

## *Ceropegia longifolia* Wallich (Apocynaceae: Asclepiadoideae) – A new record for Manipur, India

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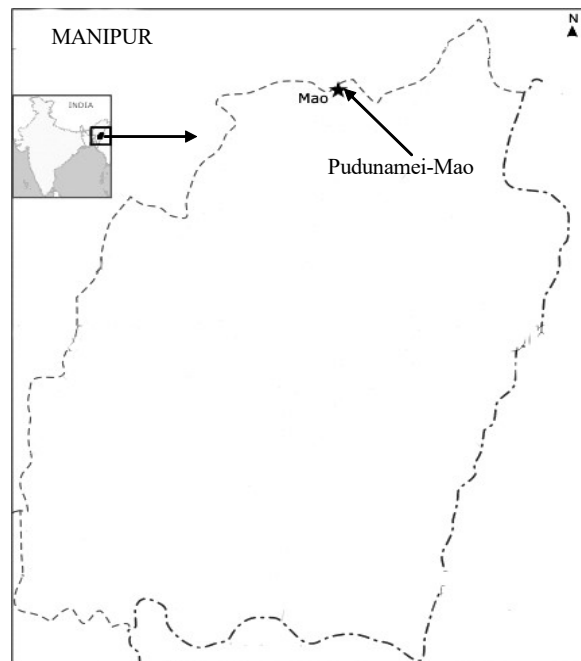
### Abstract

*Ceropegia longifolia* Wallich (Apocynaceae) has been reported for the first time from the state of Manipur in the North-Eastern part of India. A detailed description and photographs were provided for its easy identification. The occurrence of *C. longifolia* in Pudunamei village of Mao sub-division in the Senapati district makes an addition to the flora of Manipur state.

**Key words:** *Ceropegia longifolia*, Apocynaceae, New record, Manipur.

### INTRODUCTION

Manipur “the land of Jewel” is located in the North Eastern part of India and lies between 23°83' N to 25°68' N latitudes and 93°03' E to 94°78' E longitudes. It has an area of ca 22,327 sq km. The state is bounded in the East by Myanmar, North by Nagaland, on the West by Mizoram and Assam and on the South by Myanmar and part of Mizoram. The state is rich in flora and fauna which is signified by its state animal “Sangai” - Brown Antlered Deer and State flower “Siroi Lily” (*Lilium macklinae* Sealy). It receives the mean annual rainfall of 225 cm and the mean summer temperature ranges from 25 - 33° C. During the field exploration in the Mao sub division of Senapati district of Manipur, an interesting species of the *Ceropegia* Linnaeus was collected from Pudunamei



**Map 1.** Showing the place of collection (star marked) of *Ceropegia longifolia* Wallich in Manipur.

Village, located at 25°31' N latitude and 94°09' E longitude and at the altitude ranging between 1590 m to 1804.50 m above mean sea level (Map-1). The plant was identified as *Ceropegia longifolia* Wallich. The species has been reported earlier from Uttar Pradesh, West Bengal and Meghalaya from India, and also from Nepal, China, Bhutan, Bangladesh and Myanmar (Hooker 1885; Ansari 1984; Das & Chanda 1987; Grierson & Long 1999; Haridasan & Rao 1987; Jagtap & Singh 2000). However, there is no record of the occurrence of *C. longifolia* from the state of Manipur. Even the recent record of the Flora of Manipur by Singh *et al* (2000) did not mention the occurrence of this species in the state. Therefore, the present paper reports the occurrence of *Ceropegia longifolia* Wallich as a new record for the flora of Manipur and also extended the distributional range of the taxon beyond the state of Meghalaya in the North Eastern region of the Indian sub-continent.



**PLATE -1: Figs. 1-9** *Ceropegia longifolia* Wallich. 1&2. A flowering twig; 3. Flower in frontal view showing dense hairs on apical parts of corolla; 4. Roots, 5. Longitudinal section of Flower exhibiting gynostegium, linear inner corolla lobes and light windows; 6. Basal part of corolla tube showing light windows; 7. Gynostegium and pollinaria; 8. Deeply bifid outer corona lobes; 9. A Pollinarium. [Anth Wng = Anther wing; Inr Crn = Inner corona; Out Crn = Outer corona; Pln = Pollinarium; L. W = Light windows; P = Pollinarium]

## MATERIAL AND METHODS

The specimens of *Ceropegia longifolia* were collected from their natural habitat, recorded in the field note book and processed into mounted herbarium specimen following Jain & Rao (1977). All the specimens have been deposited in the Herbarium of the Department of Botany, Nagaland University, Lumami. The field photographs were taken by one Sony digital Camera (DSC20) and photomicrographs were taken under a Lieca digital Stereo Zoom (S6D). The plants were basically identified using different literature including *The Flora of British India* (Hooker 1885), *Flora of Assam* (Kanjilal & Das 1939), *Flora of Bhutan* (Grierson & Long 1999), and *Fascicle on Asclepiadaceae: Genus-Ceropegia* (Ansari 1984), *Fascicle on Asclepiadaceae*, (Jagtap & Singh 1999).

## TAXONOMIC TREATMENT

***Ceropegia longifolia*** Wallich, Pl. Asiat. Rar. 1: 56. t. 73. 1830; Ansari, Fascicle Fl. Ind. 16, 20 – 22. Genus- *Ceropegia* L., 1984 ; Hooker f., Fl. Brit. Ind. 4: 69. 1883; Huber, Mem. Soc. Broter. 12: 41. t. 1, f. 5a. 1957, excel. syn. *C. angustifolia* Wight; Raizada *et* Saxena, Fl. Mussoorie 1: 434. 1978. *C. borii* Raizada in Indian Forest Rec. (N.S) Bot. 3: 121. 1941; Babu, Herb. Fl. Dehra Dun 305. 1977, Haridasan & Rao. Forest Fl. Meghalaya., 2: 614 – 615, 1987; Jagtap and Singh, Fl. Ind., Fascicle 24, Asclepiadaceae, 228 – 223, 1999. [**Plate- 1**]

Slender climbing herbs; stem twinning, terete, branched, leafy, sparsely pubescent; green; roots fascicled. Leaves opposite; petiole 1 – 2 cm long; lamina lanceolate to linear, 11 – 17 x 1.5 – 3 cm, entire, acute to acuminate, minutely hispid above, glabrous and whitish green below, unicostate, a gland like structure present at the base of mid-rib. Flowers 2.5 – 4.5 cm long, 3-7 in umbellate cymes; peduncle 1 – 1.5 cm long; pedicels 1 cm long, glabrous or sparsely hispid; sepals 5, 4 – 7 mm long, glabrous; corolla 3-4 cm long, tube curved, whitish green, spotted with dark purple, tube 1 – 1.5 cm long, base swollen, inflated and dilated at mouth, tube and inflated part glabrous, tips covered with long hairs, windows prominent and clearly visible, pollinia reddish brown, gynostegium covered with numerous hairs. Folicles slender, cylindric, 12 – 15 cm long.

**Exsiccatae:** Manipur: Pudunamei-Mao, *Kazhuhrii Eshuo 151182*; dated 15.07.2009.

**Flowers:** July – September.

**Distribution :** INDIA (Uttarakhand, West Bengal, Meghalaya, Manipur), NEPAL, CHINA, BHUTAN, BANGLADESH, MYANMAR.

## DISCUSSION

The revision of genus *Ceropegia* Linnaeus by Ansari (1984) and the family Asclepiadaceae by Jagtap & Singh (2000) reveals the occurrence of 48 species of the genus *Ceropegia* Linnaeus from the various localities of Indian sub-continent. Out of these, 28 species have been reported as endemic. However, Various authors like Hooker (1885), Ansari (1984), Das & Chanda (1987), Grierson & Long (1999), and Haridasan & Rao (1987) have reported the occurrence of *C. longifolia* from various localities of Uttar Pradesh, West Bengal and Meghalaya of the Indian sub-continent. The the present report about the occurrence of *C. longifolia* from the Pudunamei village of Mao sub-division of Senapati district, Manipur state of North Eastern region of Indian sub-continent is the record of the record of the extended distribution of the species for this state.

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204 *Ceropegia longifolia* - a new record for Manipur  
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