



## New additions to the flora of Nasik district, Maharashtra (India)

BD Garud<sup>1</sup>, Smita Shinde<sup>2</sup>

<sup>1,2</sup> Department of Botany, JET'S Zulaljirao Patil College, Dhule, Maharashtra, India

### Abstract

The present study was undertaken to explore the rich and under explored area of Nasik district. During botanical exploration in Nasik district, we collected 17 new flowering plant species reported for the first time from the area and reported *Chlorophytum malbaricum* first time from Maharashtra state.

**Keywords:** new additions, Nasik district, Maharashtra

### Introduction

The vegetation of Nasik district is quite varied and interesting and divided into 13 Talukas rich in plant wealth. Nasik district has been explored extensively by <sup>[1]</sup> Grahm (1839), <sup>[2]</sup> Naire (1894), <sup>[3]</sup> Cooke (1901-1908) and <sup>[4]</sup> Talbot (1909-1911) in old time. Recently <sup>[5]</sup> Cherian and <sup>[6]</sup> Pataskar (1971-72) and <sup>[7]</sup> Lakshminarasimhan and Sharma (1991) <sup>[4]</sup>; We have explored the area and could record 17 new species to the Flora of Nasik district.

### Enumeration of species new to the flora of Nasik district as

**1. *Amorphophallus paeoniifolius* (Dennst) Nicolor var Campanulatus (Decne.) Sivdasan.** Family: Araceae "Suran".

Tuberous herb, Tuber dark brown, globose large upto 30cm. Leaves broad 25-100cm. Leaflets obovate, acute, 5-12cm. long, spathes campanulate 1-20 cm, broad, greenish pink, outer surface with pale yellow patches, base purple, Male inflorescence 7-8 cm long; Female inflorescence 7-8cm. long broader. Fruits berries reddish with 2-3 seeds, ovoid.

Fls and Frs: July-Oct.

Distribution: Not common, found in grassy and moist areas.

### 2. *Balanites argyptica* (L.)

**Family: Balanitaceae "Henkel"**

Armed, deciduous, bushy shrub or small trees, 2.5 to 4m tall. Leaves 2-foliolate, petiolate, leaflets 1-3.5 X 4-1.7 cm, elliptic oblong or ovate-oblong, glaucous-green, pubescent. Flowers pale-greenish-yellow, in axillary fascicled cyme. Drupes 4-45 X 3.5cm, ovoid, and yellowish green when ripe.

Fls and Frs: Dec-March.

**Distribution:** Infrequent in scrub forests of Malegaon and Baglan in Nasik district.

### 3. *Ceropegia bulbosa* Roxb

**Family: Asclepiadaceae**

Twinning, perennial herbs; globose tuber 2-3cm in diameter, Leaves opposite, petiolate, orbicular to ovate or elliptic, Flowers 6-10 in lateral umbellate cyme; peduncles upto 1 cm long; pedicels 3-6mm long, glabrous. Calyx glabrous, teeth lanceolate, acute. Corolla often 1.5cm long, inflated at base,

narrow in the middle, funnel shaped below the lobes, greenish outside, purplish and more or less hairy inside; outer corona shaped, inner one with 5, filliform, 2-3 cm long lobes. Pollinia minute. Follicle linear, seed oblong.

**Fls and Frs:** Aug-Oct.

**Distribution:** Very rare only 2 plants are observed in Baglan forest area.

### 4. *Ceropegia hirsuta* Wight & Arn.

**Family: Asclepiadaceae "Haamana"**

Twinning herbs, stems terete, 1 m long. Leaves petiolate, 5-6 X 3.5-3.8 cm, variable, lower ovate, middle ovate-lanceolate, those near upper end lanceolate, acute at margins. Flowers few, in lateral, umbellate cymes; peduncles, pedicel and calyx hairy; Corolla with 5-8cm long, tube 2-4 cm long, depressed inflated at base, funnel shaped above, lobes 8-18 mm long, broadly oblong or oblong ovate, hairy inside and along margins; corona biserrate, outer of 5-deltoid bifid hairy lobes, inner linear, erect.

Fls and Frs: July-Novem.

**Distribution:** Critically endangered species only one plant was seen in the forest of Mangi-Tungi in Nasik district.

### 5. *Ceropegia oculata* Hook

**Family: Asclepiadaceae**

Herbs, twinning, stem sparingly branched, slightly swollen at nodes. Leaves petiolate, 10-15 X 5.5 X 9.0 cm broadly ovate or ovate oblong, pubescent above, apex acute or shortly acuminate, base rounded or cordate. Flowers few in lateral, umbellate cyme; Peduncles hairy, Corolla 6.5 cm long base inflated, narrow in neck, mouth funnel shaped; corona biserrate, outer of 5 bifid, glabrous lobes, inner erect, linear-clavate.

Fls and Frs: July-Oct.

**Distribution:** Very rare and vulnerable species only 5-6 plants are noted from the Salher-Mulher from Baglan forest area.

### 6. *Ceropegia vincaefolia* Hook

Herbs, twinning, stem terete. Leaves petiolate 6.0 X 2.4-2.6cm. Ovate-oblong, puberulous above, apex acuminate, base

cordate, ciliate along margins, Flowers many, in axillary cyme. Peduncles hirsute, pedicels glabrous; Corolla 3-8 cm long, abruptly narrowed above lobes pubescent inside and hairy on, margins; corona biserrate, outer of 5 lobes, entire, elongate or shortly bifid, hairy, Inner ligulate, oblanceolate, glabrous.

**Fls:** August-Sept.

**Frs:** Not seen

**Distribution:** Species is at the verge of extinction. Only one plant is seen in Baglan forest area.

### 7. *Chlorophytum borivilianum* Sant; & Fern.

**Family:** Liliaceae “Safed Musali”

Rhizomatous herb with tuberous roots. Leaves radical, spirally, sessile, linear, flat with acute apex. Scapes shorter than leaves, 15-30cm long. Flowers white in raceme clusters of 3, bracts papery, purple. Fruits capsule loculicidal, greenish yellow, trigonous. Seeds black discoid.

**Fls and Frs:** July-Oct.

**Distribution:** Species is under heavy pressure of trade exploitation due to its medicinal properties. Frequently found in the forest of Dangs and Saundane in Baglan Taluka.

### 8. *Chlorophytum malbaricum* Baker

**Family:** Liliaceae

Scapigerous herbs. Leaves 5-12 X 0.6-1cm lorate, falcate, conduplicate. Flowers 2-2.5cm across, white in racemes in the upper half of 7-10cm long scape.

**Fls:** June.

**Critical Note:** New records to the flora of Maharashtra.

**Distribution:** Very rare, only 10 plants are observed in the forest of Salher-Mulher of Baglan forests.

### 9. *Cochlospermum religiosum* (L)

**Family:** Cochlospermaceae

Deciduous trees, 13-20 cm tall. Leaves 10-20 across broadly ovate, lobed, pubescent, long petiolate, lobes acuminate, flowers right yellow 6.5-8cm broadly ellipsoidal, obovate, glabrous, ribbed. Seeds 0.5-0.7cm across, brown, minutely tuberculate, densely silky brown hairy.

**Fls:** Jan-Feb.

**Frs:** Mar-Apr.

**Distribution:** Very rare, only two plants are recorded from the forest of Baglan range.

### 10. *Dyerophytum indicum* (Gibbs. ex Wt)

**Family:** Plumbaginaceae “PAVI”

Erect, undershrubs. Leaves 3.8 X 2.2-5.6 cm, sessile, ovate, ovate-elliptic or nearly orbicular. Flowers in 2-10 cm long, branched spikes. Capsule 0.6-0.8 cm, 5- valved, glabrous, Seeds brown, pyriform, smooth, glabrous.

**Fls and Frs:** Oct-Jan.

**Distribution:** Seems to be either an escape or if it is natural then it may be a endangered species because 5 plants have been recorded.

### 11. *Gymnema sylvestris* (Retz.)

**Family:** Asclepiadaceae

Twinning shrubs; stem much branched, cylindrical, densely pubescent. Leaves petiolate ovate or elliptic-lanceolate or

oblong, pubescent below, puberulous above, apex acute, base rounded. Flowers minute, in lateral corymbose cyme; peduncles, pedicellate and calyx pubescent; Corolla campanulate, with 3.5mm across, tube with 1.5mm long, glabrous, pubescent within, lobes 5, deltoid; corona of 5, fleshy, inserted on throat of corolla tube, alternating with lobes, produced downwards on tube as double villous ridges; gynostegium 1.5mm long.

**Fls:** Apr-July.

**Frs:** Sept-Jan.

**Distribution:** Heavily exploited for its medicinal value. Therefore population is declining very fast. Very rare in the forest.

### 12. *Plumbago auriculata* Lam

**Family:** Plumbaginaceae ‘Kala Chitrak’.

Undershrubs, erect. Leaves 3-4 X 1.5-2cm elliptic or obovate, base acute to attenuate, apex acute. Flowers pale blue.

**Fls:** Throughout year.

**Frs:** Not observed.

**Distribution:** Infrequent in the forest.

### 13. *Synantherias sylvestica* Schott

**Family:** Araceae

Tuberous herbs upto 80 cm tall. Tubers globose, bulbiferous.

Leaves broad, segmented with long petiole upto 30-70 cm. Spathes pale pink with green spots externally and purple inside. Male flowers purplish. Female flowers separated by neutral flowers from males. Fruits berries, dark green turns scarlet on ripening.

**Fls and Frs:** June-Oct.

**Distribution:** Very rare expect a few places in dark shady areas of Baglan forest area. Rare in the grasses of Salher-Mulher area.

**Critical note:** The species has been raised to a separate genus from Ammorrhophallus on account of presence of neutral flowers.

### References

1. Cherian PJ, Patskar RD. Contribution to the Flora of Saptashringi and adjoining hills, Maharashtra Bull. Bot. Surv. India. 1971; 11:23-34.
2. Cherian PJ, Patskar RD. Studies on the vegetation of Surgana-Harsul ranges of the Sahyadri, Nasik district, Maharashtra. Ibid. 1969-1972; 11:381-97.
3. Graham JA. Catalogue of the Presidency of Bombay and its vicinity spontaneous cultivated or introduced as they have been ascertained Bombay, 1839.
4. Lakshminarasimhan P, Sharma BD. Flora of Nasik district BSI Kolkata, 1991.
5. Nairne AK. The Flowering plants of Western India, Bombay and London, 1894.
6. Talbot WA. The distribution of the forest flora of Bombay Presidency and Sind. Indian Forester. 1909; 32:8-24, 56-64, 126-141.
7. Talbot WA. Forest flora of the Bombay Presidency and Sind. Poona. 1911; 1901.
8. Woodrow GM. The flora of Western India. J Bombay nat. Hist. Soc. 1898; 11:118-30, 265-73. 420-30, 635-51. 1898; 12: 162. 1898.