

NOTES ON SOME MALESIAN ORCHIDACEAE VII

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Abstract. Continuing herbarium and literature research on Malesian orchids has identified five new synonyms and two new combinations.

Keywords: Malesia, orchids, synonymy, *Anoectochilus*, *Crepidium*, *Galeola*

This paper continues our studies (e.g., Ormerod and Juswara, 2023) of Malesian orchids with the intent of updating floristic knowledge of the region. As per usual, most of the taxa dealt with occur in Indonesia.

Anoectochilus Blume, Bijdr. Fl. Ned. Ind. 8: 411. 1825; Tabellen: f.15. 1825 (as *Anecochilus*). *nom. cons.*
Type species: *Anoectochilus setaceus* Blume.

This is a genus of subtribe Goodyerinae with about 40 species distributed from Sri Lanka and India to Samoa. The plants often have a basal rosette of reddish-brown to blackish, cordate to suborbicular leaves intricately veined with nerves colored gold, pink, or silver. Thus, they are often referred to as jewel orchids. The species discussed here, unlike most of its congeners, is highly variable in leaf color and several floral characters. Thus, a number of taxa are here proposed as new synonyms of it.

Anoectochilus setaceus Blume, Bijdr. Fl. Ned. Ind. 8: 411. 1825; Tabellen: f. 15. 1825 as *Anecochilus*.

TYPE: INDONESIA. Java, Mt. Salak, Mt. Gede, and Tankuwan Prahau, *C. L. Blume 1957* (Lectotype [here designated]: L [0058589]; possible Isolectotype: P [00333662, image seen]). Fig. 1–2.

Homotypic synonym: *Anoectochilus setaceus* Blume var. *aureoreticulatus* W.J. Hook., Curtis's Bot. Mag. 86: sub t.5208. 1860 *nom. illeg.*

Heterotypic synonyms: *Anoectochilus reinwardtii* Blume, Fl. Javae Ins. Adj. n.s. 1: 40. 1858; Coll. Orch. Arch. Ind.: 48. 1858 *syn. nov.*

TYPE: INDONESIA. Java, Mt. Pantjar, *C. L. Blume s.n.* (Lectotype [here designated]: L [0058588]); Java, icon *C. Reinwardt s.n.* (Syntype: L?, not seen); Sumatra, collector not cited (Syntype: L?, not seen).

Anoectochilus croseus Rchb.f., Hamb. Gartenz. 16: 424. 1860 *syn. nov.*

TYPE: WITHOUT ORIGIN. *Cult. H. Kramer for Mrs. Jenisch s.n.* (Holotype: W-R [37797, image seen]).

Anoectochilus narasimhanii Sumathi, Jayanthi, Karthig. & Sreek., Blumea 48(2): 285. 2003 *syn. nov.*

TYPE: INDIA. North Andaman Islands, Saddle Peak National Park, 20 September 2001, *R. Sumathi, J. Jayanthi, & K. Karthigeyan 17368* (Holotype: CAL; Isotypes: D, PBL [none found, but see note]).

Anoectochilus falconis Ormerod, Taiwania 50(1): 3. 2005 *syn. nov.*

TYPE: MALAYSIA. Kedah, Kedah Peak, 29 November 1915, *H. C. Robinson 5977A* (Holotype: AMES [00217448]).

Distribution: India (Andamans), Thailand, Malaysia (Peninsula), and Indonesia (Sumatra to Flores).

Additional specimens examined: THAILAND. Peninsular region, Nakhorn Si Thammarat, Khao Luang area, 800 m, 18 May 1968, *C. F. van Beusekom & Phlengkai 848* (L). MALAYSIA. Peninsula. Kedah, Kedah Peak, 29 November 1915, *H. C. Robinson 5977* (AMES, BM, L). INDONESIA. Sumatra. Tapianoeeli Residency, area of Loemban Lobo, Toba, near KM 142, road from Porsea to Parapat, 27–31 July 1946, *R. Si Boeea 9803* (L, MICH); N of Sibajak, 1700 m, 5 June 1920, *J. A. Lorzing 7313* (L); E of Sibajak, above Petanital, 1275 m, 5 February 1929, *J. A. Lorzing 15157* (L); Java. Without locality, *T. Horsfield s.n.* (BM); Gunung Manggis, SE of Malang, S of Semeru, 850 m, 1 November 1981, *J. B. Comber 1260* (K); NW of Pujon, near Malang, 1300 m, 15 May 1980, *J. B. Comber 1176* (K); Puncak, 1550 m, 29 August 1986, *J. B. Comber 1686* (K); Pateungteung, 1500 m, *W. M. Docters van Leeuwen 2620* (L); Preanger Regency, Bukit Goenggael, 1800 m, 3 August 1924, *C. A. Wisse 1201* (L); Preanger Regency, near Gunung Toegoe, Tjampaka (Tjibeber), 1000 m, 19 June 1923, *J. J. Smith 870* (L); Preanger Regency, near Padalarang, 700 m, 11 June 1916, *J. Docters van Leeuwen-Reijnvaan 2375* (L, 2 sheets); Lombok, Rindjani volcano, lower half of Tengengeah, 1350 m, 3 May 1909, *J. Elbert 980* (L); Sumba, Yawila, 750 m, 18 July 1974, *J. A. J. Verheijen 4104* (L, sterile); Flores, Rana?, 900 m, 19 April 1966, *E. Schmutz 47* (L, no fls); Wae Mao, near Rane Messe,

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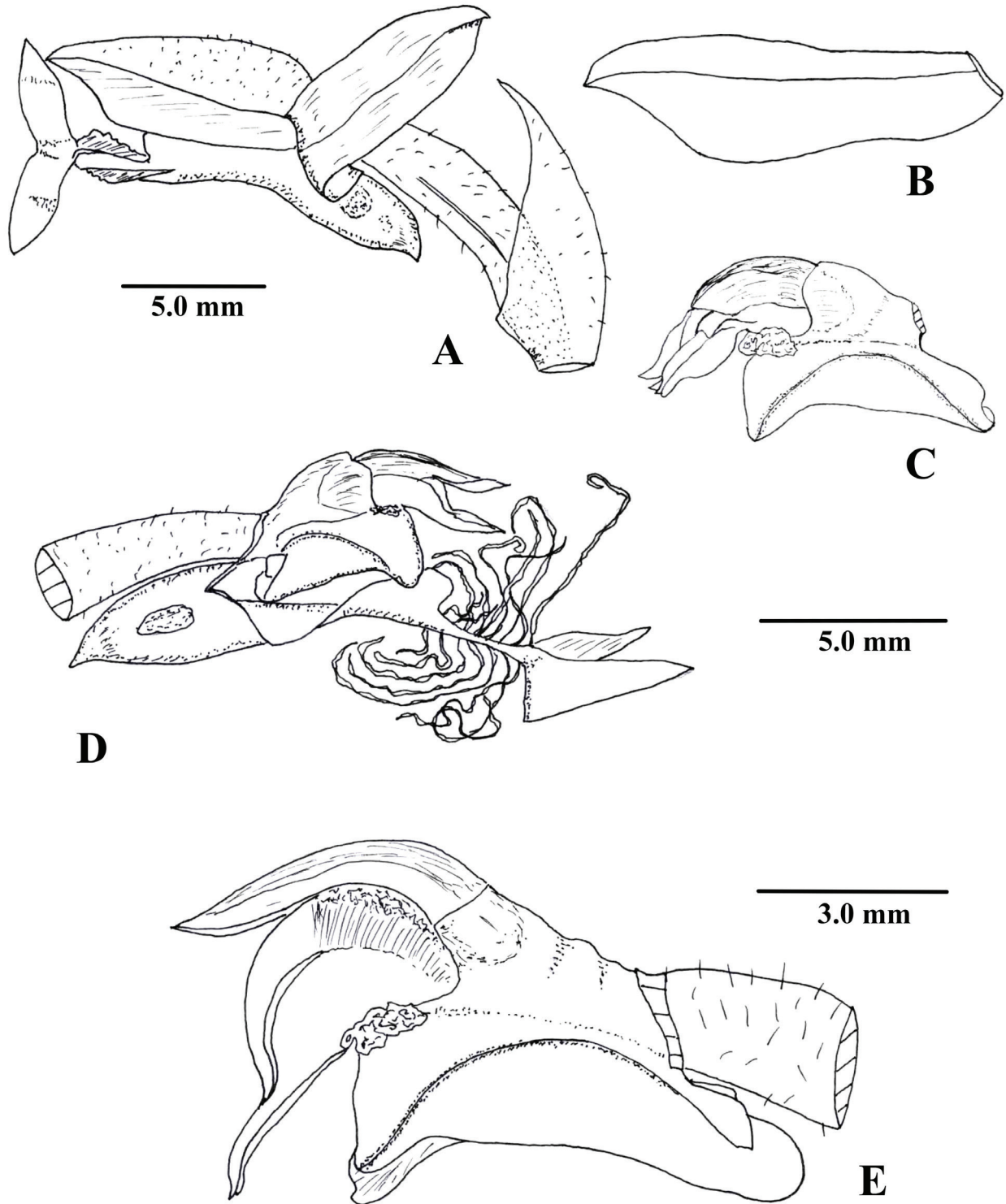


FIGURE 1. *Anoectochilus setaceus* Blume. **A**, flower; **B**, petal; **C**, column; **D**, flower; **E**, column. A–C drawn by P. Ormerod from *J. Comber* 1260 (K), D from *A. Kostermans & Wirawan* 839 (L), and E from *J. J. Smith* 870 (L).

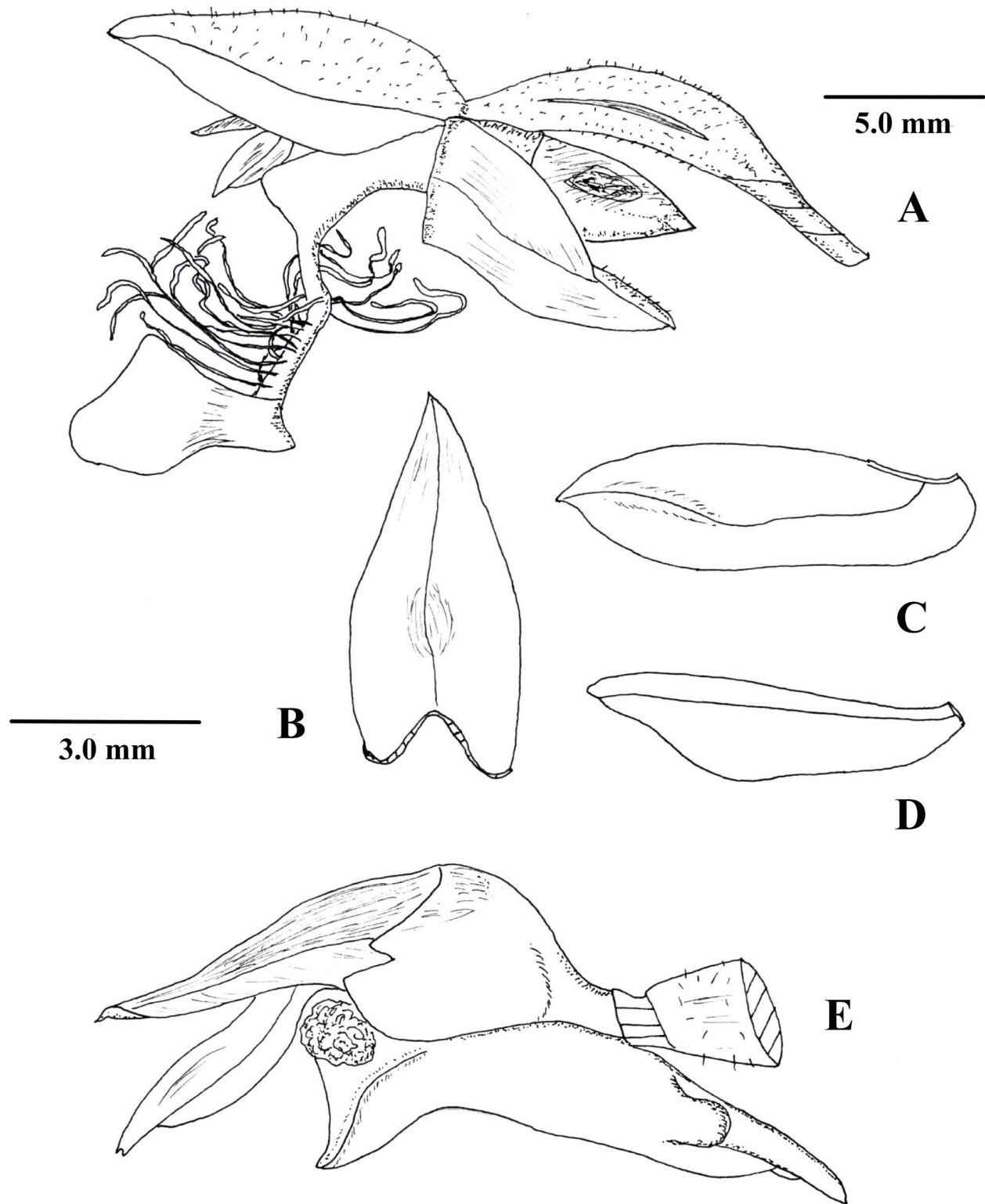


FIGURE 2. *Anoectochilus setaceus* Blume. A, flower; B, dorsal sepal; C, lateral sepal; D, petal; E, column. Drawn by P. Ormerod from *R. Si Boeea* 9803 (MICH).

1000 m, 7 April 1965, A. G. H. Kostermans & N. Wirawan 839 (L); Gunung Putih, 3 June 1964, J. A. J. Verheijen 1837 (L); Gunung Putih, 3 June 1964, J. A. J. Verheijen 1838 (L); Numang, 1000 m, 1 May 1980, E. Schmutz 4681 (L).

Vernacular names: belong-boelong babiat (*Si Boeea* 9803); nokhum (*van Beusekom & Phlengkai* 848).

Ethnobotany: Used as a medicine by local people (Thai Peninsula, *van Beusekom & Phlengkai* 848).

An examination of several collections of this species showed that it is highly variable in leaf coloration, the length of its floral spur (5–7 mm long on average, but can be to 8 mm long), the number and density of fringes on the labellum mesochile, the shape of epichile lobules (lanceolate, ligulate, to obliquely cuneate), and the shape and length of the retrorse portion of the column wings (oblong to lanceolate, 1.5–3.0 mm long).

Smith (1905) distinguished *A. reinwardtii* from *A. setaceus* by the former having reddish-black leaves with strong, copper-red nervation, and the lip with more or less 10 fringes on each side of the mesochile. While *A. setaceus* was supposed to have greenish black leaves finely veined silver white, and the lip with more or less 7 fringes on each side of the mesochile. Leaf coloration is highly variable and is hardly detectable on the types of *A. reinwardtii* and *A. setaceus*; it is the same for the number of fringes on each side of the lip mesochile. Comber (1990) used similar characters to distinguish the two entities but reported both had blackish-green leaves. He further noted some variation in the color of the venation and that *A. reinwardtii* had fewer fringes on the lip (contrary to Smith) that were shorter (5.0 vs. 8.5 mm) than those of *A. setaceus*. Comber's concept of *A. reinwardtii* doesn't agree with the type material, which has longer fringes on the lip. However, his material does fit into the broader variation of *A. setaceus* as interpreted here. In Kew, the collection *Comber 1260* has only laminate flanges (instead of distinct fringes) on the lip mesochile (see Fig. 2A–C), somewhat approaching the plant pictured by Comber (1990). In our opinion, it is just an extreme form of *A. setaceus* and does not have any other salient features to show that a new taxon is at hand.

No distinguishing features were found for *A. croseus* after examination of photographs of the type and the original sketches made by Reichenbach f. The first author is most grateful to the late Leslie Garay for sending copies of the aforesaid type photographs and drawings.

The first author was kindly sent some material of *A. narasimhanii* by P. V. Sreekumar, one of the co-authors of this taxon. Location of the type material cited in the protologue remains unknown (Bhattacharjee and Chowdhery, 2018). At the time it seemed to be distinct, but the advice to that effect was incorrect because of the variability of *A. setaceus* was not understood at the time. We can find no characters to justify its maintenance.

Anoectochilus falconis was distinguished from *A. reinwardtii* based on features of its column wings. Those features appear to be an aberrant development, and other specimens of the type number have the usual column wings here attributed to *A. setaceus*.

We believe further study is needed of *A. elatus* Lindl., *A. monicae* J.J. Wood, and *A. nicobaricus* N.P. Balakr & Chakr. At the moment, they do not appear particularly different from *A. setaceus*. A similar problem exists with the Sumatran species, *A. dewildeorum* Ormerod. It is currently identified by its slightly longer column wings (4.0 vs. 1.5–3.0 mm), that perhaps have different dorsal membranes, and denser fringes on the lip mesochile.

Crepidium Blume, Bijdr. Fl. Ned. Ind. 8: 387. 1825.

Type species: *Crepidium flavescens* Blume.

A genus of Malaxidinae with about 270 species distributed from the Seychelles, Sri Lanka, and India to Tahiti, with most species found in Indonesia. The taxa transferred here to *Crepidium* belong in section *Oistochilus* (Schltr.) Ormerod *sensu lato* (including genera *Pseudoliparis* Finet and *Saurolophorkis* Marg. & Szlach.).

Crepidium malinowskianum (Marg.) Ormerod & Juswara, *comb. nov.*

Basionym: *Pseudoliparis malinowskiana* Marg., Phytotaxa 435(3): 243. 2020.

TYPE: PAPUA NEW GUINEA. Morobe Prov., Yoangen area, mountain trail, 1525 m, 18 June 1936, J. Clemens & M. S. Clemens 3393 (Holotype: AMES [02175303, image seen]).

Distribution: Papua New Guinea.

Crepidium papuanum (Marg.) Ormerod & Juswara, *comb. nov.*

Basionym: *Saurolophorkis papuana* Marg., Wulfenia 24: 286. 2017.

TYPE: PAPUA NEW GUINEA. Western Highlands Prov., near Minj, Korubun Creek, 1800 m, leg. E. F. de Vogel, W. Bandisch, A. Vogel, & B. Gravendeel, cult. Leiden Botanical Garden, Hort. Leiden 20032236 (Holotype: L [0661500, not seen]); Isotype: L [spirit, not seen].

Distribution: Papua New Guinea.

Galeola Lour., Fl. Cochinch. 2: 520. 1790.

Type species: *Galeola nudifolia* Lour.

A genus of five holomycotrophic, leafless, viny orchids distributed from Madagascar and the Comoros into southeast Asia, through Malesia to western New Guinea.

Galeola nudifolia Lour., Fl. Cochinch. 2: 521. 1790.

TYPE: VIETNAM [as Cochinchinae]. In woods, J. Loureiro *s.n.* (Holotype: BM [000062885]).

Homotypic synonyms: *Epidendrum galeola* Raeusch., Nomencl. Bot. [Raeusch.] ed. 3: 265. 1797 *nom. illeg.* *Cranichis nudifolia* (Lour.) Pers., Syn. Pl. [Persoon] 2(2): 511. 1807.

Heterotypic synonym: *Cassytha corniculata* Burm.f., Fl. Ind. [N.L. Burman]: 93. 1768, *syn. nov.*

TYPE: INDONESIA. Java, C. Kleynhoff *s.n.* (Lectotype [here designated]: G [00802255, image seen]).

Distribution: India, Bhutan, Myanmar, China, Vietnam, Laos, Cambodia, Thailand, Malaysia, Singapore, Philippines, and Indonesia (Sumatra to Papua).

Merrill (1921) was the first to suggest that a plant described in the Lauraceae, *Cassytha corniculata*, was, in fact, a species of *Galeola*. Smith (in Merrill, 1921) suggested to him it could be either *G. altissima* (Blume) Rchb.f. or *G. pterosperma* Schltr. (a *nomen nudum* based on an earlier *nomen nudum*, *Vanilla pterosperma* Lindl.). The former is a glabrous plant now placed in the genus *Erythrorchis* Blume, while the latter is the pubescent species we know today as *Galeola nudifolia*. Examination of the flowerless type of *Cassytha corniculata* shows it to have pubescent inflorescences characteristic of *Galeola nudifolia*, and, therefore, we treat the two as conspecific. Burman also cited in the protologue the pre-Linnaean name *Cassytha cornea*

Rumph in synonymy, but this was correctly excluded by Merrill (1921), since it is a quite different fungal taxon now known as *Marasmius crinisequi* F. Muell. The name *Galeola nudifolia* is now well entrenched in the literature and widely used. We expect that it will be necessary to conserve it against the earlier taxon of Burman.

Currently, *Cassytha corniculata* is listed as a synonym of *C. filiformis* L. (e.g., POWO), but the two bear no similarity since the latter is a slender, wiry, glabrous plant. Other synonyms of *Galeola nudifolia* can be found on POWO; for example, *Conchoglossum silvestre* Breda, *Erythrorchis kuhlii* Rchb.f., *Galeola torana* J.J. Sm., and *Vanilla rubiginosa* Griff.

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