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NOTE

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M. Uma Maheshwari & K. Karthigeyan

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On the occurrence and distribution of the narrowly endemic Andaman Lantern Flower *Ceropegia andamanica* (Apocynaceae: Ceropegieae)

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The genus *Ceropegia* L. (Apocynaceae, Asclepiadoideae) is the largest of the tribe Ceropegieae, represented by 190–200 taxa (Meve 2002; Mabberley 2017). The genus is distributed mainly in tropical and subtropical regions of the old world from the Canary Islands in the west through Africa, Madagascar, Arabia, India, southeastern Asia, New Guinea, and northern Australia in the east (Kidyoo & Paliyavuth 2017). Karthikeyan et al. (2009) recorded 56 species, two subspecies and three varieties for India, and according to more recent estimates the genus is represented by 56 species, two varieties and one forma (Kambale 2015; Kambale & Gnanasekaran 2016). A total of 40 species and three varieties are endemic to India (Singh et al. 2015; Kambale & Gnanasekaran 2016) of which *C. andamanica* Sreek., Veenak. & Prashanth is the only species known to occur in Andaman & Nicobar Islands.

Ceropegia are considered very attractive owing to the intricate ornamental nature of their “fly trap” flowers and their ecological adaptations. Flowers of distinctive color, pattern, and shape are unique to this genus. The Andaman & Nicobar Islands, with a total geographical area of 8,249km², stretch from Myanmar

in the north to Sumatra in the south. This is one of the major phytogeographical regions of India, well known for tropical lowland rainforests (Nayar 1997). The floral components of these islands show many similarities with Malaysia, Myanmar, Thailand, and Sri Lanka. Most of the species found on these islands are also found outside India (Balakrishnan & Rao 1983).

While studying and identifying old specimens collected from Andaman & Nicobar Islands deposited at CAL, the authors found a specimen of *Ceropegia* sp. collected from South Andaman Island in 1890. On further examination of the specimen and scrutiny of literature, it was found to be *Ceropegia andamanica* Sreek., Veenak. & Prashanth.

It is interesting to note that Dr. King’s collection from Goplakabang, South Andamans in 1890, came almost 108 years before the species was described in 1998 from the collections made from Mount Harriet in South Andaman Islands. The 1890 collection was from a different locality, from where this species was not reported until now. The species was also collected in the recent past from different localities by N.G. Nair in 1975, from Herbertabad in South Andaman almost 23 years

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before the type collection, and by Sam K. Mathew from Mount Harriet in 1989, but remained unrecognized. Sreekumar & Veenakumari collected this species from Mount Harriet (1995) and identified it to be a new species and published it as *Ceropegia andamanica* in 1998. The purpose of this article is to update the distribution data of the species and provide a detailed description, image of the oldest herbarium specimen collected 108 years before the type collection, and to map its distribution to aid the conservation of this rare and narrow endemic species (Figure 1). A color photograph is also provided for easy identification. The species is also critically evaluated as per the recent IUCN category.

***Ceropegia andamanica* Sreek., Veenak. & Prashanth**

Blumea 43(1): 215. 1998; Karthik et al., Fl. Pl. India 1: 160. 2009. (Figure 1 & Image 1).

Type: India, Andaman & Nicobar Islands, South Andaman: Mt. Harriet National Park, 14.xii.1995. Sreekumar & Veenakumari 15493 (holotype CAL0000018036!; isotypes PBL, L).

Perennial herb with watery latex. Leaves simple, opposite-decussate, lanceolate, 5–15 x 1–5 cm, chartaceous, base shallowly cordate, margins entire, apex acute to acuminate, dark green above, glaucous beneath, glabrous, lateral veins 2–8 pairs, more or less prominent on both surfaces, tertiary veins prominent on both surfaces. Petiole 0.5–2 cm long, slender, glabrous. Inflorescence axillary, pedunculate, in 3–8-flowered cymes; peduncle slender, 1–2.5 cm long, glabrous. Flowers purple, 4–12 cm long; bracts 3–4 mm long,

glabrous; pedicel slender, 0.5–2 cm long, glabrous. Calyx 5-lobed; sepals 5, subulate, 0.5–1 cm long, glabrous. Corolla 5–12 cm long; corolla tube 1.5–2 cm long, dilated at base, sub-cylindrical, funnel shaped at throat; corolla lobes 3–7 cm long, connate at the tip, twisted, whip like, purplish, hairy. Corona biseriate; outer corona c. 3x2 mm, with 5 ovate-retuse bifid lobes, ciliate along margin and inside; inner corona with 5 erect, club shaped lobes, c. 2x1 mm, glabrous. Fruits not seen.

Flowering: November–December.

Distribution: India: Andaman Islands; South Andaman (known only from three localities).

Habitat: Along the edges of inland evergreen forests in association with *Mallotus resinusus* (Blanco) Merr. and *Phaulopsis imbricata* Sweet.

Additional specimens examined: India: Andaman Islands, South Andaman, Goplakabang, 1890, Dr. King's collector s.n. (CAL0000031581!) (Image 2); Herbertabad, 29.xi.1975, N.G. Nair 3169 (PBL!); Mount Harriet, 7.xii.1989, Sam P. Mathew 20416 (PBL!).

Conservation status

The species is endemic and reported so far only from three locations in Andaman Islands, India. The extent of occurrence (EOO) of the species is estimated as c. 33km² (severely fragmented and with a projected decline in area of occupancy, number of locations, and number of mature individuals) and the area of occupancy (AOO) of the species is estimated as c. 12km². The AOO is measured against the grid size of 4km² for each of the three locations. The number of mature individual of this



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Image 1. *Ceropegia andamanica* Sreek., Veenak. & Prashanth - a flowering twig.

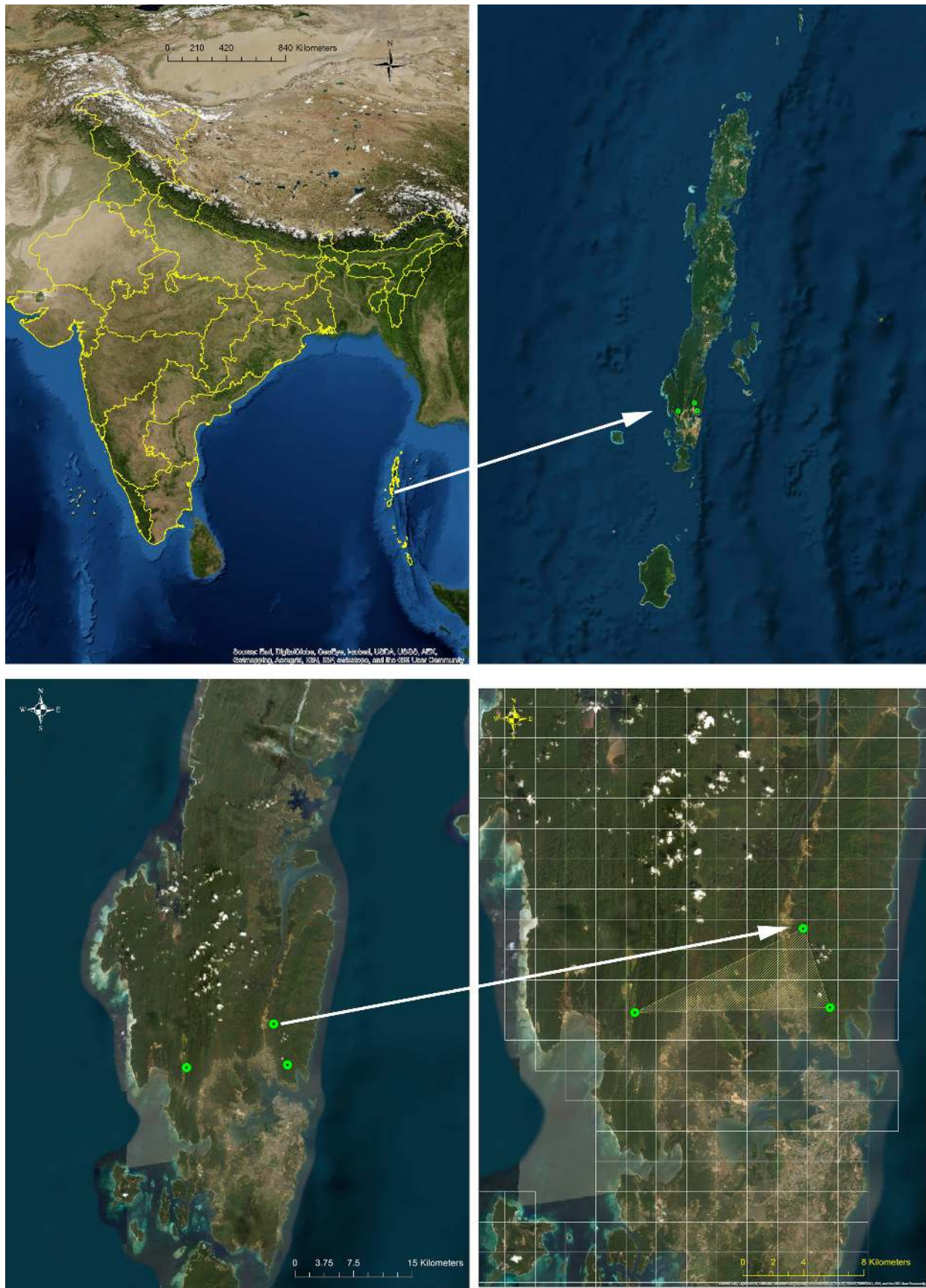


Figure 1. Distribution of *Ceropegia andamanica* Sreek., Veenak. & Prashanth in Andaman Islands.



Image 2. The oldest collection of *Ceropegia andamanica* collected by King's collector in 1890.

species is <50.

The threat perception on the species is assessed here as Critically Endangered [CR B1 b(ii,iii,iv,v); D] globally.

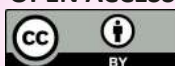
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