

## *Ipomoea Muelleri* Benth. (Convolvulaceae) – a new record for Asian Continent

Sarvalingam Ariyan, Rajendran Arumugam, Sivalingam Ramamoorthy\* and Jayanthi Palanisamy

Department of Botany, Bharathiar University, Coimbatore, Tamil Nadu – 641 046, INDIA

Received: July 22, 2014    Revised: October 1, 2014    Accepted: October 8, 2014

### Abstract

*Ipomoea muelleri* Benth (Convolvulaceae) is an endemic Australian plant species. It is reported here for the first time from the Southern Western Ghats of Coimbatore region of India in the Asian continent. A detailed description, illustration and relevant notes are provided for its collection and identification..

**Keywords:** Climber, Maruthamalai, Tamil Nadu, Western Ghats, India.

### 1. Introduction

The Convolvulaceae family, consisting of 58 genera and approximately 2,000 species (Staples and Yang, 1998), is cosmopolitan in distribution (Fang and Staples, 1995). *Ipomoea* L. comprises the largest genus of the Convolvulaceae family, represented by c. 650 species and mainly distributed in tropical and warm temperate regions of the world (Mabberly, 2008). In India, the genus is represented by c. 60 species (Santapau and Henry, 1973; Bhellum, 2012) and, in Tamil Nadu state, by c. 33 species (Henry *et al.*, 1987).

During the floristic studies on the climbers of the Southern Western Ghats, India, the authors collected an interesting invasive species from the Maruthamalai foot hills of Coimbatore district, Tamil Nadu. On critical examination and perusal of literature (Johnson, 2011), it was identified as *Ipomoea muelleri* Benth. So far it is known in Australia only. The present collection of *Ipomoea muelleri* Benth, therefore, forms a new distributional record for the Asian continent, particularly in India.

### 2. Plant Description

*Ipomoea muelleri* Benth Fl. Austral. 4: 423, 1868; Jessop, J.P. and Toelken, H.R., eds. (1986). Flora of

South Australia, 4(4). 330. 1986; Jhonson in Kellerman. Flora of South Australia (ed. 5), pp.20, 2011.

Prostrate climbers, sparsely hirsute, with trailing or twining stems; leaves broadly ovate to triangular, 1.5-8 x 1.5-7 cm, base cordate, apex obtuse, emarginated; inflorescence cymose; peduncles longer than the petioles, bearing 1-3 flowers; bracts very small, pedicel thicker than the peduncle, 1-40 mm long. Sepals thick, outer sepals longer than the inner sepals, ovate to ovate-lanceolate, acuminate, mucronate at apex, 6-8 x 2-3 mm; corolla funnel-shaped, pale rose-pink with a slightly darker throat, glabrous, 1.5-2cm long; filaments unequal, adnate at the base; ovary 4-celled; stigma 2 lobed, globular. Capsule globular to ovoid-globular, depressed, 8-11 mm diam., splitting often tardily into 4 longitudinal valves. Seeds 4, villous, c. 2 mm long, (Figure 1 and 2).

**Flowering & Fruiting:** January-April

**Habitat:** Waste land and along roadside as a weed between 430-440 msl, Coimbatore District, Tamil Nadu, India.

**Distribution:** An invasive species occur rarely along the road side of the Maruthamalai foot Hills of the Coimbatore district, Tamil Nadu, India, (Map 1).

**Specimen examined:** India: Tamil Nadu, Coimbatore District, Maruthamalai Road. 12 Feb-2013, Sarvalingam, Sivalingam & Rajendran, 006165 (BH).

\* Corresponding author. e-mail: drsivar@gmail.com.

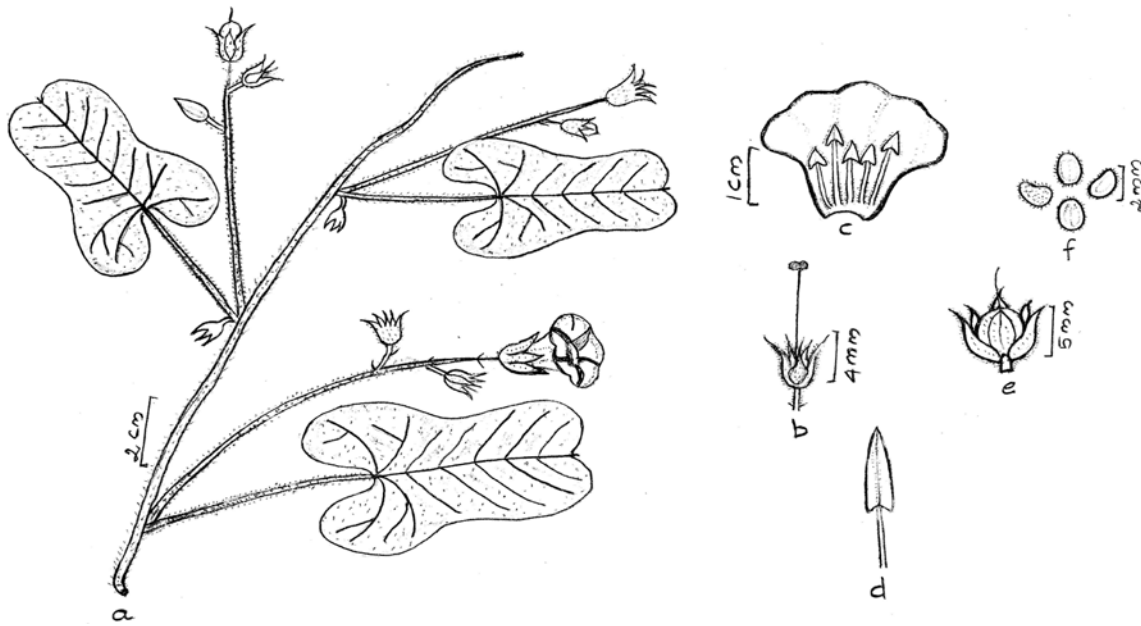


Figure 1. *Ipomoea muelleri* Benth., a. Habit; b. Sepals with pistil; c. Corolla with stamens; d. Anther; e. Fruit; f. Seed



Figure 2. Habit of *Ipomoea muelleri* Benth.



Map 1. Study area

3. Conclusions

*Ipomoea muelleri* Benth, growing in disturbed areas such as roadside, now intermingled with naturalized plants. The novel report of the species *Ipomoea muelleri*

Benth revealed that though a large amount of environmental data are available about their role in biodiversity conservation, field surveys are still vital to enhance knowledge about the Asian biodiversity heritage, particularly in India.

Acknowledgements

The authors are grateful to the Head of the Department of Botany, Bharathiar University, Coimbatore.

References

Bhellum BL. 2012. Taxonomic studies on genus *Ipomoea* (Convolvulaceae) in the flora of Jammu and Kashmir State. *J. Pl. Bio. Res.*, **1** (1): 29-35.

Fang RC and Staples G.1995. Convolvulaceae In: Wu, Z. Y. and Raven P. T. (ed.). **Flora of China** 16: 271-325. Science press, Beijing, China, and Missouri Botanical Garden, St. Louis, U.S.A

Henry AN, Kumari GR and Chithra V. 1987. **Flora of Tamil Nadu, India: Series I: Analysis**. Vol. 2. Botanical Survey of India, Coimbatore.

Mabberley DJ. 2008. **The Plant-Book: A portable dictionary of plants their classification and uses**. third ed. Cambridge University Press, Cambridge.

Johnson R.W. (2011). Convolvulaceae (version 1). In: Kellermann, J. (ed.), **Flora of South Australia** (ed. 5). Pp.20.

Jessop, J.P. & Toelken, H.R. (eds) (1986). **Flora of South Australia**, 4 (4) parts. (Government Printer: Adelaide

Santapau H and Hentry AN. 1973. **A Dictionary of the flowering plants in India**. Council of Scientific & Industrial Research, New Delhi.

Staples, G.W. and Yang S. Z 1998. Convolvulaceae In: Editorial Committee of the Flora of Taiwan, 2nd. ed., **Flora of Taiwan** 4: 341-384. Editorial Committee of the Flora of Taiwan, 2nd. ed., Taipei