Additional distribution records of *Ceropegia anjanerica*, an endemic and ‘Endangered’ lantern flower of the northern Western Ghats, India

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*Ceropegia anjanerica* is an ‘Endangered’ (Pethe & Wavte 2021) and endemic flytrap flower and has recently been reported from adjacent area called Navardev, Kushegaon, Igatpuri tehsil of Nashik district (Auti et al. 2019).

As a part of floristic studies on Tryambakeshwar and surrounding areas, various places have been surveyed by the authors. A recent survey made of the Bhaskargad, Bramha Hill, Bramhagiri Hill, Harihar Fort, Varvad Hill, (Nashik District) resulted in the collection of *Ceropegia anjanerica* (Malpure et al. 2006).

Perennial, erect, tuberous herbs. Stems rarely two per tuber. Leaves scabrous above, along midrib, and margin, lamina elliptic-narrowly elliptic, 1.3–3.7 × 0.3–1.1 cm, glabrous otherwise. Inflorescence an extra-axillary solitary flower; corolla tube up to 1.9 cm long, gradually dilated at base, funnel-shaped towards throat, slightly curved, greenish-grey, striated with deep purple lines within, white otherwise, glabrous within; corolla lobes 1.4–1.9 cm long, greenish-yellow, obovate, attenuate, finely pubescent throughout, connate at the tip, lobes reflexed. Corona biseriate, stipitate; outer corona of five bifid lobes, 2×2 mm, yellow, ciliate within and along margin; inner corona of five erect linear lobes, c. 2 mm long, alternating with outer corona. Follicles usually in pairs, straight, tapering to a fine point, erect. Seeds ovoid, oblong, comose; coma white, silky.

Flowering & Fruiting: July–November.
Distribution: Endemic to the northern Western Ghats.
of Maharashtra (Nashik district).

Habitat: Grows at an altitude of about 1,300 m in well-drained soil, in association with *Cyanotis fasciculata* (B. Heyne ex Roth) Schult.f., *Justicia procumbens* L., *Senecio bombayensis* N.P. Balakr. and *Swertia minor* Knobl.


Notes: These peculiar flytrap flowers remained unnoticed despite the localities of their occurrence were frequently visited by both botanists and amateur plant photographers. Vatvad Hill, Bhaskargad, Harihar Fort, and Brahmagiri are the places of the public interest and visited for adventurous treks during and after monsoon. Authors have visited Bramhagiri Hill several times, however, never encountered with *Ceropegia anjanerica*. This year when we visited Vatvad Hill during

**Table 1. Comparison of characters at different populations.**

<table>
<thead>
<tr>
<th>Character</th>
<th>Anjaneri</th>
<th>Bramhagiri</th>
<th>Harihar fort</th>
<th>Kushegaon</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arrangement of leaves</td>
<td>opposite-decussate</td>
<td>whorled (Image 1B)</td>
<td>opposite-decussate</td>
<td>opposite-decussate</td>
</tr>
<tr>
<td>Lamina shape</td>
<td>elliptic-narrowly elliptic</td>
<td>elliptic-narrowly elliptic</td>
<td>linear to lanceolate</td>
<td>elliptic-narrowly elliptic</td>
</tr>
<tr>
<td>Corolla tube</td>
<td>green</td>
<td>green</td>
<td>green</td>
<td>red at the upper half (Image 1C)</td>
</tr>
<tr>
<td>Corolla lobes</td>
<td>Yellowish-green</td>
<td>Yellowish-green</td>
<td>Yellowish-green</td>
<td>yellow with reddish tinge (Image 1C)</td>
</tr>
</tbody>
</table>

monsoon (July 2020) we observed healthy population of *Ceropegia anjanerica*. Then, we thought that the species may occur wherever similar habitats are available. Such similar habitats are available on the very next rock outcrops which are Bhaskargad, Harihar fort, Bramha Hill and Bramhagiri Hill. Surveys undertaken to these places resulted in the collection of *Ceropegia anjanerica*. This collection highlights the need of designated surveys to locate such endemic species which are reported from their type localities only. This will help in prioritizing the conservation of threatened species.

Conservation status: *Ceropegia anjanerica* was assessed as Critically Endangered [CR B1ab (iii,v) + B2 ab (iii)] by Pethe et al. (2015) and as ‘Endangered’ by Pethe & Wave (2021) based on additional four locations on the IUCN Red List. Though the type locality, i.e., Anjaneri Hills, Nashik, is declared as an ‘Anjaneri Conservation Reserve’ and due care has been taken by Maharashtra Forest Department for its conservation, other localities are under constant anthropogenic pressure. Other than Anjaneri Conservation Reserve, all the localities are tourist places and therefore, frequent trampling by tourists will certainly destroy the habitats. Grazing is not a severe threat at the above mentioned localities. Controlled tourism and awareness amongst tourists will help in reducing the threat to some extent. Unnecessary uprooting of the tuber just for the sake of growing this endemic species in captivity should be avoided as it will not survive outside its habitat more than a year or so if appropriate care is not taken.

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