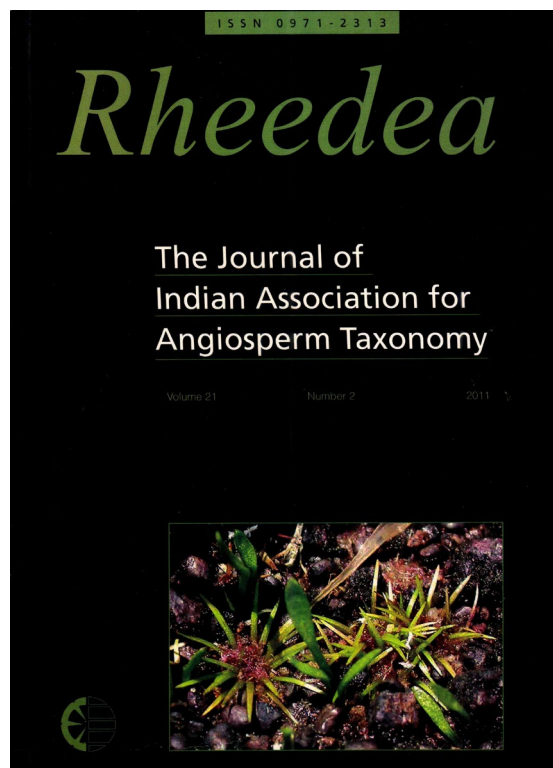




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Lectotypifications in *Andrographis* (Acanthaceae)

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Abstract

Andrographis lawsonii Gamble, *A. lineata* Wall. ex Nees var. *lawii* C.B. Clarke and *A. stellulata* C.B. Clarke are lectotypified and the images of the lectotypified specimens are provided. Besides, an overlooked taxon, *Erianthera lobelioides* Nees var. *ovalifolia* Nees is also synonymized here under *A. lawsonii*.

Keywords: Endemic, India, Lectotype, Synonym, Syntype

Introduction

Andrographis Wall. ex Nees, a tropical Asian genus is represented by 28 taxa in India and are mainly concentrated in southern states namely, Tamil Nadu, Kerala, Andhra Pradesh and Karnataka (Karthikeyan *et al.*, 2009), of which, 23 have been recognized as endemics during the present study. It is the largest genus in the subtribe Andrographideae of the tribe Justiciae in India (Clarke, 1884). The present paper is a part of the systematic study of *Andrographis* in India, where *A. lawsonii* Gamble, *A. lineata* Wall. ex Nees var. *lawii* C.B. Clarke and *A. stellulata* C.B. Clarke are lectotypified according to Art. 9.2 of Melbourne Code (McNeill *et al.*, 2012) and the images of the designated lectotypes (Fig. 1a, c, d) are provided. Besides, an overlooked taxon, *Erianthera lobelioides* Nees var. *ovalifolia* Nees is synonymized here under *A. lawsonii*.

Andrographis lawsonii Gamble, Bull. Misc. Inform. Kew 1923: 375. 1923 & Fl. Madras: 1050. 1924 ('*lawsonii*'); B.D. Sharma *et al.*, Fl. Karnataka: 200. 1984; Kumari in A.N.Henry *et al.*, Fl. Tamil Nadu 2: 139. 1987; Sasidh., Biodiv. Doc. Kerala Pt. 6: Fl. Pl.: 337. 2004.

Lectotype (designated here): INDIA, Tamil Nadu, Sispara, Nilgiris, Nov. 1890, M.A. Lawson s.n. K (K000794274), photo!; Isolectotype MH! **Fig. 1a.** *Erianthera lobelioides* Nees var. *ovalifolia* Nees in DC., Prodr. 11: 515., 1847, **syn. nov.**

Type: Kaitis, Nilgherries (Nilgiris), 1840, Perrottet s.n. [Holotype G (G00317370), photo!]. **Fig. 1b.**

Gamble (1923) described *A. lawsonii* based on specimens [(*Beddome* s.n., K000592604, MH38093)] collected from South Canara Ghats in Karnataka, and from Avalanche [(*Wight* 2246, K000592603;

Gamble 13349, K000592602)] and Sispara [(*Lawson* s.n., K000794274, MH38092)] in Nilgiris, Tamil Nadu but without designating any one as the holotype. Of these cited syntypes, *Wight* 2246 and *Gamble* 13349 are preserved at K, whereas the original specimen of *Lawson* s.n. was cut into two parts. The upper part was retained at K while the lower part sent to MH with the annotations as 'upper part kept at Kew'. The upper part of *Lawson* s.n. (K000794274) of K is designated here as the lectotype of *A. lawsonii*, since it matches well with the description. Moreover the herbarium sheet has an illustration of a flower and a dissected stamen drawn by Gamble. The lower part of *Lawson* s.n. available at MH is considered here as the isolectotype.

Nees (1847) described *Erianthera lobelioides* Nees var. *ovalifolia* based on a specimen collected by Perrottet (*Perrottet* s.n., G00317370) from Kaitis in Nilgiris, Tamil Nadu. The type specimen (Fig. 1b) at G-DC and the description of *E. lobelioides* var. *ovalifolia* provided in the original publication by Nees aptly match with the protologue and types of *Andrographis lawsonii*. Hence, the name *E. lobelioides* var. *ovalifolia* is reduced here as a heterotypic synonym of *A. lawsonii*.

Andrographis lineata Wall. ex Nees var. *lawii* C.B. Clarke in Hook.f., Fl. Brit. India 4: 505. 1884; Gamble, Fl. Madras: 1049. 1924; B.D. Sharma *et al.*, Fl. Karnataka: 200. 1984; N.P. Singh, Fl. E. Karnataka: 483. 1988.

Lectotype (designated here): INDIA, Karnataka, Chikkamagaluru district, Bababoodun hills [Bababudan], s. die, *Law* s.n., K (K000545936), photo! **Fig. 1c.**

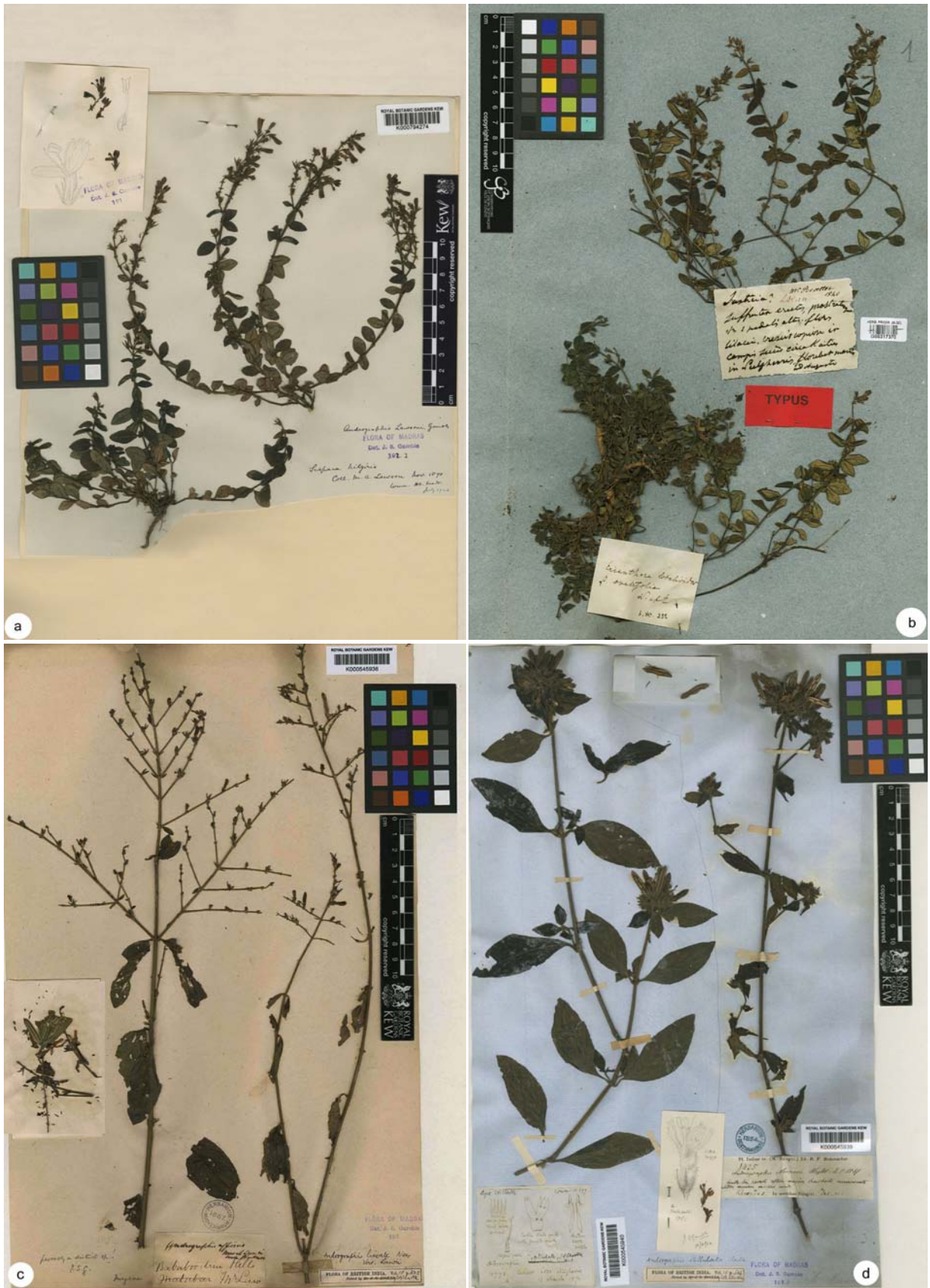


Fig 1. a. *Andrographis lawsonii* Gamble (Lawson s.n., K; Lectotype designated here); b. *Erianthera lobelioides* Nees var. *ovalifolia* Nees (Perrotet s.n., G-DC; Holotype); c. *Andrographis lineata* Wall. ex Nees var. *lawii* C.B. Clarke (Law s.n., K; Lectotype designated here); d. *Andrographis stellulata* C.B. Clarke (Hohenacker 1435, K; Lectotype designated here).

Clarke (1884) described this variety based on two collections namely, *Law* s.n. from Bababoodun hills and *Beddome* s.n. from Nundidroog (Nundidurg) in Karnataka, India. The cited syntypes are available at K (*Law* s.n.) and BM (*Beddome* s.n.). The specimen housed at K, *Law* s.n. (K000545936) was studied and annotated by Clarke as *A. lineata* var. *lawii* that best fits the description and notes provided in the protologue. Hence, it is designated here as the lectotype.

Andrographis stellulata C.B. Clarke in Hook.f., Fl. Brit. India 4: 504. 1884; Gamble, Fl. Madras: 1049. 1924; Kumari in A.N. Henry *et al.*, Fl. Tamil Nadu 2: 140. 1987; Sasidh., Biodiv. Doc. Kerala Pt. 6: Fl. Pl.: 338. 2004.

Lectotype (designated here): INDIA, Tamil Nadu, Nilgiri district, Khoondas [Kunda], December, *Hohenacker* 1435 K (K000545939), photo!; isolectotypes: K (K000545938), K photo! **Fig. 1d.**

The protologue of this species includes *Hohenacker & c.* (& c. = & cetra = et cetra = etc.), all from the Nilgiri mountains in Tamil Nadu, India (Clarke, 1884). He studied two of his own collections (*Clarke* 10778, 10177), from Coonoor at 6000 ft. besides *Hohenacker* 1435. He also made a line diagram of split open calyx, corolla and a stigma (from *Clarke* 10778) and an anther (from *Clarke* 10177) on the herbarium sheet of *Clarke* 10778. The specimen, *Hohenacker* 1435 (K000545939), which is pasted on right, along with *Clarke* 10778 (K000545940) was studied and annotated as *A. stellulata* by Clarke. *Hohenacker*'s collection is explicitly stated in the protologue and it matches well with the description provided therein and hence *Hohenacker* 1435 (K000545939) is designated here as lectotype. The duplicate of *Hohenacker* 1435 preserved at K (K000545938) is referred here as isolectotype.

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Geneva Herbarium for permission to publish the photographs of selected lectotypes and holotype. They are also thankful to Dr. V. Sampathkumar, IBLO, Kew and the Curators of BM, G and K for providing the images. Authors are also grateful to Dr. K.N. Gandhi, Senior Nomenclatural Registrar, HUH, Cambridge, for his suggestions and Dr. V.J. Nair, Emeritus Scientist, BSI, Coimbatore, Dr. Mark Carine, Researcher, BM, London and Dr. W. Arisdason, Scientist, BSI, Kolkata, for their critical comments on the manuscript.

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