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# New record of *Brachystelma rapinatianum* Britto & Bruyns (Apocynaceae: Ceropegieae) from Eastern Ghats, India

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## ABSTRACT

In this communication *Brachystelma rapinatianum* Britto & Bruyns, one of the poorly known endemic geophytes is reported for the first time for the flora of Eastern Ghats from Narthamalai. Brief description, photo-plate and other relevant details are furnished.

**Keywords:** *Brachystelma rapinatianum*; Eastern Ghats; endemic geophytes

## 1. INTRODUCTION

India is considered as one of the diversity centres of *Brachystelma* and known to have 41 taxa (Paramesh et al., 2021). After the publication of *Brachystelma* of Eastern Ghats (Pullaiah et al., 2011), the continual reports of new taxa and new records (Prasad and Rao, 2013; Rasingam et al., 2013; Kullayiswamy et al., 2013, 2016; Kaliamoorthy et al., 2015; Britto and Bruyns, 2016; Prasad et al., 2016, 2017, 2018; Sadasivaiah et al., 2016; Prasad and Prasanna, 2016; Prasad and Venu, 2018, 2020; Rasingam and Swamy, 2020; Reddy et al., 2018; Nagendra et al., 2021; Paramesh et al., 2021) revealed that the data on the diversity and distribution of the genus *Brachystelma* is still incomplete in Eastern Ghats.

Floristic surveys carried out in the Narthamalai, Pudukkottai District, led to the collection of an interesting ephemeral *Brachystelma rapinatianum* Britto & Bruyns. It is hitherto known only from the plains near Tiruchirappalli (Britto and Bruyns, 2016; Britto, 2019). The species has not been collected after the type so far (Pullaiah et al., 2019; Prasad and Venu, 2020). Thus, the present collection from Narthamalai is the second report and also an addition to the flora of Eastern Ghats. A brief description and a photographic plate of the species are provided below.

## 2. TAXONOMIC TREATMENT

*Brachystelma rapinatianum* Britto & Bruyns in Haseltonia 22: 50. 2016; Pullaiah et al., (2019) Monogr. Brachystelma and Ceropegia in India: 56. 2019; K.Prasad & Venu, Taxon. Rev. of the genus Brachystelma in India: 77. 2020. *Ceropegia rapinatiana* (Britto & Bruyns) Bruyns in S. African J. Bot. 112: 430. 2017; Britto, Fl. Central North Tamil Nadu 3: 1800. 2019.

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Erect, tuberous herbs, 10-17 cm high; tubers globose to spherical, 2–3 × 1.5–3 cm, pale brown. Stem un-branched, terete, greenish purple, glandular-puberulous when young, later glabrescent. Leaves sub-sessile, opposite-decussate; lamina linear –elliptic or elliptic–oblong, 1–1.5–2.5 × 0.1–0.2 cm, glandular-hairy, base acute–cuneate, margins ciliolate, apex acute–acuminate, apiculate. Inflorescence 2–5 flowered cymes; peduncle slender, up to 2 cm long, thinly glandular-puberulous; pedicels 0.5–2 cm long, slender, glandular-puberulous. Bracts linear, 1–2 mm long. Sepals 5, green, lanceolate, purplish along margins, 1mm long, minutely glandular-puberulous. Corolla campanulate, pale green to purplish; corolla-tube ca 2 mm long, constricted near mouth; corolla lobes lanceolate-deltate, 3–4 mm long, keeled at base, erect to slightly spreading, pale green, with purplish spots, margins reflexed. Corona two-seriate; outer series forming obscure cup-like structure; inner series with 5, small, linear lobules, pale yellow, covered with purple, silky hairs. Follicles lanceolate–ellipsoid, 2–4 cm long, is spreading to erect. Seeds 8–12, ovoid, 8–10 mm across, comose at apex.

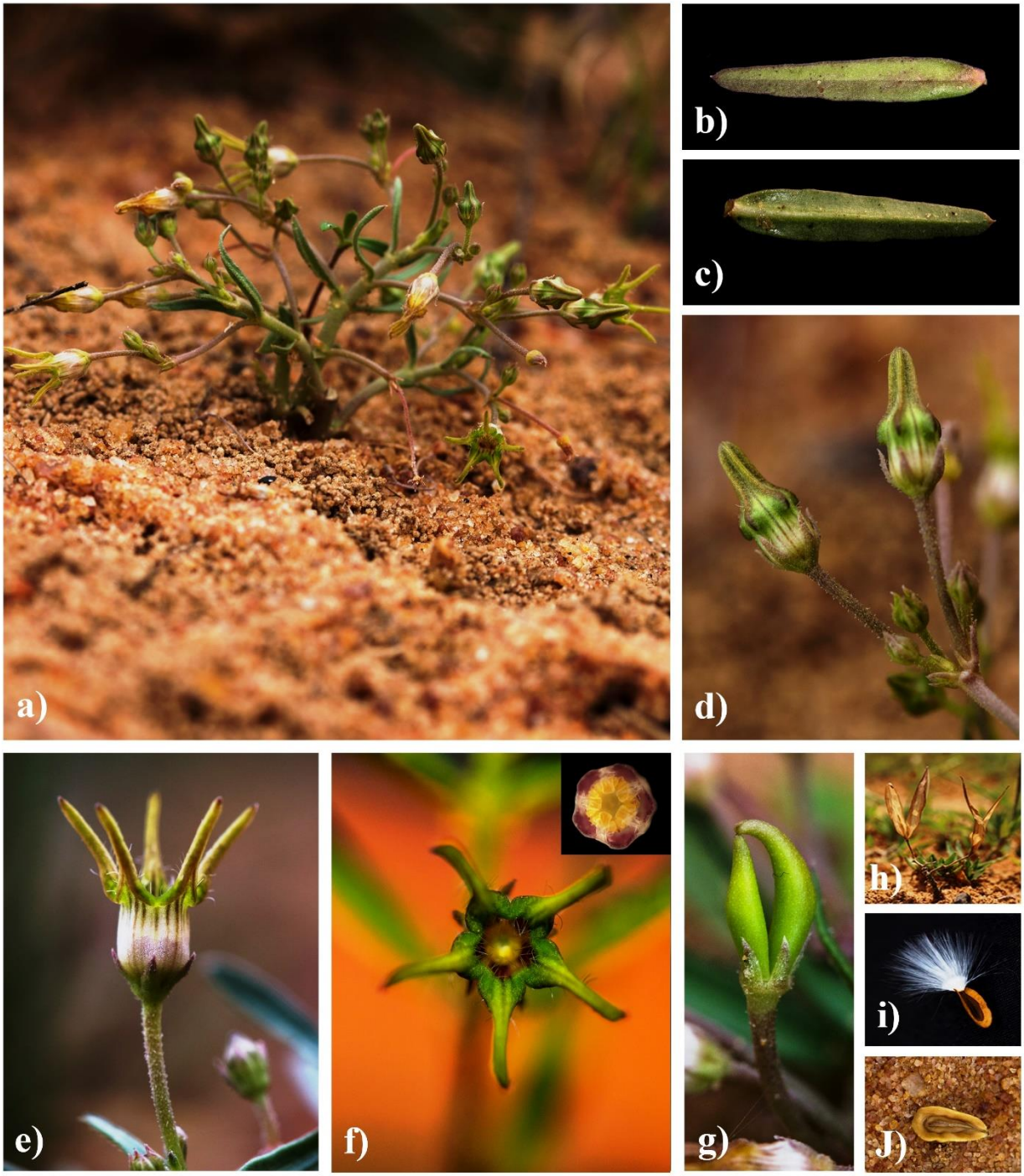


**Figure 1** *Brachystelma rapinatianum* Britto & Bruyns. a) Habit (inset tuber); b & c) Leaf; d) Inflorescence; e) Flower; f) Flower front view (inset corona); g & h) Follicle; i & j) Seed

**Flowering & Fruiting**
September–November

**Distribution**
INDIA: Tamil Nadu. Endemic.

**Specimens examined**
Tamil Nadu, Pudukkottai District, 160m, 2 Oct. 2022, Narthamalai, *C. Rajasekar et al. 122* (Alagappa University Herbarium).

**Notes**
The authors have located 50 individuals at three different populations at Narthamalai. However, all these populations are rapidly dwindling mainly due to urbanization and habitat degradation along with illicit grazing. Hence further intensive explorations should be carried out in similar habitats in adjacent forests. The existing populations need to be monitored periodically. Above all, immediate efforts should be made to ensure its survival by protecting its population in the known localities and adopt ideal in-vitro propagation methods for its mass production and reintroduction at similar sites to save this endemic tuberous ephemeral from extinction.

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**Ethical approval**
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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