

Rediscovery of *Dicliptera leonotis* (Acanthaceae) from Maharashtra, India

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Abstract: *Dicliptera leonotis* Dalzell ex C.B. Clarke is rediscovered after a gap of 144 years. A detailed description, colour photographs and taxonomic notes are provided.

Keywords: Anjaneri hills, *Dicliptera leonotis*, Endemic, northern Western Ghats.

Introduction

The genus *Dicliptera* Juss. comprises 150 species distributed in tropical and warm areas of the world (Mabberley, 2017). The genus is known to have 21 species and nine varieties in India (Karthikeyan *et al.*, 2009), of which eight species occur in Maharashtra (Moorthy, 2001). While surveying Anjaneri hills, Nashik district, in Maharashtra, the authors collected an interesting *Dicliptera* species. After perusal of relevant literature (Clarke, 1885; Moorthy, 2001) and the type specimen housed at K, it has been identified as *Dicliptera leonotis* Dalzell ex C.B. Clarke.

Dicliptera leonotis was described by Clarke (1885) based on the specimen collected by Dalzell in 1874 from Anjaneri hills. In the *Flora of Nashik district* (Lakshminarasimhan & Singh, 1987) and Maharashtra state (Moorthy, 2001) it has been included based on Dalzell's collection. Balkwill *et al.* (1996) mentioned its occurrences in tropical Africa based on Clarke's treatment (1900). Barker (1986) discussed the status of *D. leonotis* and mentioned that whatever has been identified as '*D. leonotis*' in the *Flora of Queensland* by Bailey (1901, 1913) is *D. ciliata* Decne. However, *D. ciliata* is a species which

shows the cleistogamous flowers (Barker 1986) which are lacking in *D. leonotis*. Therefore, the African material is treated as *D. ciliata* rather than *D. leonotis*. Backer and Brink (1965) erroneously applied the name *D. leonotis* to Javan material. However, Barker (1986) and Nayar *et al.* (2014) mentioned that *D. leonotis* occurs in Africa based on the aforesaid literature and hence has not been treated as an endemic taxon for India. Karthikeyan *et al.* (2009) mentioned that it's an endemic species of peninsular India based on the personal communication with Balkwill. Balkwill *et al.* (1996) reported *D. burmanni* from India, China and Timor which was treated under synonymy of *D. leonotis* by Clarke (1885). Clarke (*l.c.*) had included the African specimens within the circumscription of *D. leonotis*, however, Darbyshire (2015) accepted it as form 'C' of *Dicliptera clinopodia* Nees. However, it differs from *D. leonotis* in having much smaller bracts. According to Darbyshire (*l.c.*) *D. leonotis* is an Indian species and does not occur in Africa (Pers. Comm.: Darbyshire). Critical examination of specimens of *D. burmanni* at K and P and the illustration in the protologue (Nees, 1832), revealed it as distinct and does not occur in India.

Dicliptera leonotis was reported from Gujarat by Bedi (1968) and based on Bedi's authority it was included in *Flora of Gujarat* (Shah, 1978; Raghavan *et al.*, 1981; Jani, 2014). However, the authors could trace the specimens of Bedi at BARO (Bedi 2472) and critical examination revealed it to be *D. micranthes* Nees. The whorled arrangements of the flowers as in *D. leonotis* might be the reasons of the confusion.

Therefore, it is clear that *D. leonotis* is an endemic species of northern Western Ghats of Maharashtra

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and has not been collected since the type collection. It has been recollected now from the type locality after a gap of 144 years.

Dicliptera leonotis Dalzell ex C.B. Clarke in Hook.f., Fl. Brit. India 4(12): 553. 1885. Fig. 1

Perennial herbs. Stems 1–1.5 m tall, branched, 5–6-angular, hairy. Leaves decussate; petioles 0.5–1.5 cm long; lamina membranous, 3–12 × 1–4.5 cm, lanceolate-elliptic to ovate, margins undulate, obtuse to acuminate at apex, attenuate at base, raphids irregularly arranged on both surfaces. Cymes umbellate, axillary or terminal, sessile to sub-sessile cluster. Flowers sessile, 1 to few in same bract; bracts 2, unequal to sub-equal, 9–12 × 2–3 mm, lanceolate, acuminate, cuspidate, attenuate at base, glandular pubescent, 3-nerved; bracteoles 1–2, 6.5–7 × 0.5–0.6 mm, linear, apex acute to obtuse, glandular pubescent. Sepals 5, fused at base, 5–6 × 0.5–0.6 mm, linear elliptic to linear ovate, obtuse at apex, glandular hairy. Corolla c. 1.5 cm long, bilabiate, hairy outside, dark pink; lips 6–7 mm long, oval to elliptic; upper lip 3-lobed, lower entire, orbicular. Stamens 2; filaments hairy, 6–8 mm long, pink; anthers two with unequal lobes, c. 2 mm long, dehisce through upper slits. Ovary c. 1.5 mm long; style slender, c. 12 mm long; stigma bifid. Capsules ovoid, 5.5–6 × 3–3.5 mm, mucronate at apex, glandular hairy, 4-seeded. Seeds orbicular, compressed, 2–2.5 × 2–2.5 mm, with black tubercles, glaucous.

Flowering & fruiting: November–February.

Habitat: Grows under forest shade at 1000m elevation along with *Achyranthes coynei* Santapau, *Carissa carandas* L., *Elaeagnus conferta* Roxb., *Olea dioica* Roxb., *Oplismenus compositus* (L.) P. Beauv., *Solanum anguivi* Lam. and *Syzygium cumini* (L.) Skeels.

Distribution: Known only from the type locality.

Specimens examined: INDIA, Maharashtra, Nashik district, Tryambakeshwar, Anjaneri, 30.12.2017, S.S. Kambale & S.G. Auti 478 (BSI!, CAL!); *ibid.*, 14.01.2018, K.V.C. Gosavi, S.S. Kambale & S.G. Auti 479 (BSI!, CAL!).

Notes: *Dicliptera leonotis* resembles *D. burmanni* in having whorled spikes but differs in having acuminate, glandular bracts (vs mucronate, glabrous bracts). While from *D. ciliata* it differs in lacking cleistogamous flowers. *D. leonotis* differs

from *D. clinopodia* in having pink flowers (vs purple flowers) and eglandular filaments (vs glandular filaments). *D. micranthes* has small white flowers and pubescent mucronate bracts (vs large pink flowers and glandular hairy bracts in *D. leonotis*).

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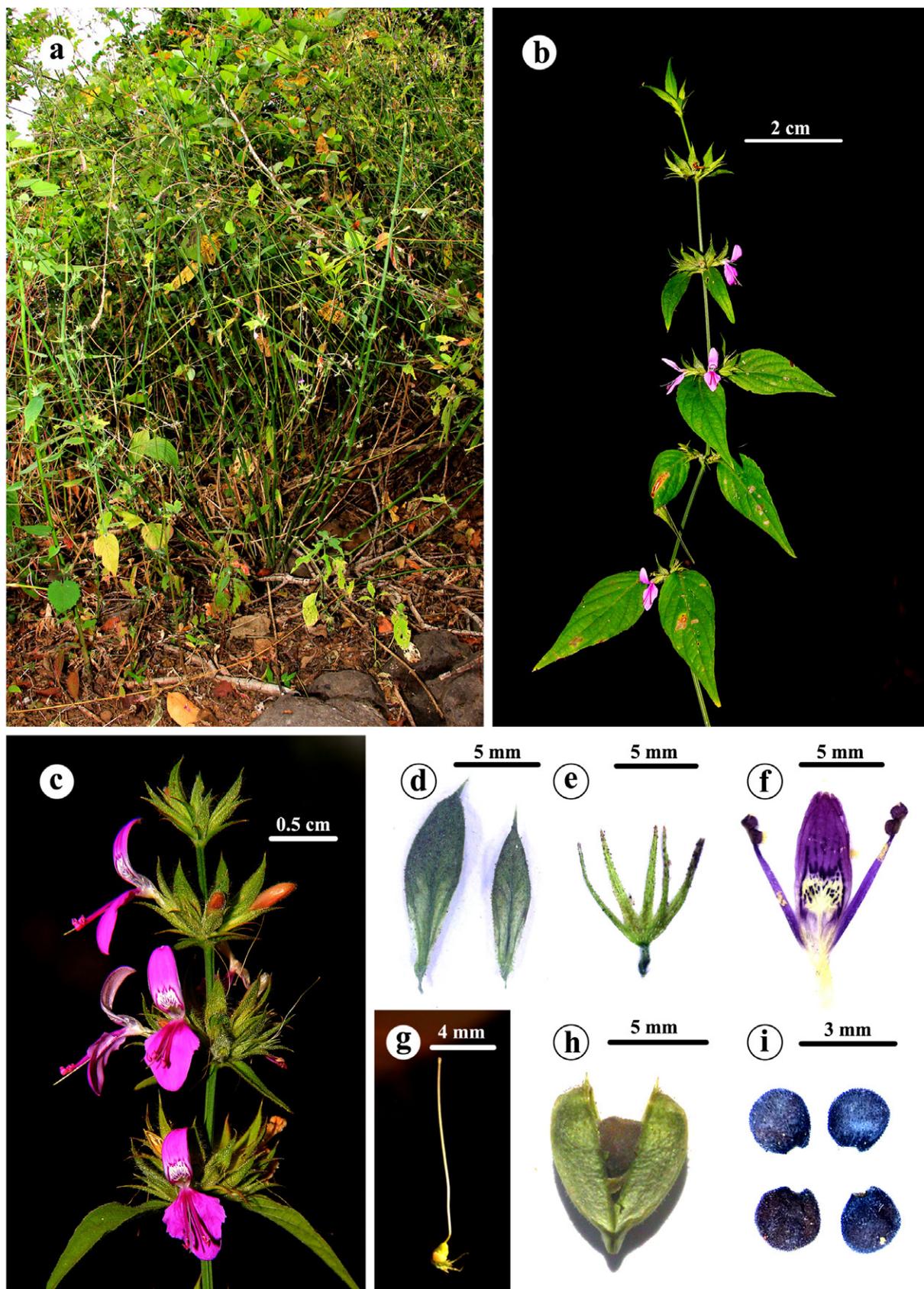


Fig. 1. *Dicliptera leonotis* Dalzell ex C.B. Clarke: a. Habit; b. Flowering twig; c. Inflorescence; d. Bracts; e. Calyx; f. Upper lip of corolla and stamens; g. Pistil; h. Fruit; i. Seeds.

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