



Rediscovery of *Henckelia macrostachya* (Gesneriaceae) from Kerala, India

During the recent floristic exploration to Anaimudi and its surroundings, the highest peak in southern India, one of the authors collected a gesneriad herb from Pettimudi at an altitude of 2000 m in the Idukki District of Kerala State. The taxonomic identity of the specimen has been determined as *Henckelia macrostachya* (E. Barnes) A. Weber & B. L. Burt (*Didymocarpus macrostachya* E. Barnes). Subsequent perusal of the literature and consultation of different herbaria (CAL, K, MH, TBGT), the present collection proved to be a rediscovery of the species after a lapses of 75 years from its original collection. The species was collected at Ottapara Ridge at an altitude of 5500 feet near Munnar, the foothills of the Anaimudi Range. The species could not be located although the area has been well explored by various authors (Sebastine & Vivekananthan 1967; Shetty & Vivekananthan 1971, 1975, 1991; Pandurangan 1990) and therefore was treated recently as possibly extinct (Nayar, 1997). The rediscovery of the species confirmed its existence in the wild and hence assumes significance from conservation point of view. Based on the field observation, morphological assessment, and a nomenclatural review, a detailed description is provided with illustration and photographs to facilitate its identification (Figs. 1–4).

Henckelia macrostachya (E. Barnes) A. Weber & B. L. Burt (1998)

Beitrage zur Biologie der Pflanzen 70: 349. 1998, based on *Didymocarpus macrostachyus* E. Barnes in C. E. C. Fischer, Bulletin of Miscellaneous Information (Royal Gardens, Kew) 1938: 37. 1938.

Herbs Lithophytic perennial, scapose. **Leaves** radical in rosette; blades oblong to narrowly ovate, 11–27 x 4–12 cm, coriaceous, dull-green and velvety with a dense mat of curved hairs above, pale-brown below, abruptly narrowed

basally, obscurely crenate marginally, rounded apically; lateral nerves 6–9 pairs. Scapes 1 or more, rather stout, terete, erect, grooved on 2 opposite sides, up to 60 cm long, densely pale-brown tomentose; bracts minute. **Calyx-lobes** ovate, obtuse, 0.6 x 0.3 cm, 3 broad, 2 narrow, glabrous and 3-nerved within, densely tomentose without. **Corolla** broadly campanulate, ca 1 x 2 cm across, oblique; lobes orbicular, pale-blue, downy without and dotted with small, sessile glands. **Stamens** 2; filaments ca 2.5mm long; anthers spherical, ca 1.5 mm. diam.; staminodes 2, slender, ca 2.5 mm long with curved or hooked ends. **Ovary** tomentose; style 3 mm long; stigma not wider than style. **Capsules** linear, stout, 1.5–2.5 cm long, acute, light-brown tomentose. **Seeds** minute, ovoid, flattened.

Specimens examined: Ottapari Ridge, near Munnar, Idukki District, Kerala, 17 Sep 1935, E. Barnes 1266 (K!); Pettimudi, ~2000 m, 30 Oct 2012, Shaju & Shareef, s.n. (TBGT, 74028)



Figure 1: *H. macrostachya* habit and habitat



Figure 2: *H. macrostachya* Inflorescence



Figure 3: *H. macrostachya* fruiting branch

Flowering & Fruiting: August–September.

Habitat: Growing on wet rocks in cushion of moss.

During the present study a few specimens were collected in and around Pettimudi, adjacent to the type locality. The species is possibly surviving as fragmented populations in a narrow range of distribution, being subjected to habitat alteration/destruction due to plantation activities so that the remaining populations face an uncertain future.

The genus *Didymocarpus* was established by Wallich in 1819 and since then it has been defined to accommodate species of different morphology, affinities, and geographical origins. Therefore A. Weber & B. L. Burtt (1998) remodeled the genus and recognized three genera, proposing *Hovanella* A. Weber & B.L. Burtt in addition to *Didymocarpus* Wall. s.str. and *Henckelia* Spreng. Some species of *Didymocarpus* were transferred to *Henckelia* with an objective of establishing more natural taxonomic units.

The genus *Henckelia* was established by Curt Polycarp Joachim Sprengel in 1817 to honour Count Leo Victor Felix Henckel von Donnersmarck (1785–1861), a German amateur botanist. The name *Henckelia* has priority over *Didymocarpus*, but in view of wider usage, the latter name is conserved until *Henckelia* was reestablished by A. Weber & B. L. Burtt in 1998 to accommodate the southeastern Asian species of *Didymocarpus*.

Acknowledgements

The authors are thankful to P. G. Latha (Director, JNTBGRI) for the facilities and constant encouragements. They are also grateful to M. P. Geetha Kumary, Technical Officer, P. E. Roy and Ahmadul Kabeer, Research fellows for their help.

Literature cited

Fischer, C. E. C. 1938. New or little known plants from south India. *Bulletin of Miscellaneous Information (Royal Gardens, Kew)*, 1938: 32–37.

Nayar, M. P., 1997. Biodiversity challenges in Kerala and science of conservation biology. Pp. 7–80, *In: Pushpangadan, P. and K. S. S. Nair (eds.). Biodiversity of Tropical Forest. The Kerala Scenario.* STEC Government of Kerala.

Sebastine, K. M. and K. Vivekananthan, 1967. A contribution to the flora of Devicolam, Kottayam District, Kerala. *Bulletin of Botanical Survey of India*, 9: 163–185.

Shetty, B. V. and K. Vivekananthan, 1971. Studies on the vascular flora of Anaimudi and the surrounding regions, Kottayam district, Kerala. *Bulletin of Botanical Survey of India*, 13: 16–42.

Shetty, B. V. and K. Vivekananthan, 1975. New and little known taxa from Anaimudi and surrounding regions, Devicolam, Kerala 6 - An undescribed species of *Oberonia* Lindl. *Bulletin of Botanical Survey of India*, 17: 157–159.

Shetty, B. V. and K. Vivekananthan, 1991. The endemic and endangered plants of the high range, Idukki district, Kerala. Pp. 230–236, *In: Karunakaran, C. K. (ed.). The Proceedings of the Symposium on Rare, Endangered and Endemic plants of the Western Ghats.* Kerala Forest Department, Thiruvananthapuram.

Weber, A. and B. L. Burtt, 1998. Remodelling of *Dydymocarpus* and associated genera (Gesneraceae). *Beitrag zur Biologie der Pflanzen*, 70: 293–363.

Submitted: 8 May 2013, Accepted: 31 October 2013
Sectional Editor: James L. Reveal

T. Shaju, M. Rajendraprasad,
S. M. Shareef, A. R. Beegam &
A. G. Pandurangan

Jawaharlal Nehru Tropical Botanic Garden &
Research Institute, Palode,
Thiruvananthapuram 695562 Kerala, India

PLATE 3

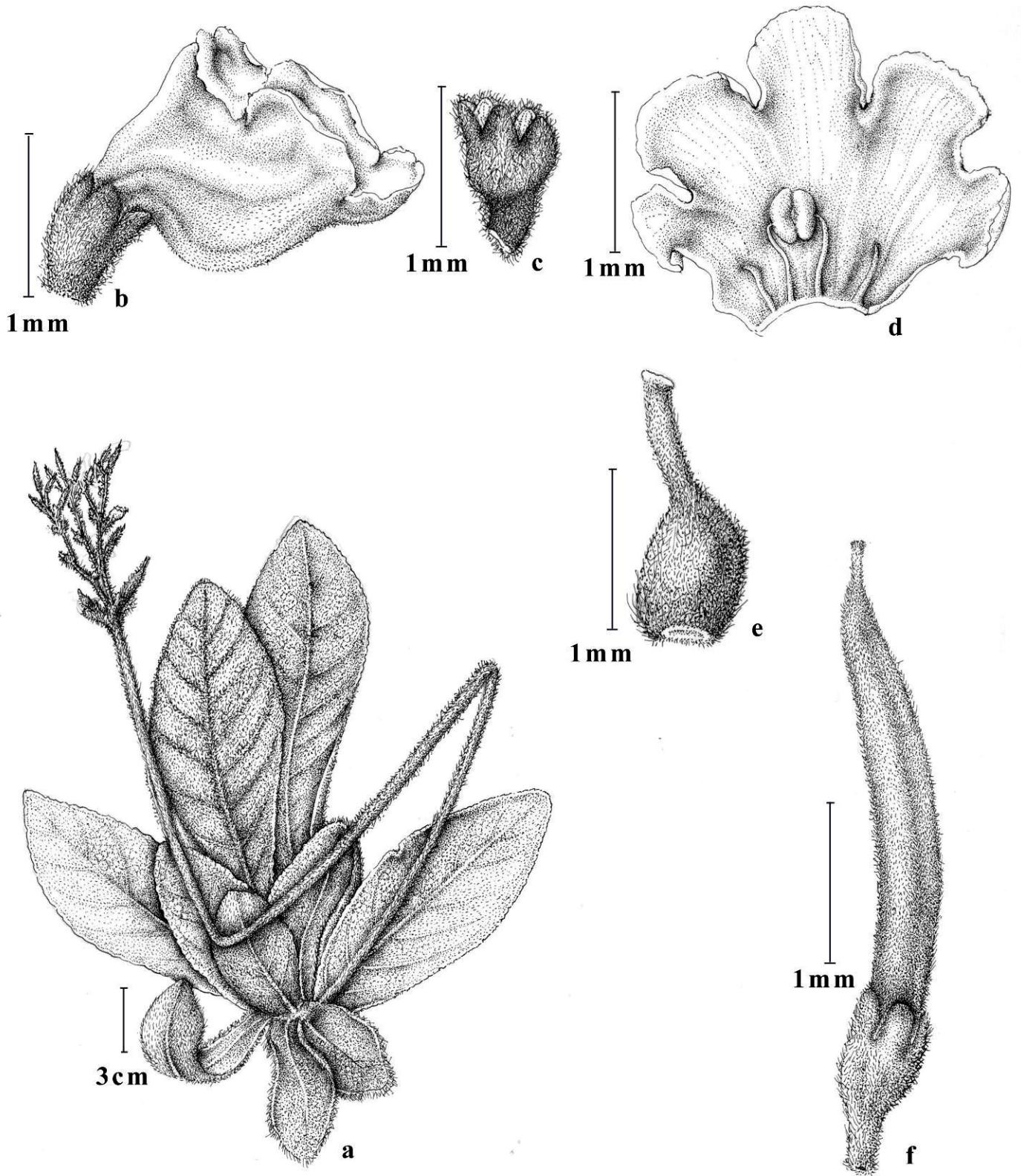


Figure 4: *Henckelia macrostachya*, **a**, habit; **b**, flower; **c**, calyx; **d**, petals (split-up); **e**, pistil; **f**, fruit