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NOTE

EXTENDED DISTRIBUTION OF *CEROPEGIA MAHABALEI* HEMADRI & ANSARI (APOCYNACEAE) TO THE STATE OF GUJARAT, INDIA

Mukta Rajaram Bhamare, Hemantkumar Atmaram Thakur & Sharad Suresh Kambale

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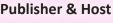
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Ceropegia L. with more than 200 species is distributed in tropical and subtropical regions of the world. Maximum diversity of Ceropegia occurs in southeastern Asia, India, Madagascar, tropical Arabia, South Africa, and Kenya (Meve 2002). The genus is represented by 53 species, two subspecies, and six varieties in India, of which 41 taxa are endemic

to India. A majority of the species are under threat as per Kambale & Yadav (2019).

Ceropegia mahabalei Hemadri & Ansari is one of the endemic and rare species of Maharashtra and so far known from only a few localities. It was described from Ralegaon Shinde and Bhivade Khurd, the villages nearby Junnar (Pune District) by Hemadri & Ansari (1971). After type collection it has been frequently collected from type locality by botanists and amateurs for their studies and interests. Malpure et al. (2006) mentioned its occurrence from Kasara Ghat (Thane District). Pethe & Tillu (2016) collected this species from Ramshej fort (Nashik District). A new variety of Ceropegia mahabalei was described by Rahangdale & Rahangdale (2012) but has been merged under Ceropegia oculata Hook. by Kambale & Yadav (2015).

During botanical explorations of the higher ranges of Western Ghats in Maharashtra and Gujarat, the senior author collected some interesting specimens in vegetative stage from Salher (Nashik District) and Chichali Ghat (Dang District, Gujarat). When they flowered in the botanical garden of HPT Arts & RYK Science College, Nashik they were confirmed as *Ceropegia mahabalei*.

Recently, Bhagat (2018) reported it from Mulashi

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Tehsil of Pune District. This report shows the extension of the distribution of this endemic species from Mulashi in the south to Chinchali Ghat (Gujarat) in the North.

Ceropegia mahabalei Hemadri & Ansari (Images 1–3)

in Indian Forester 97(2): 105. 1971; Ansari, Fasc. Fl. India 16: 24. 1984; Nayar & Sastry (eds.), Red Data Book Indian Pl. 2: 49. 1988.

Perennial erect tuberous herbs with the beaked corolla lobes.

Flowering & Fruiting: July-October.

Distribution: India: Maharashtra, Gujarat (present report); Endemic to northern Western Ghats (Fig. 1).

The localities Panchgani, Satara and Kalsubai peak mentioned by Pethe & Tillu (2016) are erroneous and mentioned neither in Mishra & Singh (2001) nor in

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 $\label{lem:competing} \textbf{Competing interests:} \ \ \textbf{The authors declare no competing interests.}$

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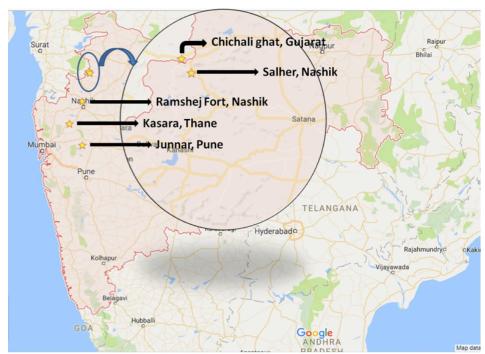


Figure 1. Distribution map of *Ceropegia mahabalei* Hemadri & Ansari.

Malpure et al. (2006).

The occurrence of this species in Kasara is not corroborated by any specimen in the Indian herbaria though mentioned by Malpure et al. (2006). Its occurrence in Kasara has been confirmed with the collection (S. More s.n.) by Sushant More. He has collected the species (Sushant More pers. comm., 2017) from Kasara and located only one individual.

Notes: *Ceropegia mahabalei* Hemadri & Ansari, commonly known as 'Gavati Kharpudi', is found growing on grassy slopes of hills. It has been reported as Critically Endangered and endemic to Maharashtra (Nayar & Sastry 1988; Mishra & Singh 2001; Yadav & Kamble 2008).

Specimens examined: India: Maharashtra, Pune District, Junnar, Ralegaon Shinde, s.d. S.R. Yadav 5812; Tuber collected from Ralegaon Shindi & grown in Garden, 19.ix.2011, S.S. Kambale & A.A. Adsul SUK-2600; 8.x.2012, S.S. Kambale & A.A. Adsul SSK-25; 19.ix.2013, S.S. Kambale & A.A. Adsul SSK-91 (SUK); Thane District; Kasara, 17.ix.2015, S. More s.n.; Nashik District; Salher, 2.viii.2016 *M.* Bhamare MB 01. Gujarat; Dang District, Chinchali Ghat, 21.viii.2016, M. Bhamare MB 02. (Herbarium, Dept. of Botany, RYK Science College, Nashik).



Image 1. *Ceropegia mahabalei* Hemadri & Ansari: A—Habitat | B—Flower | C—Flower of Junnar population | D—L.S. of flower (Gujarat population). © A—Mukta Bhamare; B—D—K.V.C. Gosavi.

ZOUREACH



Image 2. Habit of Ceropegia mahabalei Hemadri & Ansari.

References

Bhagat (2018). Floristic diversity of Mulshi Northern Western Ghats. Rani Bhagat, Pune, 297pp.

Hemadri, K. & M.Y. Ansari (1971). Ceropegia mahabalei Hemadri & Ansari - a new species of Ascelpiadaceae from Sahyadri Range, Western Ghats (Maharashtra State). Indian Forester 97(2): 105–108.

Kambale, S.S. & S.R. Yadav (2015). Lectotypifications and synonymy in *Ceropegia* (Apocynaceae: Ceropegieae). *Kew Bulletin* 70(57): 1–9. https://doi.org/10.1007/s12225-015-9608-3

Kambale, S.S. & S.R. Yadav (2019). Taxonomic revision of *Ceropegia* (Apocynaceae: Ceropegieae) in India. *Rheedea* 29(1): 1–115.

Malpure, N.V., M.Y. Kamble & S.R. Yadav (2006). A new species of *Ceropegia* L. (Asclepiadaceae) from the Western Ghats of India with a note on series *Attenuatae* Huber. *Current Science* 91(9): 1140–1142.

Meve, U. (2002). Ceropegia, pp. 63–106. In: Albers, F. & U. Meve (eds.). Illustrated Handbook of Succulent Plants: Asclepiadaceae. Springer, Berlin, 274pp.

Mishra, D.K. & N.P. Singh (2001). Endemic and Threatened Flowering Plants of Maharashtra. Botanical Survey of India, Calcutta, 411pp.

Nayar, M.P. & A.R.K. Sastry (eds.) (1988). Red Data Book of Indian Plants - Vol. II. Botanical Survey of India, Calcutta, 268pp.

Pethe, J. & A. Tillu (2016). Additional records of the highly threatened Ceropegia mahabalei Hemadri & Ansari (Asclepiadoideae: Apocynaceae) from Nashik District, Maharashtra, India. Journal of Threatened Taxa 8(5): 8844–8845. https://doi.org/10.11609/ jott.2821.8.5.8844-8845

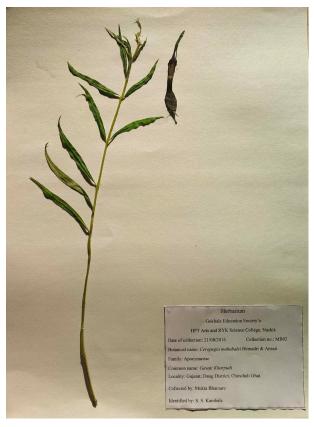


Image 3. Herbarium image of *Ceropegia mahabalei* Hemadri & Ansari. (Reg.no: MB02).

Rahangdale, S. S. & S. R. Rahangdale (2012). Variety novae of *Ceropegia mahabalei* Hemadri & Ansari (Apocynaceae: Asclepiadoideae). *Indian Forester* 138(2): 201–203.

Yadav, S.R. & M.Y. Kamble (2008). Threatened *Ceropegias* of the Western Ghats and strategies of their conservation, special habitats and threatened plants of India. *ENVIS Bulletin: Wildlife and Protected Areas* 11(1): 146–157.





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