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Ceropegia Wallichii Wight (Apocynaceae Juss.): A New Elevation Record with Conservation Status

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Abstract

The genus *Ceropegia* L. is a highly diversified genus of family Apocynaceae whose most of the species are facing threats. The species *Ceropegia wallichii* Wight is categorized under Data Deficient (DD) which is found between 2500 to 2900 m altitudes since till date according to available literature while this article first time mentioned its elevation in 1735 m altitude. Hence, in this scenario its new elevation should be change as 1700 to 2900 m. Owing to its poor abundance of sheets in Indian herbaria, this species also needs to be protected.

Keywords

Ceropegia wallichii • Elevation • Conservation • Threat

Introduction

The genus *Ceropegia* L. belongs from Apocynaceae family of flowering plants that comprises of 244 species mainly distributed in Africa and Madagascar, from where it extended to the Arabia, India, China, northern part of Australia and Canary Islands [1]. This genus is highly diversified with highest diversity in South Africa, Kenya, Madagascar and India. In old literature by Ahmedullah and Nayar in India, the genus represented by 53 species, 2 subspecies and 6 varieties of which 37 are endemic to Peninsular India, by Murthy 55 species with 4 varieties, of which nearly 43 species are facing threats, by Karthikeyan and Singh 60 species, 2 subspecies and 5 varieties are represented; while recently in a revision by Kambale and Yadav this genus has 61 taxa under 7 sections [2]. Among all the species *Ceropegia wallichii* Wight is a quite robust looking species that grows upright and reaches a height of about 13-40 cm with spindle-shaped fleshy roots and slightly downy hairy strong shoot having leaves only in upper area that occurs in altitudes from 2500 to 2900 m in open terrain while I found this plant first time in altitude of 1735 m (Figure 1) at the locality of Manila at district Almora in Kumaun region of Uttarakhand; the plant images captured which was grown in pine forest (Figure 2) [3].

Description

The plant recorded regularly during its growth each year in that region. Hence, now the elevation of this species should be change 1700 to 2900 m. Taxonomically the species *Ceropegia wallichii* Wight belong to genus *Ceropegia* L., ser. *Wallichianae* H. Huber of section *Chionopegia* H. Huber from the family Apocynaceae. It is a perennial erect herb with 13-40 cm long stem, rootstock with a fascicle of tuberous roots [4].

The leaves are subsessile to shortly petiolated only in upper part of the stem, lamina ovate-elliptic-lanceolate, acute-acuminate at apex, narrow at base.

Flowers solitary, extra-axillary, Sepals pubescent, corolla tube long with gradually dilated towards base, funnel-shaped at throat, hairy within, lobes connate at the tip forming ovoid-cage, densely hairy, corona bi-seriate, outer five with bifid lobes, ciliate along margins; inner five erect with linear lobes.

Follicles long, glabrous, seeds ovate, marginate, brown, silky white (Kambale and Yadav, 2019) [5].

Due to the presence of few sheets at Indian herbaria of the Ceropegia wallichii, it has been categorized under Data Deficient (DD) (Kambale and Yadav, 2019) while in the study of Murthy et al.(2012) it was considered under rare and endemic. Similarly, in my observation site I found single plant every year at the locality.

In this scenario this plant needs to be conserved. It can be conserve ex-situ by seeds propagating in similar ecological habitats or in botanical gardens [6].

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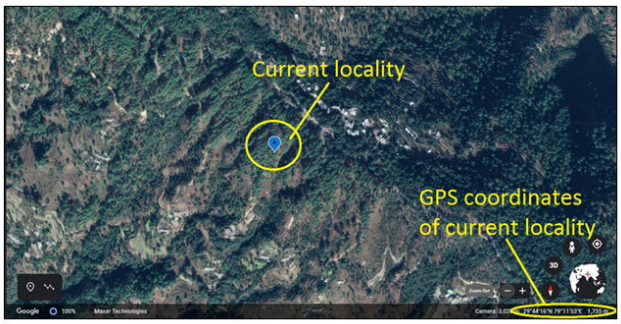

Figure 1. Locality of *Ceropegia wallichii* at altitude of 1735 m in google earth location.

Figure 2. Natural habitat of *Ceropegia wallichii* in present locality.

Conclusion

Micropropagation is recent advanced in-situ conservation method using tissue culture that could be explored for mass multiplication and reintroduction into its natural habitats. Due to very rare presence of this, harvesting of plant or plant parts from natural habitat must be strictly prohibited. Along with these, we need to understand its reproductive biology, genetic architecture, evolutionary relationship etc. for their re-establishment in nature.

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