Studies of West Malesian *Agrostophyllum* Blume (Orchidaceae)

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ABSTRACT: Studies of West Malesian material of the genus *Agrostophyllum* reveals that three previously described species should be treated as new synonyms of earlier named entities, namely *A. arundinaceum* Ridl. (= *A. cyathiforme* J.J.Sm.), *A. mearnsii* Ames (= *A. globiceps* Schltr.) and *A. wenzelii* Ames (= *A. glumaceum* Hook.f.). However *A. formosanum* Rolfe is found to be a good species, distinct from *A. inocephalum* (Schauer) Rchb.f. On the other hand five new taxa have been recognised and are proposed here, namely *A. asahanense, A. boeeanum, A. galeandrae, A. maliauense* and *A. pseudolaxum*.

KEY WORDS: Malesia, *Agrostophyllum,* new species.

INTRODUCTION

The genus *Agrostophyllum* Blume currently contains about 102 species (new taxa included) distributed from the Seychelles to Samoa. New Guinea is the centre of diversity with about 57 named taxa, though my own studies indicate another 20 (including five infraspecific taxa) require description from that island. In West Malesia [Malaysia, Western Indonesia (Sumatra, Java, Kalimantan), Brunei and the Philippines] there are about 28 accepted taxa, to which another five are added here.

Agrostophyllum plants may generally be recognised by having an epiphytic habit, leafy stems, oblique dark-margined leaf sheaths, terminal heads of usually white flowers and a column with eight pollinia.

The species treated here form two broad groups that are both currently placed in the very diverse section *Agrostophyllum*. The first group has flowers with an essentially bisaccate labellum (i.e. both the hypochile and epichile are saccate or concave) in which the top margin of the hypochile is continuous and not demarcated from the epichile. This group of taxa includes *A. javanicum* Blume (type of the genus) along with *A. boeeanum*, *A. cyathiforme*, *A. formosanum*, *A. galeandrae*, *A. globiceps* and *A. maliauense*.

The second group has flowers with a saccate hypochile but with a distinctly laterally demarcated, ovate to cordate, flattish epichile. This group includes *A. asahanense, A. glumaceum* and *A. pseudolaxum.*

TAXONOMIC TREATMENT

Agrostophyllum asahanense Ormerod, ***sp. nov.***

Fig. 1

Type: INDONESIA, Sumatra, Sultanate of Asahan, Pargambiran, 16-21 November 1933, *R. Si Boeea 6301* (Holotype: AMES!).

Affinis A. djaratense Schltr. *sed sepalis brevioribus (2.75-3.80 vs. 5 mm), epichilo ovato-suborbicularis, bipulvinatis et angustioribus (non cordatis, excavatis et 4.5 vs. 1.75-2.00 mm latis) differt.*

Roots and rhizome not seen. Stem terete basally, compressed above, upper half sublaxly leafy, 66.3 cm long, 0.3 cm thick basally, 1.0-1.2 cm wide across upper sheaths. Leaves narrowly ligulate-lanceolate, apex inequally acutely bidentate, thin, 22.5-25.0 cm long, 1.50-1.65 cm wide; leaf sheaths finely black-margined, truncate to obliquely truncate, exposed part 3-5 cm long, 0.7-0.9 cm wide laterally; stipules broadly triangular, 1-3 mm long. Inflorescence terminal, ca. 35 mm long; peduncle covered by three sheaths, ca. 15 mm long; capitulum composed of many bracts and sheaths, many-flowered, 20 mm long, 30 mm wide. Pedicellate ovary clavate-terete, 7.2 mm long. Flower colour not known. Dorsal sepal ovate-oblong, acute, finely carinate externally, 3.5 mm long, 1.5 mm wide. Lateral sepals obliquely ovate, acute, base concave-saccate, carinate externally, 3.8 mm long, 1.75-1.90 mm wide. Petals ligulate-lanceolate, obtuse, 2.75-2.80 mm long, 0.75 mm wide. Labellum trilobed, 3.3-3.4 mm long; hypochile saccate-concave, 1.3-1.4 mm long, 0.95 mm wide laterally, sidelobes erect, obtuse, front edge truncate; ligula completely joined to sidelobes, subquadrate, truncate; epichile ovate-suborbicular, bipulvinate, obtuse to subacute, 2 mm long, 1.75-2.00 mm wide. Column obliquely erect, 3 mm long.

Distribution: Indonesia (Sumatra).

Etymology: Named after the former Sultanate of Asahan, the type locality.

This species is externally identical to its Sumatran congener *A. djaratense* Schltr. [Type: *Schlechter 16003*

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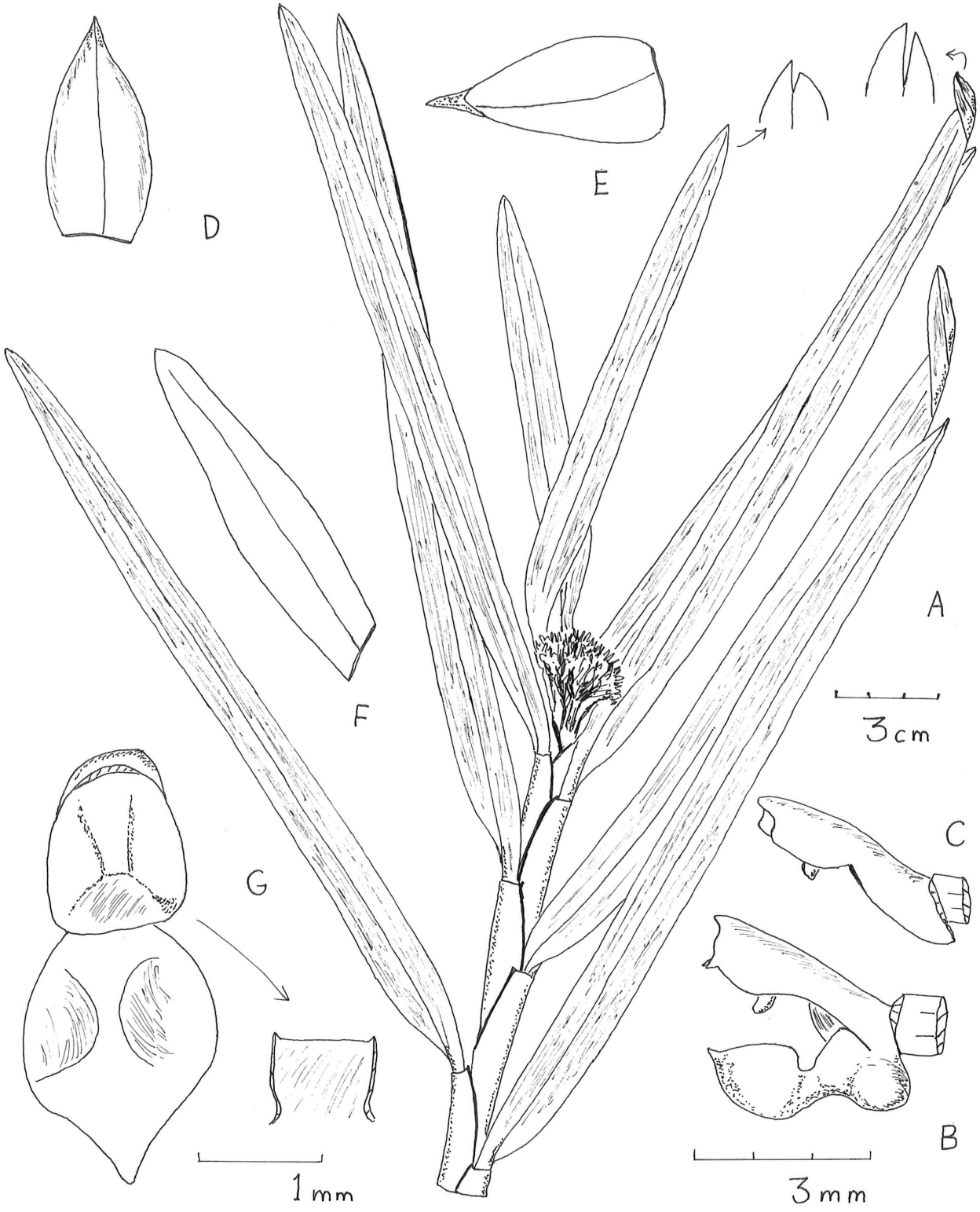


Fig. 1. ***Agrostophyllum asahanense*** **– A: stem, upper part. B: flower minus tepals. C: column. D: dorsal sepal. E: lateral sepal. F: petal. G: labellum (ligula arrowed). A, B-E and F & G to respective scales. Drawn from holotype.**

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(Isotype: AMES!)] but it has smaller flowers, medially (not basally) widened petals, and a half as wide, bipulvinate (not medially excavate) ovate-suborbicular (not cordate) labellum.

Another similar taxon is the Sumatran and Javanese *A. denbergeri* J.J.Sm. [the large plant depicted by Comber (2001) as *A. denbergeri* is more likely *A. laxum* J.J.Sm.] but it differs in having shorter (8.5-13.5 vs. 22.5-25.0 cm) obtuse (not acute) leaves and flowers with a shorter (2.00-2.75 vs. 3 mm), basally shortly bulbous column with an obtuse (not acute) lateral sinus.

Agrostophyllum boeeanum Ormerod, ***sp. nov.***

Fig. 2

Type: INDONESIA, Sumatra, Residency of Tapianoeli, Dolok Sopo Raso, Toba (a mountain in the bend of the headwaters of Aek Mandosi, S of Taloen na Oeli), 20 October to 7 December 1936, *R. Si Boeea 11290* (Holotype: A!).

Affinis A. globiceps Schltr. *sed labello exterioris integris (non bisaccatis) et columna brevioribus (2 vs. 3.00-3.75 mm) differt.*

Rhizome not seen. Roots terete, ca. 0.2 cm thick. Stem semiterete basally, compressed above, upper half sublaxly leafy, 54.5 cm long, 0.4 cm thick basally, 0.6-1.1 cm wide across upper sheaths. Leaves linear-lanceolate, acute, erect, thin, apex equally to inequally shortly obtusely to subacutely bilobed, sometimes shortly mucronate, 9.6-11.0 cm long, 0.75 cm wide; sheaths black-margined, truncate to obliquely truncate, exposed part 2-3 cm long, 0.4-0.5 cm wide laterally; stipule deltate to lanceolate, acute, 1.5-3.0 mm long, 0.8-1.0 mm wide. Inflorescence terminal, ca. 30 mm long; peduncle covered by sheaths, ca. 20 mm long; capitulum composed of many bracts and sheaths, densely many-flowered, ca. 10 mm long, 20 mm wide. Pedicellate ovary clavate-terete, 6.4 mm long. Flower colour unknown. Dorsal sepal elliptic, obtuse, finely carinate externally, 3-veined, 3.95 mm long, 2 mm wide. Lateral sepals obliquely ovate-elliptic, acute, carinate externally, base concave-saccate, 4 mm long, 2.2 mm wide. Petals obliquely oblong-lanceolate, obtuse, 3-veined, 3.95 mm long, 1.3 mm wide. Labellum entire externally, 5-veined, 3.95 mm long; hypochile ca. 1.3-1.4 mm long, ca. 1.5 mm wide laterally; ligula completely joined to sidewalls, apex lunate excised; epichile widely ovate, obtuse, apex shortly calceolate, ca. 2.5-2.6 mm long, ca. 2 mm wide laterally (i.e. ca. 4 mm wide spread). Column weakly obliquely erect, stout, 2 mm long.

Distribution: Indonesia (Sumatra).

Etymology: Named after Rhamat Si Boeea, collector of the type specimen.

This species is probably most closely related to *A. globiceps* Schltr. but the labellum does not appear bisaccate (or constricted) externally, the ligula is apically lunate-excised (not truncate) and the column is shorter (2 vs. 3.00-3.75 mm) and stouter.

Another similar taxon is *A. cyathiforme* J.J.Sm. but its labellum is also constricted (less so than *A. globiceps*) externally, the labellum lacks a calceolate apex and the column is longer (2.8-3.0 vs. 2 mm) and more slender.

Agrostophyllum cyathiforme J.J.Sm., Orch. Java:291, 1905. Figs. 3A-F

Type: INDONESIA, Java, Gede, between Salabintana and Tjibeureum, *J. J. Smith s.n.* (Holotype: BO).

Agrostophyllum arundinaceum Ridl., Sarawak Mus. J. 1, 2:36, 1912 *syn. nov.*
Type: MALAYSIA, Sarawak, Mt. Pol (now Mt. Pueh), 610 m, October 1909, *C.J. Brooks 5* (Holotype: SING; Isotypes: BM!, K).

Distribution: Indonesia (Java, Sumatra); Malaysia.

Specimens examined: INDONESIA, Java, sine loc., *cult. Hort. Bogor. s.n.* (AMES); Mt. Gede, near the waterfall, 13 February 1915, *H.N. Ridley s.n.* (BM).

MALAYSIA, Pahang, upper Tras Valley, below Fraser's Hill, 1065 m, 27 September 1922, *I.H. Burkill & R.E. Holttum 7887 (field label) or 7877 (herbarium label)* (AMES).

Comparison of an isotype of *A. arundinaceum* with material and drawings of *A. cyathiforme* from Java leaves no doubt the two entities are conspecific. Two specimens seen from Mt. Kinabalu, Sabah [Marai Parai Spur, 2135 m, *L.S. Gibbs 4034* (BM); above Kintaki River, 1525 m, *J. & M.S. Clemens 50398* (AMES)] may belong to *A. cyathiforme* but unfortunately lack flowers. *Carr SFN 27350* listed as *A. arundinaceum* by Wood et al. (2011) belongs to *A. globiceps*. I haven't seen the other collections they enumerate under the former but these need to be re-examined to confirm their identity.

Agrostophyllum cyathiforme is related to *A. globiceps* but may be distinguished from it by the slightly more leathery leaves and the much less pinched outside of the labellum which has the hypochile smaller than the non-saccate epichile. In *A. globiceps* the leaves are thinner and the labellum is strongly pinched or constricted medially on the outside and it is equally divided into a hypochile and a distinctly saccate epichile.

Agrostophyllum formosanum Rolfe, Ann. Bot. 9:157, 1895.

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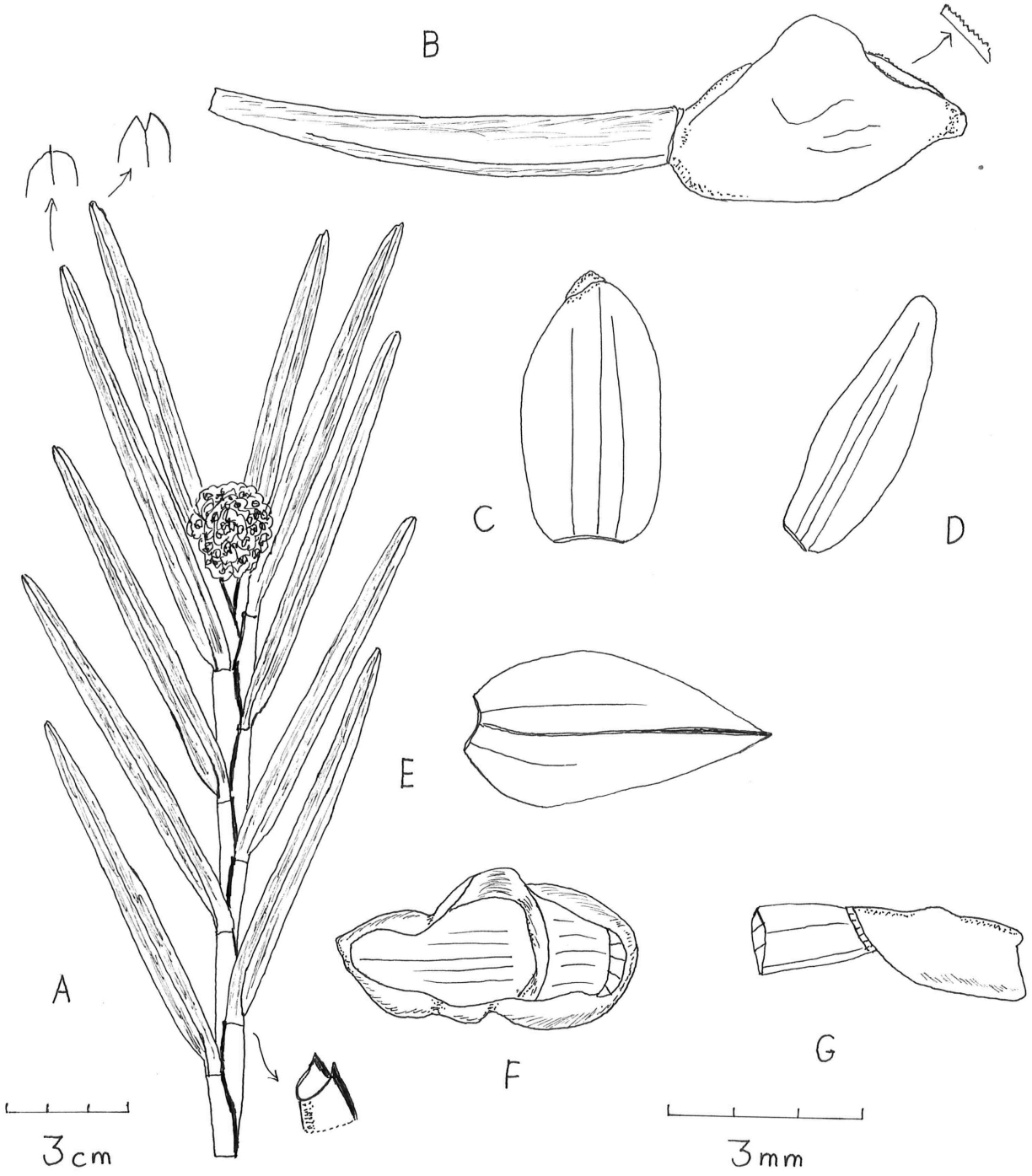


Fig. 2. ***Agrostophyllum boeeanum*** **– A: stem, upper part. B: flower minus tepals. C: dorsal sepal. D: petal. E: lateral sepal. F: labellum. G: column. A and B-F to respective scales. Drawn from holotype.**

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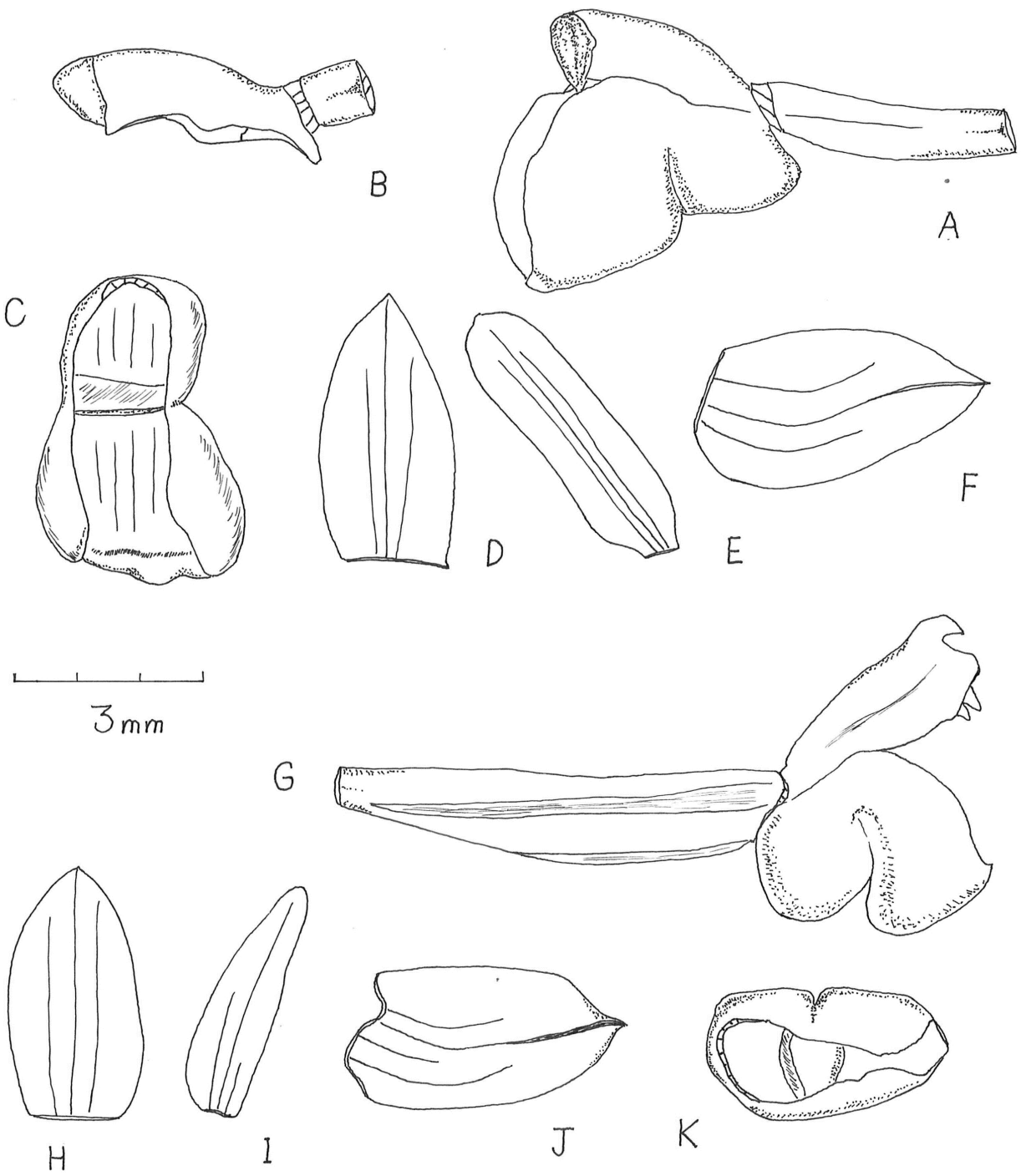


Fig. 3. *Agrostophyllum cyathiforme* – A: flower minus tepals. B: column. C: labellum. D: dorsal sepal. E: petal. F: lateral sepal. *A. globiceps* – G: flower minus tepals. H: dorsal sepal. I: petal. J: lateral sepal. K: labellum. A-K to same scale. A, C, D & F from isotype (BM) of *A. arundinaceum*, B & E from *Ridley s.n.* (BM), G-K from holotype of *A. mearnsii.*

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Type: TAIWAN, South Cape, *A. Henry 1350* (Holotype: K; Isotype: NY).

Distribution: Taiwan.

This taxon is related to *A. cyathiforme* but distinguished from it by having broader, more flattened stems, and a thicker column. It has been considered a synonym of *A. inocephalum* (Schauer) Rchb.f. but the latter is a member of the *A. longifolium* complex, a group recognisable by having longish, usually compressed stems with several strap-like leaves, flowers with a distinctly trilobed (i.e. the sidelobes are clearly separated from the epichile) labellum, a flattish, ovate to cordate, often biconvex epichile, and an obliquely erect column with a medial constriction.

Good drawings of *A. formosanum* can be found in Lin (1987, as *A. inocephalum*) and some close-up photographs of the floral parts can be found in Ying (1996).

Andre Schuiteman (K, pers. comm.) has pointed out the close relationship between the Philippine *A. saccatilabium* Ames & Quisumb. and *A. formosanum*. It is possible the two taxa are conspecific but I have maintained them as distinct for the time being since the former differs from *A. formosanum* in having oblong (not lanceolate) petals. However more studies are desirable to resolve the relationship of the two species.

Agrostophyllum galeandrae Ormerod, ***sp. nov.***

Fig. 4

Type: MALAYSIA, Sabah, Mt. Kinabalu, Penibukan, ridge above Dahobang River, 1065 m, 31 October 1933, *J. & M.S. Clemens 40956* (Holotype: AMES!)

Affinis A. lampongense J.J.Sm. *sed caulibus 7-10 (vs. 5) foliatis, longioribus (15.0-40.5 vs. 8-17 cm), petalis oblongo-ligulatis, obtusis (vs. lanceolatis, acutis) et columna recto (non curvatis) differt.*

Epiphytic herb. Roots terete, thick and fleshy, mass-forming, 1-3 mm thick. Stems caespitose, terete basally, complanate above, 7-10 leaved, 15.0-40.5 cm long, base0.3 cm thick, 1-2 cm wide across upper sheaths. Leaves ligulate, obtuse to very shortly inequally obtusely bilobed, 4.5-25.3 cm long, 1.0-2.2 cm wide; leaf sheaths black margined, exposed part 3.5-7.0 cm long, 0.5-1.1 cm wide laterally; stipules deltate-falcate, acute, 1-2 mm long. Inflorescence terminal, forming a semiglobose capitulum composed of many bracts, sheaths and flowers, 2.0-2.5 cm wide. Pedicellate ovary clavate, 4.2 mm long. Flowers white to lemon yellow. Dorsal sepal oblong to elliptic, obtuse, outside carinate in upper half, basal third possibly concave-saccate, 3.50-3.75 mm long, 1.5-1.9 mm wide. Lateral sepals obliquely ovate, acute, saccate basally, strongly carinate externally, 3.8 mm long, 2 mm wide. Petals ligulate-oblong, obtuse, 3 veined, 3.5 mm long, 0.95 mm wide. Labellum entire, concave-saccate, 3.8 mm long; hypochile ca. 1.5 mm long, ca. 1.75 mm wide laterally; ligula wholly united to sides of labellum, its upper margin inverse selliform; epichile concave, sides erect, clasping column, ca. 2.3 mm long, ca. 2.5 mm wide laterally (i.e. ca. 5 mm wide spread). Column broadly and shortly clavate, 2 mm long (2.4 mm long with anther cap).

Distribution: Malaysia (Sabah).

Specimens examined: MALAYSIA, Sabah, Mt. Kinabalu, Tenompok, 1525 m, 1931-1932, *J. & M.S. Clemens s.n.* (AMES 49398); Bundu Tahan, 1220 m, 30 May 1933, *C.E. Carr SFN 27426* (A, AMES); Marai Parai, 1525 m, 29 May 1933, *J. & M.S. Clemens 32358 p.p.* (AMES, middle plant).

Etymology: Named after the Neotropical orchid genus *Galeandra* Lindl., to which the flowers bear a superficial resemblance in profile.

This species is easily recognised externally by its strongly flattened stems, a character it shares with the Sumatran *A. lampongense* J.J.Sm. From the latter it is distinguished by having longer stems, more leaves, oblong-ligulate, obtuse (not lanceolate, acute) petals and a straight-backed column without a gibbous base (vs. a curved column with a thickly gibbous base).

A collection listed from Sarawak as *A. cf. lampongense* by Beaman et al. (2001) may possibly belong to *A. galeandrae*, but I have not seen it. Most of the collections cited above for *A. galeandrae* were listed under *A. majus* Hook.f in Wood et al. (2011). The latter taxon however lacks complanate stems and has a distinctly trilobed labellum.

At AMES the collection *Clemens 32358* is a mixture of *A. globigerum* Ames & C. Schweinf. and *A. galeandrae*. The former taxon resembles a small vegetative form of *A. majus* but its flowers have an entire saccate labellum like that found in *A. galeandrae* and *A. boeeanum*.

Agrostophyllum globiceps Schltr., Bot. Jahrb. Syst. 45, 3:23, 1911. Figs. 3G-K

Type: INDONESIA, Sumatra, near Fort de Kock, 1000 m, 22 January 1907, *R. Schlechter 15930* (Holotype: B, destroyed; Isotypes: AMES!, K).

Agrostophyllum mearnsii Ames, Philipp. J. Sci. 8, 6:420, 1913 *syn. nov.*
Type: PHILIPPINES, Mindanao, Misamis Prov., Mt. Bliss, 1735 m, May 1906, *Major E. A. Mearns & W. J. Hutchinson FB 4607(Holotype: AMES!).*

Distribution: Indonesia (Sumatra); Malaysia

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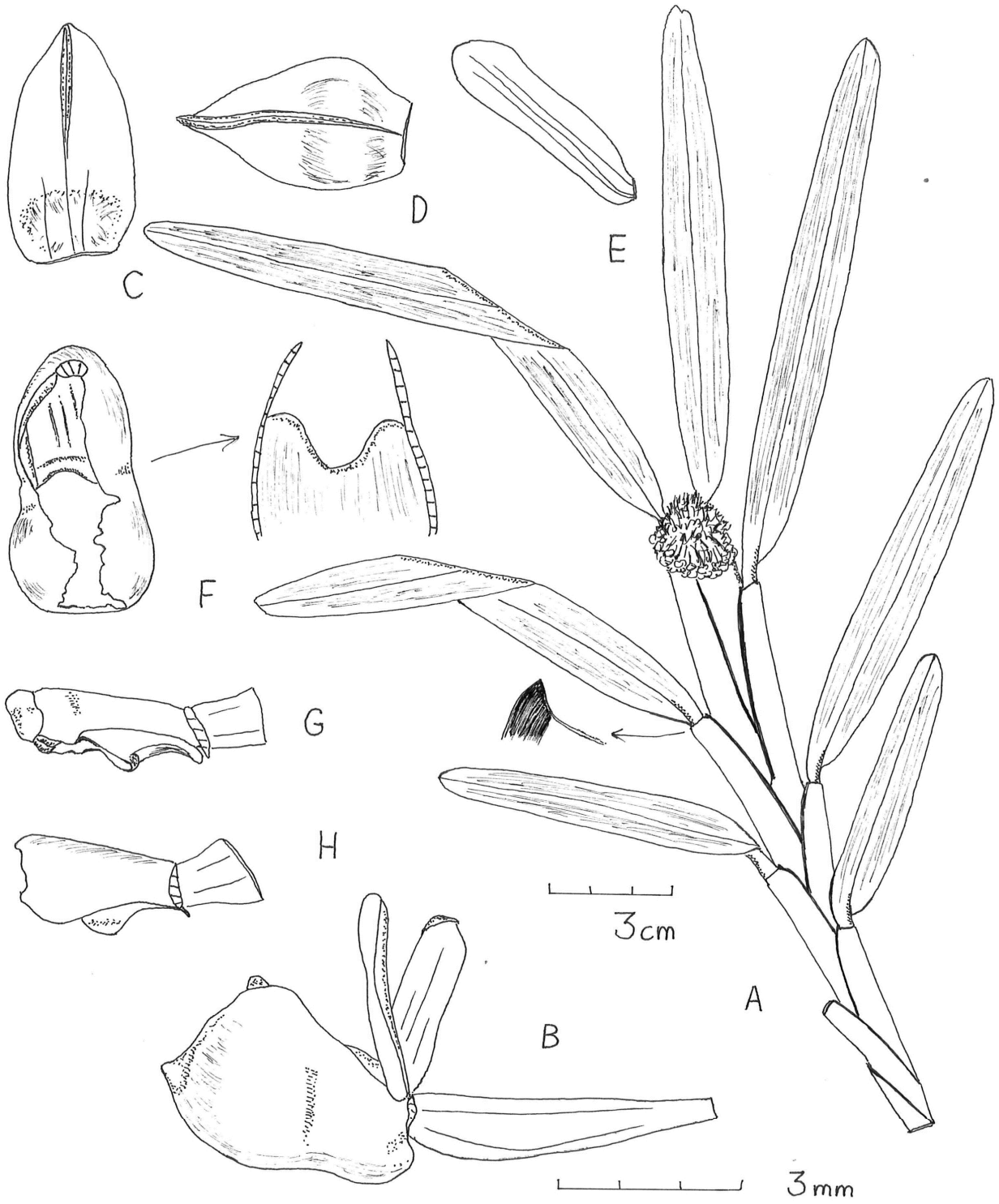


Fig. 4. *Agrostophyllum galeandrae* – A: stem. B: flower minus sepals. C: dorsal sepal. D: lateral sepal. E: petal. F: labellum (ligula arrowed). G & H: columns. A and B-H to respective scales. Drawn from holotype.

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(Sabah); Philippines.

Specimens examined: PHILIPPINES, Luzon, Bataan Prov.,Lamao River, Mt. Mariveles, 975 m, 21 June 1904, *"with Whitford 457", sine coll. s.n.*(AMES). Mindanao, Agusan Prov., Cabadbaran (Mt. Urdaneta), September 1912, *A.D.E. Elmer 13700* (AMES); Davao Prov., Mt. Apo, Baklayan, 1800 m, 11 November 1946, *G.E. Edano1430 (PNH 2404)* (AMES); Mt. Apo, Miran river, 1915 m, 6 November 1946, *G.E. Edano 1336 (PNH 2371)* (AMES). MALAYSIA, Sabah, Mt. Kinabalu, Tenompok, 1525 m, 31 May 1933, *C.E. Carr SFN 27437* (AMES); 1525 m, 24 May 1933, *C.E. Carr SFN 27350* (A, AMES); 10 March 1932, *J. & M.S. Clemens 30144* (AMES); Tenompok, above Dallas Trail, towards Tomis, 1615 m, 29 April 1932, *J. & M.S. Clemens 29455* (AMES); Silau River, 1830 m, 26 December 1931, *J. & M.S. Clemens 51588* (BM).

Comparison of type material of *A. globiceps* and *A. mearnsii*, plus study of several other collections, leads to the conclusion that these two taxa are conspecific. Column shape of this species seems to be particularly susceptible to artefacts caused by pressing and drying. Sometimes the column has little wings present, sometimes not. Also the dorsal surface of the column can be straight rather than hump-backed.

Collections referrable to *A. globiceps* are listed by Wood et al. (2011) under the names *A. arundinaceum* (*Carr SFN 27350*), *A. javanicum* Blume (*Carr SFN 27437, Clemens 29455, 30144*) and *A. sp.* sect. *Agrostophyllum* (*Clemens 51588*).

Agrostophyllum globiceps is similar to the generic type species *A. javanicum* florally, but the latter is easily recognised by its slender grassy leaves (hence the name of the genus). I haven't seen any material referrable to *A. javanicum* from Borneo as yet.

Agrostophyllum glumaceum Hook.f., Fl. Brit. Ind. 5:824, 1890.

Types: MALAYSIA, Perak, *B. Scortechini s.n.* (Syntype: K); *G. King's collector s.n.* (Syntype: K).

Agrostophyllum wenzelii Ames, Orch. 5:88, 1915 *syn. nov.* Type: PHILIPPINES, Leyte, Jaro, Buahaan, 19 September 1913, *C.A. Wenzel 212* (Lectotype, here designated: AMES! 14233; Isolectotype: AMES! 14232).

Distribution: Indonesia (Sumatra); Malaysia; Philippines.

This taxon is probably one of the most commonly collected members of section *Agrostophyllum* in West Malesia. It has a distinctive habit whereby there are a few basal leaves subtending an exposed compressed stem that occasionally has one or two upper leaves. Study of the type material of *A. wenzelii*, plus several collections from Borneo and Sumatra, leaves no doubt that it is a synonym of *A. glumaceum*.

Agrostophyllum maliauense Ormerod, ***sp. nov.*** Fig. 5

Type: MALAYSIA, Sabah, Maliau Basin Conservation Area, *sine coll. MB 682* (Holotype: A!).

Affinis A. globiceps Schltr. *sed vaginis foliis longe obliquis (non truncatis ad breve obliquum), ovario parce furfuraceis (non glabris), labello inaequaliter diviso et columna longioribus (4.9 vs. 3.00-3.75 mm) differt.*

Roots slender, wiry, 0.5-1.5 mm thick. Stem terete basally, compressed above, laxly many-leaved, 67.7 cm long, base 0.3 cm thick, 0.6-1.0 cm wide across sheaths. Leaves narrowly ligulate-lanceolate, apex inequally to equally subacutely to acutely bilobed, sometimes obtuse, 12.0-16.6. cm long, 1.05 cm wide; leaf sheaths with a 1.0-1.5 mm wide black margin, exposed part to 5 cm long, 0.4-0.6 cm wide laterally; stipules triangular, acute, 0.5-1.5 mm long. Inflorescence terminal, semiglobose, composed of many bracts, sheaths and flowers, ca. 3.3 cm wide. Pedicellate ovary subcylindric-clavate, sparsely furfuraceous, 9.2 mm long. Flower colour unknown. Dorsal sepal ovate-elliptic, acute, upper third with 3 veins thickened dorsally, 7 veined, 4.75 mm long, 2.3 mm wide. Lateral sepals obliquely ovate-elliptic, acute, upper third of midvein carinate externally, 5 veined, 5 mm long, 2.75 mm wide. Petals oblong-ligulate, subacute-obtuse, 3 veined, 4.9 mm long, 1.0-1.1 mm wide. Labellum deeply pinched outside, 4.75 mm long; hypochile obliquely erect, concave-saccate, 2 mm long, ca. 1.5 mm wide laterally; ligula completely adnate sides to sides of the labellum, apex broadly deltate, rounded; epichile saccate-concave, 2.75 mm long, 2.9 mm wide laterally (i.e. ca. 4.8 mm wide spread). Column slender, clavate, 4.9 mm long.

Distribution: Malaysia (Sabah).

Etymology: Named after the type locality, the Maliau Basin in Sabah.

The floral characters of this species are very similar to those of *A. globiceps* but the labellum hypochile is smaller than the epichile, the ligula has an arched (not truncate) apex and the column is longer. The most obvious differences between the two taxa can be found in their habit. *Agrostophyllum globiceps* tends to have more terete stems, more tubular leaf sheaths with oblique black-edged margins that hardly (and often don't) reach the next sheath. In *A. maliauense* the stems are more compressed, have more compressed leaf sheaths with oblique black edges that extend right down to the next sheath. The habit of *A. maliauense* is more like a narrow leaved form of a member of the *A. longifolium* (Blume) Rchb.f. complex.

Agrostophyllum pseudolaxum Ormerod, ***sp. nov.*** Fig. 6

Type: MALAYSIA, Sabah, Mt. Kinabalu,

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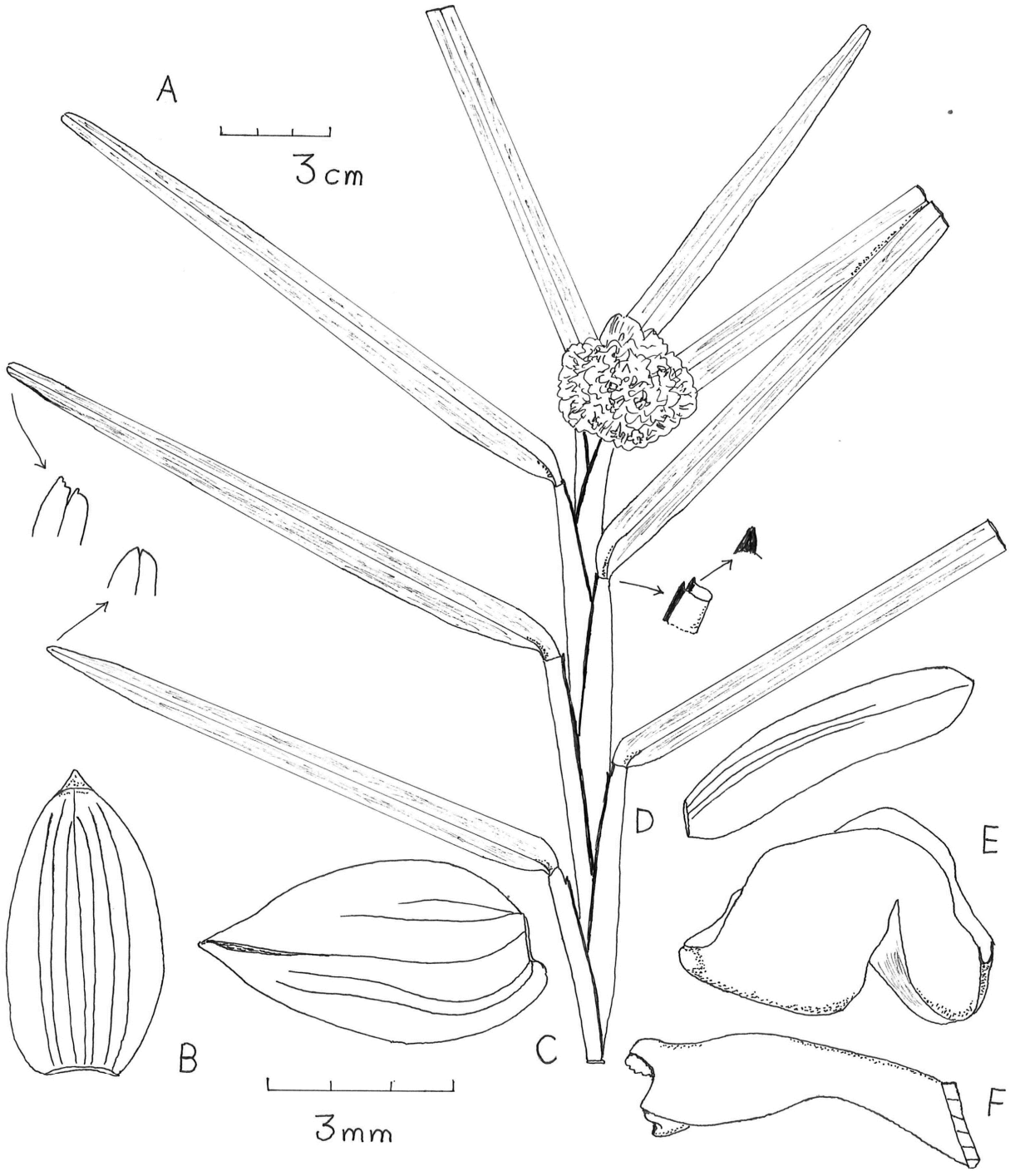


Fig. 5. *Agrostophyllum maliauense* – A: stem, upper part. B: dorsal sepal. C: lateral sepal. D: petal. E: labellum. F: column. A and B-F to respective scales. Drawn from holotype.

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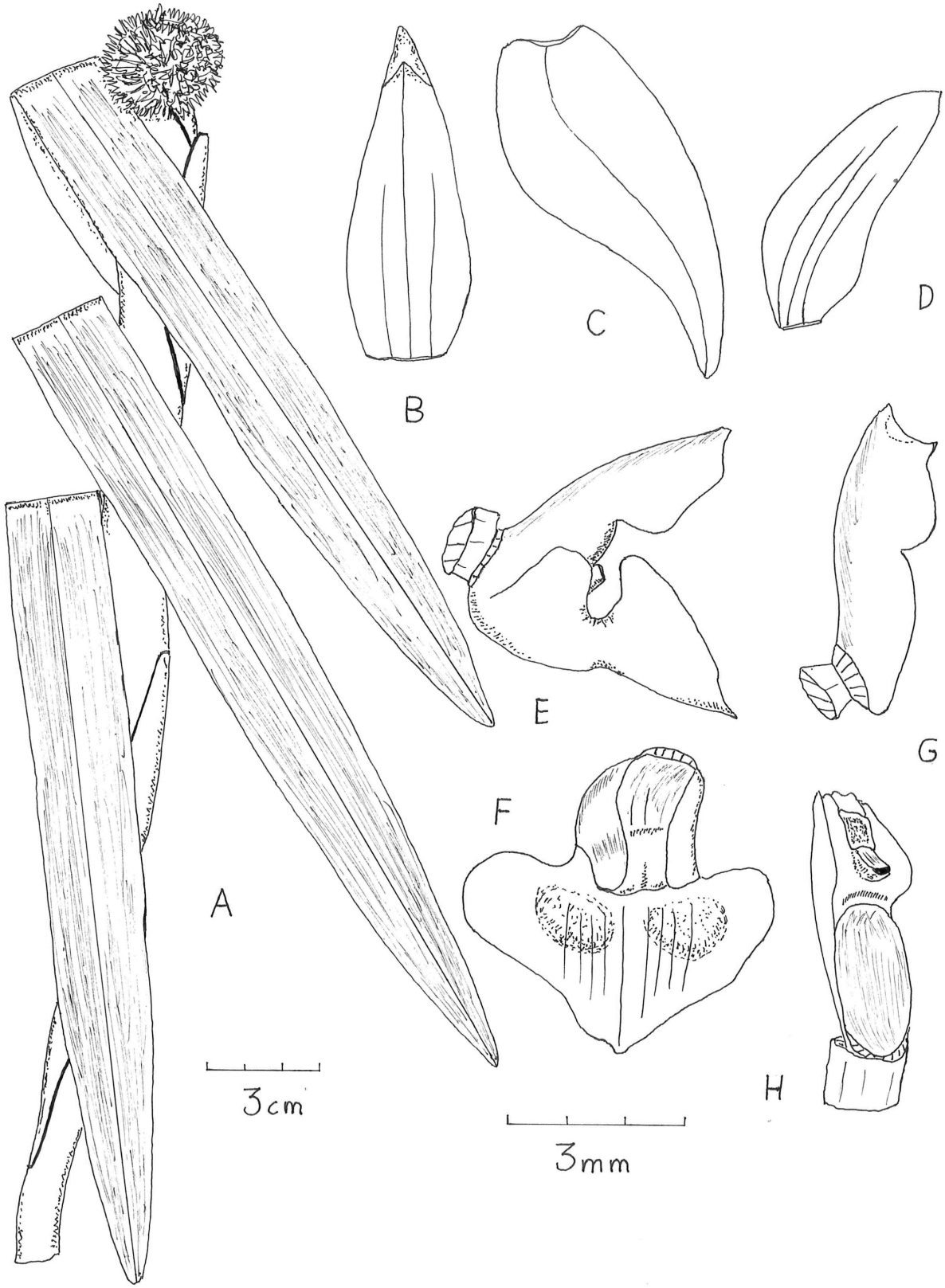


Fig. 6. *Agrostophyllum pseudolaxum* – A: stem, upper part. B: dorsal sepal. C: lateral sepal. D: petal. E: flower minus tepals. F: labellum. G & H: column. A and B-H to respective scales. Drawn from holotype.

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Tenompok, cult. at Jungle Lodge Orchid Garden, 9 November 1933, *J. & M.S. Clemens 50174* (Holotype: AMES!).

Affinis A. laxum J.J.Sm. *sed ligula labello obliquis (non recto) et columna brevioribus (3.9 vs. 4.2-5.0 mm) differt.*

Rhizome terete, creeping, producing masses of roots, covered in roots and fibrous remnants of sheaths, 15 cm or more long, ca. 0.8 cm thick. Roots terete, 0.5-2.0 mm thick. Stems pendulous?, 2.0-2.5 cm apart on rhizome, laxly leaved, terete basally, becoming semicompressed above, to 64 cm long, ca. 0.8 thick basally, to 1.8 cm wide across sheaths. Leaves ligulate, apex equally minutely bilobed, shortly mucronate, 8.0-27.4 cm long, 1.5-2.6 cm wide; sheaths compressed, black-margined, estipulate, 1.3-9.0 cm long, 1.2-1.4 cm wide laterally. Inflorescence terminal, composed of many bracts, sheaths and flowers, ca. 1 cm long, 3 cm wide. Pedicellate ovary terete, clavate, ribbed, 7 mm long. Flowers cream. Dorsal sepal ovate-lanceolate, acute, 3-veined, upper half weakly carinate dorsally, 4.7-5.0 mm long, 1.90-1.95 mm wide. Lateral sepals obliquely ovate-lanceolate, acute, moderately carinate outside, 5.9 mm long, 2.0-2.2 mm wide. Petals obliquely ovate-lanceolate, acute, 4.1 mm long, 1.75 mm wide. Labellum trilobed, 4.50-4.75 mm long; hypochile 2 mm long, 1.75 mm wide dorsally and laterally, sidelobes erect, deltate-elliptic, obtuse; ligula oblique, embracing and abutting base of column, jutting beyond front of sidelobes, truncate; epichile cordate-reniform, subacute, biconvex above, 2.50-2.75 mm long, 4.75-4.80 mm wide. Column erect, 3.9 mm long.

Distribution: Malaysia (Sabah).

Specimen examined: MALAYSIA, Sabah, Mt. Kinabalu, Tenompok, 1525 m, 23 April 1933, *C.E. Carr 3317* (AMES).

Etymology: From the Classical Greek *pseudes*, meaning false, and the species epithet *laxum* from the Latin *laxus*, meaning loose, in reference to the close similarity of the Javanese and Sumatran *A. laxum* J.J.Sm.

Comparison of this species with material [Java, *W.F. Winckel s.n.* (AMES)], drawings and descriptions of *A. laxum* J.J.Sm. convinces me that the Bornean plant is a distinct entity. Both taxa share a similar habit and both have leaves that dry the same light green colour.

Agrostophyllum pseudolaxum may be distinguished from *A. laxum* by its obliquely ovate-lanceolate, acute (not ligulate-lanceolate, obtuse) petals, labellum with a ligula that is oblique and projects from the front of the sidelobes (not erect or perpendicular and thus projecting from near the top of the sidelobes), a relatively wider (2.5 × 4.75 mm vs. 3.0-3.5 × 4.0-4.5 mm) epichile and a shorter (3.9 vs. 4.2-5.0 mm) column.

Another similar species is the Javanese *A. latilobum* J.J.Sm. but it differs in having shorter, narrower (to 18.5 × 1.9 cm vs. to 27.4 × 2.6 cm) leaves, ligulate-lanceolate (not obliquely ovate-lanceolate) petals, a trilobulate (not entire, rounded-truncate) ligula with a deltate midsection, a larger (3.50 × 5.75 mm vs. 2.50 × 4.75mm) epichile and longer (5 vs. 3.9 mm) column.

A collection from Sarawak cited as *A. cf. laxum* by Beaman et al. (2001) may possibly belong to *A. pseudolaxum*, but I haven't seen it.

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西馬來亞地區禾葉蘭屬（蘭科）之研究

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摘要：本文研究馬來亞西部地區的禾葉蘭屬，並發現先前所描述的三個物種應處理為同物異名，分別是*A. arundinaceum* Ridl. (= *A. cyathiforme* J.J.Sm.)、*A. mearnsii* Ames (= *A. globiceps* Schltr.)和*A. wenzelii* Ames (= *A. glumaceum* Hook.f.)；另外，筆者也指出*A. formosanum* Rolfe應是獨立於*A. inocephalum* (Schauer) Rchb.f.之物種。本文也提出五個新種，分別為*A. asahanense*，*A. boeeanum*，*A. galeandrae*，*A. maliauense* 及*A. pseudolaxum*。

關鍵詞：馬來亞，禾葉蘭屬，新種。

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