

Notes on *Eria muscicola* (Lindley) Lindley (Orchidaceae) and its allied novelties

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Abstract

Taxonomy of *Eria muscicola* (Lindley) Lindley is clarified with the recognition of one new species, *E. sikkimensis* D.M. Bajracharya & K.K. Shrestha, and elevation of two varieties to species status, *E. brevilinguis* (Joseph & Chandrasekaran) D.M. Bajracharya & K.K. Shrestha, *stat. nov.* and *E. oblonga* (Trimen) D.M. Bajracharya & K.K. Shrestha, *stat. nov.* based on *E. muscicola* var. *brevilinguis* Joseph & Chandrasekaran and *E. muscicola* var. *oblonga* Trimen respectively. All are illustrated based on types as well as new collections.

Key words: *Eria*, New species, New variety

INTRODUCTION

In the second part of his *Contributions to the Orchidology of India*, Lindley (1859) accepted Conchidium as a Section of *Eria* and characterized it as “small stemless species, with rounded or depressed pseudobulbs, membranous leaves, and flowers solitary or in few-flowered racemes, for the most part very minute”. He listed 9 species *Eria braccata* Lindl., *E. lichenora* (Wight) Lindl. (now belongs to the genus *Porpax* Lindl.), *E. nana* A. Rich., *E. muscicola* (Lindl.) Lindl., *E. microchilos* (Dalz.) Lindl., *E. dalzellii* (Hook.) Lindl. *E. articulata* Lindl., *E. pusilla* (Griff.) Lindl. and *E. sinica* (Lindl.) Lindl. Many experts believe that this section has quite unrelated species those are better placed in other sections. Seidenfaden (1982) in his revision of Thai orchids included 8 species in this section with the comment that they may not be closely related.

The history of *Eria muscicola* is much complicated and the lack of good authentic materials only fester the problem. Lindley (1830) described his *Dendrobium muscicola* based on a Wallich collection (Wallich 2017, received from Lambert) from Nepal. This is now at Kew and in a miserable condition. Later, when transferred to *Eria* Lindley (1859) provided a new description based on some Ceylonese collections. This has created some confusion as it was later proved that Ceylonese plant is not identical with the Nepalese type. Convinced of the uniqueness of the Ceylon plant, Trimen (1885) described a new variety *oblonga* under *E. muscicola*. This variety was long forgotten until Joseph & Chandrasekaran (1973) added another variety, closely related to the former and this time from South India. King & Pantling (1898), and Seidenfaden (1982) who studied materials involved in this mess confirm that Gardner’s collection is very different from the Nepalese plant. Pantling had access to a lot of specimens including CP 2355 and his own collections from Sikkim available at CAL during his studies. Of the many Sikkim collections, the one from Namtse collected at 5000 ft. in August 1891 is very different from others in having serrate ulterior margin for the lip. Rolfe already commented on this sheet at Kew ‘non *E. muscicola*’. Pantling’s Pl. 191 made after this specimen is also not *E. muscicola*.

During the first author’s studies on the genus *Eria* of the Himalayan regions supported by the Darwin Initiative (UK) all the major European collections could be studied critically and the results are presented below. Let us first examine *E. muscicola* (Lindley) Lindley and then compare the allied species to see how they are different.

Key to species

1. Pseudobulbs discoid or ovoid, covered by fine reticulate network ——— 2
1. Pseudobulbs elongate or oblong, without reticulate network ——— 3
2. Labellum entire, trilobulate apex, with basal callii, puberulous below — *E. muscicola*
2. Labellum serrate, acute apex, without basal callii, glabrous below ---- *E. sikkimensis*
3. Labellum entire, oblong basal callii present, 1-2 flowered ——— *E. brevilinguis*
3. Labellum wavy basal callii absent, 3-6 flowered ——— *E. oblonga*

Eria muscicola (Lindley) Lindley, J. Linn. Soc. **3**: 47. 1859; Hooker f., Fl. Brit. India **6**: 190. 1890; King & Pantling, Orch. Sikk. Himal. **117**. 1898; Seidenfaden, Orch. Gen. Thai. **32**. 1982.

Dendrobium muscicola Lindley, Wall. Cat. **2017**, *nom. nud.*; *Gen. Sp. Orch.* **75**. 1830 [Type: Nepal, Wallich 2017 K!].

Labellum of this species has a median thickened line, tip more fleshy than the body and puberulous below. See comparison of lip of the four species (Fig. 1).

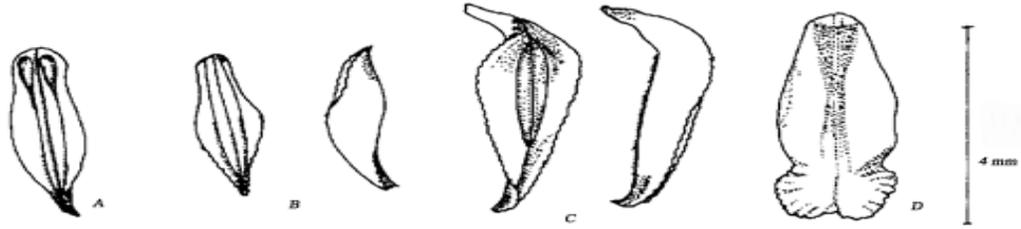


Fig. 1 A comparative structures of labellum of different species A: *E. muscicola*; B: *E. sikkimensis*; C: *E. oblonga*; and D: *E. brevilinguis*.

Flowers: July

Distribution: India, Nepal, Bhutan, Burma, Thailand, Laos, Vietnam and China.

Notes: We studied the type specimen of *E. muscicola* and other authentic collections of *E. muscicola* at BM, CAL, E, K-W, K- LINDL., KATH and TUCH and compared with our own collections made from Nepal.

Eria sikkimensis D. M. Bajracharya & K. K. Shrestha, *sp. nov.* Fig. 2.

Pseudobulbis descoideus cum retinervis, bracteis grandis, oblongus-lanceolatus, acutis, labello oblanceolatus, serrate anterior margine, sine callii ad basii.

Type: India, Sikkim: Namtse 5000 ft. August 1891, R. Pantling 163 [Holotype CAL!, Isotype K-Lindl. !]

Epiphytic herbs, 3-4 cm high. *Rhizome* slender, creeping. *Pseudobulbs* caespitose, clustered on a rather slender creeping rhizome, depressed, globose to discoid, 4-6 x 4-6 mm in diameter, covered by white thread like reticulating veins. *Leaves* 3-4, arising from the apex of the pseudobulb, petiolate or sessile, ovate to obovate-oblanceolate, 3-4 x 0.3-0.4 cm, acute or apiculate, entire, glabrous, 5-7-veined, green, thick. *Inflorescence* terminal, erect, arising between middle of two leaves, racemose with compact flowers. *Leaf sheath* membranous, grayish in colour. *Rachis* 1.5-3 cm long, angular, glabrous, green; spike 4-6 flowered, as long as the leaves. *Floral bracts* ovate-lanceolate, 3-5 x 1.5 mm, acute, longer than the sessile ovary, the minute base of the apex thick-veined, acuminate. *Pedicel and ovary* ca. 2 mm long, glabrous. *Flowers* sessile, small, pale green to yellowish, 3-4 x 1.5 mm, 9 mm when flattened. *Sepals* unequal, lanceolate, spreading, 2.5-4.5 x 0.8-1 mm, acuminate; *dorsal sepal* lanceolate, 2-4 x 0.8-2 mm, 1-3 veined, finely acuminate; *lateral sepals* falcate, ovate-lanceolate, 3-4 x 0.8-1 mm, entire, acuminate, glabrous, 3-veined; *mentum* ca 2 mm long, round or subglobose. *Petals* as long as sepals, narrowly lanceolate, 2-2.4 x 0.6-0.9 mm, thin, membranous, acuminate, entire, thin edged, 1-3-veined. *Labellum* simple, narrow, oblanceolate, concave, ca. 2 x 0.9-1.2 mm or half as long as sepal and petals and deflexed at middle, acute apex,

margin serrate, without any callii at base, 3-veined. *Column* ca. 1.5-2 mm, glabrous, short, broad, with long curved foot, ca. 1.2 mm long; *operculum* ca. 0.7 x 0.5 mm, smooth, 2-lobed inside, each lobe with four chambers; rostellum ligulate, bent towards the stigma. *Pollinia* 8, four in each lobe, obovoid, membranous and with glandulate caudicle; *viscidium* simple and ellipsoid. *Stigmatic cavity* entire, ca. 0.2 mm long. *Fruits* not observed.

This species is obviously related to *E. muscicola* (Lindley) Lindley, but different in having a ovoid pseudobulb with reticulate veins, large oblong-lanceolate, acute bract and oblanceolate, glabrous lip with serrate anterior margin without basal callii.

Flowering: During August

Distribution: Sikkim (Endemic).

Notes: Pearce & Cribb (2002), who studied the specimen at Kew, expressed doubt about its status.

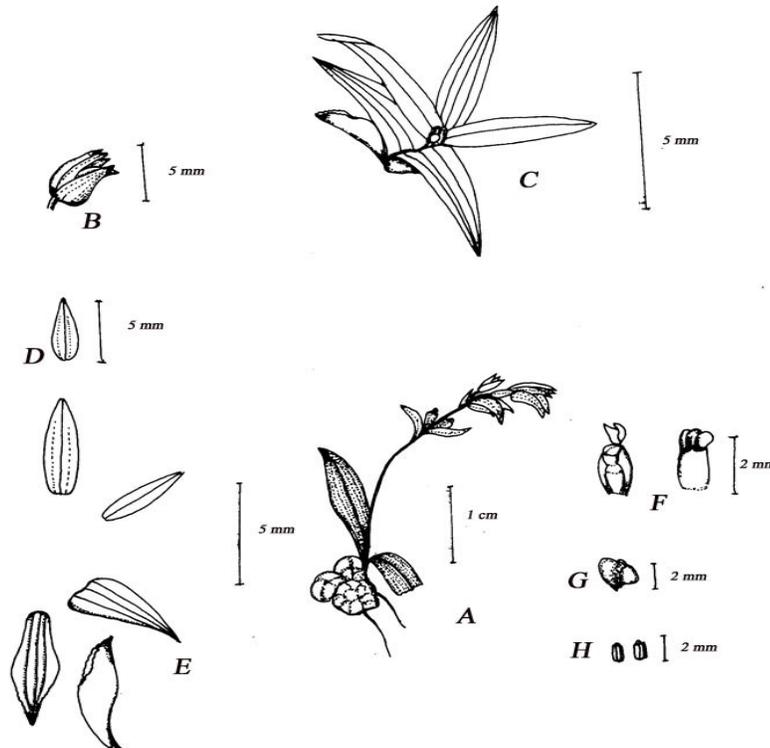


Fig. 2: A. Habit (Namtse specimen, Pantling 163, CAL); B. Single flower; C. Opening of flower; D. Bract; E. Spreading of dorsal sepal, lateral sepal, petal and labellum; F. Column; G. Operculum; H. Pollinia.

Eria oblonga (Trimen) D. M. Bajracharya & K. K. Shrestha, *stat. nov.*

Eria muscicola var. *oblonga* Trimen, *J. Ceylon Br. Roy. As. Soc.* 9: 88. 1885. [Type: Sri Lanka, C. P. 2355, BM!, CAL!].

We are convinced that the Ceylonese element thus far treated as a variety under *E. muscicola* is entirely different from it on account of larger flowers, labellum without calli at base and only about half as long as the dorsal sepal and elongated pseudobulbs. Already Thwaites (1864) expressed his doubt in accepting this as *E. muscicola*. Trimen's treatment of this as a variety under *E. muscicola* was accepted by Hooker f. But Pantling who studied C P 2355 at CAL didn't consider it matching with the Sikkim plant. Jayaweera (1981) in his treatment of Ceylon orchids didn't mention the variety and treated it as *E. muscicola* only with the comment that 'the flowers of the Ceylon specimens are larger and the species differs from the Burmese representative in the ovate-lanceolate labellum which is subacute at the apex and wavy at the margin.'

Flowers: During July-October.

Distribution: Sri Lanka (Endemic).

Notes: The CAL specimen of C P 2355 has a beautiful pencil sketch by Pantling showing the labellum without any raised lines and with no calli at base and quite entire margin, floral bract which is longer than the subsessile ovary and very short column.

Eria brevilinguis (Joseph & Chandrasekaran) D.M. Bajracharya & K.K. Shrestha, *stat. nov.*

Eria muscicola var. *brevilinguis* Joseph & Chandrasekaran, *Bull. Bot. Surv. India* 15(3-4): 267. 1976. [Type: India, Kerala, Western Slopes of Agastyamalai at 1800 m. 6th September 1973 Joseph 44630A (CAL!), B-K (MH!).]

When first described as a variety under *E. muscicola* (Lindl.) Lindl. near var. *oblonga* Trimen, this was stated to differ in having a ligulate and sessile labellum with a median oblong callus at base. In this respect it is obviously more related to *E. nana* A. Rich. than to *E. muscicola* (Lindl.) Lindl.

Flowers: During September.

Distribution: India, Kerala (Endemic).

Notes: Known only from one locality in Kerala.

Acknowledgments

We are delighted to extend our heartfelt thanks to Dr. Sathish C. Kumar (TBGRI), Kerala, India, for his kind comments and suggestions after going through the manuscript in detail. The first author acknowledges the Darwin Initiative (UK) for the support to visit the different herbaria of UK (BM, E and K) and personal thanks to Dr. Roy Vickery, Curator (BM), Dr. Phillip Cribb and J. J. Wood (both at K); Dr. D. Chamberlain (E) and Dr M. Sanjappa (CAL) for extending all logistic supports to work in their herbaria. We are also thankful to Mr. A.M. Singh Bania, Associate Professor, Department of Botany, Amrit Campus for providing laboratory facilities to carry out the research work.

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