

FLORAE MALESIANAE PRECURSORES XXVII  
SUPPLEMENTARY NOTES ON MALAYSIAN ERICACEAE  
(GAULTHERIA, COSTERA, DIPLYCOSIA)

by

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1. Remarks on and new records of the genus *Gaultheria* L. in Malaysia

*G. abbreviata* J. J. S. in Fedde, Rep. 35, 1934, 292; Sleum., Reinwardtia 4, 1957, 172.

SUMATRA. Tapanuli, Tele, S. of Sidikalang, *Alston 14878*. Westcoast, G. Singalang, 1900 m, *Meijer 5919*.

*G. acroleia* Sleum., Reinwardtia 4, 1957, 169.

SUMATRA. Atjeh, G. Losir, *Van Steenis 8592* (BO), 8646 (BO).

*G. kemiriensis* Sleum., Reinwardtia 4, 1957, 171.

SUMATRA. Atjeh, Gaju Alas Lands, near Pang-mog, 2200 m, *Fairchild 120* (BO).

*G. leucocarpa* Bl.

f. *cumingiana* (Vid.) Sleum., Reinwardtia 4, 1957, 179.

In my above-cited revision of the genus *Gaultheria* in Malaysia I have listed all Sumatran material of *G. leucocarpa* with glabrous inflorescences and no fruits, or with the colour of fruits not indicated, under f. *leucocarpa*, i. e. the form with white fruits known from Java. At the same time, however, I stated that part of these gatherings possibly belongs to f. *cumingiana*, which has blue-blackish fruits. Of the specimens cited *Lörzing 6629*, according to the original label I have seen but recently from the Bogor Herbarium, has dark fruits. De Voogd (Trop. Natuur 23, 1934, 82) says, that he never came across the form with white fruits in Southern Sumatra.

The only specimens of *G. leucocarpa* Bl. with white fruits known to me from Sumatra up to now are:

f. *leucocarpa*; Sleum., Reinwardtia 4, 1957, 178.

SUMATRA. Tapanuli, between Sidikalang and Pongkolan, 1200 m, *Alston 14800* (BM), with white fruits, 27-3-1954.

f. *scandens* Hochr., *Candollea* 2, 1925, 494; Sleum., *Reinwardtia* 4, 1957, 180.

SUMATRA. Atjeh, G. Peëut Sago, 2300 m, *Gall* 87 (BO, L), fr. white tinged pink, 22-6-1939.

*G. mundula* F. v. M., *Trans. R. Soc. Vict. n.s.* 1 (2), 1889, 21; Sleum., *Reinwardtia* 4, 1957, 173.

var. *mundula*.

NEW GUINEA. Western Highlands, Mt Hagen, 3350 m, *Robbins* 1045. Eastern Highlands, Mt Wilhelm, 3500—3560 m, *N. G. F.* 260 *Keogh*; *N. G. F.* 8921, 8937 *Womersley*; *Brass* 29801. Mt Michael, 3500—3560 m, *N. G. F.* 5983, 5987 *McGrath*; *Brass & Collins* 31278; *ibid.*, c. 3300 m, *N. G. F.* 11483 *Womersley*.

var. *tanythrix* (Sleum.) Sleum., *stat. nov.* — *G. tanythrix* Sleum., *Bot. Jahrb.* 72, 1942, 214; *Reinwardtia* 4, 1957, 173.

NEW GUINEA. Eastern Highlands, near Kerigomna camp, Goroka subdistr., 3000 m, *Hoogland & Pullen* 5542; Mt Wilhelm, near Lake Piunde, 3700 m, *Hoogland & Pullen* 5751.

Recently collected material of *G. mundula* in the Central Highlands shows such a variability in leaf shape and in the colour of the fruits — characters on which *G. tanythrix* was based as a separate species — that it seems more correct to consider *G. tanythrix* a mere variety of *G. mundula*. Correspondingly *G. tanythrix* var. *setifolia* is transferred to *G. mundula* as follows:

var. *setifolia* (Sleum.) Sleum., *comb. nov.* — *G. tanythrix* Sleum. var. *setifolia* Sleum., *Bot. Jahrb.* 72, 1942, 215; *Reinwardtia* 4, 1957, 173.

*G. novaguineensis* J. J. S., *Med. Rijksherb.* 25, 1915, 5; Sleum., *Reinwardtia* 4, 1957, 183.

var. *novaguineensis*.

NEW GUINEA. Central part, Star Mts, Mt Antares, 3200 m, *Kalkman* 4543.

var. *pascua* Sleum., *Reinwardtia* 4, 1957, 183.

NEW GUINEA. Southwestern part, Mt Carstensz, 'Dajakweide', 4000 m, *Dozy s.n.*

*G. nummularioides* D. Don, *Prodr. Fl. Nepal.* 1825, 150; Sleum., *Reinwardtia* 4, 1957, 172.

SUMATRA. Atjeh, G. Losir, *Van Steenis* 8595, 8610. Bur ni Telong, *Frey-Wyssling* 26; *Van Steenis* 6334. East coast, Sibolangit, *Lörzing* 6130.

JAVA. West Java, G. Papandayan, 2400 m, *Backer* 5522; *Van Steenis* 4085. G. Gedeh, *Backer* 3300, 31279; *Van Steenis* 1997, 10607. Ked u, G. Sumbing, 2100—3200 m, *Docters van Leeuwen* 8755; *Loogen s.n.*; *Lörzing s.n.* G. Sindoro, 3100 m, *Docters van Leeuwen* 8896. Dieng, 2200 m, *Brinkman* 263. Mal ang, G. Smeru, 2600 m, *Backer* 3728. G. Hijang, 2600—2800 m, *Backer* 9830. Besuki, Idjen, *Van Steenis* 12111.

BALI. G. Ajung, *Van Steenis* 7907.

*G. pullei* J. J. S., *Med. Rijksherb.* 25, 1915, 7; Sleum., *Reinwardtia* 4, 1957, 177.

var. *pullei*.

NEW GUINEA. Eastern Highlands, Mt Michael, 3350 m, *Brass & Collins* 31269; near Kelsugl, 2135 m, *N. G. F.* 8976 *Womersley*; Kerigomna, Goroka subdistr.,

3250 m, *Hoogland & Pullen 5561*. Morobe Distr., Kaindi (Wau), 2060 m, *Brass 29531*.

*G. viridiflora* Sleum., *Reinwardtia* 4, 1957, 176.

CELEBES. Central part, Rantemario, 3300 m, *Eyma 717*; Pintealón-Pokapindjang-Tinábang, *Eyma 601*.

*G. pernettyoides* Sleum., *Reinwardtia* 4, 1957, 184.

SUMATRA. Atjeh, Mt Losir, *Van Steenis 8637* (BO, fr.), *8648* (BO, isotype).

## 2. A new species and new records of the genus *Costera* J. J. S.

*C. loheri* (Merr.) Airy Shaw & J. J. S., *Bull. Jard. Bot. Btzig III*, 13, 1935, 421.

PHILIPPINES. Panay, Prov. Ilo-Ilo, Miagao, *Vidal 3146* (L, MA).

*C. sumatrana* J. J. S., *Bull. Jard. Bot. Btzig III*, 13, 1935, 421.

SUMATRA. West coast, between Kaju Arau and Bt. Sipatai, c. 1000 m, *Van Borssum Waalkes 2879* ('*Pleyte 130*': BO, K, L), on tree, fl. red, fr. white. Benkulen, Lebong, Pasir Lebar, on stony mud-flow, c. 1000 m, *De Voogd 1124* (BO, L), fl. white, fr. light green, rather common.

*C. lanaensis* (Merr.) Airy Shaw & J. J. S., *Bull. Jard. Bot. Btzig III*, 13, 1935, 421.

MOLUCCAS. Morotai, G. Pare ?, 1000 m, *Kostermans 1171* (BO, L), fr. green.

*C. cyclophylla* (Airy Shaw) J. J. S. & Airy Shaw in Airy Shaw, *Hook. Ic.* 1935, t. 3281.

BORNEO. Brunei, Bt. Pagon ridge, c. 1460 m, *Ashton BRUN 1056*, in mossy forest, fr. 3-1958. Sarawak, Merurong plateau, 730 m, *Brunig S 8884*; *ibid.*, Batu Eklap, 915 m, *Brunig s.n.*

*C. borneensis* J. J. S., *Bull. Jard. Bot. Btzig III*, 13, 1935, 423, f. 1.

BORNEO. Karimata Isl., P. Maja (Madjang), *Teysmann H. B. 6974* (BO, published as syntype of *C. ovalifolia* J. J. S., *Ic. Bog.* 4, 1910, 78).

*C. endertii* J. J. S., *Bull. Jard. Bot. Btzig III*, 13, 1935, 420.

BORNEO. Eastern part, W. Kutei, Mt Palimasan near Tabang on Belajan R., 300-500 m, *Kostermans 13014, 13141*, in *Agathis* forest on waterlogged, sandy, acid soil, fl. white or pink, fr. white.

*C. ovalifolia* J. J. S., *Ic. Bog.* 4, 1910, 77, t. 324.

BORNEO. Sarawak, Kuching, 9-1865, *Beccari P. B. 662* (FI). Melinau Terraces, 180 m, *Brunig s.n.* Bako Nat. Park, 120 m, *Brunig S 9922*. West Borneo, Mandor, 50 m, *Dunselman 86* (BO, L); G. Klam, *Hallier 2307* (BO, L). East Borneo, Tarakan, oilfield Sesani, *Meijer 2501* (BO). Brunei, Sg. Lumut, *Sinclair c.s. 10427*, fr.

The specimen from the Melinau Terraces is the first ever collected with flowers since the type specimen (from the Karimata Arch.) was described, all other materials being sterile or in fruit; its corollas are 5-6 mm long and contain constantly 10 stamens, whilst the original plant was described with 3.5 mm long corollas and 5 stamens. The leaves of the type specimen (pre-

served at Leyden, the only flower lost) and those of the material enumerated here are similar to such an extent that I feel obliged to accept one species at least preliminarily.

With narrower leaves and thus approaching *C. endertii*:

BORNEO. North Borneo, Mt Kinabalu, Marai Parai, 1220—1525 m, *Clemens 32401*.

*C. tetramera* Sleum., nov. spec. — Scandens. Ramuli teretes, glabri, 1,5—3 mm diam., laxe foliati. Folia late elliptica usque subobovato-elliptica, apice rotundata, interdum brevissime retusa, basin versus late attenuata, basi ipsa subtruncato-obtusa ibique glandulis 2 marginalibus sat crassis parum prominentibus induta, coriacea, glabra, subtus per totam faciem laxe tuberculis epidermalibus adpersa, integra, in sicco parum, imprimis basin versus revoluta, (4,5—)6,5—9,5 cm longa, 3—5 cm lata, e basi et paulo supra basin 5—7-plinervia, costa inferne per 5 mm incrassata, superne cito angustata et cum nervis utrinque prominente, nervis interioribus utroque latere 2 alte ascendentibus et paulo infra laminae apicem conjunctis, venis laxis irregulariter transversis numerosioribus supra prominulis, subtus minus distinctis; petioli transverse rugulosi, 2—4 mm longi, 1,5—2 mm crassi. Flores ex axillis superioribus singuli rarius bini, in omnibus partibus exterioribus glabri. Pedicelli graciles, sub anthesi 0,9—1,5 cm longi, basi bracteolis 2 vel 3 angustis 1 mm longis circumdati. Calycis tubus subcylindrico-obconicus, 1 mm longus; limbus campanulato-patens, 1,5 mm altus, usque ad medium 4-lobus, lobis depresso-ovatis apiculatis. Corolla anguste campanulata, tenera, albida vel rosea, sub plena anthesi ± usque ad medium 4-loba, tota 5 mm longa. Stamina 8; filamenta linearia, longeciliata, antice parcepilosa, dorso glabra, vix 2 mm longa; thecae anguste oblongae, 1,5 mm longae; tubuli graciles, parum divergentes, 1,5 mm longi. Discus depresso annularis, glaber. Stylus filiformis, glaber, 4,5 mm longus. Fructus immaturus calycis lobis inflexis 4 coronatus, pedicello c. 1,5 cm longo.

BORNEO. Eastern part, W. Kutei, Mt Palimasan near Tabang on Belajan R., *Kostermans 12945* (A, BO, K; L, type), in mossy forest on acid, waterlogged sandy soil, fl. 12-9-1956; *ibid.*, *Kostermans 12933* (BO, L), in mossy forest on sand, fr. imm. 11-9-1956.

### 3. New species and new records of the genus *Diplycosia* Bl.

*D. abscondita* Sleum., nov. spec. — Fruticulus terrestris, semidecumbens vel erectus, ramulis ± ascendenti-curvatis in vivo brunneo-rubris, dense subadpresse setulis fuscis demum cineracentibus ± 2 mm longis instructis. Folia ad superiorem ramulorum partem conferta, ad apices subimbricata, elliptico-oblonga, apice subacuminata, subacuta, glandula crassiuscula terminata, basi late attenuata, subcoriacea, in sicco fuscescentia, supra lucidula, subtus ± opaca, supra glabra, subtus et ad marginem subdense setulis fuscis basi incrassatis 1—2(—2,5) mm longis adpersa resp. ciliata, subtus tarde glabrescentia, 6—10 mm longa, 3—5 mm lata, margine subserrato-crenulata (dentibus setula terminatis), costa subtus tantum paulo prominente, supra minute impressa vel obscura, nervis venisque inconspicuis; petioli setulosi 1—1,5 mm longi. Flores in axillis superioribus distantibus solitarii. Pedicelli crassiusculi, curvati, sub anthesi 3—4 mm longi, setulosi, basi bracteolis 2 vel 3 ovatis glabris 1—1,5 mm longis instructi, infra calycem bibracteolati. Calyx campanulatus, c. 5 mm

longus, fere usque ad basin 5-fissus, extus subdense rufo-setulosus, lobis elongato-subovatis subacutis. Corolla subcampanulato-cylindrica, alba, membranacea, omnino glabra, 7—8 mm longa, antice 3—4 mm diam., lobis subacutis c. 2,5 mm longis, apice demum reflexis. Stamina 10, c. 7 mm longa; filamenta filiformia, glabra, alba, 4,5 mm longa; antherae brunnescentes, cum tubulis 3,5 mm longae, thecis ovato-oblongis, echinulatis, tubulis thecas longitudine subaequantibus sed iis multo angustioribus, filiformi-cylindricis, apice brevissime biaristatis. Ovarium laxe pilosum, pallide viride. Stylus albidus, glaber, gracilis, 7 mm longus.

BORNEO. North Borneo, Mt Kinabalu, rare ('abscondita') between Kambaran and Paka Cave, c. 2440 m, *Jacobs 5737* (L, type), fl. 15-10-1958; *ibid.*, Colombon R., 2895 m, *J. & M. S. Clemens 33843*, sterile, 30-6-1933.

Nearest to *D. barbiger* Sleum., but differing by much smaller leaves.

*D. kostermansii* Sleum., nov. spec. — Fruticulus vix 10 cm altus, ramis paucis prostratis, gracilibus, radicanibus, 3—8 cm longis, dense subappresse fusco-setoso-pilosis et brevissime patenter pubescentibus, subdense foliatis. Folia elliptico-oblonga vel lanceolata, apice basique breviter attenuata, subcoriacea, paucicrenata, laxe ciliata, i.e. ad crenaturam quamque pilo setaceo fusco longo subadpresso demum caduco instructa, ceterum glabra vel hic inde pilo strigoso ornata, supra in sicco livida et opaca, subtus brunnescentia et nitentia, 6—8 mm longa,  $\pm$  2 mm lata, costa supra parum impressa, subtus vix indicata, ceterum evenia; 'stipulae' subulatae cito caducae; petioli graciles, vix 1 mm longi. Flores in axillis paucis interrupte digesti, solitarii. Pedicelli glabri, c. 1 mm longi, apice bracteolis 2 oppositis setaceo-ciliatis instructi. Calyx late campanulatus, 2 mm longus, usque ad medium 5-lobus, lobis triangularibus obtusis longe subsetoso-ciliatis, ceterum glabris. Corolla urceolata, 5-angulata, sat tenera, fere 7 mm longa, c. 3,5 mm diam., alba, ad angulos purpurascens, glabra, lobis deltoideis 1,5 mm longis. Stamina 10; filamenta linearia, inferne dilatata, glabra, 4,5—5 mm longa, parum undata; antherae sagittatae, 2 mm longae, thecis sat angustis echinulatis, tubulis thecis angustioribus easque aequantibus. Ovarium glabrum. Stylus columnaris, glaber, 4,5 mm longus.

BORNEO. East Borneo, W. Kutei, Mt Palimasan near Tabang on Belajan R., 800 m, *Kostermans 13066* (BO; L, type), in mossy forest on white, acid sands, fl. 15-9-1956.

Much related to *D. microphylla* Becc., but with much smaller leaves.

*D. subglobularis* Sleum., nov. spec. — Frutex epiphyticus, c. 1 m altus. Ramuli divaricati, sat robusti, 1,5—3 mm diam., in partibus novellis densissime, in partibus vetustioribus dense vel gradatim laxius pilis setulosis rufis appressis 2(—3) mm longis obtecti, dense foliati. Folia elliptica, apice breviter attenuata vel rarius subrotundata, semper glandula crassa fere 1 mm prorumpente apiculata, basi late attenuata, coriacea, opaca, supra glabra, subtus in facie sparse vel sparsissime rufo-setulosa, ceterum densius appresse glandulosomuriculata, novella subcrenulata et caduce setuloso-ciliata, matura subintegra, (1,5—)1,8—2,5 cm longa, (1—)1,2—1,5(—1,7) cm lata, margine parum revoluta, costa nervisque supra bene impressis, subtus subinconspicuis, nervis basalibus vel paullo suprabaalibus utroque latere 1, superioribus ex inferiore media vel tertiae costae parte abientibus 1 (rarius 2)-paribus, omnibus alte curvato-ascendentibus et anastomosantibus; petioli initio setulosi, 2—3 mm

longi, c. 1 mm crassi. Flores in axillis superioribus numerosioribus solitarii. Pedicelli crassiusculi, laxe muriculati, sub anthesi 1—2, sub fructo usque ad 3 mm longi, infra calycem bracteolis 2 oppositis ovatis ciliatis vix 1 mm instructi. Calyx campanulatus, glaber, tubo 0,5—0,7 mm longo, lobis subovato-deltoides, obtusis, (1—)1,5 mm longis, glanduloso-fimbriatis. Corolla subglobularis, apice valde contracta vel fere apiculata, cito caduca, c. 2 mm alta, c. 2,5 mm diam., utrinque glabra, pallide rosea, carnosula, lobis erectis vix 0,5 mm longis. Stamina 10; filamenta subulata, glabra, 0,8—1 mm longa; antherae ovato-oblongae, echinulatae, tubulis incl. 0,8 mm longae, tubulis ipsis contractis c. 0,3 mm longis. Ovarium glabrum. Stylus gracilis, glaber, sub anthesi 1—1,5, in fructu 1,5—2 mm longus. Fructus immaturus c. 2,5 mm diam., dilute azureus.

NEW GUINEA. Central part, Star Mts, 1 km E. of the mouth of the Minam R. into the Bon R., 1500 m, *Kalkman 3482* (L, type), on peaty soil.

Related to *D. apoensis* Elm. in leaf characters, but quite distinct in the very small subglobular corolla.

*D. stellaris* Sleum., nov. spec. — Frutex humilis, c. 0,3 m altus. Ramuli in partibus juvenilibus laxe subpatenter rufo-setoso-pilosi, in partibus vetustioribus iam griseo-corticatis hic inde setula instructi, subdense vel laxius foliati. Folia obovata vel obovato-, rarius subrotundato-elliptica, apice rotundata vel levissime emarginata glandulaque crassa prorumpente apiculata, basi late in petiolum cuneata, coriacea, in foliis immaturis subtus ad costam passim pilo setaceo instructa, ad marginem setaceo-ciliata, maturitate pilis glandulosis brevissimis muriculatis sparse obviis exceptis glabra, eciliata, margine regulariter subserrato-crenulata (dentibus 1—2 mm distantibus) et imprimis basin laminae versus  $\pm$  revoluta, costa nervisque supra bene impressis, subinconspicuis, nervis basalibus utroque latere 1, suprabaalibus 1—2-paribus, curvato-ascendentibus et anastomosantibus, nervis aliis vel venis altius a costa abeuntibus brevioribus supra levissime insculptis vel obscuris; petioli supra canaliculati, 4—5(—6) mm longi, 1—1,5 mm crassi, superne interdum lamina brevissime decurrente subalati. Flores (1—)2—3 per fasciculum dispositi, in axillis superioribus orti, nutantes. Pedicelli laxe vel laxissime subadpresse setuloso-pilosi vel muriculati, sub anthesi (1—)1,2—1,5(—1,8) cm longi, sat graciles. Calyx inferne infundibuliformi-attenuatus, totus 5 mm longus, basi bracteolis 2 oppositis ovatis 1—1,2 mm longis ciliolatis fultus, rubescens, minute rugulosus et muriculatus, lobis ovato-triangularibus, subacutis, ciliolatis et glanduloso-fimbriatis, fere 2 mm longis. Corolla cylindrico-urceolata, tenera, rosea, intus ad lobos albescens, glabra, sub plena anthesi c. 9 mm longa et 4 mm diam., lobis obtusis subrectis 1 mm longis. Stamina 10, c. 6.5 mm longa; filamenta anguste linearia, glabra, leviter undata, c. 4 mm longa; antherae oblongae, cum tubulis 3 mm longae, granulatae, tubulis apicem versus angustioribus c. 1,2 mm longis. Ovarium glabrum. Stylus graciliter columnaris, glaber, 5,5 mm longus.

NEW GUINEA. Central part, Mt Antares, 3300 m, *Kalkman 4515* (L, type), in alpine shrub vegetation, rather rare, fl. 25-7-1959.

*D. kjellbergii* J. J. S., Bot. Jahrb. 68, 1937, 206; Sleum., *Reinwardtia* 4, 1957, 122, in clavi.

CELEBES. Southeastern part, Porema (S. of Malili), 1500 m, *Kjellberg 3913* (S, type).

The species (nr. 19) has been omitted in the enumeration of the material in my revision above mentioned.

*D. glauciflora* Sleum., *Reinwardtia* 4, 1957, 137.

SUMATRA. Atjeh, Gajo Alas lands, near Simpang tiga, 1000—1500 m, *Fairchild 140* (BO). Eastcoast, G. Pinto, E. of Lake Toba, Pangkulubau, 2000—2120 m, *Lörzing 17120*. Sibolangit, G. Pinto, 1800 m, *Lörzing 994, 13870*. Karo plateau, Dolok Baros, 1800—1950 m, *Lörzing 16237*. Tapanuli, Dolok Sopo Raso, Toba, *R. Si Boeea 11149*.

*D. morobeensis* Sleum., *Bot. Jahrb.* 72, 1942, 210; *Reinwardtia* 4, 1957, 140.

var. *morobeensis*.

NEW GUINEA. Central part, Star Mts, Mt Antares, 2360—3000 m, *Kalkman 4466, 4472*. Eastern Highlands, above Goroka, 2530 m, *N. G. F. 6135 Womersley & Floyd*; Collins Mill, Omahaiga R. valley, 2440 m, *Robbins 873*; near Daulo camp, Asaro-Mairi Divide, 2400 m, *Hoogland & Pullen 5419*.

var. *ovatifolia* Sleum., l.c.

NEW GUINEA. Eastern Highlands, Mt Otto, 2750 m, *Brass 31040* (corolla 5 mm).

*D. rupicola* Sleum., *Reinwardtia* 4, 1957, 140.

NEW GUINEA. Western Highlands, Mt Hagen, 3350 m, *Robbins 340*; *ibid.*, Tomba, lower slopes, 2500 m, *Robbins 294*, in lower montane rain forest, a form (apparently grown in the shadow) with longer and more slender pedicels and paler corollas. Eastern Highlands, Mt Michael, 3100—3290 m, *Brass & Collins 31291*.

*D. scabrida* Becc., *Malesia* 1, 1878, 211; Sleum., *Reinwardtia* 4, 1957, 144.

BORNEO. Eastern part, W. Kutei, Mt Palimasan near Tabang, on Belajan R., 700 m, *Kostermans 12822*, epiphyte in *Agathis* forest; same locality, 800 m, *Kostermans 13116 A*, very similar in general, but leaves more roundish, and with a fine puberulence besides the bristles on the young branchlets, possibly a different species, flowers wanted.

*D. elliptica* Ridl., *J. Fed. Mal. St. Mus.* 10, 1920, 145; Sleum., *Reinwardtia* 4, 1957, 145.

SUMATRA. Eastcoast, Talun na Uli, *R. Si Boeea 10201*; Lumban Lobu, Toba, *R. Si Boeea 10835, 11425*; Dolok Parhorasan, Asahan, *R. Si Boeea 10991*. Mt Sibayak, 950 m, *Lörzing 15816*.

BORNEO. Sarawak, Bungo Ra., 1065 m, *Brunig 7621*. Bukit Eklap, Merurong plateau, 1035 m, *Brunig s.n.*

*D. microphylla* Becc., *Malesia* 1, 1878, 212; Sleum., *Reinwardtia* 4, 1957, 146.

BORNEO. Sarawak, Mt Poi, 1220 m, *Purseglove 4753*. East Borneo, W. Kutei, Mt Palimasan near Tabang on Belajan R., 600 m, *Kostermans 12841*, epiphyte in *Agathis* forest.

*D. lorentzii* Koord., *Nova Guinea* 8, 1912, 881, t. 54, f. 3, a—e; Sleum., *Reinwardtia* 4, 1957, 153. — *Dimorphanthera obovata* J. J. S., *Med. Rijksherb.*

25, 1915, 8, quoad folia; Nova Guinea 12 (5), 1917, 514; l. c. 1918, t. 208, quoad folia, nom. illeg. (Code § 66).

NEW GUINEA. Southern part, Perameles Mts, 900 m, *Pulle 434 p.p.* (BO, type of *Dimorphanthera obovata*, as to the leaves; L).

**D. rubella** Sleum., *Reinwardtia* 4, 1957, 148.

SUMATRA. West coast, Mt Sago, near Pajakumbuh, summit region, 1700—1800 m, *Meijer & Vermeulen 5458*, epiphyte on low tree in mossy forest, fl. 15-12-1956.

The new material allows to extend the original description in all flowering parts; the complete description will be published in 'Flora Malesiana'.

**D. pittosporifolia** J. J. S., *Bull. Jard. Bot. Btzg III*, 13, 1935, 460.

var. **punctiloba** Sleum., *Reinwardtia* 4, 1957, 152.

BORNEO. North Borneo, Mt Kinabalu, below Kamarangan wireless station, 2100 m, *Sinclair c.s. 9050*, rare epiphyte in ridge forest.

**D. kalmiifolia** Sleum., *Bot. Jahrb.* 71, 1940, 154.

BORNEO. Sarawak, Bintulu, Merurong plateau, 230 m, *Brunig S 8881*, fr.

### Index to scientific names

Synonyms in *italics*. Numbers refer to pages. An asterisk \* denotes a new taxon or combination.

- |                                 |                         |
|---------------------------------|-------------------------|
| Costera borneensis 3            | scabrida 7              |
| cyclophylla 3                   | * stellaris 6           |
| endertii 3                      | * subglobularis 5       |
| lanaensis 3                     | Gaultheria abbreviata 1 |
| loheri 3                        | acroleia 1              |
| ovalifolia 3                    | kemiriensis 1           |
| sumatrana 3                     | leucocarpa              |
| * tetramera 4                   | f. cumingiana 1         |
| Dimorphanthera <i>obovata</i> 7 | f. leucocarpa 1         |
| Diplycosia * abscondita 4       | f. scandens 2           |
| elliptica 7                     | mundula                 |
| glauciflora 7                   | var. mundula 2          |
| kalmiifolia 8                   | * var. setifolia 2      |
| kjellbergii 6                   | * var. tanythrix 2      |
| * kostermansii 5                | novaguineensis          |
| lorentzii 7                     | var. novaguineensis 2   |
| microphylla 7                   | var. pascua 2           |
| morobeensis                     | nummularioides 2        |
| var. morobeensis 7              | pernettoides 3          |
| var. ovatifolia 7               | pullei                  |
| pittosporifolia                 | var. pullei 2           |
| var. punctiloba 8               | tanythrix 2             |
| rubella 8                       | var. setifolia 2        |
| rupicola 7                      | viridiflora 3           |