NOTES ON SOME MALESIAN ORCHIDACEAE V

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Abstract. Continuing herbarium and literature research on the Malesian orchid flora reveals the need to propose 12 new synonyms in the genera *Calanthe, Coelogyne, Dendrobium, Didymoplexis,* and *Pinalia*. Two new combinations are also proposed, *Crepidium auriculatum,* and *Pinalia puberula*.

Keywords. Malesia, orchids, *Calanthe, Crepidium, Dendrobium, Pinalia*

This paper is a continuation of our studies (e.g., Ormerod and Juswara, 2022) that are intended as an effort to update knowledge of Malesian orchids. Most of the taxa dealt with here occur in Indonesia.

Calanthe R. Br., Bot. Reg. 7: sub t.573. 1821 *nom. cons.*
Type species: *Limodorum veratrifolium* Willd. *nom. illeg.* [= *Orchis triplicata* Willemet].

A genus of about 150 species of mostly terrestrial herbs that favour forested environments. They bear upright racemes of white, yellow, or purple flowers. Many are quite attractive plants in full flower. The flowers are small to medium sized, usually with spreading sepals and petals, a simple to four lobed lip that is united to the lower margins of the column and spurred at the back.

Calanthe triplicata (Willemet) Ames, Philipp. J. Sci., Bot. 2: 326. 1907.
Basionym: *Orchis triplicata* Willemet, Ann. Bot. (Usteri) 18: 52. 1796.
LECTOTYPE (Designated by Clements 1989: 32) Tab. 52, fig. 2 of *Flos triplicatis* Rumph, Herb. Amboin. 6: 115. 1750.
Heterotypic synonym: *Calanthe sumatrana* Blume ex Boerl., Bijdr. Fl. Midden-Sumatra 4, 2: 33. 1884 *syn. nov.* TYPE: INDONESIA. Sumatra, Korintji Peak, 13 December 1877, *A.L. van Hasselt s.n.* (Lectotype, here designated: L [1493711], image seen); Mt. Singgalang, *P.W. Korthals s.n.* (Syntype: L [1493713], image seen).

Distribution: Sri Lanka; India; Bhutan; China; Myanmar; Laos; Cambodia; Vietnam; Thailand; Taiwan; Japan; Philippines; Malaysia; Singapore; Indonesia; Timor Leste; Papua New Guinea; Australia; Solomon Islands; Vanuatu; New Caledonia; Fiji; Samoa; Tahiti.

Calanthe sumatrana has long been considered a synonym (e.g. Smith, 1933) of *C. ceciliae* Rchb.f. due to the misleading description and figure in the protologue of the former. Rediscovery of its type material shows that it is properly considered a synonym of *C. triplicata*. We choose the collection of A. L. van Hasselt as lectotype since this is the basis of the figure in the protologue. Both lectotype and syntype have been correctly identified by J.J. Smith as *C. veratrifolia* (Willd.) Ker Gawl., an illegitimate synonym of *C. triplicata*.

Calanthe triplicata has a vast synonymy already (Clayton and Cribb, 2013) partly due to its variation and broad distribution.

Coelogyne Lindl., Coll. Bot. (Lindley): sub t. 33. 1821.
Type species: *Coelogyne cristata* Lindl.

A genus of about 270 species (excluding *Dendrochilum* Blume) distributed from India and Sri Lanka to Samoa. Most species are epiphytic herbs, and quite a number have showy medium to large flowers. The flowers occur in shades of white, yellow, green, brown, or more rarely red. The taxon discussed here belongs to section *Speciosae* Pfitz. & Kraenzl., a group of fifteen species that was revised by Barbara Gravendeel and Ed de Vogel in 1999.

Coelogyne caloglossa Schltr., Repert. Sp. Nov. Regni Veg. 10: 16. 1911. TYPE: INDONESIA. Sulawesi, Minahassa Peninsula, Mt. Klabat, 1000 m, December 1909, *R. Schlechter 20571* (Holotype: B, destroyed). Lectotype, here designated: Fig. 91, Taf. 23 in Repert. Sp. Nov. Regni Veg., Beih. 74. 1933.
Heterotypic synonyms: *Coelogyne celebensis* J.J. Sm., Bull. Jard. Bot. Buitenz. ser. 2, 25: 3. 1917 *syn. nov.* TYPE: INDONESIA. Sulawesi, *leg. J. Elbert, cult. Hort. Bogor. s.n.* (Lectotype [designated by Gravendeel and de Vogel, 1999: 268]: L [0267278] image seen; L [0267279], image seen); Kolaka, 1909, *leg. J. Elbert, cult. Hort. Bogor. 4* (Syntype: BO, lost); Kampung Tapalang, near Makassar, L. van Vuuren Exped., *leg. Noerkas, cult. Hort. Bogor. 388* (Syntype: BO, lost); Gunung Paka-Paka, 1913 L. van Vuuren

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Exped., September 1913, *Rachmat 678* (Syntype: BO, lost); Bili-Bili, 1913 L. van Vuuren Exped., *leg. Rachmat, cult. Hort. Bogor. 29* (Syntype: BO, lost).

Coelogyne platyphylla Schltr., Repert. Sp. Nov. Regni Veg. 21: 129. 1925. TYPE: INDONESIA. Sulawesi, Donggala (?), *leg. native collector, cult. Becker s.n.* (Holotype: B, destroyed).

Distribution: Indonesia (Sulawesi).

We have been unable to find any differences between *C. caloglossa* and the later *C. celebensis*. Therefore the two entities are treated as conspecific. Gravendeel and de Vogel (1999) overlooked *C. caloglossa* in their monograph of section *Speciosae*.

Crepidium Blume, Bijdr. Fl. Ned. Ind.: 387. 1825.
Type species: *Crepidium flavescens* Blume

A genus of Malaxidiinae with about 270 species distributed from Sri Lanka and India to Tahiti. In Indonesia there are about 133 species with approximately 87 of them endemic. Most of the plants are forest floor terrestrials, sometimes growing in colonies. They have soft, pleated leaves and terminal racemes of small flowers, often in shades of yellow or purple.

Crepidium auriculatum (P. O'Byrne & J.J. Verm.) Ormerod & Juswara, *comb. nov.*

Basionym: *Malaxis auriculata* P. O'Byrne & J.J. Verm., Malay. Orch. Rev. 40: 101. 2006.

TYPE: INDONESIA. Sulawesi, Luwu Prov., 8 July 2006, *P. O'Byrne SBGO 5376* (Holotype: SING [0282245, spirit], not seen).

Distribution: Indonesia (Sulawesi).

This species is a member of section *Hololobos* (Schltr.) Marg., of which there are 74 species, 37 of which are found in Indonesia.

Dendrobium Swartz, Nova Acta Regiae Soc. Sci. Upsal. ser. 2, 6: 82. 1799 *nom. cons.*
Type species: *Dendrobium moniliforme* (L.) Swartz *typ. cons.*

This is a genus of about 1520–1530 species distributed from India and Sri Lanka to Tahiti. Most taxa are epiphytic herbs though several are known to grow on rocks and terrestrially. It is a popular genus in horticulture, with many species and artificial hybrids being grown. The species discussed here belong to sections *Grastidium* Blume (*D. heteroglossum* Schltr.), *Pedilonum* Blume (*D. cymbiforme* Rolfe), *Spatulata* Lindl. (*D. jennyanum* Kraenzl., *D. enigmaticum* Ormerod), and nothosection *Spatulanthe* Ormerod (*D. leeanum* O'Brien).

Dendrobium cymbiforme Rolfe, Bull. Misc. Inf. Kew: 192. 1898. TYPE: INDONESIA. Sumatra, without locality, cultivated in Horgen, near Zurich, April 1896, *L. Kienast s.n.* (Holotype: K [001085028], image seen).

Homotypic synonym: *Eurycaulis cymbiformis* (Rolfe) M.A. Clem., Telopea 10, 1: 286. 2003.

Heterotypic synonyms: *Dendrobium ventrilabium* J.J. Sm., Bull. Jard. Bot. Buitenz. ser. 3, 5: 84. 1922 *syn. nov.* TYPE: INDONESIA. Sumatra, Padang Highlands, Agam, Bukit Batoe Banting, *cult. W. Groeneveldt 1740* (Holotype: BO, spirit, not found).

Eurycaulis ventrilabius (J.J. Sm.) M.A. Clem., Telopea 10, 1: 288. 2003.

Distribution: Indonesia (Sumatra).

This species is easily recognised by its deeply concave, broadly flabellate labellum. Comber (2001) distinguished *D. cymbiforme* from *D. ventrilabium* by the former having a much shorter (8 vs. 15.3 mm) labellum claw. This error arose from the protologue of *D. cymbiforme* due to the labellum claw being broken off halfway when the flower was dissected for study. We find *D. cymbiforme* and *D. ventrilabium* are identical in all features, thus requiring the latter to be reduced to synonymy.

Dendrobium enigmaticum Ormerod, Oasis 4, 1: 3. 2009.
TYPE: WITHOUT ORIGIN. Flowering October 1907, *cult. H. Low & Co. s.n.* (Holotype: K).

Heterotypic synonyms: *Dendrobium taurinum* Lindl. var. *moluccense* Hort., Orchidee (Bandoeng) 4, 5: 122. 1935 *nom. inval.* [no Latin]; Anschutz, Orchidee (Bandoeng) 7, 1: 355 (25), ph. 1938 *nom. inval.* [no Latin] *syn. nov.*

Basis for name: INDONESIA. Papua or Maluku, cultivated, *sine coll. s.n.* (lost).

Dendrobium stockelbuschii Schettler, Orchideen J. 23, 2: 84. 2016 [Orchideen J. 22, 4: 173. 2015 *nom. inval.* (no Latin or English)] *syn. nov.*

TYPE: INDONESIA. Java, Bandung, in cultivation, *A. Stockelbusch s.n.* (Holotype: BO, not found).

Distribution: Indonesia [Maluku Prov. (Tanimbar Islands)].

Additional specimens examined: WITHOUT ORIGIN. *Ex Herbarium Sander s.n.* (AMES [6202]). "GERMAN NEW GUINEA": 1898, *leg. W. Micholitz, ex Herbarium Sander s.n.* (AMES [5781]).

The true origin of this species has long been a mystery but clearly it was a place where horticultural collectors often travelled to. Recently we have been able to ascertain through one of the collectors who found the material that served the basis for *D. stockelbuschii* that the plants came from one of the Tanimbar Islands (sometimes called Timor Laut). These islands were indeed visited by horticultural collectors and proved to be of great value because the attractive *D. bigibbum* Lindl. var. *schroederianum* (Rchb.f ex W. Watson) Peter B. Adams was sourced from here for the European market in the late 19th and early 20th century.

Dendrobium enigmaticum resembles both *D. nindii* W. Hill and *D. taurinum* Lindl. but its flowers are colored in shades of yellow and brown (vs. white to pale green with purple), also the labellum has three apically elevated keels (vs. midkeel elevated in *D. taurinum,* and all three keels apically decurrent in *D. nindii*). The first author also examined fresh material named *D. stockelbuschii* through

the courtesy of Mr. Ross McLaren. This matched the protologue of *D. stockelbuschii* and showed it to have all the critical characters of *D. enigmaticum,* thus requiring the reduction to synonymy of the former.

Dendrobium heteroglossum Schltr., Repert. Sp. Nov. Regni Veg., Beih. 1: 593. 1912.

TYPE: PAPUA NEW GUINEA [as Kaiser Wilhelm's Land]: Waria District, Maboro Range, 1200 m, June 1909, *R. Schlechter 19866* (Holotype: B, destroyed). Fig. 1.

Homotypic synonym: *Grastidium heteroglossum* (Schltr.) Rauschert, Repert. Sp. Nov. Regni Veg. 94: 449. 1983.

Heterotypic synonyms: *Dendrobium coloratum* J.J. Sm., Repert. Sp. Nov. Regni Veg. 12: 113. 1913 *syn. nov.*

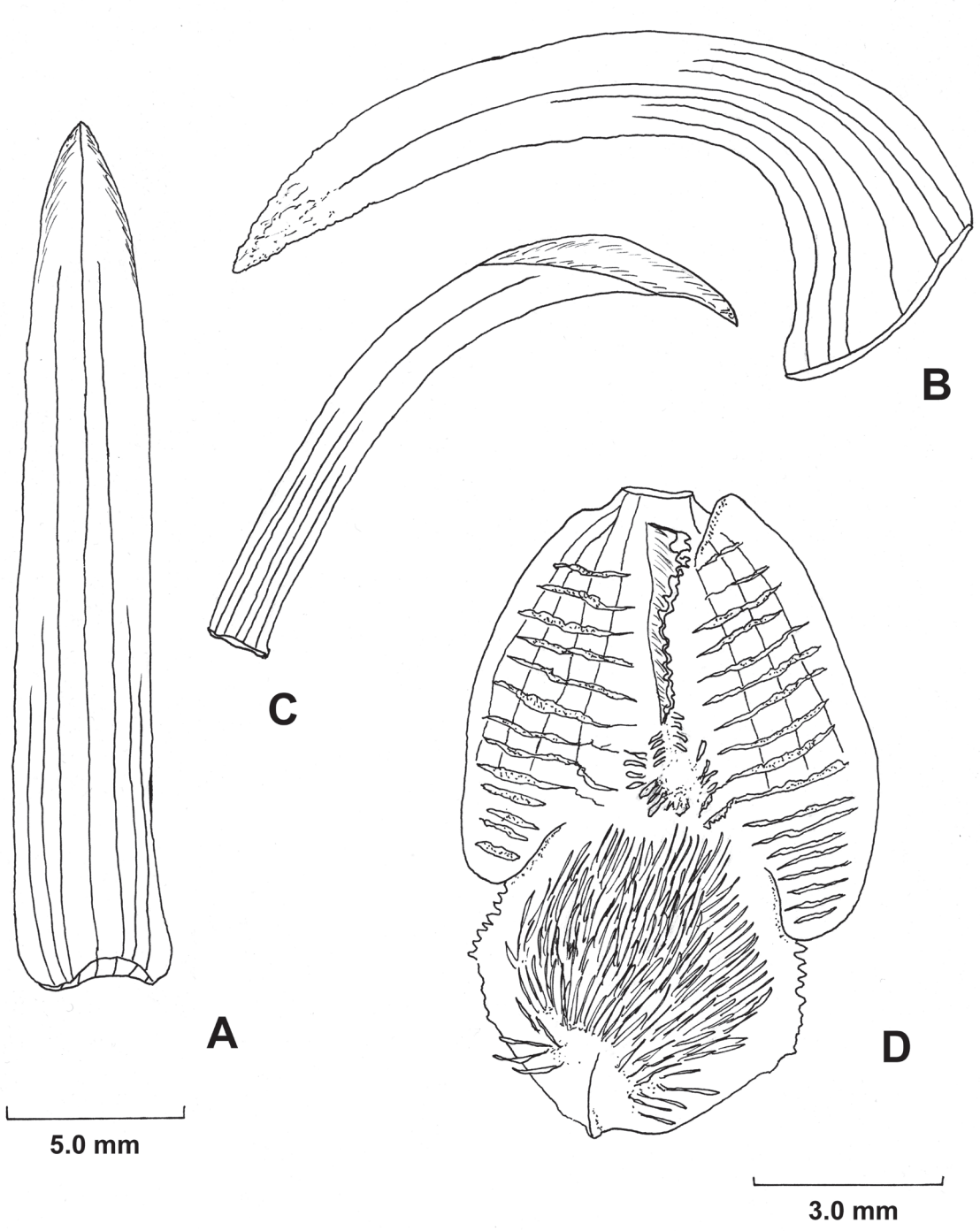

FIGURE 1. *Dendrobium heteroglossum* Schltr. **A,** dorsal sepal; **B,** lateral sepal; **C,** petal; **D,** labellum. Drawn from *A.N. Millar NGF 13816* (A).

TYPE: INDONESIA. Papua Prov., Mt. Goliath, 150 m, April 1911, *A.C. de Kock 183* (Holotype: BO, spirit, not found).

Grastidium coloratum (J.J. Sm.) Rauschert, Rep. Sp. Nov. Regni Veg. 94: 448. 1983.

Dendrobium donacoides Ridl., Trans. Linn. Soc. ser. 2, Bot. 9: 166. 1916. TYPE: INDONESIA. Papua Prov., Utakwa River, Camp 1, 215 m, November to December 1912, *C.B. Kloss s.n.* (Holotype: BM [000038246]; Isotype: AMES [00090027]).

Distribution: Indonesia (Papua); Papua New Guinea.

Additional Specimens Examined: PAPUA NEW GUINEA. Morobe Prov., Oomsis Ridge, 485 m, 12 April 1961, *A.N. Millar NGF 12290* (A); Oomsis Ridge, cult. Lae Botanic Garden, 60 m, August 1961, *A.N. Millar NGF 13816* (A).

Despite its ephemeral flowers this species is a rather attractive member of section *Grastidium* Blume. The first author was sent images by William Cavestro of this species from Papua Province in Indonesia with the suggestion these represented *D. coloratum*. Further studies convince us that *D. coloratum* is not different from *D. heteroglossum,* both taxa agreeing in habit, flower color (dark purple to carmine red sepals and petals), sepals and petal shape, and in details of the labellum (such as the relatively large epichile covered in setose appendages, obtuse sidelobes, and the inside of the sidelobes covered in transverse lamellae). The slightly smaller flowers described and depicted by Smith (1916) are in our opinion due to their immature nature.

Dendrobium jennyanum Kraenzl., Gard. Chron. ser. 3, 20: 329. 1896.

TYPE: ORIGIN UNKNOWN ["Eastern"]. Flowering in Zurich, August 1896, *cult. E. Zollinger-Jenny s.n.* (Lectotype [here designated]: HBG [501541] [image and drawing seen]).

Homotypic synonym: *Durabaculum jennyanum* (Kraenzl.) M.A. Clem. & D.L. Jones, Orchadian 13, 11: 488. 2002.

Heterotypic synonym: *Dendrobium aries* J.J. Sm., Bull. Jard. Bot. Buitenz. ser. 2, 13: 64. 1914 *syn. nov.*

TYPE: INDONESIA [as New Guinea]. Papua Prov., *cult. Odenthal s.n.* (Holotype: BO [not found]; probable Isotype: L [0059354] [image seen]).

Distribution: Indonesia (Papua); Papua New Guinea (?).

Additional specimen examined: INDONESIA. Papua Prov., Pionier Bivak, 10 m, 20 July 1920, *H.J. Lam 452* (L [1497306] [image seen]).

In the protologue of *D. jennyanum* Kraenzlin described the flowers as being yellowish on the outside, brown on the inside and varnished all over, the lip being paler, especially in the basal part, adorned with chocolate brown veins, and with whitish calli that are pale violet basally. He noted that the pedicel with ovary was 35 mm long, the sepals 30 mm long, petals 40 x 5 mm, lip 30 x 18 mm, and the epichile 6 mm long and 12 mm wide. In HBG there is a sheet with three flowers that has been identified as type material by Kraenzlin. Dr. Szlachetko was kind enough to study a flower for the first author and found the pedicel with ovary was 40 mm long, the sepals 28 to 36 mm long, petals 30 x 9 mm, the lip 34 x 20 mm with the epichile 11 mm long and 13 mm wide.

The flower color given by Kraenzlin for *D. jennyanum* and the specimen treated by him as type in HBG accord very well with the expanded description and figure given by Smith (1916) for *D. aries*. The only minor difference is that *D. aries* has a more circular labellum epichile (10 x 10 mm). However the specimen cited above (*H.J. Lam 452*) that was identified by Smith as *D. aries* has the more transversely elliptic epichile of *D. jennyanum*. We assume that the epichile shape in *D. jennyanum* is a little variable and that *D. aries* is therefore a synonym.

The statements by Kraenzlin in the protologue of *D. jennyanum* regarding petal width and epichile dimensions have no doubt clouded the identity of this taxon.

Dendrobium leeanum O'Brien, Gard. Chron. ser. 3, 10: 640. 1891.

TYPE: WITHOUT ORIGIN. Imported with *Dendrobium phalaenopsis* Fitzg. var. *schroederianum* Rchb.f. ex W. Watson [i.e. from the Tanimbar Islands, Indonesia], *cult. Messrs. F. Sander & Co. s.n.* (Holotype: K [001085362] [image seen]).

Homotypic synonym: *Vappodes leeana* (O'Brien) M.A. Clem. & D.L. Jones, Orchadian 13, 11: 492. 2002.

Heterotypic synonyms: *Dendrobium leeanum* O'Brien var. *atropurpureum* H.J. Veitch, Gard. Chron. ser. 3, 11: 664. 1892.

TYPE: WITHOUT ORIGIN. Exhibited RHS 17 May 1892 (sent to K, 30 May 1892), *cult. W.H. Young for F. Wigan s.n.* (Holotype: K [001085365] [image seen]).

Dendrobium enfieldense H.J. Veitch, Gard. Chron. ser. 3, 20: 535. 1896 *syn. nov.*

TYPE: WITHOUT ORIGIN. Exhibited RHS 27 October 1896, *cult. Messrs. H. Low & Co. s.n.* (Holotype: [lost]).

Dendrobium leeanum O'Brien var. *enfieldense* (H.J. Veitch) H.J. Veitch, Gard. Chron. ser. 3, 26: 156. 19 Aug. 1899 as *enfieldiense*; Hort., Garden (London, 1871-1927) 56: 149. 19 Aug. 1899.

Dendrobium fleischeri J.J. Sm., Repert. Sp. Nov. Regni Veg. 12: 111. 1913 *syn. nov.*

TYPE: WITHOUT ORIGIN. Cultivated in Java, *M. Fleischer s.n.* (Holotype: BO; possible Isotype: L [0059599] [image seen]).

Vappodes fleischeri (J.J. Sm.) M.A. Clem. & D.L. Jones, Orchadian 13, 11: 492. 2002.

Distribution: Indonesia [Maluku Prov. (Tanimbar Islands)].

This taxon appears to be a natural hybrid between *D. bigibbum* Lindl. var. *schroederianum* (Rchb.f. ex W. Watson) Peter B. Adams (section *Phalaenanthe* Schltr.) and *D. antennatum* Lindl. (section *Spatulata* Lindl.). The type form of *D. leeanum* has a rather shorter labellum epichile and relatively broader hypochile. This could be expected from backcrosses onto the *D. bigibbum* var. *schroederianum* parent. The later synonyms are closer to the primary hybrid between the two supposed parent taxa.

Didymoplexis Griff., Calcutta J. Nat. Hist. 4: 383. 1844.
Type species: *Didymoplexis pallens* Griff.

A genus of about 21 species of holomycoheterotrophic terrestrial herbs distributed from Africa and Madagascar to Samoa. The delicate flowers are often produced sequentially and are mostly white in color except for some yellow on the labellum.

Didymoplexis torricellensis Schltr., Repert. Sp. Nov. Regni Veg., Beih. 1: 44. 1911.
TYPE: PAPUA NEW GUINEA [as Kaiser Wilhelm's Land]. Torricelli Range, 800 m, September 1909, *R. Schlechter 20309* (Holotype: B, destroyed).
Heterotypic synonym: *Didymoplexis cornuta* J.J. Sm. var. *betungkerihunensis* Tsukaya & H. Okada, Acta Phytotax. Geobot. 62, 2-3: 92. 2012 *syn. nov.*
TYPE: INDONESIA. Kalimantan, Betung Kerihun National Park, along Sungei Tobang Kopang, 203 m, 27 December 2010, *H. Okada, H. Nagamasu & H. Tsukaya HT1011A* (Holotype: BO [not found]).

Distribution: Indonesia (Kalimantan); Papua New Guinea.

This species is related to *D. cornuta* J.J. Sm. but differs from that taxon in the shorter, more rounded mentum, labellum lacking an erect basal appendage, and more distinctly lamellate keels on the labellum. We find that *D. cornuta* var. *betungkerihunensis* has the same features as *D. torricellensis* and therefore we treat these two taxa as synonyms.

Pinalia Buch.-Ham. ex Lindl.
Type species: *Pinalia alba* Lindl.

A genus of Eriinae with about 185 species distributed from Sri Lanka and India to Tahiti. About 73 species can be found in Indonesia, which is the center of speciation. The plants have rather soft stems (thus, herbarium specimens look rather shrunken) usually bearing two or more leaves. Flowers are usually rather smallish (sepals 5-12 mm long), often in shades of white, yellow, and pink.

Pinalia fitzalanii (F. Muell.) Kuntze, Rev. Gen. Pl. 2: 679. 1891.
TYPE: AUSTRALIA. Queensland, Mulgrave River, *E. Fitzalan s.n.* (Holotype: lost). Neotype [designated by Clements 1989: 76]: Australia, Queensland, McIlwraith Range, Massey Creek, 60 m, 4 September 1979, *J.R. Clarkson 2604* (Holoneotype: BRI [AQ 0381865] [image seen]; Isoneotype: K [000482434] [not seen]).
Basionym: *Eria fitzalanii* F. Muell., South. Sci. Rec. 2: 252. 1882.
Homotypic synonym: *Hymeneria fitzalanii* (F. Muell.) M.A. Clem. & D.L. Jones, Orchadian 13, 11: 501. 2002.
Heterotypic synonyms: *Eria solomonensis* Rolfe, Bull. Misc. Inf. Kew: 63. 1909. TYPE: SOLOMON ISLANDS. Tulagi, *cult. C.M. Woodford 11* (Holotype: K [000827422] [image seen]).
Eria hollandiae J.J. Sm., Bull. Dep. Agr. Ind. Neerl. 45: 7. 1911. TYPE: INDONESIA. Papua Prov., Hollandia Bivouac, 50 m, 8 August 1910, *K. Gjellerup 302* (Lectotype [here designated]: BO [0066317]; Isolectotypes: BO [0066601], BO, spirit [19.13], K [000827428]; L [0059879] [image seen]).
Eria indivisa Schltr., Repert. Sp. Nov. Regni Veg., Beih. 1: 662. 1912. TYPE: PAPUA NEW GUINEA [as Kaiser Wilhelm's Land]. Djamu Gorge, 400 m, October 1907, *R. Schlechter 16686* (Syntype: B, destroyed; Isosyntypes: G [00165701], L [0059873] [images seen]); Kani Range, 600 m, August 1908, *R. Schlechter 18086* (Syntype: B, destroyed).
Bryobium indivisum (Schltr.) J.J. Wood, Orch. Review 113, 1261: 41. 2005.
Eria ledermannii Schltr., Bot. Jahrb. Syst. 58: 125, 127. 1923 *syn. nov.*
TYPE: PAPUA NEW GUINEA [as Nordostl. Neu-Guinea]. Sepik District, April River, Strand Camp, 100 m, September 1912, *C. Ledermann 8616* (Holotype: B, destroyed).
Pinalia ledermannii (Schltr.) Schuit., Y.P. Ng & H.A. Pedersen, Bot. J. Linn. Soc. 186, 2: 197. 2018.
Bryobium rendovaense J.J. Wood, Orch. Review 113, 1261: 41. 2005 *syn. nov.*
TYPE: SOLOMON ISLANDS. Rendova, track from Ughele Village to Rendova Peak, 450 m, 10 September 1991, *B.A. Lewis 6* (Holotype: K [000827418], image seen).

Distribution: Indonesia (Papua); Papua New Guinea; Australia (NE Queensland); Solomon Islands.

Additional Specimens examined: PAPUA NEW GUINEA. Western Prov., Lake Daviumbu, Middle Fly River, April 1936, *L. J. Brass 7780* (AMES); same data, *L. J. Brass 7871* (AMES, BRI).

Habitat: Epiphytic on lakeside tree (*L.J. Brass 7780*); in *Melaleuca* swamp forest *(L.J. Brass 7871*).

This species is a widespread taxon, most commonly found in tropical lowland forests. The flowers are smallish (sepals 6-8 mm long), and usually a pale yellow (but can be white with yellow on the lip). The lip is somewhat oblong-rectangular, entire to weakly trilobed, the apex more or less truncate-emarginate. The keels on the lip appear as two broadened inflexed lamellae on the lower half, these continue as three low ridges on the upper half.

Eria ledermannii possibly has had its identity obscured due to a typesetting error that occurred in the protologue whereby the text for *Eria molliflora* Schltr. (= *Trichotosia* Blume) was mismatched with that of the former. For this reason the wrong type data appeared in the first author's treatment of it (Ormerod 2017). It also seems Schlechter omitted to describe the three low upper keels on the labellum. Otherwise all details in the protologue of *Eria ledermannii* match those of *Pinalia fitzalanii* and therefore we treat them as conspecific.

Bryobium rendovaense was described from unopened flowers (hence the slightly lesser floral lengths) and is not distinguishable from *Pinalia fitzalanii* in any feature. Thus, it too is added to the synonymy.

Pinalia puberula (Ridl.) Ormerod & Juswara, *comb. nov.*

Basionym: *Eria puberula* Ridl., J. Bot. (Lond.) 24: 326. 1886. TYPE: PAPUA NEW GUINEA. South Cape, *H.O. Forbes s.n.* (Holotype: BM [000506690]).

Heterotypic synonyms: *Eria oligotricha* Schltr., in Schum. & Laut., Fl. Deutsch. Schutzgeb. Sudsee, Nachtr. 2: 181. 1905 *syn. nov.* TYPE: PAPUA NEW GUINEA [as Kaiser Wilhelm's Land]: Torricelli Range, 1000 m, April 1902, *R. Schlechter 14353* (Holotype: B [destroyed]; Isotype: K [00827430]).

Pinalia oligotricha (Schltr.) T.C. Hsu, Taiwania 61, 1: 25. 2016.

Eria papuana J.J. Sm., Bull. Dep. Agr. Ind. Neerl. 19: 23. 1908. TYPE: INDONESIA. Papua Prov., Noord River, at confluence with Reiger River, June 1907, *G.M. Versteeg 1208* (Syntype: BO; Isosyntype: L [0063893] [image seen]); near Geluks Hill, August 1907, *G.M. Versteeg 1556 [*as *1555]* (Syntypes: L [1510657], P [00360346] [images seen]).

Eria oligotricha Schltr. var. *acutiloba* Schltr., Repert. Sp. Nov. Regni Veg., Beih. 1: 666. 1912.

TYPE: PAPUA NEW GUINEA [as Kaiser Wilhelm's Land]: Ibo Range, 1000 m, December 1908, *R. Schlechter 19031* (Holotype: B [destroyed]).

Distribution: Indonesia (Sulawesi, N Maluku, Maluku, Papua); Papua New Guinea; Solomon Islands.

Additional specimens examined: INDONESIA. Papua Prov., 4 km SW of Bernhard Camp, Idenburg River, 850 m, March 1939, *L.J. Brass 13281* (AMES); same data, *L.J. Brass 13348* (AMES); Mt. Carstensz Expedition, Camp 3, *C.B. Kloss s.n.* (BM); Camp 6a, January 1913, *C.B. Kloss s.n.* (AMES, BM); Camp 6b, *C.B. Kloss s.n.* (BM); Camp 6c, Pundok Padang, 17 February 1913, *C.B. Kloss s.n.* (AMES, BM); Camps 6-7, *C.B. Kloss s.n.* (BM). Salawati Island, Kaloal, 0 m, 28 October 1956, *C. Versteegh BW 4663* (A). PAPUA NEW GUINEA. Madang Prov., Finisterre Range, 1100 m, 20 January 1909, *R. Schlechter 19158* (GH); Simbu Prov., 10 km E of Haia, Crater Mountain Biological Research Station, 850-1350 m, 18 May 1991, *A. Mack 458* (A). Enga Prov., Porgera District, Paiela Census Division, Taronga to Komanga, 1500-1800 m, 15 October 1979, *T.M. Reeve 1640* (AMES). Western Highlands Prov., Lake Kopiago Subdistrict, 17.6 km from Kopiago, top of Paga Hill, 1555 m, 1 November 1968, *J. Vandenberg, J.S. Womersley & M. Galore NGF 39965* (A); Eastern Highlands Prov., Kainantu Subdistrict, Arona side of Kassam Pass, 1300 m, 23 August 1973, *J.S. Womersley NGF 46424* (A). Western Prov., Palmer River, 3.2 km below junction with Black River, 100 m, July 1936, *L. J. Brass 7230* (AMES); same data, *L. J. Brass 7236* (AMES).

Habitat: Epiphytic in floodplain rainforest (*L. J. Brass 13281, 13348*); riverine forest (*L. J. Brass 7230*) primary forest along seashore (*C. Versteegh BW 4663*); ridge forest *(L. J. Brass 7236*); roadside regrowth (*NGF 39965*).

This species has long been known as *Eria oligotricha;* it is a commonly collected plant in New Guinea. It was however first described by Ridley based on one of Henry Forbes' collections from South Cape in Papua New Guinea. The plant Forbes found was the rare form with ligulate sidelobes on the lip (see however orchids of New Guinea website https://www.orchidsnewguinea.com for images of this form such as *Leiden cult 32054* from Southern Highlands Prov., Papua New Guinea, and J. J. Smith's drawing of *L.S.A.M. von Roemer 888* from Papua Prov., Indonesia). More commonly the sidelobes of the lip are shortly elliptic, subquadrate or triangular.

A very similar plant was described from Sulawesi in 1911 as *Eria oreogena* by Schlechter. Further material is needed from Sulawesi to assess this name since the holotype was destroyed in the second World War.

The protologue of *Eria papuana* J.J. Sm. cites *G.M. Versteeg 1208* and *1555* as syntypes. We believe the second collection should be *Versteeg 1556* since the specimen *Versteeg 1555* is the type collection of the fern species *Polypodium versteegii* Christ.

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