

PLANTAE PAPUANAE ARCHBOLDIANAE, XIII*

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MELASTOMATACEAE

OUR study of the Melastomataceae as represented by the material from the Richard Archbold Expeditions to New Guinea and the specimens collected by Brass and Kajewski in the Solomon Islands follows the basic work of Mansfeld, Bot. Jahrb. **60**: 105–143. 1925. We have found nothing new in the Osbeckieae, Oxysporeae, or Sonerileae. In the Dissochaeteae the only new records we have are of *Medinilla* Gaudichaud. The genus is so diverse or variable in character that we have accepted Mansfeld's interpretation, although we are not wholly convinced that *Hederella* Stapf rightfully belongs here. In the Papuan material the new species may be readily placed in Mansfeld's key, and for the convenience of future workers we have inserted a running key patterned after that of Mansfeld. For the consideration of the Solomon Islands material, it may be helpful to note one particular point. Towards the end of Mansfeld's key, p. 118, one finds the caption, "Flores bracteis persistentibus stipati" (flowers surrounded by persistent bracts). The only authentic material available for comparison in this group was a very fragmentary specimen of *M. Schlechteri* Mansfeld, an isotype, and in the unnamed collections a specimen which we determined as representing *M. Pulleana* Mansf. In both of these species the bracts are always at the nodes of the inflorescences, the ultimate pair being at the base of the pedicel. On the other hand, in much of the Solomon Islands material the inflorescences are characterized not only by persistent bracts similarly placed, but in addition have a pair of persistent bracteoles (usually more showy and larger than the bracts) at the base of the calyx. This same feature is found in a number of Philippine species and also in those of Polynesia. Taken together, the species probably form a definite section of *Medinilla*, with a geographical range south from the Philippines, including the Solomon Islands, and eastward to western Polynesia (Fiji and Samoa). Another distinctive group in the Philippines, represented by *Cephalomedinilla* Merr., which we now believe ought to be considered as a section of *Medinilla*, also occurs in the Solomon Islands.

In most of the species with setose nodes, it has been somewhat difficult to characterize the pubescence satisfactorily. Mansfeld has used the term plumose-pilose, or, if the trichomes were shorter, furfuraceous. In most cases in our work this has been designated as subplumulose-pilose, for the projections forming the "feathery" part are mostly very short, sometimes hardly even barbellate, and are found either all along the main hair, or, in some instances, only at the base of it.

*Botanical Results of the Richard Archbold Expeditions. See Jour. Arnold Arb. **24**: 207–217. 1943.

In the Astronieae there are several new species of *Astronidium* A. Gray, and in the Memecyleae one new species of *Memecylon* Linnaeus.

Medinilla Gaudichaud

A. Leaves verticillate, opposite, or often appearing alternate, mostly equal in size, or if unequal, similar in shape; inflorescence bracteate or not, the flowers not bracteolate.

B. Plants glabrous, or if pubescent, the nodes not setose.

C. Leaves verticillate or opposite.

D. Leaves verticillate.

Medinilla cauliflora Hemsl. Kew Bull. 1895: 135. 1895.

SOLOMON ISLANDS: Bougainville: Kupei Gold Field, *Kajewski* 1671, 1718, April 1930, alt. 950 m. and 1000 m., common on rain-forest trees; Koniguru, Buin, *Kajewski* 2142, August 1930, alt. 900 m., common on taller trees of rain-forest; Guadalcanal: without further locality, *Kajewski* 2644, May 1931.

The field-notes may be summarized as follows: plant up to 1.5 m. long; petals white; calyx light green; fruit dark red to black, up to 9 mm. long and 8 mm. diameter. This appears to be the first record of any collection of this species since the original description.

Medinilla quadrifolia Blume, Flora 509. 1831; Cogn. Monog. Phan. 7: 574. 1891; Mansf. Nov. Guin. Bot. 14: 203. 1924, Bot. Jahrb. 60: 119. 1925.

SOLOMON ISLANDS: Bougainville: Kugumaru, Buin, *Kajewski* 1986, July 1930, alt. 150 m., rain-forest (semi-scandent; fruit white when ripe, almost globose, 1 cm. diameter). Malaysia and New Guinea.

D. Leaves always opposite.

E. Leaves sessile or subsessile.

Medinilla Forbesii Bak. f. Trans. Linn. Soc. II. Bot. 9: 55. 1916; Mansf. Bot. Jahrb. 60: 121. 1925; vel aff.

NETHERLANDS NEW GUINEA: Balim River, *Brass* 11754, December 1938, alt. 2100 m., a few specimens in *Vaccinium* scrub (erect shrub 1 m. high; petals pale pink; ovary and pedicel red); 15 km. southwest of Bernhard Camp, Idenburg River, *Brass* 11899, January 1939, alt. 1800 m., mossy forest, frequent in open situations (large shrub 2 m. high; calyx and pedicels red; petals white).

With no material for comparison, we find it difficult to distinguish *Medinilla Forbesii* Bak. f., *M. novo-guineensis* Bak. f., and *M. Bakeriana* Mansf. Both specimens cited above have cymose inflorescences in lateral fascicles at the nodes. The other two species, according to the descriptions, have fascicled flowers. The leaves of *Brass* 11754 are smaller (11×6 cm.) than those of *Brass* 11899 (19×10 cm.), but the structure of the flowers is the same.

Medinilla Peekelii Mansf. Notizbl. Bot. Gart. Berl. 10: 282. 1928.

SOLOMON ISLANDS: Ysaabel: Maruto, *Brass* 3395, December 1932, alt. 300 m. (epiphytic shrub with pale fleshy leaves; flowers pale purple; fruit smooth, fleshy, red). The type was described from a collection made in the Bismarck Archipelago.

E. Leaves petiolate.

F. Flowers not solitary.

Medinilla Hollrungiana Mansf. Bot. Jahrb. 60: 120. 1925.

NETHERLANDS NEW GUINEA: Boemi, 40 km. from Nabire, *Kanehira & Hatusima*

12728, March 1940, alt. 300 m., in forest; Bele River, 18 km. northeast of Lake Habbema, *Brass* 11355, November 1938, alt. 2200 m., common in grassy second growths on river banks (upright shrub 2 m. high; leaves fleshy and brittle, the average size $\pm 14 \times 6$ cm.; flowers pink, with red calyx and pedicel). BRITISH NEW GUINEA: Mafulu, *Brass* 5180 (det. Markgraf), September - November 1933, alt. 1250 m., bed of creek in lower forest, rare (sparsely foliated shrub 1 m. tall; leaves fleshy; numerous lateral fascicles of reddish pink flowers); Palmer River, 2 miles below junction of Black River, *Brass* 7114 (det. Markgraf), June 1936, alt. 100 m., occasional in a special swamp forest community in the ridges (semiscandent epiphytic shrub; leaves fleshy; flowers dark pink; fruit red). Described from Northeastern New Guinea.

Medinilla tenuipedicellata Bak. f. Trans. Linn. Soc. II. Bot. **9**: 53. *t.* 3, *f.* 44-47. 1916.

NETHERLANDS NEW GUINEA: 15 km. southwest of Bernhard Camp, Idenburg River, *Brass* 11878, 12066, January 1939, alt. 1800 m., mossy forest, gregarious in semi-shade (branches protruding ± 20 cm. above the thick ground moss; flowers pale purple-pink; — the second collection a shrub 60 cm. tall; calyx white, rimmed with red; petals pink).

Part of the material of these collections is an exact match for the plate, but the rest shows considerable variation in the size of the leaves, some of which are as large as 11 cm. long and 4 cm. broad.

Medinilla Versteegii Mansf. Bot. Jahrb. **60**: 125. 1925.

NETHERLANDS NEW GUINEA: 4 km. southwest of Bernhard Camp, Idenburg River, *Brass* 13714, March 1939, alt. 850 m., frequent on trees along river in rain-forest (epiphytic shrub about 1 m. high; flowers white; fruit red); Bernhard Camp, Idenburg River, *Brass* 13996, April 1939, alt. 50 m., frequent in flooded rain-forest of river plain (epiphytic shrub 2 m. high; flowers pinkish white; fruit red). BRITISH NEW GUINEA: Palmer River, 2 miles below junction of Black River, *Brass* 7198, 7254 (det. Markgraf), July 1936, alt. 100 m., common on river bank trees (large epiphytic shrub or small tree with brittle leaves; terminal panicles of waxy white flowers; fruit red, 6-7 mm. diameter). In *Brass* 7254 the inflorescences are lateral and axillary. The species has been reported previously for both Northeastern New Guinea and Netherlands New Guinea.

Medinilla exigua sp. nov.

Arbuscula epiphytica 2 m. alta glaberrima multiramosa; ramis teretibus cinereis; ramulis angulatis vel sulcatis nodosis; foliis oppositis similibus chartaceis ellipticis, 1.2-3 cm. longis, 0.7-1.5 cm. latis, basi anguste cuneatis, apice obtusis, trinerviis, nervis supra inconspicuis subtus distinctis; petiolo 4-9 mm. longo; floribus in cymas axillares vel terminales paucifloras (1-3) dispositis; pedunculo communi 3-6 mm. longo, bracteis minutis; pedicellis ± 4 mm. longis; calycis tubo anguste obconico vix 3 mm. longo, limbo truncato 1 mm. longo; petalis 4, oblanceolatis, circiter 1 cm. longis, apice acutis; staminibus 8, antheris 3.5 mm. longis postice calcaratis, calcare 1 mm. longo, antice inappendiculatis; fructibus immaturis urceolatis.

NETHERLANDS NEW GUINEA: 18 km. southwest of Bernhard Camp, Idenburg River, *Brass* 12696 (TYPE), February 1939, alt. 2050 m., rain-forest of a ravine (profusely branched epiphytic shrub 2 m. high, with fragile white flowers and fleshy red fruit).

This species is readily distinguished by the small leaves, the angular branchlets, and the reduced cymes.

F. Flowers solitary.

Medinilla Erpetina Triana, Trans. Linn. Soc. **28**: 87. *t.* 7, *f.* 94 *d.* 1871-73; Cogn. Monog. Phan. **7**: 589. 1891.

Erpetina radicans Naud. Ann. Sci. Nat. III. **15**: 299. *t.* 14. 1851.

SOLOMON ISLANDS: *Y s a b e l*: Mount Marescott, *Brass* 3260, December 1932, alt. 1000 m., mountain forests, common (small climber adhering closely to tree-trunks; leaves dark green, thick and somewhat fleshy; flowers purple; fruit red, fleshy); *Tiratona*, *Brass* 3531, December 1932, alt. 600 m., mountain forests, common (small root-climber; flowers reddish); *B o u g a i n v i l l e*: Lake Luralu, Koniguru, Buin, *Kajewski* 2066, August 1930, alt. 1500 m., on rain-forest trees, common (vine; petals pink; stamens light yellow; style light red).

We suspect this is the species represented by *Medinilla nodosa* Fosberg, the main difference being in the more obtuse posticous appendage of the anther of the latter. However, since neither type is available for examination at present, it seems best only to call attention to the very strong resemblance between the two. Fosberg suggests that his species is closest to *M. acutifolia* Hemsl. from the Solomon Islands. From the context, the latter name is undoubtedly an error for *M. cauliflora* Hemsl.

C. Leaves, although opposite, often appearing alternate; inflorescence mostly borne on verrucae (Hederella Stapf).

***Medinilla longistylis* Mansf. Bot. Jahrb. 60: 124. 1925.**

BRITISH NEW GUINEA: Palmer River, 2 miles below junction of Black River, *Brass* 7044 (det. Markgraf), June 1936, alt. 100 m., on a ridge crest (climbing to the crown of a very tall tree, the slender branches pendent 6–8 m. below the limbs of the tree; upper surface of leaves shining, the nerves deeply impressed above, prominent below; flowers pink). The species is recorded previously only from the type, collected in Northeastern New Guinea.

***Medinilla lysipetala* (F. v. Muell.) Mansf. Bot. Jahrb. 60: 124. 1925; vel. aff.**

Catantthera lysipetala F. v. Muell. Jour. Bot. 24: 289. 1886.

Medinilla anomala Cogn. Monog. Phan. 7: 1185. 1891.

Hederella Forbesii Stapf in Hook. Icon. 25: t. 2415. 1895.

NETHERLANDS NEW GUINEA: 15 km. southwest of Bernhard Camp, Idenburg River, *Brass* 12302, January 1939, alt. 1800 m., frequent in mossy forest (root-climbing epiphyte; leaves convex; unopened flowers a dark reddish pink); 8 km. southwest of Bernhard Camp, Idenburg River, *Brass* 12726, February 1939, alt. 1600 m., common in open situations in mossy forest (leaves stiff, convex; flowers dark rose, not opening widely).

The material cited above and other material in our herbarium, from Northeastern New Guinea, show a considerable amount of variation, but we have been unable to distinguish more than one species in it. We are not at all sure that it belongs to *Medinilla lysipetala* (F. v. Muell.) Mansf., but it seems best to place it here provisionally. It is to be noted that the type was collected near the base of the Owen Stanley Range, whereas the material above cited shows a higher altitude. Mueller describes the leaves as strongly 5-nerved from near the base, but these collections have obviously 3-nerved leaves. The inflorescences are axillary as well as lateral.

B. At least the nodes setose or hairy.

G. Leaves sessile or subsessile.

***Medinilla arfakensis* Bak. f. in Gibbs, Phyt. & Fl. Arfak Mts. 158. 1917.**

NETHERLANDS NEW GUINEA: 15 km. southwest of Bernhard Camp, Idenburg River, *Brass* 12395, January 1939, alt. 1500 m., rain-forest (epiphytic shrub 1.5 m. high; panicle red; flowers white). NORTHEASTERN NEW GUINEA: Kani Mountains, *Schlechter* 17037 (isotype of *M. Brassii* Markgr.), December 1907, alt. 1000 m.

BRITISH NEW GUINEA: Bella Vista, *Brass* 5478, November 1933, alt. 1450 m., oak forest fringe (shrub 1.5 m. high; flowers pale pink).

These collections appear to suit the description of *Medinilla arjakensis* Bak. f. reasonably well. All have sessile leaves, small 5-merous flowers, and anthers with a posticous upwardly recurved spur. We have examined exact duplicates of *Schlechter* 17037 (the type-number of *M. Brassii* Markgr.) in the herbarium of the New York Botanical Garden and in our own herbarium, and also the single specimen of *Brass* 5114 cited in the original description. It would seem that Markgraf used the latter collection for most of his description of *M. Brassii*, but, wishing to retain the type at Berlin, designated Schlechter's specimen as the type. The two collections do not belong to the same species. Unfortunately the specific name must go with the type designated, rather than with the collection to which it more logically belongs.

Medinilla Lorentziana Mansf. Nov. Guin. Bot. **14**: 206. 1924, Bot. Jahrb. **60**: 128. 1925.

BRITISH NEW GUINEA: Palmer River, 2 miles below junction of Black River, *Brass* 6934, 7300 (det. Markgr.), July 1936, alt. 100 m., epiphytic in ridge forests, fairly common (large loosely branched shrub; bark suberose, deeply furrowed; leaves concave, recurved, pale underneath; panicles terminal, conspicuous; peduncle and pedicels red; flowers pale waxy pink).

Type from Netherlands New Guinea, with a variety occurring also in Northeastern New Guinea.

Medinilla leucantha sp. nov.

Frutex epiphyticus; ramulis valde compresso-tetragonis, quadrialatis (alis approximatis), nodis dense setosis; foliis oppositis similibus sessilibus, basi pulvino persistente reflexo circumdatis, lamina anguste elliptica, 18–40 cm. longa, 8–13.5 cm. lata, utrinque angustata, basi subcordata, apice acuminata, acumine 1 cm. longo, novella subtus in costa, nervis ac acumine minute furfuracea, cito glabrata, 9–13-plinervia, nervis supra manifestis subtus perspicuis; inflorescentiis terminalibus vel axillaribus paniculatis 6–12 cm. longis fere glabris, interdum parce furfuraceis, minute pustulatis; pedunculo communi 2–5 cm. longo, ramis 1–1.5 cm. longis, saepissime quaternis, in verticillos 3–5 dispositis; bracteis minutis; pedicellis $\pm$ 5 mm. longis; calycis tubo cupuliformi 3 mm. longo, limbo 2 mm. longo truncato; petalis 5 oblanceolatis, circiter 7 mm. longis; staminibus 10, antheris 3 mm. longis, antice appendices duas subulatas gerentibus, postice calcaratis, calcare uncinato gracili 1 mm. longo; fructibus subglobosis $\pm$ 6 mm. diametro.

NETHERLANDS NEW GUINEA: Bernhard Camp, Idenburg River, *Brass* 13770 (TYPE), April 1939, alt. 60 m., rain-forest (large epiphytic shrub with greenish white flowers and red fruit); 4 km. southwest of Bernhard Camp, Idenburg River, *Brass* 13288, March 1939, alt. 850 m., frequent epiphyte on low trees along river, and high on trees of forest (flowers translucent white); Dalman, 45 miles from Nabire, *Kanehira & Hatusima* 12261, March 1940, alt. 500 m., in *Agathis* forest (epiphyte 1 m. tall; flower white).

The leaves of *Medinilla leucantha* closely resemble those of *M. Teysmannii* Miq., according to the original description of the latter species, but the first may be readily distinguished by the much shorter inflorescence, the

considerably smaller white flowers, and the antious subulate appendages of the anthers.

G. Leaves petiolate.

***Medinilla albida* sp. nov.**

Frutex 1–2.5 m. altus; ramulis tetragonis vel subteretibus interdum angustissime alatis, novellis subplumuloso-pilosis cito glabratis, maturis cinereis, nodis dense setosis; foliis chartaceis oppositis in quoque pari aequalibus vel subaequalibus; petiolo 7–12 mm. longo, novello piloso cito glabrato, basi pulvino angusto persistente reflexo circumdato; lamina oblongo-lanceolata vel lanceolato-elliptica, 9–23 cm. longa, 4–9 cm. lata, basi late cuneata, apice breviter acuminata, acumine 0.5–1 cm. longo, supra minute furfuracea vel glabra, subtus minute furfuracea et nervis pilosa, 7-plinervia, nervis supra manifestis subtus perspicuis; inflorescentiis terminalibus $\pm$ 7.5 cm. longis, paniculatis, axi pedicellisque $\pm$ furfuraceis, nodis inferioribus setosis; bracteis minutis; pedicellis $\pm$ 4 mm. longis; calyce 3 mm. longo, tubo cyathiformi, limbo truncato; petalis 5, obovato-ellipticis, 7 mm. longis; staminibus 10, antheris 2.5 mm. longis, antice inappendiculatis, postice calcaratis, calcare leviter uncinato, 0.7 mm. longo; stylo 4.5 mm. longo; fructibus subglobosis $\pm$ 6 mm. diametro.

NETHERLANDS NEW GUINEA: 6 km. southwest of Bernhard Camp, Idenburg River, Brass 12944, 12993 (TYPE), February 1939, alt. 1200 m. and 1050 m., banks of rain-forest stream (shrub 1–2.5 m. high; flowers white; fruiting panicle wholly red).

The species suggests *Medinilla plumosa* Mansf., but the latter has definitely sessile leaves. Then again there is some resemblance between this and the description of *M. schraderbergensis* Mansf., but the pubescence of the latter is of simple hairs.

***Medinilla Mansfeldiana* sp. nov.**

Verisimiliter arbor parva; ramulis dense hirsuto-setosis; nodis longe barbatis; foliis ellipticis, 10–20 cm. longis, 4.5–10 cm. latis, utrinque paullo angustatis, basi obtusiusculis, apice breviter acuminatis, 5-nerviis vel subquintuplinerviis, supra glabris, subtus praecipue costa nervisque parce setosis, venis obscuris; petiolo 1–1.5 cm. longo, parce setoso; inflorescentiis e nodis ramorum vetustiorum orientibus, paniculatis, $\pm$ 6 cm. longis; pedunculo 5 mm. longo, axi et ramulis consperse hirsutis, nodis barbellatis; bracteis 1–1.5 cm. longis, oblanceolato-ellipticis, subtus parce hirsutis; pedicellis brevibus, 2–5 mm. longis, dense setulosis; calyce cyathiformi, 4–5 mm. longo, longe setuloso; petalis non visis; staminibus 10, filamentis 3.5 mm. longis, antheris 4 mm. longis postice vix calcaratis breviter obtusis, antice breviter biauriculatis; stylo 9 mm. longo; fructibus subglobosis.

NORTHEASTERN NEW GUINEA: Goridjoa, Schlechter 19744 (TYPE), June 1909, alt. 1200 m., mountain woods.

The species apparently is closely related to *Medinilla sogeriensis* Bak. f. and *M. Schlechteri* Mansf. It may be distinguished from the first by the larger inflorescence on the older branches, and from the second by the petiolate 5-nerved leaves. *M. Schlechteri* Mansf. has 7–9-plinerved leaves.

***Medinilla Markgrafii* sp. nov.**

Medinilla Brassii Markgr. Brittonia 2: 142. 1936, quoad Brass 5114, excl. spec. typ.

Frutex interdum scandens 1–2 m. altus; ramulis cinereis vel fusciscenti-

bus obtuse angulatis vel novellis valde compressis glabris nodosis, nodis setosis; foliis subcoriaceis glabris oppositis ellipticis vel oblongo-ellipticis, 12–22 cm. longis, 4–10 cm. latis, basi cuneatis vel obtuse cuneatis, apice breviter acuminatis vel acutis, 5–7-plinerviis, venis subtransversis supra interdum manifestis subtus obscuris; petiolo $\pm$ 1.5 cm. longo, basi pulvino angusto persistente reflexo circumdato; stipulis interpetiolaribus setas ad nodos tegentibus; inflorescentiis paniculatis $\pm$ 10 cm. longis, axillaribus vel terminalibus, bracteatis, ad nodos $\pm$ setulosis; bracteis inferioribus $\pm$ 1.5 cm. longis sursum minoribus, subtus apicem versus interdum $\pm$ pubescentibus vel glabris, rubescentibus; pedicellis rubescentibus; floribus tetrameris; calyce 2.5–3 mm. longo, novello consperse crispe pilosulo, maturo glabro vel subfurfuraceo, truncato; petalis $\pm$ 5 mm. longis, albis; staminibus 8, antheris lineari-oblongis, 2.5–3 mm. longis, apice paullo angustatis, postice calcaratis, calcare brevi obtuso non recurvo; stylo glabro; fructibus globosis $\pm$ 5 mm. diametro.

BRITISH NEW GUINEA: Mount Tafa, *Brass* 4018 (TYPE in herb. New York Bot. Gard., isotype in herb. A. A.), May 1933, alt. 2310 m., common on edge of rest house clearing (weak scandent shrub 1–2 m. tall; upper side of leaves iridescent green, the lower side pale; flowers white; pedicels reddish, unripe fruit dark green); same locality, *Brass* 5114, September 1933, alt. 2400 m., in a landslip shrubbery, rare (shrub 1 m. high; peduncle red; petals white; fruit green).

These two collections belong to a single species, which, according to Mansfeld's key for *Medinilla*, falls near *M. warica* Mansf., and, according to that of Baker f., near *M. rubiginosa* Cogn. However, *M. Markgrafi* differs from both of these in pubescence, but we cannot suggest a closer affinity at present. *Brass* 5114 appears to have been used largely in the description of *M. Brassii* Markgr.; unfortunately it is not conspecific with the type designated for that species.

Medinilla rubiginosa Cogn. Monog. Phan. **7**: 598. 1891; Mansf. Bot. Jahrb. **60**: 128. 1925.

NETHERLANDS NEW GUINEA: 9 km. northeast of Lake Habbema, *Brass* 10786, 10870, October 1938, alt. 2750 m. and 2650 m., common in moist open spots of forest undergrowth (tree 2.5–3 m. high; panicle red; flowers white); Bele River, 18 km. northeast of Lake Habbema, *Brass* 11535, November 1938, alt. 2200 m., abundant in brushy second growths (shrub or tree 2–4 m. high; panicles red; flowers white; fruit green); Angi, Arfak Mountains, *Kanehira & Hatusima* 13609, 13767, 13926, April 1940, alt. 1900 m.

Previously known only from the type-collection.

A. Leaves opposite; each pair dimorphic (exceedingly unequal in size and unlike in shape), except in M. tulagiensis; inflorescence with both bracts and bracteoles.

The remaining species of *Medinilla* in this treatment are all from the Solomon Islands; as stated in our introduction, they belong to a section with a geographic range from the Philippines to western Polynesia. No representatives of this section have thus far been reported from New Guinea.

KEY TO THE SOLOMON ISLANDS SPECIES WITH BRACTEOLATE FLOWERS

Inflorescence open, usually racemose; calyx-limb truncate.

Leaves of each pair somewhat unequal in size, otherwise similar. *M. tulagiensis*.

Leaves of each pair exceedingly unequal in size, the smaller usually ovate or ovate-orbicular and sessile or subsessile.

Larger leaf of each pair sessile or subsessile.

Branchlets and inflorescence glabrous; larger leaf of each pair $\pm$ 25 cm. long....
.....*M. Kajewskii*.

Branchlets and inflorescence pilose; larger leaf of each pair 6.5–13 cm. long....
.....*M. luraluensis*.

Larger leaf of each pair obviously petiolate.

Plant apparently glabrous; inflorescence 10–17 cm. long.....*M. anisophylla*.

At least the nodes and the calyces pubescent; inflorescence smaller, up to 10 cm. long.

Floral bracteoles large, 1.5–2.3 cm. long.

Bracteoles pink; leaves with a long narrow acumens, almost glabrous beneath when mature.....*M. calliantha*.

Bracteoles dirty cream-color or greenish white; leaves short-acuminate, pubescence $\pm$ persisting on the lower surface.

Leaves elliptic or lance-elliptic, rounded at base; floral bracteoles 1.5 cm. long.*M. pubiflora*.

Leaves ovate-elliptic, cordate at base; floral bracteoles 2–2.3 cm. long....
.....*M. vagans*.

Floral bracteoles small, 5–6 mm. long.

Larger leaf of each pair lanceolate; inflorescence 1.5 cm. long; plant very sparsely pubescent.....*M. lancifolia*.

Larger leaf of each pair lance-elliptic; inflorescence $\pm$ 10 cm. long; branchlets, lower surface of leaves, and inflorescence obviously pubescent....
.....*M. rubescens*.

Inflorescence capitate (very compact); calyx-limb 4-lobed.

Larger leaf of each pair petiolate; flowers large, the calyx 1.5 cm. long.....
.....*M. cephalantha*.

Larger leaf of each pair sessile or subsessile; flowers smaller, the calyx 7 mm. long....
.....*M. sessilis*.

***Medinilla tulagiensis* sp. nov.**

Frutex scandens; ramulis novellis brunnescentibus barbellato-pilosis, vetustioribus cinereis glabris; nodis barbellatis demum glabris; foliis chartaceis ellipticis in quoque pari paullo disparibus: majoribus 12–14 cm. longis, 5–6 cm. latis, basi rotundatis, apice acutis, glabris vel novellis subtus consperse pilosis, quintuplinerviis, venis utrinque interdum manifestis; petiolo 2–2.5 cm. longo; foliis minoribus 3.5–8 cm. longis, 2.5–3.7 cm. latis, petiolo 0.5–1.5 cm. longo, caeterum ut majoribus; inflorescentiis axillaribus racemosis solitariis vel interdum duobus in axillis, $\pm$ 13 cm. longis; axi pedicellisque novellis subplumuloso-pilosulis deinde glabris; bracteis oblanceolatis, $\pm$ 1 cm. longis; pedicellis $\pm$ 1 cm. longis; bracteolis 1–1.3 cm. longis, ellipticis, basi elongato-cuneatis, parce pubescentibus; floribus 4-meris; calyce 4 mm. longo, minute subplumuloso-piloso, limbo minute 4-dentato; petalis in alabastro 5 mm. longis; staminibus 8, antheris 4 mm. longis, postice calcaratis antice inappendiculatis; ovario 4-loculato; fructibus subglobosis $\pm$ 7 mm. diametro.

SOLOMON ISLANDS: Tulagi: Brass 3521 (TYPE), January 1933, alt. 50 m., rain-forests, common (showy climber with pale rather fleshy leaves; bracteoles white; petals pink; fruit white).

***Medinilla Kajewskii* sp. nov.**

Frutex scandens; ramulis teretibus glabris nodis barbellatis demum glabris; foliis sessilibus vel subsessilibus glabris chartaceis valde disparibus: majoribus ellipticis, $\pm$ 25 cm. longis, 11–12 cm. latis, utrinque paullo

angustatis, basi rotundatis vel subcordatis, apice acutis vel breviter acuminatis, subseptuplinerviis, venis subtransversis supra inconspicuis subtus manifestis; minoribus late orbicularibus $\pm$ 4 cm. longis et 5 cm. latis, apice rotundatis, mucronatis, quintuplinerviis; inflorescentiis axillaribus brevibus; bracteis obovatis obtusis, 6 mm. longis, 5 mm. latis; pedicellis $\pm$ 1 cm. longis; bracteolis ut bracteis; fructibus subglobosis, 7 mm. diametro; seminibus semiconicis, complanatis, apice rotundatis, vix 1 mm. longis, 0.6–0.8 mm. latis.

SOLOMON ISLANDS: Bougainville: Kupei Gold Field, *Kajewski 1633* (TYPE), April 1930, alt. 900 m. (common climber ascending 4 m.; bracts white; pedicels and petals purple).

This species is readily recognizable by its strongly unequal and sessile leaves, its short open inflorescence, and its rather large somewhat hood-shaped seeds.

***Medinilla luraluensis* sp. nov.**

Frutex scandens; ramulis teretibus nodosis glabris, novellis pilosis, pilis crassis subplumulosis, nodis novellis barbellatis demum glabris; foliis subcoriaceis valde disparibus: majoribus subsessilibus vel breviter petiolatis (petiolo 3–5 mm. longo), 6.5–13 cm. longis, 2.5–6 cm. latis, basi cordatis paullo inaequalibus, apice acutis vel breviter acuminatis, supra glabris, subtus basim versus costa pubescentibus, quintuplinerviis; minoribus sessilibus subrotundatis vel ovatis, $\pm$ 2 cm. longis et 2.5 cm. latis, cordatis, obtusiusculis, supra glabris subtus nervis $\pm$ pilosis; inflorescentiis axillaribus $\pm$ 10 cm. longis; axi pedicellisque parce pilosulis; bracteis ovato-orbicularibus basi breviter cuneatis, 8 mm. longis, 6 mm. latis, subtus consperse pilosulis; pedicellis 1–1.3 cm. longis; bracteolis ut bracteis; calyce in alabastro pilosulo, 2.5 mm. longo; petalis 3.5 mm. longis; staminibus 8, antheris postice calcaratis; ovario 4-loculato; fructibus subglobosis 5 mm. diametro.

SOLOMON ISLANDS: Bougainville: Lake Luralu, *Kajewski 2061* (TYPE), August 1930, alt. 1500 m., rain-forest, common (climbing shrub or vine; leaves with purple veins on lower surface; bracts showy pink; fruit white with minute teeth on calyx-tube).

The bracts and bracteoles of this species are smaller than in most of the group of species with dimorphic leaves.

***Medinilla anisophylla* sp. nov.**

Frutex scandens glaber; ramulis cinerascentibus teretibus nodosis; foliis chartaceis, valde disparibus: majoribus 12–16 cm. longis, 4.5–8.5 cm. latis, basi emarginatis vel rotundatis, apice acuminatis, acumine $\pm$ 1.5 cm. longo, quintuplinerviis vel subseptuplinerviis, venis vix manifestis; petiolo 2–3.5 cm. longo; minoribus ovatis, $\pm$ 2 cm. longis latisque, basi subcordatis, apice acutis, subsessilibus vel brevissime petiolatis; inflorescentiis axillaribus racemosis, 10–17 cm. longis, bracteis $\pm$ 1 cm. longis, lanceolatis; pedicellis $\pm$ 1 cm. longis; bracteolis obovato-orbicularibus circiter 1.5 cm. diametro; calycis limbo 4-denticulato; antheris (tantum uno viso) 3.5 mm. longo, postice crasse calcaratis, antice biappendiculatis; fructibus 5–7 mm. diametro.

SOLOMON ISLANDS: San Cristobal: Puepue River, *Brass 2793* (TYPE), September 1932, alt. 50 m., riverine rain-forest, common (profusely flowering loosely

branched shrub, scandent; leaves fleshy, pale green; each flower between two large fleshy greenish white persistent bracts; corolla pink; filaments purple and red).

***Medinilla calliantha* sp. nov.**

Frutex scandens; ramulis novellis dense et grosse patenti-pilosis, pilis basi sub lente subplumulosus, cito glabratis teretibus nodosis, nodis dense setulosus; foliis valde disparibus: majoribus chartaceis ellipticis, 13–20 cm. longis, 6.5–12 cm. latis, basi rotundatis vel obtusis, apice obtusis deinde abrupte acuminatis, acumine 1.5–2 cm. longo sublineari, novellis dense patenti-pilosis cito glabratis, maturis utrinque glabris vel subtus costa nervisque parce pilosis, 5–7-plinerviis; petiolo $\pm$ 1 cm. longo, glabrato; minoribus ovatis, 4.5 cm. longis, 3 cm. latis, sessilibus caeterum ut majoribus; inflorescentiis racemosis paucifloris verisimiliter terminalibus vel axillaribus, 5–7 cm. longis; bracteis 7 mm. longis, 4 mm. latis, oblongo-spathulatis, roseis; axi pedicellisque dense et grosse patenti-pilosis; pedicellis circiter 1 cm. longis, floribus 4-meris decussatim oppositis; bracteolis ovato-orbicularibus, circiter 2 cm. longis latisque, basi rotundatis, apice obtusiusculis, utrinque consperse subplumuloso-pubescentibus vel interdum conspersissime pilosis; calyce cyathiformi, $\pm$ 5 mm. longo, dense piloso; petalis 1 cm. longis, 6 mm. latis, ellipticis; antheris 6 mm. longis, postice 1.5 mm. calcaratis, antice minute biappendiculatis; stylo $\pm$ 8 mm. longo, apice angustato; stigmate minuto.

SOLOMON ISLANDS: Y s a b e l: Tiratona, *Brass* 3220 (TYPE), 3328, 3540, November and December 1932, alt. 600 m., mountain forests, common (large stiffly branched climber; bark corky, furrowed, thick; young parts covered with brown hairs; fruit in 3220 yellow, in 3328 white).

***Medinilla calliantha* var. *bella* var. nov.**

A forma typica differt ramulis novellis parce subplumuloso-pilosulis; foliis glabris; inflorescentiis $\pm$ pilosulis.

SOLOMON ISLANDS: B o u g a i n v i l l e: Without field label, *Kajewski* 1746A; G u a d a l c a n a l: Uulolo, Tutuve Mountain, *Kajewski* 2504 (TYPE of var.), April 1933, alt. 1200 m., rain-forest, common (climbing shrub, very showy; veins of leaves pink; flowers pink).

This variety closely resembles the species but is much more nearly glabrous, with slightly smaller flowers and fruit; the leaves tend to be narrower, the innermost pair of nerves arising from the midrib 2.5 cm. above the base, whereas in *M. calliantha* they are not more than 2 cm. above the base.

***Medinilla pubiflora* sp. nov.**

Frutex scandens; ramulis teretibus nodosis cinereis, novellis brunneis dense piloso-hirsutis, pilis sub lente subplumulosus, deinde glabratis; foliis valde disparibus: majoribus chartaceis ellipticis vel lanceolato-ellipticis, 14–17(–27) cm. longis, 7.5(–12.5) cm. latis, basi rotundatis interdum leviter inaequalibus, apice acutis vel breviter acuminatis, supra conspersissime subtus (costa nervisque $\pm$ dense) brunneo-pilosis, 5–7-plinerviis, nervis supra manifestis, subtus prominulis, venis subtus manifeste clathratis; petiolo 1–1.5 cm. longo, dense piloso; minoribus sessilibus vel subsessilibus late ovato-orbicularibus, 2.5(–4) cm. longis, 2.5(–3) cm. latis, 5-nerviis, basi cordatis, apice obtusis apiculatis; inflorescentiis axillaribus, racemosis, $\pm$ 4 cm. longis; axi dense, bracteis et bracteolis utrinque pilosis; bracteis vix 1 cm. longis, cuneatis interdum foliiformibus; pedi-

cellis 4 mm. longis; bracteolis ovatis, 1.5 cm. longis latisque; floribus tantum in alabastro visis; calyce 5 mm. longo, dense piloso, tubo cyathiformi, limbo truncato; petalis 4; staminibus 8, antheris postice longiuscule crasse calcaratis, antice non visis.

SOLOMON ISLANDS: Bougainville: Koniguru, Buin, *Kajewski 2153* (TYPE), August 1930, alt. 900 m., rain-forest, common (vine or semi-scandent shrub; flowers dirty cream-color, covered with fine hairs); Kugumaru, Buin, *Kajewski 1958*, July 1930, alt. 150 m., rain-forest, common (scandent shrub; bracts dirty cream-color; petals light purple); Kieta, *Kajewski 1564*, March 1930, alt. 100 m., in gullies in rain-forest, common (shrub up to 2 m. high; bracts white, covered with brown hair, giving them a dirty appearance; petals pink-blue; anthers dark blue).

In general habit, *Medinilla pubiflora* calls to mind *M. vagans*, but the pubescence is more evenly distributed and denser, the base of the leaf is rounded rather than cordate, the inflorescence is shorter, and the bracteoles are smaller than in the latter species.

***Medinilla vagans* sp. nov.**

Frutex vagans; ramulis teretibus, novellis obtuse angulatis sulcatis, parce patentipilosis, cito glabris, nodis barbatis; foliis valde disparibus: majoribus ovato-ellipticis usque 11 cm. longis, 5.5–8 cm. latis, basi cordatis, apice abrupte breviter acuminatis, acumine 5–10 mm. longo, supra glabris vel basim versus costa nervisque $\pm$ pilosis vel stellato-pubescentibus, subtus praecipue costa nervisque pilosis, 7-plinerviis, nervis prominulis, venis distincte subclathratis; petiolo $\pm$ 2 cm. longo, subtus glabrato supra patentipiloso; minoribus 3 cm. longis, 2.5 cm. latis, subsessilibus vel breviter petiolatis, caeterum ut majoribus; inflorescentiis cymosis axillaribus, circiter 5 cm. longis, paucifloris (verisimiliter 2), pedunculo ad 1 cm. supra basim bibracteato, bracteis caeterum 4 basi pedicellorum, subovato-orbicularibus, $\pm$ 7 mm. longis latisque basi interdum anguste cuneatis, utrinque pilosis vel subplumuloso-pubescentibus; bracteolis ovato-ellipticis, 2–2.3 cm. longis, 1–1.5 cm. latis, utrinque pilosis et subplumuloso-pubescentibus; calyce circiter 5 mm. longo, campanulato, dense subplumuloso-piloso; petalis 4, subobovatis, 10 mm. longis, 7 mm. latis, apice emarginatis; staminibus 9 (in duobus floribus dissectis), antheris (in alabastro) 4 mm. longis, postice obtuse breviter calcaratis, calcare verruculoso, crasso, antice biauriculatis; stylo 5 mm. longo.

SOLOMON ISLANDS: Ysabel: Tataba, *Brass 3438* (TYPE), January 1933, alt. 50 m., amongst regrowth trees on a rain-forest clearing (large rambling shrub; leaves dull; bracteoles white; petals and filaments pale pink; anthers blue; fruit greenish white; a very showy plant, with brown indument).

This species is fairly easy to recognize by the ovate-elliptic cordate leaves in unequal pairs and the pubescent cymose (subracemose) inflorescence with rather large white bracts.

***Medinilla lancifolia* sp. nov.**

Frutex scandens; ramulis subteretibus cinereis nodosis glabris, nodis minute stellato-pubescentibus deinde glabris; foliis valde disparibus: majoribus chartaceis lanceolatis, 4–9 cm. longis, 1–3 cm. latis, utrinque angustatis, basi cuneatis, apice obtuse acuminatis, novellis consperse stellato-pubescentibus cito glabris, vel consperse minute papillatis, triplinerviis vel interdum subquintuplinerviis; petiolo usque 5 mm. longo glabro; minoribus sessilibus ovatis usque 1.7 cm. longis, 1 cm. latis; inflorescentiis

axillaribus, $\pm$ 1.5 cm. longis, racemosis, novellis consperse stellato-pubescentibus; bracteis albido-viridescentibus, usque 6 mm. longis et 3 mm. latis, subcuneiformibus, consperse minute pubescentibus; pedicellis 2 mm. longis; bracteolis ut bracteis; calyce minute pubescente, tubo cyathiformi, $\pm$ 3 mm. longo, limbo vix 2 mm. longo; petalis 4, obovatis, 6 mm. longis, apice abrupte acutis; staminibus 8, antheris 4 mm. longis; stylo $\pm$ 7 mm. longo, apice angustato; stigmatibus minutis.

SOLOMON ISLANDS: Bougainville: Kupei Gold Field, *Kajewski 1699* (TYPE), April 1930, alt. 950 m., growing from crevices in tall rain-forest trees (petals mauve; anthers blue; bracts cream-green).

In the short bracteate inflorescence the species somewhat suggests *Medinilla involucrata* Merr., but it is amply distinct from that species in the size and venation of the leaves as well as in the lack of pubescence.

***Medinilla rubescens* sp. nov.**

Frutex scandens; ramulis novellis dense subplumoso-pilosis deinde glabris nodosis; foliis valde disparibus: majoribus chartaceis lanceolato-ellipticis, 9–14 cm. longis, 3.5–6 cm. latis, basi rotundatis vel emarginatis, apice acutis vel breviter acuminatis, supra costa nervisque praecipue ad basim pilosis, subtus (costa nervisque dense) ferrugineo-pilosis, 5–7-plinerviis, nervis prominulis, venis $\pm$ distinctis; petiolo circiter 2 cm. longo, dense pilosulo; minoribus sessilibus vel breviter petiolatis (petiolis 2–3 mm. longis), ovatis, 1.5–3 cm. longis, 1–2 cm. latis, 5-plinerviis caeterum ut majoribus; inflorescentiis axillaribus, paniculatis vel cymosis, 5–10 cm. longis, ramis paucis racemiformibus; axi pedicellisque pilosis vel pubescentibus; nodis bracteatis; bracteis oblanceolatis basi cuneatis, 5 mm. longis, 2 mm. latis, glabris; bracteolis late ovatis obtusis, circiter 5 mm. longis et 4 mm. latis, stellato-pubescentibus; calyce 2 mm. longo, cyathiformi, dense pubescente; petalis 4, ellipticis, obtusis, 4–5 mm. longis; staminibus 8, antheris 3 mm. longis, antice biauriculatis, postice breviter calcaratis, calcare crasso verruculoso; fructibus subglobosis, $\pm$ 5 mm. longis.

SOLOMON ISLANDS: Guadalcanal: Uulolo, Tutuve Mountain, *Kajewski 2514* (TYPE), April 1931, alt. 1200 m., rain-forest, common (scandent shrub; flowers and bracts pink; small green fruit 6 mm. diameter).

***Medinilla cephalantha* sp. nov.**

Frutex scandens; ramulis teretibus, novellis dense hirsutis cito glabris, brunneis deinde cinereis nodosis, nodis setosis; foliis valde disparibus: majoribus chartaceis ellipticis vel late ellipticis usque 25 cm. longis et 15 cm. latis, basi rotundatis vel obtusis, apice obtusis subinde abrupte acuminatis, novellis dense hirsutis, maturis glabris, 7-plinerviis, nervis saepe ad 1–2 cm. inter se distantibus, utrinque perspicuis, venis oblique transversis manifestis; petiolo 1.5–2.5 cm. longo, hirsuto; minoribus sessilibus vel subsessilibus, ovato-orbicularibus, 3 cm. longis, 2.5 cm. latis, basi cordatis, apice rotundatis subinde brevissime acuminatis; inflorescentiis sessilibus e ramulis vetustis defoliatis orientibus vel interdum axillaribus, capitatis, interdum oppositis, 2.5–6.5 cm. longis, dense multifloris; floribus subsessilibus vel breviter pedicellatis, pedicello $\pm$ 4 mm. longo, hirsuto; bracteis ut bracteolis, 1.5–1.7 cm. longis, late lanceolatis vel ellipticis, apice obtusis, basi sensim anguste cuneatis, subtus hirsutis; calyce 1.5 cm. longo, dense hirsuto, limbo 4-lobato vel 4-fido, intus piloso, lobis rotundatis retusis,

petalis in alabastro tantum visis glabris; staminibus 8 aequalibus, antheris sub anthesi 6 mm. longis apice poro aperientibus, postice obtuse inconspicue calcaratis (calcare 0.5 mm. longo, crasso), antice biauriculato, auriculis minute verruculosus; stylo $\pm$ 1.5 cm. longo.

SOLOMON ISLANDS: Ysa bel: Kakatio, *Brass* 3255 (TYPE), December 1932, alt. 900 m., common in rain-forests (large scandent shrub; bracteoles pink; flowers white); Guadalcanal: Sorvorhio Basin, *Kajewski* 2705, January 1932, alt. 300 m., in wet gullies of rain-forest, common (small tree or large shrub; inflorescence pink); San Cristobal: Hinuahaoro, *Brass* 3022, September 1932, alt. 900 m., mountain rain-forests, common (scandent shrub with long drooping branches; flower pink).

On account of the variability within the genus *Medinilla* Gaudichaud, we are now inclined to believe that the Philippine *Cephalomedinilla* Merr. is probably best considered as a section of *Medinilla*. This species and *M. sessilis* from the Solomon Islands clearly belong to the same section, but both may be readily distinguished from the Philippine species by the stronger dimorphism of the pairs of opposite leaves, the smaller of these being ovate-orbicular rather than similar in shape to the larger ones.

***Medinilla sessilis* sp. nov.**

Frutex scandens; ramulis teretibus $\pm$ hirsutis cito glabratis, nodis dense barbatis; foliis valde disparibus, sessilibus vel subsessilibus, basi pulvino persistente reflexo circumdatis; majoribus ellipticis utrinque angustatis, basi subcordatis, apice acuminatis, acumine $\pm$ 1 cm. longo, supra glabris, subtus costa nervisque (novellis dense) consperse pilosis, 5–7-plinerviis, nervis inter se $\pm$ 1 cm. distantibus, venis clathratis subtus prominulis; minoribus suborbicularibus vel ovato-orbicularibus fere semiamplexicaulibus, 1–1.5 cm. longis, circiter 2 cm. latis; inflorescentiis capitatis, $\pm$ 2 cm. diametro, axillaribus sessilibus; floribus subsessilibus; bracteis ut bracteolis, $\pm$ 1 cm. longis, late orbicularibus, basi anguste cuneatis, apice retusis vel truncatis, utrinque parce hirsutis; calyce 7 mm. longo, hirsuto, tubo obconico, limbo 3–4 mm. longo, 4-lobato, intus hirtello; petalis 4; staminibus 8, antheris postice calcaratis, antice verisimiliter appendiculatis (staminibus immaturis, appendicibus non visis); ovario apice piloso.

SOLOMON ISLANDS: Bougainville: Koniguru, Buin, *Kajewski* 2023 (TYPE), August 1930, alt. 850 m., rain-forest, common (scandent; bracts purple).

This species is readily distinguished from *Medinilla cephalantha* Merr. & Perry by the sessile or subsessile larger leaf of each pair; also, the reflexed narrow base surrounding the leaf-attachment is much more obvious here than in the other species.

***Astronia* Blume**

***Astronia papetaria* Bl. Rumphia 1: 20. t. 6. 1835, var. *novo-guineensis* var. nov.**

A forma typica differt foliis minoribus, 8–15 cm. longis, 1.5–4 cm. latis, in quoque pari vix aequalibus; petiolo 1.5–2 cm. longo ad ramuli insertionem non calloso-verrucoso; calycis lobis brevioribus, late triangularibus, acutiusculis.

NETHERLANDS NEW GUINEA: 4 km. southwest of Bernhard Camp, Idenburg River, *Brass* 13292, 13454 (TYPE of var.), Mar. 1939, alt. 900 m., frequent in *Agathis* forest undergrowth, and occasional in rain-forest of ridges (tree 3–4 m. high; leaves brown beneath; flowers pink); 2 km. southwest of Bernhard Camp, Idenburg River, *Brass* 13671, March 1939, alt. 750 m., common in rain-forest of slopes (tree 5–6 m. high; leaves brown underneath; flowers pink).

The collections cited above show a strong similarity to Blume's plate of *Astronia papetaria* from the Moluccas, but differ as indicated above.

Astronia atro-viridis Mansf. Bot. Jahrb. **60**: 131. 1925.

NETHERLANDS NEW GUINEA: 9 km. northeast of Lake Habbema, *Brass & Versteegh 10466*, October 1938, alt. 2750 m., frequent in primary forest; Bele River, 18 km. north-east of Lake Habbema, *Brass & Versteegh 11151*, November 1938, alt. 2300 m., frequent substage tree of primary forest; 15 km. southwest of Bernhard Camp, Idenburg River, *Brass & Versteegh 11919, 11937*, January 1939, alt. 1780 m. and 1630 m., occasional in mossy forest, frequent in rain-forest (tree 20–28 m. high with black scaly bark; flowers white; fruit yellow-green). BRITISH NEW GUINEA: Mount Tafa, *Brass 4953*.

In these collections the leaves vary greatly in size from those of the original material, in some cases being as small as 4×2 cm.; again, occasionally the leaves are almost densely lepidote, and only slightly, if at all, furfuraceous, but the characters are too inconstant to be of value. At the apex for a very short distance the margins are rolled to meet, causing the apex to appear almost like an appendage attached to the rest of the leaf by a constriction.

***Astronidium* A. Gray**

Astronidium nigrescens (Mansf.) Markgr. Notizbl. Bot. Gart. Berl. **12**: 48, 49. 1934.

Everettia nigrescens Mansf. Bot. Jahrb. **60**: 136. 1925.

NETHERLANDS NEW GUINEA: 15 km. southwest of Bernhard Camp, Idenburg River, *Brass 12091*, January 1939, alt. 1800 m., frequent in rather open rain-forest ravines (tree 4–5 m. high; inner surface of petals white, the outer surface pink; stamens and pistil white). Described from Northeastern New Guinea.

Astronidium novo-guineense sp. nov.

Arbor usque 10 m. alta; ramulis teretibus vel infra nodos subangulatis atro-cinereis glabris; foliis subcoriaceis ellipticis vel leviter obovato-ellipticis, basi obtusis vel cuneatis, apice brevissime et obtuse acuminatis vel acutiusculis, supra glabris, subtus praecipue nervis venisque minute furfuraceo-lepidotis, triplinerviis, nervis in laminae parte centrali 1.5–2 cm. a costa dispositis, supra insculptis, subtus perspicuis, venis clathratis, ± 7 mm. remotis, supra inconspicuis subtus prominulis, vena marginali 1–2 mm. intra marginem disposita, reticulo conferto; inflorescentiis terminalibus cymoso-paniculatis, ± 10 cm. longis latisque, glabris, pedicellis 6–7 mm. longis; calyce urceolato, tubo 2.5–3 mm. longo, limbo 1 mm. longo truncato; petalis 5, oblongis, 6 mm. longis; staminibus 10, in alabastro filamentis 4 mm. longis crassiusculis complanatis, antheris ± 5 mm. longis (in alabastro apice reflexis), postice calcaratis, calcare crasso, 1 mm. longo; stylo 5 mm. longo; ovario 4- vel 5-loculato.

NETHERLANDS NEW GUINEA: 18 km. southwest of Bernhard Camp, Idenburg River, *Brass 12695* (TYPE), February 1939, alt. 2150 m., mossy forest, common in gullies (up to 8–10 m. high; flower-buds white); 4 km. southwest of Bernhard Camp, Idenburg River, *Brass 13312*, March 1939, alt. 900 m., abundant in *Agathis* forest and more open parts of mossy forest (tree 6–7 m. high).

This species is very close to *Astronidium palauense* (Kaneh.) Markgr. (including *A. carolinense* (Kaneh.) Markgr., which, from a comparison of the isotypes, appears to be the same species). It differs in having an urceolate, not cupular, calyx, and a much closer reticulum in the leaves than is characteristic of the Micronesian material.

Astronidium insulare sp. nov.

Arbor usque 17 m. alta; ramulis teretibus, novellis inter nodos compressis leviter sulcatis et minute lepidotis; foliis oppositis ellipticis, 9–16 cm. longis, 4.5–7.5 cm. latis, basi obtusis subinde cuneatis $\pm$ 5 mm. decurrentibus, apice acutis vel breviter acuminatis, apiculatis, supra glabris, subtus minute lepidotis, triplinerviis, nervis in laminae parte centrali 2–2.5 cm. a costa dispositis, supra distinctis, subtus prominulis, venis clathratis $\pm$ 1 cm. remotis, supra manifestis subtus prominulis, venulis inconspicuis; petiolo 2–2.5 cm. longo; inflorescentiis immaturis 5 cm. longis, terminalibus, dense lepidotis; pedicellis 2 cm. longis; calyce 4 mm. longo obpyriformi, apice 5-lobato, lobis 0.4 mm. longis, $\pm$ 1.5 mm. latis, mucronulatis; ovario 5-loculato.

SOLOMON ISLANDS: Bougainville: Koniguru, Buin, *Kajewski 1999* (TYPE), August 1930, alt. 800 m., rain-forest, common (small tree up to 17 m. high; buds green).

The species is perhaps most like the description of **Astronidium novae-hannoverae** (Engl.) comb. nov. (*Astronia novae-hannoverae* Engl. Bot. Jahrb. 7: 468. 1886), from the Bismarck Archipelago. However, the calyx of the flower-buds, although still not approaching anthesis, appears to be about twice as large as that described for the latter species. We have not found any reference to Engler's species either in Mansfeld's "Die Melastomataceen von Papuasien," Bot. Jahrb. l.c., or in Markgraf's "Die Gattung *Astronidium* A. Gray," Notizbl. Bot. Gart. Berl. 12: 47–50. 1934.

Astronidium montanum sp. nov.

Arbor usque 7–8 m. alta; ramulis tetragonis vix alatis, minute lepidotis; foliis tenuiter chartaceis, 10–15 cm. longis, 3.5–6 cm. latis, minute pellucidopunctatis, subtus minute papillatis parce minute lepidotis, basi cuneatis, apice obtuse acuminatis, trinerviis, nervis in laminae parte centrali 1–1.5 cm. a costa dispositis, venis marginalibus (2 vel 1) circiter 2–5 mm. intra marginem manifestis, venis clathratis $\pm$ 1 cm. remotis; petiolo 2–2.5 cm. longo, gracili; inflorescentiis terminalibus cymoso-paniculatis, $\pm$ 8 cm. longis latisque, glabris, ramis gracilibus; pedicellis circiter 7 mm. longis; bracteis non visis; calyce cyathiformi, 5–6 mm. longo, 5 mm. diametro, limbo subirregulariter 4-lobato, petalis 6, oblanceolato-oblongis, 12 mm. longis, apice obtusis; staminibus 12, filamentis complanatis, 9 mm. longis, antheris 7 mm. longis, linearibus, apice reflexis, postice calcaratis, calcare 1 mm. longo; stylo 10 mm. longo; ovario 5- vel 6-loculato.

SOLOMON ISLANDS: Guadalcanal: Uulolo, Tutuve Mountain, *Kajewski 2515* (TYPE), January 1931, alt. 1200 m., rain-forest, common (small tree 7–8 m. high; flowers light green).

In habit, *Astronidium montanum* suggests *A. victoriae* (Gillespie) A. C. Sm., of the Fiji Islands, but the leaves of the former are not rounded or obtuse at the base, and the flowers are about twice as large and lack the lepidote character of those of the Fijian species.

Astronidium muscosum sp. nov.

Arbuscula 3 m. alta; nodis perspicue setuloso-pilosis, internodiis, basi setuloso-pilosa excepta, glabris, valde compressis sulcatis; foliis coriaceis late ellipticis vel obovato-ellipticis, 18–29 cm. longis, 10–16 cm. latis, basi rotundatis vel obtusis, apice acutis vel breviter acuminatis, supra glabris

subtus nervis venisque pilosis deinde glabratis, quintunerviis vel quintuplinerviis (nervo marginali non incluso), nervis supra insculptis subtus perspicuis, venis oblique transversis subclathratis, supra manifestis subtus prominulis, venulis subtus distinctis; petiolo 4–7 cm. longo, basi (1 cm.) dense piloso caeterum glabrato; inflorescentiis paniculatis terminalibus, 10–12 cm. longis latisque, ramis oppositis $\pm$ crispe pilosis; floribus subsessilibus ad ramulorum hirtellorum apicem dense glomeratis bracteatis, bracteis caducis; calyce clavato, 5 mm. longo, tubo 3.5 mm. longo basim versus minute consperse setuloso, lobis 5 obtusiusculis; petalis 5 in alabastris $\frac{3}{4}$ connatis; staminibus 10, filamentis 3.5 mm. longis complanatis, antheris laesis postice calcaratis, calcare 1.2 mm. longo, obvio reflexo apice expanso; stylo 4 mm. longo.

SOLOMON ISLANDS: San Cristobal: Hinuahaoro, *Brass* 3035 (TYPE), September 1932, alt. 900 m., mountain rain-forest, rare (large shrub or small tree 3 m. high, with stiff ascending branches). Probably also belonging here is *Kajewski* 2507 from Uulolo, Tutuve Mountain, Guadalcanal. The specimen has almost glabrous leaves and flower-buds, and the receptacle is densely pilose around the base of the calyx.

In leaf-outline and in contour of the flower-buds, *Astronidium muscosum* suggests *A. Brassii* Markgr. of New Guinea, but the latter has chartaceous triplinerved leaves, a smaller and much more open inflorescence, and lacks the obviously coarsely hairy petiole-bases and nodes which are so characteristic of our species. The specific name is chosen to indicate the last mentioned character.

***Astronidium salomonense* sp. nov.**

Arbor usque 15 m. alta; ramulis novellis valde compressis tetragonis anguste alatis, minute lepidotis; foliis subcoriaceis ellipticis, 8–14 cm. longis, 3.5–7 cm. latis, basi cuneatis, apice abrupte breviter acuminatis, supra glabris vel utrinque minute lepidotis, triplinerviis, nervis in laminae parte centrali 1.5–2.5 a costa remotis, venis subtransversis clathratis utrinque manifestis; petiolo 1.5–2.5 cm. longo; inflorescentiis terminalibus, immaturis, 6–9 cm. longis, 10–14 cm. latis, subcorymboso-paniculatis; axi et ramulis valde compressis tetragonis; pedicellis circiter 1 cm. longis; alabastris tantum visis; calyce ovali, 9 mm. longo, 6–7 mm. diametro, apice irregulariter brevibus fissuris aperiente; petalis 6; staminibus 12; ovario 6-loculato.

SOLOMON ISLANDS: Bougainville: Kieta Gold Field, *Kajewski* 1703 (TYPE), April 1930, alt. 1000 m., rain-forest, common (small tree up to 15 m. high; flower-buds green).

The general habit of *Astronidium salomonense* is similar to that of *A. aneityense* (Guillaumin) A. C. Sm., of the New Hebrides, but the leaves of the former are more nearly coriaceous and opposite, the flower-buds are larger, and the branchlets are definitely tetragonous.

***Astronidium sessilifolium* sp. nov.**

Arbor usque 10 m. alta, glabra; ramulis novellis valde compressis, leviter sulcatis, parce minute lepidotis; foliis chartaceis sessilibus obovato-ellipticis, 15–25 cm. longis, 5–10 cm. latis, basim versus angustatis, apice obtusiusculis vel forsan acutiusculis, subtus minute granulosi, triplinerviis, nervis a costa supra basim 2.5–6 cm. ortis, in laminae parte centrali 3 cm. a costa

distantibus; venis ascendenti-patentibus, circiter 1 cm. remotis, subtus prominulis, nervo marginali 4–7 mm. intra marginem disposito; inflorescentiis terminalibus, circiter 15 cm. longis et 10 cm. latis; axi, ramis ramulisque subangulatis valde compressis, sulcatis; pedicellis 5–8 mm. longis; alabastris globosis, $\pm$ 6 mm. diametro, calyce apice vix aperto; fructibus 6- vel 7-loculatis, depresso-globosis, 4–5 mm. altis, 7–8 mm. diametro, apice calycis limbo recto (3 mm. longo) margine leviter 6-lobato coronatis; seminibus 0.8 mm. longis, lineari-angulato-clavatis.

SOLOMON ISLANDS: Bougainville: Siwai, *Waterhouse* 193 (ser. no. 22983) (TYPE), January 1933, shrub or small tree near water; Koniguru, Buin, *Kajewski* 2163, August 1930, alt. 900 m., rain-forest, common (small tree up to 10 m. high; the flower-buds have a disagreeable odor when crushed).

This species, in the shape of the leaves and the lack of a petiole, suggests the Fijian *Astronidium sessile* (A. C. Sm.) A. C. Sm., but the main nerves in the latter lie 0.8–1.5 cm. within the margin, whereas in the former they are almost half way between the midrib and the margin; the flowers too are smaller in the Solomon Islands material and the bracts of the young inflorescence are oblong rather than orbicular.

***Astronidium anomalum* sp. nov.**

Arbor parva 6–7 m. alta glabra; ramulis subteretibus brunneis; foliis tenuiter coriaceis lanceolato-ellipticis, 5–8 cm. longis, 1.8–3 cm. latis, utrinque angustatis, basi obtuse cuneatis, apice acutis vel breviter acuminatis, margine anguste recurvis, in sicco supra olivaceo-viridescentibus, subtus brunnescentibus, nervis primariis utrinsecus 11–14 late patentibus fere subtransversis, supra subobscuris, subtus manifestis, reticulo subtus vix manifesto, conferto, vena marginali 1–1.5 mm. intra marginem disposita; petiolo 0.8–1.7 cm. longo, gracili, supra canaliculato; inflorescentiis 4.5–7 cm. longis, 4–6 cm. latis, terminalibus cymoso-paniculatis, axi, ramis ramulisque valde compressis, subangulatis; pedicellis 1.5–2 mm. longis; floribus non visis; fructibus minute lepidotis vel glandulosis, depresso-globosis, 2.5 mm. longis, 3 mm. diametro, calycis limbo coronatis (limbo 5-lobato, 0.6–0.8 mm. longo), 3-loculatis; seminibus 0.8 mm. longis, apice 0.2–4 mm. latis, rectis vel leviter curvatis, cuneatis, apice truncatis vel suboblique truncatis, $\pm$ angulatis; placentis 3, circiter 1 mm. longis.

SOLOMON ISLANDS: Guadalcanal: Uulolo, Tutuve Mountain, *Kajewski* 2623 (TYPE), May 1931, alt. 1500 m., rain-forest (small tree up to 6–7 m. high, with gnarled and twisted habit; fruit cream-green, about $\frac{3}{4}$ mature).

Although the fruit is small, in structure it is like that of *Astronidium* A. Gray. The leaves, however, are not triplinerved, as one usually finds in this genus, but have only the midrib obvious; the lateral pinnately arranged nerves are easily seen on the lower surface but are not at all raised.

Memecylon Linnaeus

***Memecylon papuanum* sp. nov.**

Arbor parva circiter 9 m. alta, glabra; ramulis teretibus, novellis interdum inconspicue angulatis brunnescentibus; foliis coriaceis late ellipticis, 12–20 cm. longis, 5.7–11 cm. latis, basi cuneato-obtusis, apice abrupte acuminatis, costa supra impressa, subtus conspicua, venis primariis utrinque subobscuris vel vix manifestis, utrinsecus $\pm$ 12; petiolo circiter 5 mm.

longo, crasso; inflorescentiis axillaribus brevissimis, 5–7 mm. longis, bracteis 1–1.5 mm. longis, ovatis acutis; pedicellis 1 mm. longis; alabastris ovoideis, 4 mm. longis, vix 4 mm. latis; calyce obconico, 3 mm. longo, truncato; disco stamina circumdante costato; petalis 4 late ovatis, 2.5 mm. longis, 3 mm. latis, obtusiusculis; staminibus 8; fructibus pedicellatis, late globosis (5 mm. longis, 6 mm. diametro) calycis limbo (vix 1.5 mm. longo) coronatis.

NORTHEASTERN NEW GUINEA: Mountains near Yaduma, *Schlechter* 19291, April 1909, alt. 300 m. BRITISH NEW GUINEA: Ihu, Vailala River, *Brass* 977 (TYPE), February 1926, rain-forest (small slender tree 30 feet high, with thick pale leaves).

Memecylon papuanum seems to be most like the descriptions of the Javanese *M. excelsum* Bl. and *M. floribundum* Bl., but these have larger fruits, less dense inflorescence, and longer pediceled flowers.

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