

## NOTES ON SOME MALESIAN ORCHIDACEAE

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**Abstract.** Herbarium and literature studies of various orchids from the Malesian floristic zone reveal some new species, synonymy, and the need for a few nomenclatural proposals. Thus, the synonymy of *Cestichis halconensis* is elaborated; *Cymboglossum* is found to be the older name for *Ascidieria*, requiring 8 transfers; *Dendrobium appendiculoides* is reduced to *D. zamboangense*; *Dendrobium philippinense* is reduced to *D. gerlandianum*; *Epidendrum subulatum* is reduced to *Thrixspermum filiforme*; *Eria* section *Polyura* is transferred to *Pinalia*; *Eria villosissima* is transferred to *Mycaranthes*; and *Myrmecis philippinensis* is renamed *Odontochilus marivelensis*. Six new species are proposed, namely, *Dendrobium rubroflavum*, *Pinalia edanoana*, *P. kitangladensis*, *P. pentalopha*, *P. sanguinea*, and *P. tonglonensis*.

**Keywords:** *Cymboglossum*, *Dendrobium*, *Pinalia*, Malesia, synonymy, new species

This paper is a collaborative venture on Malesian orchids, with a bias toward Philippine taxa (the specialty area of the second and third authors). The basic Malesian area extends from the Malaysian peninsula to the Solomon Islands, north to the Philippines. Our studies frequently overlap, and we thought it best to deal with a number of taxonomic and nomenclatural issues in one place. Since Malesia mostly consists of mountainous tropical islands, many once clad in various types of rainforest, it is particularly rich in orchid species. It is fairly evident that there is a high endemism rate (e.g., about 87% in New Guinea) on the larger islands, but this doesn't preclude the fact that there are taxa with broader distributions than previously realized. Indeed, as with most tropical floras, a true picture of their composition is yet to emerge due to their diversity and lack of systematic, thorough collecting.

*Cestichis* Pfitz., Entwurf Anordn. Orch.: 56, 101. 1887.

Type species: *Epidendrum cespitosum* Lam.

A genus of primarily epiphytic plants of subtribe Malaxideae, distributed from Africa and Madagascar, through India and Southeast Asia, Malesia, to Tahiti. Formerly all the species were included in *Liparis* L.C. Rich. In the broad sense it would contain about 150 species, but molecular studies by Tang et al. (2015) indicate that further division may be necessary. Fortunately, the species discussed below belongs to the core group of species, and it is one of few that were first proposed in the genus.

*Cestichis halconensis* Ames, Philipp. J. Sci. 2, C: 321. 1907. TYPE: PHILIPPINES. Mindoro: Mt. Halcon, 365–670 m, 8 November 1906, *E.D.Merrill 5799* (Holotype: AMES; Isotype: K, images seen).

Homotypic synonym: *Liparis halconensis* (Ames) Ames, Orch. 5: 80. 1915.

Heterotypic synonyms: *Liparis viridicallus* Holtt., Gard. Bull. Singap. 14: 4. 1953, *syn. nov.*

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TYPE: MALAYSIA. Pahang: Fraser's Hill, 1220 m, January 1953, *R.E.Holttum 39465* (Holotype: K, image seen).

*Stichorkis viridicallus* (Holtt.) Marg., Szlach. & Kulak, Acta Soc. Bot. Polon. 77, 1: 39. 2008.

*Liparis terrestris* J.B. Comber, Orch. Sumatra: 156. 2001.

TYPE: INDONESIA. Java: Puncak, 1500 m, 29 August 1986, *J.B.Comber 1687* (Holotype: K, image seen).

Usage synonyms: *Liparis forbesii* auct. non Ridl.: J.J. Sm., Orch. Java: 268. 1905.

*Liparis bootanensis* auct. non Griff.: J.B. Comber, Orchids Java: 135. 1990.

**Distribution:** Indonesia (Sumatra, Java); Malaysia; Philippines.

**Additional specimens examined:** INDONESIA. Sumatra: Asahan, headwaters of Aek Liang (region between Dolok Si Manoek-manoek and Tor Matoetoeng), 1300 m, 15 October to 11 November 1936, *R.Si Boeea 10589* (AMES); Asahan, Adian Rindang, vicinity of Hoeta Tomoean Dolok, 17 November to 10 December 1935, *R.Si Boeea 8538* (AMES); Toba, vicinity of Toloen na Oeli (E of Dolok Si Manoek-manoek, near headwaters of Aek Mandosi), 1–12 December 1936, *R.Si Boeea 11201* (A); Toba, vicinity of Aek Mandosi (vicinity of Taloen na Oeli, near Toba to Asahan boundary), 29 September to 5 December 1936, *R.Si Boeea 11025* (A). MALAYSIA. Sabah: Mt. Kinabalu, Penibukan, 1525 m, 11 November 1933, *J.Clemens & M.S.Clemens 51317* (BM); Mt. Kinabalu, Penibukan, ridge above Pina Taki River, 1220 m, 16 January 1933, *J.Clemens & M.S.Clemens 31044* (BM); Mt. Kinabalu, Ulu Dahobang, 1095 m, 8 March 1933, *C.E.Carr SFN 26466* (AMES). PHILIPPINES. Luzon: Rizal Prov., without precise locality, September 1909, *A.Loher 14710* (AMES).

Ames (1908) published an illustration of *Cestichis halconensis* that is rather misleading as it appears to show that the inflorescence peduncle is bracteate. The figure is

based on the righthand specimen on the type sheet in AMES. That specimen consists of a sterile plant with a broken-off inflorescence mounted between the leaves. *Cestichis halconensis* is one of the few terrestrial species of *Cestichis*; it is further characterized by its bifoliate pseudobulbs being clothed by about four 3- to 5-cm-long distichous sheaths, and a shortly clawed lip with a broad, emarginate callus. The shape of the lip blade is rather variable, varying from broadly elliptic to almost transversely elliptic-suborbicular.

***Cymboglossum*** (Schltr.) Rauschert, Rep. Sp. Nov. Regni Veg. 94: 446. 1983

Basionym: *Eria* Lindl. section *Cymboglossum* Schltr., Bot. Jahrb. Syst. 45, Beibl. 104: 40. 1911.

Type species: *Eria cymbiformis* J.J. Sm.

Heterotypic synonym: *Ascidieria* Seidenf., Nord. J. Bot. 4, 1: 44. 1984.

Type species: *Eria longifolia* J.D. Hook.

Rauschert (1983) pointed out that *Cymboglossum* Brieger was invalid due to the citation of an incorrect and incomplete basionym. Rauschert therefore corrected Brieger's mistake and validated the generic name *Cymboglossum*. Seidenfaden (1984) was aware of Rauschert's paper but maintained *Ascidieria* as a separate genus on account of its flowers having a very short, seemingly absent column foot, and deeply saccate lip (vs. a distinct column foot, and nonsaccate lip). However, molecular analyses of the Tribe Podochileae published by Ng et al. (2018) showed that it is impractical to keep the two genera separate and that they should be merged. These authors overlooked the priority of *Cymboglossum*, so we make the requisite combinations here. We are also aware that a number of varieties have been proposed for some of the taxa treated here, but we prefer not to transfer them until their status can be better understood.

***Cymboglossum caricifolium*** (J.J. Wood) Ormerod & Cootes, *comb. nov.*

Basionym: *Eria caricifolia* J.J. Wood, Lindleyana 5, 2: 93. 1995.

TYPE: MALAYSIA. Sarawak: Gunung Temabok, Upper Baram Valley, 1200 m, 5 November 1920, *J.C.Moulton 6673* (Holotype: K; Isotype: SING, images seen).

Homotypic synonym: *Ascidieria caricifolia* (J.J. Wood) J.J. Wood, Males. Orch. J. 5: 87. 2010.

**Distribution:** Malaysia (Sarawak, Sabah).

***Cymboglossum cymbidiifolium*** (Ridl.) Ormerod & Cootes, *comb. nov.*

Basionym: *Eria cymbidiifolia* Ridl., J. Bot. (Lond.) 38: 212. 1898.

TYPE: INDONESIA. Kalimantan: Pontianak, *cult. Singapore Bot. Gard. s.n.* (Holotype: SING, image seen).

Homotypic synonym: *Ascidieria cymbidiifolia* (Ridl.) W. Suarez & Cootes, Orchideen J. 16, 2: 71. 2009.

**Distribution:** Malaysia (Sarawak, Sabah); Indonesia (Sumatra, Kalimantan); Philippines.

***Cymboglossum grande*** (Ridl.) Ormerod & Cootes, *comb. nov.*

Basionym: *Eria grandis* Ridl., Trans. Linn. Soc. s.2, Bot. 4: 237. 1894.

TYPE: MALAYSIA. Sabah: Mt. Kinabalu, *G.D.Haviland 1157* (Holotype: SING; Isotypes: K, images seen; SAR, not seen).

Homotypic synonym: *Ascidieria grandis* (Ridl.) J.J. Wood, Orch. Mt. Kinabalu 2: 51. 2011.

**Distribution:** Malaysia (Sabah).

***Cymboglossum maculiflorum*** (J.J. Wood) Ormerod & Cootes, *comb. nov.*

Basionym: *Ascidieria maculiflora* J.J. Wood, Males. Orch. J. 1: 105. 2008.

TYPE: MALAYSIA. Sabah: Sipitang District, Ulu Padas, c. 8 km NW of Long Pa Sia, 1400 m, 24 October 1985, *J.J.Wood 644* (Holotype: K, spirit and pressed, image seen of latter).

**Distribution:** Malaysia (Sarawak, Sabah).

***Cymboglossum maculosum*** (Cabactulan, Cootes, M. Leon & R.B. Pimentel) Ormerod & Cootes, *comb. nov.*

Basionym: *Ascidieria maculosa* Cabactulan, Cootes, M. Leon & R.B. Pimentel, Orchideen J. (Internet) 6, 2: 4. 2018.

TYPE: PHILIPPINES. Mindanao: Bukidnon Prov., 1200 m, 3 March 2018, *M.D.Leon MDL1803002* (Holotype: CAHUP).

**Distribution:** Philippines.

***Cymboglossum palawanense*** (Ames) Ormerod & Cootes, *comb. nov.*

Basionym: *Eria palawanensis* Ames, Philipp. Leaf. Bot. 5: 1578. 1912.

TYPE: PHILIPPINES. Palawan: Puerto Princesa (Mt. Pulgar), May 1911, *A.D.E.Elmer 13209* (Holotype: AMES, image seen).

Homotypic synonym: *Ascidieria palawanensis* (Ames) W. Suarez & Cootes, Orchideen J. 16, 2: 71. 2009.

**Distribution:** Philippines.

***Cymboglossum pseudocymbiforme*** (J.J. Wood) Ormerod & Cootes, *comb. nov.*

Basionym: *Eria pseudocymbiformis* J.J. Wood, Kew Bull. 39, 1: 84. 1984.

TYPE: MALAYSIA. Sarawak: Gunung Mulu National Park, Gunung Api, below Pinnacle Camp, 800–1000 m, 24 February 1978, *J.Nielsen 486* (Holotype: AAU, image seen; Isotype: K, spirit, not seen).

Homotypic synonym: *Ascidieria pseudocymbiformis* (J.J. Wood) J.J. Wood, Orch. Mt. Kinabalu 2: 53. 2011.

**Distribution:** Malaysia (Sarawak, Sabah); Brunei.

***Cymboglossum zamboangense*** (Ames) Ormerod & Cootes, *comb. nov.*

Basionym: *Eria zamboangensis* Ames, Orch. 5: 160. 1915.

TYPE: PHILIPPINES. Mindanao: Zamboanga District, Sax River Mountain, 1100 m, November to December 1911, *E.D.Merrill 8143* (Holotype: AMES, image seen).

Homotypic synonym: *Ascidieria zamboangensis* (Ames) W. Suarez & Cootes, Orchideen J. 16, 2: 71. 2009.

**Distribution:** Philippines.

***Dendrobium*** Swartz, Nova Acta Regiae Soc. Sci. Upsal. ser. 2, 6: 82. 1799 *nom. cons.*

Type species: *Dendrobium moniliforme* (L.) Swartz *typ. cons.*

A genus of 1600–1800 species distributed from Sri Lanka and India to Tahiti. We discuss here three species from the Philippines and one from the Mariana Islands. *Dendrobium gerlandianum*, *D. oblongimentum*, and *D. rubroflavum* belong to section *Crumenata* Pfitz., a species-rich group with tender, ephemeral flowers. They have a characteristic habit whereby the lower 2–3 internodes of the stem are variously swollen, but the rest of the stem is slender.

***Dendrobium gerlandianum*** Kraenzl., Rep. Sp. Nov. Regni Veg. 6: 317. 1909.

TYPE: PHILIPPINES. Luzon: Manila, *leg. A. Loher*, fl. in cult. January 1909, *hort. Bot. Gard. Erlangen s.n.* (Holotype: B, destroyed; drawing of type AMES). Epitype (here designated): Philippines, Luzon, Manila, *leg. A. Loher*, fl. in cult. 1910, *hort. Bot. Gard. Erlangen s.n.* (Isopitype: M, image seen). Fig. 1.

Homotypic synonym: *Ceraia gerlandiana* (Kraenzl.) M.A. Clem., Telopea 10, 1: 291. 2003.

Heterotypic synonyms: *Dendrobium philippinense* Ames, Philipp. J. Sci., C, Bot. 8: 424. 1914.

TYPE: PHILIPPINES. Leyte: Dagami, 20 November 1912, *C.A.Wenzel 6* (Holotype: AMES; Isotypes: GH; K, image seen).

*Ceraia philippinensis* (Ames) M.A. Clem., Telopea 10, 1: 293. 2003.

**Distribution:** Philippines.

**Additional specimens examined:** PHILIPPINES.

Luzon: sine loc., fl. in cult. Manila, 9 July 1905, *A.Loher 6022* (AMES); sine loc., 180 m, June 1908, *W.S.Lyon O* (=67) (AMES); central Luzon, May 1947, *R.S.Davis 5* (AMES). Laguna Prov., sine loc., 24 June 1912, *J.Reillo 37* (AMES); sine loc., July and December 1909, *L.E.Griffin BS 5641* (AMES); Mayjayjay, 300 m, fl. 15 September and 12 January [no year], *cult. I. McCrory in E.H.Taylor 365* (AMES); Mt. Banajao, *leg. Mrs. Hombstet, cult. Bureau Sci. Orch. House*, 11 November 1929, *E. Quisumbing 5448* (=BS 78833) (AMES); Lignaum, 28 September 1946, *R.S.Davis 3* (=PNH 5407) (AMES). Rizal Prov., sine loc., 60–305 m, August 1948, *R.S.Davis 9-7-48* (AMES). Tayabas Prov., Umiray, 2 June 1917, *M.Ramos & G.Edano BS 29031* (AMES); Guinayangan, March/April 1913, *L.Escritor BS 20684* (AMES). Polillo Island: Anibawan, 0 m, 9 January 1949, *R.B.Fox 276* (=PNH 9152) (AMES). Panay Island: Capiz Prov., October/November 1925, *G.Edano BS 46100* (AMES). Leyte Island: Dagami, Panda, 60 m, 4

February 1913, *C.A.Wenzel 142* (AMES, GH); Panda, 60 m, 31 January 1913, *C.A.Wenzel 77* (AMES, GH). Samar Island: Cagmanabo, 2 March 1916, *A.Plores s.n.* (AMES). Mindoro Island: Gusay, Naujan, 150 m, 13 October 1947, *M.Celestino & A.Castro 140* (=PNH 2259) (AMES); sine loc., cult. in Manila, September 1911, *E.D.Merrill BS 5658* (AMES). Palawan Island: SE Mt. Victoria, Panacan, bank of Karaniogan River, 120 m, 12 May 1950, *M.D.Sulit 3790* (=PNH 12677) (AMES).

Ames, when proposing *Dendrobium philippinense*, suspected it might be conspecific with the earlier *D. gerlandianum*. Later Ames obtained a tracing of the type of *D. gerlandianum* from Rudolf Schlechter in Berlin. Schlechter also sent Ames a floral analysis of a plant flowering in Berlin in June 1918. Analysis of the protologue of *D. gerlandianum* and the sketches supplied by Schlechter confirms the suspicions of Ames that his *D. philippinense* is indeed a synonym. We have chosen as epitype a collection apparently derived from the original consignment sent by Loher. *Dendrobium gerlandianum* is a rather commonly collected lowland Philippine species. It is characterized by slender stems with the lower few centimeters modestly swollen with alternating, subulate leaves above this. The flowers emerge from chaffy bracts, are thin in texture, usually pale greenish, ageing to a deep yellow. The lip is quite simple, somewhat elliptic, adorned above with two lamellate keels that converge apically. The collection from Palawan has no flowers, so its identity is not certain. It could be *D. rubroflavum*, which as speculated below may be from the Calamian Group, just north of Palawan.

Stone (1970) recorded *Dendrobium philippinense* from Guam on the basis of a collection by G. C. Moore. Examination of the AMES duplicate of *Moore 271* shows this is referable to *D. oblongimentum* Hosokawa & Fukuyama. The latter taxon has much larger (mentum 10 vs. 4–6 mm) white flowers with more closely parallel keels that converge lower down on the lip.

***Dendrobium oblongimentum*** Hosokawa & Fukuyama, Trans. Nat. Hist. Soc. Formos. 32: 12. 1942.

TYPE: MARIANA ISLANDS. Rota Island, *leg. Y.Aoki*, cult. on Saipan, *T.Hosokawa 7627-a* (Holotype: TI, not seen).

Usage synonym: *Dendrobium philippinense auct. non* Ames: B.C. Stone, Micronesiaca 6: 156. 1970.

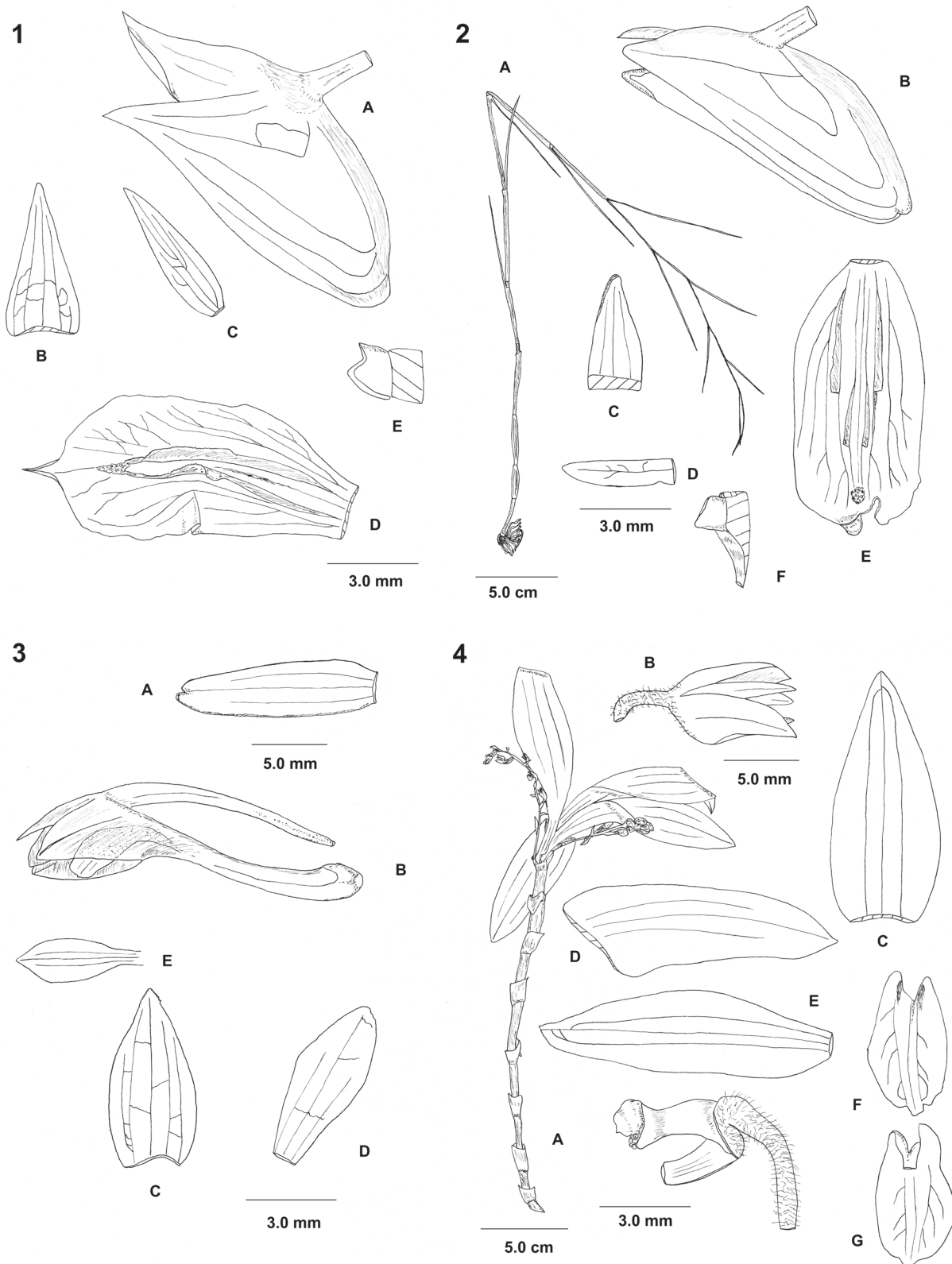
**Distribution:** Mariana Islands (Rota, Guam).

**Additional specimen examined:** MARIANA ISLANDS. Guam, E coast, 3.2 km E of Yigo, 3 February 1946, *G.C.Moore 271* (AMES; US, not seen).

Study of the specimen cited by Stone (1970) shows that it is not *Dendrobium philippinense* but rather *D. oblongimentum*, which differs in its larger white flowers as noted above.

***Dendrobium rubroflavum*** Ormerod & Naive, *sp. nov.*

TYPE: PHILIPPINES. Luzon: sine loc., *ex Mr. Brown's garden, cult. Bureau Sci. Orch. House*, Manila, 5 June 1930, *E.Quisumbing 6092* (=BS 79073) (Holotype: AMES). Fig. 2.



FIGURES 1-4. 1. *Dendrobium gerlandianum* Kraenzl. A, flower; B, dorsal sepal; C, petal; D, labellum; E, column (no scale). Drawn from C.A.Wenzel 77 (AMES). 2. *Dendrobium rubroflavum* Ormerod & Naive. A, plant; B, flower; C, dorsal sepal; D, petal; E, labellum; F, column (no scale). Drawn from holotype. 3. *Dendrobium zamboangense* Ames. A, leaf; B, flower; C, dorsal sepal; D, petal; E, labellum (no scale). Drawn from G.E.Edano 1029 (AMES). 4. *Pinalia edanoana* Ormerod & Naive. A, plant; B, flower; C, dorsal sepal; D, lateral sepal; E, petal; F, labellum (above and below); G, column. Drawn from holotype.

Related to *Dendrobium gerlandianum* Kraenzl. but the flowers red-yellow (vs. greenish), and the labellum with the two outer keels truncate, terminating in lower half (vs. keels apically convergent in upper half).

Presumably epiphytic herb. *Roots* slender, terete, several, 0.4–1.0 mm thick. *Stems* caespitose, simple to branching above (branches to 18 cm long), laxly leafy in upper part, basal two internodes slender, these 0.7–1.2 cm long, next two internodes swollen, quadrangular to hexangular in section, these 2.0–3.5 cm long (in total swollen part 4.2–6.8 cm long) upper internodes terete, 3.6–5.7 cm long, with an apical exposed portion not covered by leaf sheaths 0.1–0.4 cm long, in total to 52 cm long, slender parts 0.05–0.15 cm thick, swollen parts 0.15–0.30 cm thick. *Leaves* subulate, acute, obliquely erect, 2.9–10.0 cm long, 0.08 cm wide; leaf sheaths tubular, tightly amplexant, 2.8–5.2 cm long. *Inflorescences* consisting of 1–2 groups of chaffy bracts (2–4 mm long) emerging from the upper nodes of both leafy and leafless stems, very short. *Flowers* red-yellow. *Pedicel* with ovary clavate, ca. 8.5 mm long. *Dorsal sepal* ovate-lanceolate, obtuse, 3-veined, 3.6 × 1.7 mm. *Lateral sepals* ovate with lower side elliptically dilatate, obtuse, 3- to 4-veined, 3.7 mm long, 7.5 mm wide, forming with the column foot an ellipsoid, obtuse, 6.2-mm-long mentum. *Petals* ligulate-lanceolate, obtuse, vein 1, branching, 3.5 × 0.8 mm. *Labellum* elliptic, obtuse, 8.2 × 4.0 mm; outer 2 lamellae widely parallel, truncate, terminating midway on lip, the veins the lamellae lie on converging below the apex of the lip in a rough excrescence; above termination of lateral lamellae is a kind of rectangular, thickened medial area, itself with low flanking truncate lamellae. *Column* very short, stout, 0.5 mm long.

**Distribution:** Philippines.

**Etymology:** from the Latin *rubens*, red, and *flavus*, yellow, in reference to the flower color.

This species is externally identical to *Dendrobium gerlandianum* and was found misidentified under the synonym *D. philippinense*. It however differs in having red-yellow flowers and shorter, truncate keels on the lip. The type is a plant cultivated in Manila, originating from the garden of a Mr. Brown, its precise place of origin not known. However, Mr. Brown is likely Dr. William H. Brown (1884–1939), who was Director of the Bureau of Science, Manila, from 1924 to 1933. He visited Curon Island (Calamian Group, at the northern tip of Palawan), bringing back some live plants, among which was *Dendrobium modestum* Rchb.f., also a subulate-leaved, lowland species of section *Crumenata* (Ames and Quisumbing, 1932). It is possible that he collected *D. rubroflavum* on Curon Island, or on nearby Culion Island (where he visited the Leper Colony).

***Dendrobium zamboangense*** Ames, Orch. 5: 145. 1915.

TYPE: PHILIPPINES. Mindanao: Zamboanga District, November to December 1911, *E.D.Merrill 8174* (Holotype: AMES). Fig. 3.

Homotypic synonym: *Eurycaulis zamboangensis* (Ames) M.A. Clem., *Telopea* 10, 1: 288. 2003.

Heterotypic synonyms: *Dendrobium appendiculoides* Ames, Orch. 7: 93. 1922 *nom. illeg.*, *syn. nov.*, (non J.J. Sm. 1913).

TYPE: PHILIPPINES. Mindanao: Bukidnon Subprov., Mt. Bunuan, 1525 m, 27 June 1920, *M.Ramos & G.E.Edano BS 38940* (Holotype: AMES).

*Dendrobium bunuanense* Ames, Sched. Orch. 9: 53. 1925.

*Eurycaulis appendiculoides* M.A. Clem., *Telopea* 10, 1: 285. 2003 *nom. illeg.*

**Distribution:** Philippines (Mindanao).

**Additional specimens examined:** PHILIPPINES. Mindanao: Agusan Prov., Cabadbaran (Mt. Urdaneta), September 1912, *A.D.E.Elmer 13697* (AMES). Davao Prov., Mt. McKinley, 14 September 1946, *G.E.Edano 1029 (= PNH 1247)* (AMES).

Among the Philippine species of section *Pedilonum* Blume, this taxon may be recognized by its small (about 12–13 mm long), shortly, evenly bilobed leaves, and pink flowers with a 15-mm-long, narrowly clavate mentum. Study of the type of *Dendrobium appendiculoides* Ames showed it to not differ in critical characters from *D. zamboangense*, and therefore we find them conspecific.

Another very similar taxon is *Dendrobium stricticalcarum* W. Suarez & Cootes from Luzon. It also has rather short leaves, pink flowers, and a long, narrow mentum. It differs from *D. zamboangense* in having obliquely bilobed leaves, narrower (1.3 vs. 2.1 mm), ligulate (vs. rhombic) petals, and an undilated mentum.

***Mycaranthes*** Blume, Bijdr.: 352. 1825.

Type species: *Mycaranthes latifolia* Blume

This is a genus of Eriinae with about 40 species distributed from Nepal to Papua New Guinea. Most of the taxa are found in the Malesian region. They are epiphytic, caulescent plants with generally terminal inflorescences. The flowers are relatively small (sepals ca. 3–5 mm long), often yellowish and marked with red, the lip with one or farinose calli and some lesser lateral keels, and the column bearing eight pollinia. One species requires transfer to the genus; it has had a rather convoluted history.

***Mycaranthes villosissima*** (Rolfe) Ormerod, *comb. nov.*

Basionym: *Eria villosissima* Rolfe, J. Linn. Soc., Bot. 42: 150. 1914.

TYPE: MALAYSIA. Sabah: Mt. Kinabalu, Marai Parai, 1675–2135 m, February 1910, *L.S.Gibbs 4090* (Holotype: K, image seen; Isotype: BM, image seen).

Heterotypic synonyms: *Eria major* Rolfe, J. Linn. Soc., Bot. 42: 150. 1914 *nom. illeg.* (non Ridl. 1896).

TYPE: MALAYSIA. Sabah: Mt. Kinabalu, 1830 m, *G.D.Haviland 1250* (Holotype: K, image seen).

*Mycaranthes major* J.J. Wood, Orch. Mt. Kinabalu 2: 414. 2011 *nom. inval.*

BASIS FOR NAME: MALAYSIA. Sabah: Mt. Kinabalu, 1830 m, *G.D.Haviland 1250* (K, image seen).

**Distribution:** Malaysia (Sabah).

The history of this entity starts when Ridley (in Stapf, 1894) recorded from Mount Kinabalu, Borneo, a plant (*Haviland 1250*) he identified as *Eria kingii* J.D. Hook., a species based on material from the Malay Peninsula. Stapf realized that the name *E. kingii* J.D. Hook. was a homonym

of *E. kingii* F. Muell., described from the Solomon Islands in 1882. So Stapf proposed a replacement name, *E. scortechinii*, listing in synonymy also an “*Eria major* Ridl.” But *Eria scortechinii* Stapf was also a homonym, the name having been used by Joseph Hooker in 1890 for a different Malayan plant. Realizing his mistake, Stapf withdrew his *E. scortechinii* in the index of the “Transactions” (1896: 525), and substituted *E. major*. Thus the name *E. major* is a replacement name for *E. kingii* J.D. Hook.; at no stage was a new species proposed. Ridley (1896: 288–289) explained that originally he had intended to propose a “*Eria kingii* var. *major*” for the Kinabalu plant, since it is somewhat more robust than the Malayan plant.

Rolfe (1914) superfluously proposed that the Malayan plant be called *Eria ridleyi*, reserving the name *E. major* for the Kinabalu plant, contrary to its type, and thus creating a homonym. Rolfe was the first to definitively separate the Malayan and Bornean entities. Tang and Wang (1951) tried to explain the confusing situation that had arisen; unfortunately they followed Rolfe’s use of the name *E. major* (but accredited it to Ridley), and accepted *E. ridleyi* as the correct name for the illegitimate *E. kingii* J.D. Hook. In transferring *Eria major* to *Mycarantes*, Wood et al. (2011) cited as basionym the appearance of the name *Eria major* where it was a *nomen nudum* and a synonym of *Eria scortechinii* Stapf. Consequently the name *Mycarantes major* is also invalid.

To sum it all up, *Eria major* Ridl. is the correct replacement name for *E. kingii* J.D. Hook., whereas *E. scortechinii* Stapf and *E. ridleyi* Rolfe are nomenclatural synonyms. Eventually Seidenfaden and Wood (1992) placed them all in synonymy of *Eria oblitterata* (Blume) Rchb.f., now *Mycarantes oblitterata* Blume. Whereas *Eria major* Rolfe is a homonym and is a taxonomic synonym of *E. villosissima*, the latter is here transferred to *Mycarantes*.

***Odontochilus*** Blume, Coll. Orch. Arch. Ind.: 79. 1858; Fl. Javae Ins. Adj. n.s. 1: 66. 1858.

Type species: *Anoectochilus flavescens* Blume

A genus of Goodyerinae with 55–60 species, distributed from India to Samoa, and north to Hawai’i, now construed to include the former genera *Cystopus* Blume, *Evrardia* Gagnep., *Evrardianthe* Rauschert, *Myrmechis* (Lindl.) Blume, *Pristiglottis* Cretz. & J.J. Sm., *Tubilabium* J.J. Sm., and *Vexillabium* F. Maekawa. They are tender terrestrial herbs found mostly in undisturbed montane forests. One new name is required for a Philippine species previously referred to *Myrmechis*.

***Odontochilus marivelensis*** Ormerod & Cootes, *nom. nov.*  
Basionym: *Myrmechis philippinensis* Ames, Orch. 2: 64. 1908.

TYPE: PHILIPPINES. Luzon: Bataan Prov., Mt. Mariveles, 800 m, 20 July 1904, *J.B. Leiberger s.n.* (Holotype: AMES).

Homotypic synonym: *Odontochilus philippinensis* (Ames) T. Yukawa, Bull. Natl. Mus. Nat. Sci., Ser. B, 42, 3: 108. 22 Aug. 2016 *nom. illeg.* [non (Ames) J.M.H. Shaw, Jun. 2016].

**Distribution:** Philippines.

**Additional specimens examined:** PHILIPPINES. Palawan: Mt. Gantung, May 1929, *G.E. Edano BS 77629* (AMES); Brooke’s Point, Mt. Balabag, Mantalingahan Range, 1855 m, 13 May 1947, *G.E. Edano PNH 403* (AMES); Mt. Matalingahan, 1660 m, 13 May 1947, *G.E. Edano PNH 642* (AMES).

**Etymology:** named after the type locality, Mt. Mariveles.

It is necessary to provide a new epithet for this plant in *Odontochilus* because the name is already occupied for a different species, *O. philippinensis* (Ames) J.M.H. Shaw (Basionym: *Cystopus philippinensis* Ames. Synonym: *Odontochilus luzonensis* T. Yukawa *nom. superfl.*).

***Pinalia*** Lindl., Orch. Scelet.: 14, 21, 23, t. 71. 1826.

Lectotype species (here designated): *Pinalia alba* Buch.-Ham. ex Lindl., Orch. Scelet. (App.): sub t. 41B. 1826 [= *P. spicata* (D. Don) S.C. Chen & J.J. Wood].

A genus of Eriinae with about 210 species distributed from India and Sri Lanka to Tahiti, with the most species in Indonesia. They were formerly included in a broad concept of *Eria* Lindl. The four species described here belong to section *Polyura* (here transferred from *Eria*).

***Pinalia* section *Polyura*** (Schltr.) Ormerod & Naive, *comb. nov.*

Basionym: *Eria* Lindl. section *Polyura* Schltr., Rep. Sp. Nov. Regni Veg. 9: 106. 1911.

Type species: *Eria polyura* Lindl.

This section contains about 40 species (new taxa included) distributed from Indochina (Cambodia, Laos, Vietnam) to Tahiti. There are two centers of speciation, one in the Philippines, and one in New Guinea. The section is characterized by the flowers having a relatively simple lip, which is often much smaller than the sepals; it is usually adorned with a pair of semilunate to deltate fleshy, purple calli. The taxonomy of the group is often frustrated by the delicate flowers, which preserve poorly and are difficult to rehydrate and study (the floral parts often sticking together). Two growth forms are present in the section, one is the traditional sympodial format and another is basally sympodial plants with superposed pseudobulbs above (giving the appearance of branched plant).

***Pinalia edanoana*** Ormerod & Naive, *sp. nov.*

TYPE: PHILIPPINES. Mindanao: Mount Apo, N slope, Lake Linau, 2300 m, 30 October 1936, *G.E. Edano 1250* (= *PNH 2309*) (Holotype: AMES). Fig. 4.

Related to *Pinalia formosana* (Rolfe) Ormerod but with broader (2.20–3.10 vs. 1.20–2.15 cm wide) leaves, an ovate-lanceolate (vs. oblong-lanceolate) dorsal sepal, and an elliptic (vs. ovate-elliptic) lip lamina.

Epiphytic herb. Roots slender, terete. Pseudobulbs superposed, terete-subclavate, 5-leaved apically, below which laxly and loosely 7-sheathed (these 15–25 mm long), part preserved 22.0 × 0.35–0.50 cm; internodes 2.5–3.5 cm long. Leaves oblong to oblong-lanceolate, acute to obtuse, papyraceous, 9.0–10.0 × 2.2–3.1 cm. Inflorescence

pubescent, 7–9 cm long; peduncle ca. 1 cm long; rachis laxly 20–25 flowered, 6–8 cm long; floral bracts ovate-oblong, acute, 5–7 mm long. *Flowers* white, externally sparsely pubescent on bases of sepals. *Pedicel with ovary* weakly clavate, densely pubescent, 5.0–6.5 mm long. Dorsal sepal ovate-lanceolate, subacute, 3-veined, 7.0–8.0 × 3.0–3.2 mm. Lateral sepals obliquely oblong-lanceolate, acute, 7–8 × 3 mm, forming with the column foot an obliquely forward-pointing, 3.3-mm-long mentum. *Petals* oblong, acute, 3-veined, 7.2–8.5 × 2.5 mm. *Labellum* elliptic from a decurved base, apex weakly lobulate, obtuse, 3-veined, basal sides with a low semi-discoid callus each side, 4.2 × 2.2 mm. *Column* semiterete, 2.5 mm long; column foot ca. 2.5 mm long.

**Distribution:** Philippines.

**Habitat:** on a tree trunk in mossy montane forest, 2300 m.

**Etymology:** named after Gregorio Edano (d. 1960), prodigious collector of Philippine plants and many orchids.

This species is quite similar to *Pinalia formosana* (Rolfe) Ormerod from Taiwan, but it has somewhat broader leaves, a broader (3.0–3.2 vs. 2.2 mm), ovate-lanceolate (vs. oblong-lanceolate) dorsal sepal, a shortly clawed (vs. sessile) lip with an elliptic (vs. ovate-elliptic) lamina.

***Pinalia kitangladensis*** Ormerod & Naive, *sp. nov.*

TYPE: PHILIPPINES. Mindanao: Bukidnon Prov., Mt. Katanglad, summit of middle peak, 2350 m, 14 April 1949, *M.D.Sulit 3477* (= *PNH 10193*) (Holotype: AMES; Isotype: PNH, not seen). Fig. 5.

Related to *Pinalia jimcootesii* Naive & Ormerod but with larger (sepals 8.5–10.0 vs. 5.2–6.5 mm long) flowers, and a larger (5.0 × 2.5 vs. 3.0–3.5 × 2.2–2.5 mm), shortly clawed (vs. sessile) lip.

Presumably epiphytic herb. *Roots* slender, terete, pubescent, to 1 mm thick. *Stems* terete or very weakly clavate apically, 5- to 6-leaved, clothed by laxly spaced (30–35 mm apart), inflated, tubular sheaths (these 25–40 mm long), 39.50 × 0.45–0.60 cm; internodes 5.0–6.5 cm long. *Leaves* linear-ligulate, apex obliquely subacutely bilobed, 17.2–21.0 × 0.85–1.80 cm wide. *Inflorescences* 2, pubescent, 13.5–14.5 cm long; peduncle 1.5–2.0 cm long; rachis densely many-flowered, 12.0–12.5 cm long; floral bracts oblong-lanceolate, acute, reflexed, 5–6 × 2 mm. *Flowers* creamy white, externally laxly pubescent on basal third of sepals, nonresupinate. *Pedicel with ovary* terete-subclavate, pubescent, 8 mm long. *Dorsal sepal* oblong-ob lanceolate, obtuse, 5-nerved, 10 × 3 mm. *Lateral sepals* obliquely oblong-lanceolate, apiculate, 4-nerved, 8.5 × 3.5 mm, forming with the column foot a 1.5- to 2.0-mm-long mentum. *Petals* oblong, obtuse, 3-nerved, 9 × 3 mm. *Labellum* ovate-lanceolate, subacuminate, shortly clawed, 3-nerved, above base 2 very obscure, small calli, 5.0 × 2.5 mm. *Column* semiterete, 2.2 mm long (minus anther cap); column foot 1.5–1.9 mm long.

**Distribution:** Philippines.

**Etymology:** named after Mt. Katanglad (modern spelling Kitanglad), the type locality.

This taxon appears to be related to its Philippine congener *Pinalia jimcootesii* Naive & Ormerod, sharing with it a simple, seemingly ecallose or barely callose lip. However, it has much (39.5 vs. 15.0–17.0 cm) longer stems, larger flowers, with a larger, shortly (vs. sessile) clawed lip.

***Pinalia pentalopha*** Ormerod & Naive, *sp. nov.*

TYPE: PHILIPPINES. Luzon: Bontoc Subprov., without precise locality, 1700 m, 31 December 1912, *M. Vanoverbergh 2230* (Holotype: AMES). Fig. 6.

Similar to *Pinalia polyura* (Lindl.) Kuntze but the labellum with 5 thick (vs. 2 laminate) calli.

Presumably epiphytic herb. *Stem* fragment clavate, 7-leaved apically, 12.0 × 0.9 cm; internodes 1.6 cm long. *Leaves* ligulate-ob lanceolate, acute, finely 13- to 15-veined, 12.8–20.0 × 2.2–2.8 cm. *Inflorescence* slender, minutely pubescent, to 14 cm long; peduncle ca. 1 cm long; rachis subdensely many-flowered, 13 cm long; floral bracts oblong, acute, margins minutely dentate toward apex, reflexed, 4.0–6.0 × 1.1–1.2 mm. *Flowers* white and pink, externally pubescent, nonresupinate. *Pedicel with ovary* terete-subclavate, pubescent, 4.5–5.5 mm long. *Dorsal sepal* oblong-ob lanceolate, subacute, 3-veined, 7.5 × 2.1 mm. *Lateral sepals* obliquely ovate-triangular, subacute, subfalcate, 3-veined, top margin 6 mm long, lower margin 3 mm long, 3 mm wide, forming with the column foot a 2.5- to 3.0-mm-long mentum. *Petals* obliquely oblong-lanceolate, acute, 3-nerved, 7.2 × 2.1 mm. *Labellum* broadly ovate-cordate, apex subacuminate, fleshy, 3- to 5-veined, ca. 3.0 × 2.8–3.0 mm; calli 5, basal pair thick laminate, transverse, 1 each side at base of lip, in front of which (and perpendicular to) a parallel pair of thick laminate ridges, midridge thick, rounded. *Column* semiterete, arcuate, 2 mm long; column foot slightly incurved, 2 mm long.

**Distribution:** Philippines.

**Etymology:** from the Classical Greek prefix *penta*, meaning five, and *lophus*, meaning crest, in reference to the five calli on the lip.

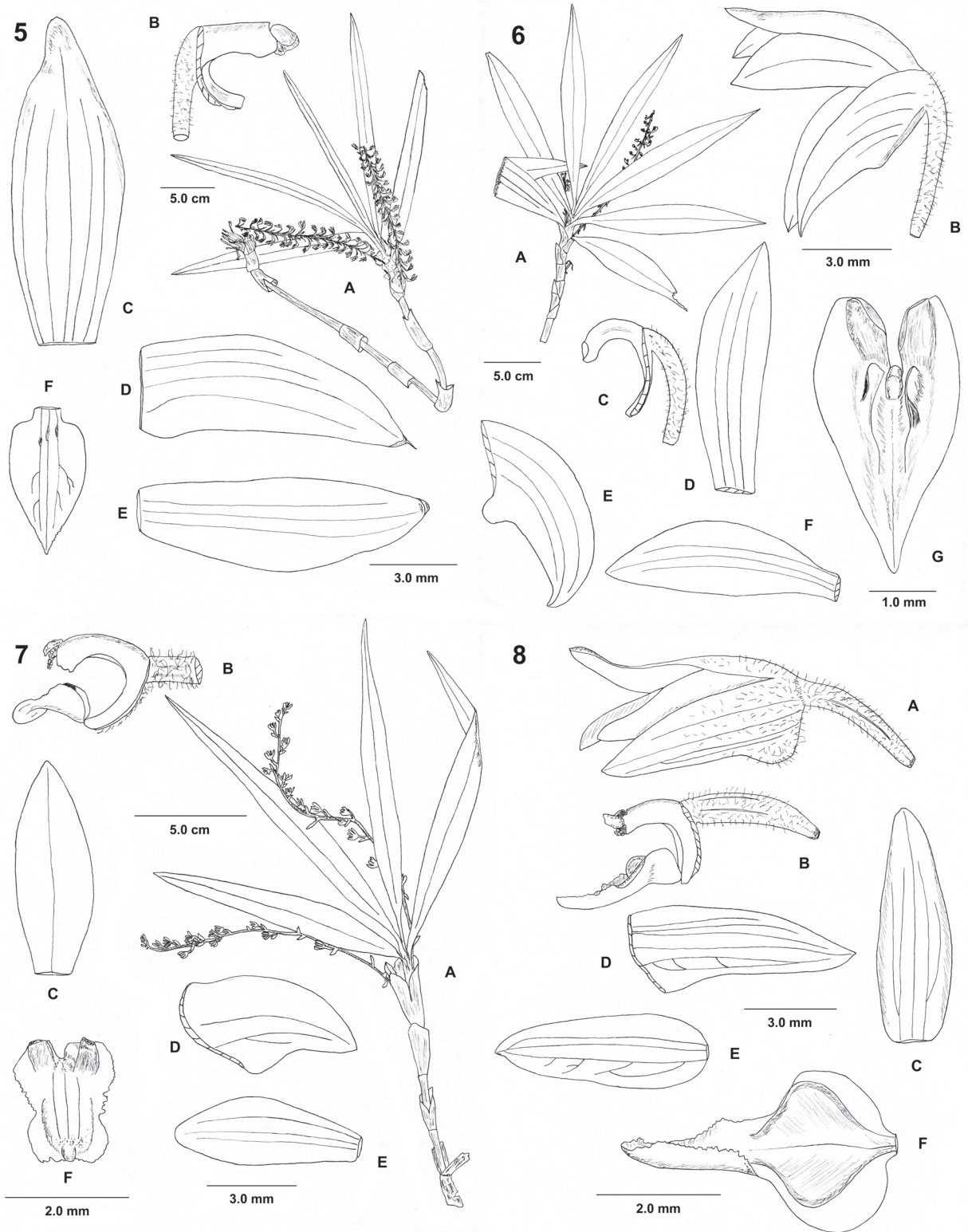
This species is superficially identical to *Pinalia polyura* in habit, in that it produces superposed stems that impart a branching appearance. It clearly differs in its lip, which, though similar in shape, is thicker and has five thick calli (vs. two laminate, semilunate calli).

***Pinalia sanguinea*** Ormerod & Naive, *sp. nov.*

TYPE: PHILIPPINES. Luzon: Bontoc Subprov., Mt. Pukis, 1860 m, 9 March 1920, *M.Ramos & G.E.Edano BS 37758* (Holotype: AMES). Fig. 7.

Distinguished from other Philippine taxa of section *Polyura* in having blood-red to reddish brown (vs. white, yellow, or pink) sepals, and a subpandurate lip that is erose-dentate (vs. entire) in the lateral sinuses.

Epiphytic herb. *Roots* terete, elongate. *Stems* narrowly clavate, superposed, new stems emerging 1.0–2.5 cm below leaves, each node with an infundibuliform, reddish-brown drying, papyraceous sheath, 4- to 5-leaved at apex, 12.2–14.0 × 0.3–0.4 cm; internodes 1.0–2.7 cm long. *Leaves* linear-ligulate, acute, thinly coriaceous, 9.0–15.6 × 0.9–1.7



FIGURES 5–8. 5. *Pinalia kitangladensis* Ormerod & Naïve. A, plant; B, column; C, dorsal sepal; D, lateral sepal; E, petal; F, labellum. Drawn from holotype. 6. *Pinalia pentalopha* Ormerod & Naïve. A, plant; B, flower; C, column; D, dorsal sepal; E, lateral sepal; F, petal; G, labellum. Drawn from holotype. 7. *Pinalia sanguinea* Ormerod & Naïve. A, plant; B, flower minus tepals; C, dorsal sepal; D, lateral sepal; E, petal; F, labellum. A–E from holotype; F from *M. Celestino* 0565 (AMES). 8. *Pinalia tonglonensis* Ormerod & Naïve. A, flower; B, flower minus tepals; C, dorsal sepal; D, lateral sepal; E, petal; F, labellum. Drawn from holotype.



cm. *Inflorescences* usually 2 per stem, pubescent, emerging just below the leaves, 8–17 cm long; peduncle 1 cm long; rachis subaxillary many-flowered, 7–16 cm long; floral bracts oblong, acute, concave, ca. 4.0 × 1.3 mm. *Flowers* “reddish blood,” or reddish-brown with yellow-green, externally pubescent. *Pedicel with ovary* narrowly clavate, pubescent, 4–5 mm long. *Dorsal sepal* oblong-lanceolate, subacute, 6.5 × 2.6 mm. *Lateral sepals* obliquely ovate, subacute, 2- to 3-veined, 5.7 × 3.0 mm, forming with the column foot a ca. 2.0- to 2.3-mm-long mentum. *Petals* oblong-rhombic, obtuse, 3-veined, 5.7 × 2.2 mm. *Labellum* subpandurate, lateral sinuses erose-dentate, ca. 2.2–2.5 × 1.5–1.7 mm, basal half each side with a fleshy, partly free, triangular, obtuse callus. *Column* weakly arcuate, 2.5 mm long; column foot forward-pointing, gently incurved, 2 mm long.

**Distribution:** Philippines.

**Habitat and ecology:** tree trunk in mossy, montane forest (type); on tree branches up western ridges in mossy, montane forest (*Celestino 0565*), 1860–2040 m.

**Additional specimen examined:** PHILIPPINES. Luzon: Mountain Prov., Ifugao, Mt. Polis, 2040 m, 16 May 1948, *M.Celestino 0565* (= *PNH 5582*) (AMES).

**Etymology:** from the Latin *sanguineus*, of blood, or blood-red, in reference to the flower color.

This taxon is without close relatives. It may be recognized by its superposed stems (thus imparting a branching appearance), blood-red to reddish-brown flowers, and subpandurate lip with erose-dentate lateral margins. *Pinalia serrulata* Ormerod from Indonesian Papua has a similarly shaped lip with erose-dentate lateral margins, but its stems are not superposed, and the lip lacks prominent basal calli.

***Pinalia tonglonensis*** Ormerod & Naive, *sp. nov.*

TYPE: PHILIPPINES. Luzon: Benguet Prov., Mt. Tonglon (Mt. Santo Tomas), December 1908, *M.Ramos BS 5391* (Holotype: AMES). Fig. 8.

Related to *Pinalia tomentosiflora* (Hayata) W. Suarez & Cootes but with larger flowers (sepals 6.8–7.1 vs. 4.0–4.5 mm long), and a longer (4.0 vs. 2.5 mm) lip with 2 large, triangular calli (vs. 4 thickened lines).

Presumably epiphytic *herb.* *Roots* terete, pubescent, 1–2 mm thick. *Stems* terete, superposed, new stems (usually 1, but sometimes 2) emerging at or below leaves in upper third of stem, each node with an infundibuliform, reddish-brown drying, papery sheath, 6- to 7-leaved in apical quarter, 13.0–16.5 × 0.4–0.7 cm thick; internodes 2.0–2.3 cm long. *Leaves* ligulate, acute, 10.0–18.5 × 1.1–1.8 cm. *Inflorescence* to 10 cm long; peduncle 1 cm long; rachis subaxillary many-flowered, 9 cm long; floral bracts ovate-lanceolate, acute, 4 mm long. *Flower* color not known, externally laxly pubescent. *Pedicel with ovary* narrowly clavate, pubescent, 4 mm long. *Dorsal sepal* oblong-lanceolate, obtuse, 3- to 5-veined, 7.1 × 2.6 mm. *Lateral sepals* obliquely oblong-lanceolate, acute, 4- to 5-veined, 6.8 × 2.8 mm, forming with the column foot 2-mm-long mentum. *Petals* oblong-lanceolate, subacute, 3-veined, 6.7 × 2.2 mm. *Labellum* trilobed, 4.0 × 2.5 mm; hypochile suborbicular, ca. 1.8 × 2.5 mm, each side with a fleshy, partly free, broadly triangular, obtuse callus; epichile

lanceolate-cymbiform, margins irregularly shallowly dentate, 2.2 × 1.0 mm. *Column* semiterete, weakly curved, 2 mm long; column foot weakly curved, 1.8 mm long.

**Distribution:** Philippines.

**Etymology:** named after Mt. Tonglon, the type locality.

This taxon is superficially identical to *Pinalia formosana* (Rolfe) Ormerod (Syn.: *Eria plicatilabella* Hayata; *Eria tomentosiflora* sensu T.P. Lin 1977, *non* Hayata) from Taiwan in habit (in that the terete, superposed stems impart a branching appearance). However, the floral details are quite different since the flowers have a trilobed lip with a suborbicular hypochile, and lanceolate-cymbiform epichile (vs. entire, ovate-elliptic). Another externally identical but much closer species is *Pinalia tomentosiflora* (Hayata) W. Suarez & Cootes, also from Taiwan. Illustrations labelled as this species (e.g., Lin 1977), are actually of *P. formosana*. The lip of the true *P. tomentosiflora* is trilobed with a suborbicular hypochile, and a lanceolate epichile. The new species differs in having larger flowers (sepals 6.8–7.1 vs. 4.0–4.5 mm), and a longer (4.0 vs. 2.5 mm) lip with two large, triangular calli (vs. four thickened lines).

***Thrixspermum*** Lour., Fl. Cochinch. 2: 516, 519. 1790.

Type species: *Thrixspermum centipeda* Lour.

A genus of about 200 primarily epiphytic, monopodial orchids. They are distributed from India and Sri Lanka to Samoa. Species taxonomy in the genus is hampered by the ephemeral, poorly preserving flowers. Thus, it is often necessary to work from living plants, as herbarium material is in many cases flowerless. The species discussed here was formerly placed in the genus *Cordiglottis* J.J. Sm., a concept found through molecular studies to be nested in *Thrixspermum* (Kocyan and Schuiteman, 2014).

***Thrixspermum filiforme*** (J.D. Hook.) Kuntze, Rev. Gen. Pl. 2: 682. 1891.

Basionym: *Sarcochilus filiformis* J.D. Hook., Fl. Brit. Ind. 6: 39. 1890.

TYPE: MALAYSIA. Perak: Larut, Goping, 90–150 m, April 1884, *G. King's coll. [prob. H.Kunstler] 5930* (Holotype: K, image seen).

Homotypic synonyms: *Dendrocolla filiformis* (J.D. Hook.) Ridl., J. Linn. Soc., Bot. 32: 382. 1896.

*Cheirorhynchus filiformis* (J.D. Hook.) C.E. Carr, Gard. Bull. Singap. 7: 46. 1932.

*Cordiglottis filiformis* (J.D. Hook.) Garay, Bot. Mus. Leaf. Harv. Uni. 23, 4: 176. 1972.

Heterotypic synonyms: *Epidendrum subulatum* J.G. Koen., in Retz, Observ. Bot. 6: 51. 1791 *nom. illeg.*, *syn. nov.* (*non* Swartz 1788). TYPE: NOT CITED [THAILAND. Phuket, 9 June 1779]. *J.G.Koenig s.n.* (Holotype: lost).

*Limodorum subulatum* Willd., Sp. Pl. ed. 4, 4: 126. 1805.

*Aerides subulata* (Willd.) Schltr., Rep. Sp. Nov. Regni Veg. 19: 382. 1924 *nom. illeg.* [*non* (Blume) Lindl. 1833].

*Papilionanthe subulata* (Willd.) Garay, Bot. Mus. Leaflet Harv. Uni. 23, 10: 372. 1974.

**Distribution:** Thailand, Malaysia, Singapore, Philippines.

Ever since Lindley (1833) questionably associated *Epidendrum subulatum* J.G. Koen. with *Aerides cylindrica* Lindl. from India, the former name has been associated with members of what is now the genus *Papilionanthe* Schltr. In 1995 Seidenfaden realized that Koenig's species could not have come from India, but that it actually originated from Phuket, Thailand. Therefore he proposed *Papilionanthe cylindrica* (Lindl.) Seidenf. for the Indian plant and moved the well-known *P. teres* (Roxb.) Schltr. into the synonymy of *P. subulata* (Willd.) Garay. The problem with this position is that *P. teres* is not known from Phuket, which is an island on the western side of peninsular Thailand. Unfortunately not enough attention was paid to the protologue of *Epidendrum subulatum* by one of the major contributors (the first author

of this paper) in the work by Seidenfaden (1995). Only after publication was it realized by the first author that *E. subulatum* could not be a *Papilionanthe*; however, its true identity remained elusive.

A recent analysis of Koenig's description of *Epidendrum subulatum* reveals several key characters that allow the name to be identified. Thus, the critical features Koenig describes are of a terete-leaved plant, the leaves about 19 cm long, with the rachis much shorter than the peduncle, the flowers white, the lip with yellow-orange sidelobes, and a yellow, pubescent midlobe. This can only be *Thrixspermum filiforme*, which is also known from Phuket. Even though the binomial *Limodorum subulatum* is the earliest available name, the epithet is pre-empted in *Thrixspermum* by *T. subulatum* (Blume) Rchb.f.

Thus, the name *Papilionanthe teres* (Roxb.) Schltr. should continue in use, and its south Indian and Sri Lankan relative should be called *P. cylindrica* (Lindl.) Seidenf.

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