



Rediscovery and lectotypification of *Lepidagathis diffusa* (Acanthaceae), an endemic species from southern India

N. Dhatchanamoorthy^{1*}, N. Balachandran² and K. Ravikumar¹

¹National Herbarium of Medicinal Plants and Repository of Raw Drug, School of Conservation of Natural Resources, Trans Disciplinary University (TDU), Foundation for Revitalisation of Health Traditions (FRLHT), 74/2, Jarakabande Kaval, Yelahanka, Bangalore – 560064, Karnataka, India.

²Ecology Department, French Institute of Pondicherry, 11, Saint Louis Street, Puducherry – 605001, India.

*E-mail: dhatcha@gmail.com

Abstract

Lepidagathis diffusa C.B. Clarke, a species endemic to Karnataka and Tamil Nadu states in southern India, has been rediscovered after a century from Dharmapuri district in Tamil Nadu and also the name is lectotypified here.

Keywords: *Barleria diffusa*, Eastern Ghats, Endemic, Lectotype, *Lepidagathis diffusa*, Rediscovery

Introduction

The genus *Lepidagathis* Nees was earlier placed in tribe Barlerieae (Lindau, 1903; Kameyama, 2008). However, Scotland & Vollesen (2000) segregated *Lepidagathis* and placed under the subtribe *Barleriinae* of the tribe *Ruellieae* based on molecular studies, pollen morphology, corolla aestivation and other morphological characters. At present, this Old World genus comprises of 71 species and 1 variety (The Plant List, 2015). In India, the genus is represented by 23 species and 8 varieties, of which 15 species are endemic to Western and Eastern Ghats of southern India (Nayar *et al.*, 2014; Singh *et al.*, 2015), and 12 species and 1 variety are found in Tamil Nadu (Kumari, 1987; Karthikeyan *et al.*, 2009).

The present article lectotypifies the name *L. diffusa*, as well as reports the rediscovery of this species after a century from Palacode in Dharmapuri district of Tamil Nadu and Kollegal, Mysuru district of Karnataka, which are near to the type locality. Vajravelu (1990) and Kameswara Rao *et al.* (2003) assessed it as “Indeterminate” as information on the occurrence of this species are insufficient.

Lectotypification

In 1871, Robert Wight collected a specimen from the Deccan Peninsula and named it as “*Barleria diffusa* Wight” (K000950052), but did not publish

the name. In May 1880, Beddome collected a specimen (K000950051) in Bellary (Karnataka) and identified the specimen as *Lepidagathis*. Clarke (1885) described it as *L. diffusa* based on the two collections and treated “*B. diffusa*” as an invalid name. The Plant List (2015) database treats “*Barleria diffusa* Wight ex C.B. Clarke” as an unresolved name (not committing whether the name is accepted or a synonym). Some of the publications from Karnataka (Saldanha, 1984; Singh, 1998) and Tamil Nadu (Henry *et al.*, 1987; Karthikeyan *et al.*, 2009) treated *L. diffusa* C.B. Clarke as the valid name. It is evident from the protologue of *Lepidagathis diffusa* that Clarke cited two specimens, and hence one of the befitting specimens has been designated here as the lectotype in accordance with Art. 9.2 and 9.5 of Melbourne Code (McNeill *et al.*, 2012).

Lepidagathis diffusa C.B. Clarke in Hook.f., Fl. Brit. India 4: 518. 1885; Gamble, Fl. Madras: 1067. 1923; N.P. Singh, Fl. E. Karnataka 2: 498. 1998; Karthik. *et al.*, Fl. Pl. India 1: 30. 2009. **Fig. 1**

Lectotype (designated here): INDIA, Deccan Peninsula, *s. die*, *R. Wight* s.n. (K000950052, image!).

Barleria diffusa Wight ex C.B. Clarke in Hook.f., Fl. Brit. India 4: 518. 1885, pro syn. (nom. inval.).

Herb, perennial, to 50 cm high, rarely prostrate; matured branchlets glabrous. Stems densely hispid appressed-hairy when young. Leaves linear-lanceolate or oblong-oblongeolate, 15–20 ×



Fig. 1. *Lepidagathis diffusa* C.B. Clarke: a. Lectotype (*R. Wight* s.n., K000950052); b. Flowering-twig; c. Flowering-twig.

3–5.2 mm, sessile, base attenuate, margins entire, minutely ciliate, apex mucronate or spinescent; lateral veins 4–6, densely hispid appressed-hairy on both surfaces. Inflorescences spike, 1.5–3 × 1–1.3 cm. Flowers 2–2.5 cm across, pinkish purple; bracts lanceolate, 5–12 × 1–3 mm, margins densely silky-ciliate, apex acuminate or spinescent, long-silky-hairy outside, long- or short-silky-hairy inside. Calyx slightly unequally 4-partite; outer 2 lanceolate, *c.* 6 mm long; inner 2 lanceolate, *c.* 5 mm long, villous-silky. Corolla 1–1.5 cm long; upper lip ovate, *c.* 6 mm long, 2-lobed; lower lip obovate, *c.* 8 mm long, 3-lobed, apex obtuse; upper side densely silky-hispid-hairy; inner side sparsely silky-hispid-hairy. Stamens 4; filaments flat, 2–5 mm long; anthers oblong, *c.* 3 mm long. Capsules ovoid-oblong, *c.* 3.5 × 2.3 mm, glabrous; seeds 4, ovoid-oblong, hairy.

Flowering & fruiting: September–November.

Habitat: Dry localities with red loamy soil mixed with gravels.

Distribution: Karnataka and Tamil Nadu. **Endemic.**

Specimens examined: INDIA, **Karnataka:** Mysuru district, Kollegal, 28.1.1984, *Ramesh & Deshays* s.n.

(Acc. No. 0302) (HIFP). **Tamil Nadu:** Dharmapuri district, Palacode, Belamarapatti village, 670 m, 25.10.2013, *N. Dhatchanamoorthy* 118161 (FRLH); Palacode, Belamarapatti village, 670 m, 19.9.2015, *N. Dhatchanamoorthy & N. Balachandran* s.n. (Acc. No. 26995) (HIFP).

Note: It grows along with *Andrographis serpyllifolia* (Vahl) Wight, *Aristida setacea* Retz., *Corbichonia decumbens* (Forssk.) Exell, *Crotalaria angulata* Mill., *Euphorbia thymifolia* L., *Oldenlandia umbellata* L., *Indigofera linnaei* Ali, *I. linifolia* (L.f.) Retz., *Mollugo nudicaulis* Lam., *Senna italica* Mill., *Trianthema triquetra* Rottler & Willd., *Tribulus lanuginosus* L. and *T. subramanyamii* P. Singh et al.

Rediscovery

Lepidagathis diffusa is a perennial herb, endemic to southern India (Karnataka and Tamil Nadu). During a recent plant exploration in Dharmapuri district (Palacode, Belamarapatti village) of Tamil Nadu, a population of this species consisting only 13 individuals were found within a radius of 500 m. Consultation of MH and RHT revealed that this species was not re-collected during the recent past! So, the present collection is the rediscovery of this

species after 142 years from places near to its type locality. To assess the current threat status of this species, a thorough survey should be conducted in and around the type locality as well as in similar habitats in the entire southern India to assess the extent and area of occurrence, population size and threats.

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