves 1- 2, cauline or basal; stipules caducous, ovate-lanceolate, abaxially hairy; petiole 5 to 8 (–15) cm, pubescent on upper part; blade ovate-cordate, slightly asymmetric, 5 to 8 × 4 to 7 cm, adaxially sparsely hirsute, abaxially hirsute, venation of leaf is palmate, 7-veined, base slightly oblique, cordate to deeply cordate, margin bidentate and apex acuminate. Inflorescences are terminal, 6 to 15(–21) cm tall, pubescent; bracts are

ovate-lanceolate, abaxially pilose. Flower: Staminate: pedicel 5 to 10 mm; tepals 4, pink in color, outer 2 suborbicular, ca. 9 × 7 mm, abaxially villous, inner 2 elliptic, 5 to 6 × ca. 2.5 mm; stamens on anther are numerous; filaments 0.8–1 mm, fused at base; anthers is oblong, ca. 1 mm, apex emarginate. Pistillate flowers: tepals 5, pink in colour, largest broadly obovate tepals, 6 to 7 × 4 to 5 mm, smallest elliptic, ca. 3.2 × 1.3 mm; ovary villous, 3-loculed ovary; axile placentation, bilamellate; styles are 3, fused at base; stigmas 2-cleft, spiralled. Fruit: Capsule pendulous, obovoid, ca. 6 mm, unequally 3-winged; abaxial wing lanceolate, ca. 1.5 × 0.4 cm; lateral and wings are smaller.



Photo Plate 1. *Begonia picta* Sm. (Begoniaceae)

Flowering and Fruiting: Aug–Sep and. Sep.

Habitat: Located on the margins of the forest in humid environments with shade and slope area in the rocks. 2200-2900 m.

GPS Reading: 21°38'45.3"N 74°01'19.4"E
(Elevation 499 m)

Distribution: Occasionally present along the slope, humid and rocky mountain area. In Maharashtra, they only reported from Nasik and Jalgaon.

RESULTS AND DISCUSSION

Begonia picta Sm. (Begoniaceae), a well-known and very important medicinal plant in Nepal [5] used in various medicines. This was never reported on the local flora and even not in all the relevant literature [9, 10]. As the finding occurrence, habitat and distribution of these species, significant botanical information was recorded. Important among these, this species of "*Begonia picta* Sm." was not reported in the flora of Dhule and Nandurbar district, as well as not in the flora of Jalgaon district. Where Tanveer et al. [11] reported *Begonia picta* from Jalgaon district. This reveals that these species are rare for the flora of the state of Maharashtra, but according to our record it was found in the northern belt of Maharashtra of the Satpuda forest in regions [12 and 13].

Begonia picta Sm is a new record for the flora of Dhule and the district of Nandurbar Flora and the district of Jalgaon in the state of Maharashtra. The voucher specimens of plants (MH-A-4018) are deposited in the herbarium of the Department of Botany, for UG, PG and Research, J. E. S, Arts and Commerce College, Nandurbar. After a detailed examination of the herbarium specimens submitted and the detailed scrutiny of the flora and literature published to date on these taxa, it is stated that this species is a new record for the Satpuda range of the Nandurbar district of Maharashtra.

CONCLUSION

As the Nandurbar district of the state of Maharashtra covers a mountainous part of the Satpuda forest, it possesses a large diversity of plant species that belong to several groups. Many taxonomists registered new plant species in this locality in the last decade and mentioned their work as an addition to the local flora. With all the taxonomic investigations and literature review, it was demonstrated and concluded that *Begonia picta* Sm. (Begoniaceae) is a new record of the flora of the districts of Dhule and Nandurbar by Dr. D. A. Patil, which will help taxonomists and researchers to study farther.

COMPETING INTERESTS

Author has declared that no competing interests exist.

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