ADDENDA, CORRIGENDA ET EMENDANDA

C. G. G. J. VAN STEENIS, *c. s.*

As was done in the preceding volumes, it seemed useful to correct some errors which have crept into the text of volumes 4–7 as well as to add additional data, new records and references to new species which came to my knowledge and are worth recording. Also there are alternative opinions about generic and specific delimitation on most of which comments are given.

Printing errors have only been corrected if they might give rise to confusion.

Volume and page number are separated by a colon. Page numbers provided with either *a* or *b* denote the left and right columns of a page respectively.

Aceraceae

4: 3, 592*a*; 6: 915*a* In Reinwardtia 7 (1965) 142 KOSTERMANS published a new combination *Acer caesium* (REINW. *ex* BL.) KOSTERMANS (as typified by *Laurus caesia* REINW. *ex* BL. Bijdr. (1825) 553) to replace *Acer laurinum* HASSK. (*cf.* Fl. Mal. I, 4, 1954, 592). The latter (earlier known as *A. niveum* BL.) is the proper name, as the combination *A. caesium* (BL.) KOSTERMANS is illegitimate because of *A. caesium* BRANDIS, For. Fl. (1874) 111, Atlas t. 21.

Unfortunately this was overlooked by WHITMORE, Tree Fl. Malaya 2 (1973) 1.

Amaranthaceae

4: 73; 5: 554*a* *Celosia argentea* L. *var. cristata.* A biosystematical study by Dr T. N. KHOSHOO (Bull. Bot. Surv. India 12, 1970, 67–69, 1 fig., 2 pl., 1972) has shown that *C. argentea* must be the ancestral form from which *var. cristata* must be derived.

4: 86*b* C. C. TOWNSEND (Kew Bull. 29, 1974, 464) has transferred *Aerva curtisii* OLIV. to a new genus *Psilotrichopsis* to accommodate this species and *A. cochinchinensis* GAGN. The new genus is said to differ from *Psilotrichum* by verrucose seed and structure of the pollen wall, and from *Aerva* besides by opposite leaves and multinerved petals.

4: 93*a*, 594*b*; 6: 916*a* For *Alternanthera bettzickiana* (REGEL) NICHOLS., which in vol. 4 was distinguished as a variety of *A. ficoidea* (L.) R. BR., KANIS (Contr. Herb. Austr. 1, 1972, 6) made a new combination: *A. manillensis* (WALP.) KANIS. As it later appeared that WALPERS' basionym belonged to another species, KANIS (*ibid.* 7, 1974, 7) cancelled this name in favour of the one accepted in Fl. Mal. vol. 6, *l.c.*

Burmanniaceae

4: 17*a* *Burmannia coelestis* DON.
Add to synonymy: *Cryptonema malaccensis* TURCZ. Bull. Soc. Nat. Moscou 21 (1) (1848) 590, *non Cryptonemia* AGARDH, 1842; Fl. Dahur. 1 (1848); WALP. Ann. 3 (1852) 609. — *Nephrocoelium malaccense* TURCZ. Bull. Soc. Nat. Moscou 26 (1) (1853) 287; Fl. Dahur. 1 (1853). — *Nephrocodum malaccense* WALP. Ann. 6 (1861) 41, *sphalma.*

These three generic names should also have been added to the synonymy of the genus *Burmannia* L. on p. 15. *Cf.* JONKER, A monograph of the Burmanniaceae. Thesis, Utrecht (1938) 121.

Burseraceae (LEENHOUTS)

5: 213 *Protium* BURM. *f.*
Correct in Distr.: In continental Asia there is but one species: *P. serratum* (COLEBR.) ENGL., of which *P. yunnanense* (HU) KALKM. is a synonym. The latter should be (nearly) glabrous and have somewhat larger fruits; these characters appear to be grading, however.

5: 214*b* *Protium macgregorii* (F. M. BAILL.) LEENH.
Add to references: HOOGL. in Walker (ed.), Torres Straits Symp. (1972) 151, f. 8.21 (map).
Add to synonymy: *Dracontomelum papuanum* LAUT. in K. SCH. & LAUT. Nachtr. (1905) 301.
It occurs also in SE. New Guinea: SCHODDE & CRAVEN 4685.

5: 222*b* *Dacryodes costata* (BENN.) H. J. LAM.
Add to description: Inflorescences apparently sometimes exclusively axillary (SAN 75957).

5: 227*a* *Dacryodes macrocarpa* (KING) H. J. LAM.
Add to synonymy: *D. expansa* (*non* H. J. LAM) KALKMAN, Blumea 7 (1954) 510, f. 2 a & b, *typo excl.*; LEENH. Fl. Mal. I, 5 (1956) 228, *ditto*; *ibid.* I, 6 (1972) 919.

5: 227*b* Replace KEY TO THE VARIETIES by the following:

1. Leaves 4- or 5-jugate. Philippines
var. **merrillii**
1. Leaves up to 3-jugate.
2. Leaflets widest about the middle, equal-sided at base; nerves at a right angle to the midrib. Sarawak, Brunei
var. **patentinervia**
2. Leaflets widest in the lower half, oblique at base; angle between midrib and nerves acute.
3. Twigs and axial parts of leaves smooth, blackish when dry; leaflets rather thick and stiff, midrib and nerves not sharply prominent on

lower side. Malay Peninsula, Sumatra, Borneo. *var.* **macrocarpa**

3. Twigs and axial parts of leaves scaly and brown when dry; leaflets pergamentaceous, midrib and nerves sharply prominent on lower side. N., E., and S. Borneo *var.* **kostermansii**

5: 228*a* *var. macrocarpa.*

Add to description: Fruit ellipsoid, nearly straight, 3–3^1/$_4$ by 2–2^1/$_4$ by 1^3/$_4$–2 cm.

var. kostermansii (KALKM.) KALKMAN.

Add to description: Fruit ellipsoid, slightly oblique, to flattened ellipsoid, rounded on the side of the fertile cell, angular on the opposite one, 3–4 by 1^1/$_2$–3 by 1^1/$_2$–2^1/$_4$ cm.

var. merrillii H. J. LAM.

Fruit unknown.

Insert after *var. merrillii etc.*:

var. **patentinervia** LEENH. *nov. var.* — *Dacryodes expansa* (*non* H. J. LAM) KALKMAN, Blumea 7 (1954) 510, f. 2 *p.p., typo excl.*; LEENH. Fl. Mal. I, 5 (1956) 228, *ditto.*

Folia 1- vel 2-jugata. Petiolus (2–) 4–8 cm longus. Foliola 6–18 cm longa, basi equilatera; nervi secundarii utrimque 10–14, a costa subpatentes, subrecti, ante marginem valde curvati. Flores ignoti. Fructus applanato-ellipsoidei vel subglobosi, paullo obliqui, parte loculi fertilis rotundata, parte opposita subangulata, 4–5 cm longi, 3^1/$_2$–4 cm lati, 2^3/$_4$–3^1/$_2$ cm crassi, putamine crasso.

Typus: Borneo, Brunei, Bt. Labi F. R., 30 Aug. 1960, fr., J. SINCLAIR & KADIM BIN TASSIM 10492 (L; iso in K, SAR, SING).

Paratypes: KEP 80093; Sarawak For. Dept. 4370, S 16602, S 23655, S 23696.

Distr. *Malesia*: Borneo: Brunei, Sarawak (Miri Distr., Bt. Iju in 3rd Div.).

Ecol. Primary lowland Dipterocarp forest on slopes and ridges; up to *c.* 250 m.

Uses. The fruits (apparently the fleshy pulp) are said to be eaten.

Notes. This is the fruiting material originally identified as *D. expansa.*

Vegetatively, the present species is nearly indistinguishable from *Santiria laevigata* BL.

5: 228*a* *Dacryodes expansa*: Replace by the following:

12. Dacryodes expansa (RIDL.) H. J. LAM, Ann. Jard. Bot. Btzg 42 (1932) 204; Bull. Jard. Bot. Btzg III, 12 (1932) 366, t. 5 f. 21; KALKMAN, Blumea 7 (1954) 510, f. 2 c, *excl. fr. coll.*; LEENH. Fl. Mal. I, 5 (1956) 228, *ditto*; *non* (?) SMYTHIES, Common Sarawak Trees (1965) t. 8; *non* LEENH. Fl. Mal. I, 6 (1972) 919. — *Canarium expansum* RIDL. Kew Bull. (1930) 83.

Small tree. *Branchlets* unknown; buds rufous hairy. *Leaves* (incompletely known) 4- or more-jugate, glabrous; internodes of rhachis *c.* 5 cm long, petiolules 2^1/$_2$–3^1/$_2$, terminal one 5 cm long. *Leaflets* oblong to oblong-lanceolate, 17–23 by 6–7^1/$_2$ cm, brownish when dried; base cuneate, slightly oblique; apex subabruptly acuminate, acumen short, slender, ± acute; nerves 10–12, curved, not joined, prominulous beneath; reticulation lax, rather inconspicuous. *Inflorescences* (only ♂ known) probably lateral on axillary short shoots, up to 24 cm long, lax, glabrous; peduncle up to 6 cm long, branches far apart, the lower up to 10 cm long; pedicels 3–7 mm long, slender. *Flowers* 5 mm long, glabrous. *Calyx* 2 mm, the lobes broadly deltoid. *Petals* ovate-oblong, blunt to ± rounded and minutely inflexed at apex, 4–4^1/$_2$ mm long, very thin. *Stamens* free from the disk. *Disk* thick-annular. *Pistil* in ♂ flowers rather strongly reduced. *Infructescences* and *fruits* unknown.

Distr. *Malesia*: Borneo (Sarawak, near Kuching, known from the type only).

Notes. The fruiting material, identified with the present species and included in the descriptions published by KALKMAN and LEENHOUTS, turned out to represent *D. macrocarpa.* Consequently, the description had to be reduced to the authentic material. The above description is based upon RIDLEY's and LAM's descriptions and a photograph and a drawing of the type in L.

D. expansa may be allied with *D. laxa* and *D. kingii*, with which two it shares the peculiar type of inflorescence. It differs from the former by being nearly glabrous (rare in *laxa*), by its long petiolules (in *laxa* rarely more than 1 cm), by the position of its inflorescence (*laxa* terminal with often some additional lateral ones), by the free stamens (*laxa* apparently always adnate to the disk). *D. kingii* is primarily different by its greater dimensions; furthermore, it shares most characters involved here with *laxa* but is less hairy and the stamens are free from the disk; on the other hand, the nerves are greater in number and stronger prominent beneath.

6: 919*b* *Dacryodes nervosa* (H. J. LAM) LEENH.

Add to description: The indument consists of dense hair tufts rather than of stellate hairs. Reticulations sometimes ± prominent above. Fruits (prob. not fully mature) 2 by 1 cm (SOEPADMO & MAHMUD 1028).

5: 229*b*, 6: 920*a* Add after 16. *Dacryodes nervosa etc.*:

17. Dacryodes multijuga LEENH. *nov. sp. Arbor 12 m alta, 10 cm diam. Ramuli ad*

15 mm crassi, fulvo-velutini, glabrescentes; medulla probabiliter cylindro ductorum sclerenchymatosorum resiniferorum ligno adpresso suffulta. Folia immatura ca. 70 cm longa, 11–14-jugata, ± sparse puberula; petiolus 18 cm longus, basi canaliculatus, in dimidio inferiore supra applanatus, medulla evanescente; partes rhachis ad basem 6, ad apicem 4¹/₂ cm longae, supra nodos teretes, infra nodos marginatae; petioluli laterales ca. ¹/₂ cm longi, petiolulus terminalis 2 cm longus, ambo teretes et marginati. Foliola usque ad 14¹/₂ cm longa, 3¹/₂ cm lata, ovato-lanceolata, in sicco tenuiter pergamentacea, olivacea, parte inferiore costae sparse puberula excepta glabra; basis obliqua praesertim in foliolis basalibus, parte acroscopica rotundata, basiscopica cuneata, decurrens; apex gradatim acute acuminatus; costa tenuis utrinque modice prominens; nervi secundarii tenues, utrinque 12 vel 13, inter sese 1–1¹/₂ cm distantes, a costa angulo 80–85° abeuntes, paullo, ante marginem distincte curvati et connati, utrimque modice prominentes; venae intercalares distinctae; rete venulorum densum, utrimque ± prominens. Flores ignoti. Infructescentiae axillares, probabiliter 50 cm longae vel longiores, sparse puberulae, paullo ramosae, ramis pedicello ca. 2 cm longo incluso 4–5 cm longis, tenuibus apice gradatim incrassatis, toro ad ca. 5 mm diam. dilatato. Fructus ellipsoideo-fusiformes, ad 6¹/₂ cm longi, 2³/₄ cm lati, endocarpio 1 mm crasso lignoso.

Typus. Malay Peninsula, Pahang, Jerantut, confluence of Sg. Tekam and Sg. Balol, alt. 60 m, 25-6-1972, F. S. P. NG & I. BELTRAN KEP/FRI 6394 (KEP; iso in L).

Ecol. Lowland forest.

Note. This species is clearly distinct from all other Malesian species by the combination of a large number of leaflets (shared only by *D. longifolia*) and unusually big fruits. Its relationships are not yet clear; in several respects it resembles more the African *sect. Pachylobus* (comparable fruits in *D. edulis*) than the Asian *sect. Tenuipyrena*. The number of locules in the ovary will be decisive but could not be established from the fruits; *Pachylobus* has 2 locules, *Tenuipyrena* 3.

5: 231*a* *Santiria tomentosa* BL.
Add to description: Branchlets exceptionally with some large vascular strands in the pith (SOEPADMO & CHAI S 28154).

5: 231*b* *Santiria mollis* ENGL.
Add to description: Petiole up to 11 cm. *Leaflets* to 5 cm wide. ♀ *Flowers*: calyx outside densely rusty stellate-pubescent, inside densely minutely appressed-hairy. *Corolla* as in ♂ flowers. *Disk* annular, low, fleshy.

5: 232*b*: *Santiria laevigata* BL.
Add note: This species is often nearly indistinguishable from *Dacryodes macrocarpa* in the vegetative state.

5: 238 *Haplolobus* H. J. LAM.
A new revision with descriptions and key was published by P. W. LEENHOUTS, Blumea 20 (1972) 283–310. The number of species was reduced to 13 (among which 2 new *spp.*); out of these, one is restricted to the Solomon Is., all others are partly or entirely Malesian. Also a description is given of seedlings (*l.c.* 311–314). Though this is the fourth revision in only 40 years time, the taxonomy remains so vague that it seems premature to copy the new treatment.

5: 286*a* *Canarium pseudosumatranum* LEENH.
Add to description: Trunk sometimes armed with small spines (KERR 18791). *Leaves* up to 14-jugate, up to 1.30 m long. *Leaflets* up to 26 cm long and 8¹/₂ cm wide; nerves up to *c.* 25 pairs.

6: 926*a* *Canarium vitiense* A. GRAY.
Add to synonymy: *Haplolobus robustus* (*non* H. J. LAM) H. J. LAM, Blumea 8 (1955) 176; *ibid.* 9 (1958) 267. *typ. excl.*
Add to Distr.: W. New Guinea (Numfoor I.: BW 1060); N. Queensland.

Capparaceae (JACOBS)

(conserved spelling; formerly *Capparidaceae*)

6: 68*a* Replace the name *Crateva nurvala* by:
3. Crateva magna (LOUR.) DC. Prod. 1 (1824) 243; MERR. Comm. Lour. (1935) 172; JACOBS, Blumea 12 (1964) 206. — *Capparis magna* LOUR. Fl. Cochinch. 1 (1790) 331. — *Triclanthera corymbosa* RAF. Sylv. Tell. (1838) 108. — *C. nurvala* HAM. [and then the original text].

var. **magna**. — *C. magna* (LOUR.) DC. *l.c.* [and then the original text].

Note. In 1964 *C. magna* was listed under 'Doubtful species' because the type had not been found. Shortly after, Mr N. K. B. ROBSON discovered it in the BM Herbarium, and found that it is a rather narrow-leaved specimen of the later described *C. nurvala*.

Chenopodiaceae

4: 104*a* *Tecticornia cinerea* (F. v. M.) BAIL. must now be called **Tecticornia australasica** (MOQ.) P. G. WILSON, Nuytsia 1 (1972) 280. WILSON treated the taxonomy, typification, ecology, and anatomy at length. In this paper he omitted to mention the detailed study by P. VAN ROYEN, Nova Guinea n.s. 7 (1956) 180–185, fig. 1–2, 2 phot.

4: 105*a* Lines 2 & 3 from top: omit the synonym *Salicornia australasica* MOQ. *ex* SCHINZ and transfer this name to the synonymy of *Tecticornia cinerea* on p. 104*a*.

Combretaceae

4: 548; *Terminalia* L.
5: 564*b*; A most important revision of the Papua-
6: 932*b* sian *spp.* was published by M. J. E. COODE (Contr. Herb. Austr. 2, 1973, 1–33, 5 fig., 1 map), in which 31 *spp.* are recognized (among which 5 new *spp.*), while some names are reduced and several new infraspecific taxa are proposed. Unfortunately there is no key.
6: 932*b* *Terminalia*. In the revised edition of 'Manual of Forest Trees of Papua and New Guinea, Combretaceae' (1969) COODE had included some unpublished new species, 1 from the Bismarcks, 2 from the Solomons, and 1 from New Guinea, which were validated almost simultaneously in Kew Bull. 23 (1969) 299–310, 6 fig.

Connaraceae (LEENHOUTS)

5: 509*b* *Roureopsis acutipetala* (MIQ.) LEENH. *ssp. borneensis* (SCHELLENB.) LEENH. occurs certainly in the Malay Peninsula and also in Peninsular Thailand (S. PHUSOMSAENG 375).
5: 514*a*, Replace: *Rourea minor* (GAERTN.) ALS-
7: 174*b*, TON, Handb. Fl. Ceyl. 6 (Suppl.) (1931)
178*b* 67, '*minus*', corr. Ind. Kew.; LEENH. Fl. Mal. I, 5 (1958) 514.
5: 515*b* Add to Distr.: Flores.
5: 523*b* *Ellipanthus tomentosus* KURZ *var. gibbosus* (KING) LEENH.
Add to description: Petiole to $2^1/_2$ cm; leaf to 26 by 10 cm, tomentose on midrib and nerves beneath, clearly peltate at base (SHAH & NOOR MS 1918), then sometimes rounded (S. P. 10).
5: 526 Second line from bottom: change $3^1/_2$ into $3^1/_2$–$4^1/_2$.
5: 533*b* *Connarus paniculatus* ROXB.
Add to description: Petiolules $^1/_2$–1 cm. Leaflets up to 7 cm wide, base sometimes cuneate, veins nearly invisible to distinct beneath. Fruits up to $4^1/_2$ by 2 cm, inside sparsely to rather densely pubescent.
Add to Distr. (bottom line): Kelantan; according to VIDAL, Fl. Thailand 2 (1972) 129 also in Peninsular and SE. Thailand.
5: 534*a* Add to Ecol. (top line): on limestone. *Fr.* Aug.
Add to Note: A specimen from Kelantan (S. C. CHIN 1424) is slightly deviating and shows the bigger and more woody fruits of *var. hainanensis* VIDAL.

Convolvulaceae

4: 446*b*; Insert before 7. *Merremia quinquefolia*:
6: 939*b*

6b. Merremia steenisii OOSTSTR. Blumea 20 (1972) 127, fig. 1 a–h.

Distr. *Malesia*: New Guinea (Sepik Distr.), one collection; in grassland at low altitude.

Note. This species is closely allied to *M. aniseiifolia* OOSTSTR. (see Fl. Mal. 6: 939*b*), also endemic in New Guinea, but differing in being densely haired, the narrower, thicker leaves, the absence of warts on the sepals, the slightly pilose midpetaline bands, the ± shorter, lower-inserted stamens, and not twisted mature anthers.

4: 447*a* *Merremia quinata* (R. BR.) OOSTSTR.:
6: 939*b* Blumea 20 (1972) 129.
Add to Distr.: Also mainland of New Guinea.

Cyperaceae

7: 753 Add at the end: 'To be concluded.'
The treatment of *Carex* and *Uncinia* is to be concluded in a later volume. Unfortunately Dr KERN's Mss were not finished at the time of his death.

Datiscaceae

4: 385 *Tetrameles nudiflora* R. BR.
Add to references: HYLAND, Blumea 20 (1972) 338.
4: 387*b* Add to Distr.: Now also found in the Cape York Peninsula, N. Queensland.

Dichapetalaceae (LEENHOUTS)

5: 305 *Dichapetalum* THOU.
Add to generic references: BRETELER, Meded. Landbouwhogeschool Wageningen 73, 13 (1973) 1–123.
Add to generic description: Pistil exceptionally 4-merous.

Taxonomy. W. PUNT (Rev. Palaeobot. Palynol. 19, 1975, 1–97) examined the pollen morphology of the entire genus. In this work the Malesian *spp.*, as far as studied by him, are arranged in the following groups in assumed phylogenetic sequence:

1. *D. bangii* cluster, to which belong the *papuanum* group (*D. papuanum, sessiliflorum, tricapsulare*, and *vitiense*) and the *timoriense* group (*timoriense*).
2. *D. heudelotii* cluster to which belong the *longipetalum* group (*griffithii, longipetalum, laurocerasus*).
3. *D. gelonioides* cluster to which belong the *gelonioides* group (*gelonioides, hel-*

ferianum) and the *grandifolium* group (*grandifolium, setosum, steenisii*).
My only criticism regards the position of *D. tricapsulare* that to me seems distinctly allied with *D. gelonioides*, though slightly more primitive than that species.

5: 310*a* *Dichapetalum papuanum* (BECC.) BOERL.
Add to description: Pistil exceptionally 4-merous (G. STOCKER 656, Queensland). Seeds glossy orange-red.

5: 315*b* *Dichapetalum helferianum* (KURZ) PIERRE.
Add the following note: According to pollen-morphological arguments its relationship may be with *D. gelonioides*, as pointed out by PUNT (Rev. Palaeobot. Palynol. 19, 1975, 25).

Dilleniaceae (HOOGLAND)

4: 141 *Tetracera* L.
After the treatment in Fl. Mal. I, 4 (1951) two important papers have been published, *viz* a revision of the genus in the eastern Old World by HOOGLAND (Reinwardtia 2, 1953, 185–224, pl. 1) and a world revision with general observations on chemotaxonomy, evolution, dispersal, *etc.* by KUBITZKI (Bot. Mitt. München 8, 1970, 1–98, 10 fig.).

4: 143*b* Change 3. *Tetracera asiatica* into:
3. Tetracera sarmentosa (L.) VAHL, Symb. Bot. 3 (1794) 70; HOOGL. Blumea 9 (1959) 588; KUBITZKI, Bot. Mitt. Münch. 8 (1970) 52. — *Delima sarmentosa* L. Gen. Pl. ed. 5 (1754) *pag. ult.* — *Seguieria asiatica* LOUR. Fl. Coch. (1790) 341. — *T. asiatica* (LOUR.) HOOGL. Fl. Mal. I, 4 (1951) 143; Reinwardtia 2 (1953) 193, f. 2 (map).
Notes. HOOGLAND (1951) listed *Delima* and *Tetracera sarmentosa* in the synonymy of 1. *Tetracera scandens* (L.) MERR., from which they should be removed (*cf.* HOOGLAND, 1959).
The subspecies described by HOOGLAND (1951, *l.c.*; Reinwardtia 2, 1953, 195–196, f. 2) were transferred by him to *T. sarmentosa* (1959, *l.c.*). KUBITZKI (*l.c.* 53) found them well described and distinguished, but of lower status than the infraspecific taxa accepted by him for American and African species.

4: 146*b* *Tetracera indica* (CHRISTM. & PANZ.) MERR.
Add: Note. The recent record from Borneo (HOOGL. Blumea 9, 1959, 589) is based on an incorrectly identified specimen of *T. akara* (BURM. *f.*) MERR.

4: 147*a* *Tetracera akara* (BURM. *f.*) MERR.
Add to Distr.: Philippines (Basilan) (HOOGL. Blumea 9, 1959, 589).

4: 148*a* *Tetracera arborescens* JACK.
Distr.: The single locality in Java, with a question mark, should be deleted. It is one of many errors made in labelling specimens of the KORTHALS collection. The specimen probably came from W. Central Sumatra.

4: 150*b* *Hibbertia scandens*:
The correct authorship of this species is (WILLD.) GILG in E. & P. Nat. Pfl. Fam. 3, 6 (1893) 117.
Add to Distr.: SE. New Guinea (Astrolabe Range).

4: 154 *Dillenia* L.
In Fl. Mal. I, 4 (1951) HOOGLAND published a number of taxa of *Dillenia* with English descriptions only. These names were validated with Latin descriptions and the species illustrated in his revision of the genus (Blumea 7, 1952, 1–145). For the new species, the appropriate references are given below.

4: 156 In the KEY TO THE SPECIES, replace the first entry of fork 3 by:
2a. Sepals ∞. Flowers not fully opening, the petals coherent in anthesis, cucullate, *c.* 10 cm long, red **1. D. pteropoda**
2a. Sepals 5. Flowers fully opening, the petals spreading, flat, *c.* 5 cm long, white or yellow.
3. All stamens of approximately the same length. Flowers white **1a. D. papyracea**

4: 157 Insert between second entry of fork 15 and first entry of fork 16:
15a. Sepals *c.* 45–55 by 35 mm; petals *c.* 55 mm long. Leaves large (up to 45 by 35 cm), *c.* 10–15-nerved **7a. D. cyclopensis**
15a. Sepals at most *c.* 25 by 22 mm; petals up to *c.* 35 mm long. Leaves smaller.
Amend second entry of fork 7 to read:
7. Innermost stamens longer than the outer ones, *usually* with the apical part reflexed outward *in bud.*
Replace second entry of fork 21 by:
21. Petiolar wings narrower. Flowers smaller, with spreading petals, up to 10 cm diam.; or with petals not spreading, cucullate, falling collectively, up to 50 mm long.
Replace fork 22 by:
22. Leaves rather coriaceous, 5–8-nerved, up to *c.* 12 by $7^1/_2$ cm **21. D. diantha**
22. Leaves not coriaceous, 8–20-nerved, usually distinctly larger.
Replace second entry of fork 23 by:
23. Apex rounded to acute. Plant not cauliflorous. Flowers yellow.
23a. Innermost stamens straight or slightly curved; length of stamens gradually decreasing towards the numerous (60 or more) stamino-

des on the outside of the androecium.

23b. Flowers solitary. Sepals to *c.* 30 mm long in flower. Staminodes *c.* 60 . **9a. D. insularum**

23b. Flowers in 2- or 3-flowered inflorescences. Sepals *c.* 35–45 mm long in flower. Staminodes over 300 . . . **9b. D. nalagi**

23a. Stamens in 2 distinct groups: the innermost ones reflexed at apex; the outer ones straight or slightly curved, not very different in length; staminodes few (up to *c.* 25) or absent.

4: 158*a* *Dillenia pteropoda* (MIQ.) HOOGL.

In 1951 this species was known from the Moluccas only from sterile specimens, very similar to leaf material of *D. papyracea* MERR. A recent collection with flowers has shown that two species are involved, as follows:

1. Dillenia pteropoda (MIQ.) HOOGL. Fl. Mal. I, 4 (1951) 158, *p.p.*; Blumea 7 (1952) 28, *p.p.*; *ibid.* 9 (1959) 577, f. 1. — *Wormia pteropoda* MIQ. Ann. Mus. Bot. Lugd.-Bat. 4 (1868) 77.

Large tree, up to *c.* 30 m tall, up to 50 cm ⌀. *Leaves* elliptic, subcoriaceous, *c.* 17–21-nerved, 30–60 (–90) by 16–40 (–60) cm, blade with rounded to obtuse apex, obtuse to acute base and entire to slightly undulate-dentate margin. Petiole *c.* 5–10 cm long, wings up to $2^1/_2$ cm broad, often caducous. *Flowers* solitary, terminal, probably never expanding, sepals only slightly diverging in anthesis, petals falling without spreading. Pedicel *c.* 15–20 mm long, 5 mm thick, without bracteoles. Sepals *c.* 18, increasing in size towards centre of flower, from orbicular *c.* 20 by 20 mm to broad-elliptic *c.* 50 by 43 mm, glabrous. Petals 7, red, narrowly obovate, cucullate, *c.* 10 by 4 cm. Stamens *c.* 220, slightly curved in bud, all of approximately the same length, 45 mm long. Carpels 10, *c.* 17 by 6 mm, glabrous, with 23 mm long styles, each with *c.* 15–20 ovules.

Distr. *Malesia*: Moluccas (Halmahera, Batjan) and W. New Guinea (Salawati, Vogelkop).

Ecol. In primary forest of low altitude.

1a. Dillenia papyracea MERR. Philip. J. Sc. 9 (1915) Bot. 520; En. Philip. 3 (1923) 60. — *D. megalophylla* MERR. Philip. J. Sc. 14 (1919) 421; En. Philip. 3 (1923) 60. — *Wormia papyracea* GILG & WERDERM. in E. & P. Nat. Pfl. Fam. ed. 2, 21 (1925) 35. — *D. pteropoda* (MIQ.) HOOGL. Fl. Mal. I, 4 (1951) 158, *p.p.* (*typ. excl.*); Blumea 7 (1952) 28, *p.p.*

The description of *Dillenia pteropoda* in Fl. Mal. I, 4 (1951) 158*a* fits this species.

Distr. *Malesia*: Philippines (N. Luzon, Mindanao).

Ecol. In primary forests, often along streams, from sea-level up to 500 m.

Vern. *Tukoran*, Lan., *malaigang*, Sul.

4: 159*a* *Dillenia celebica* HOOGL.: Blumea 7 (1952) 24, f. 3 c–e.

Dillenia ovalifolia HOOGL.: Blumea 7 (1952) 33, f. 3 a–b; *ibid.* 9 (1959) 579.

4: 159*b* Add to Distr.: Waigheo and Sorong.

Add to Notes: Further collections have obscured the differences between *var. ovalifolia* and *var. sericea* HOOGL. so that these entities can no longer be maintained as distinct varieties. The petals in these collections were recorded to be pink or red, whereas previously only white petals were known.

4: 161*a* Insert after 7. *Dillenia papuana*:

7a. Dillenia cyclopensis HOOGL. Blumea 9 (1959) 585, f. 7.

Tree, up to *c.* 20 m tall, 40 cm ⌀, with up to 10 m bole, with reddish brown bark peeling off in flakes. *Leaves* cordate-elliptic or elliptic to ovate, 10–15-nerved, 20–45 by 16–35 cm, with rounded to slightly retuse apex, slightly cordiform or rounded to obtuse base, and undulate margin, glabrous. Petiole 5–10 cm long, the wings oblong up to 25 mm broad. Raceme 3-flowered, up to 6 cm long with tortuous axis. *Flowers* not expanding, the sepals only slightly diverging, the petals falling off collectively without spreading. Sepals 5, *c.* 45–55 by 35 mm, short hirsute outside. Petals 5, cucullate when falling, *c.* 55 by 18 mm. Stamens *c.* 360, all of approximately same length, 18–20 mm long; a few (*c.* 10) staminodes on the outside. Carpels 8–11, *c.* 17 by 7 mm, with *c.* 20 mm long styles, each with *c.* 24 ovules. *Fruit* dehiscent. Carpels 28 by 16 mm. Seeds unknown.

Distr. *Malesia*: NW. New Guinea (Cyclops Mts).

Ecol. Locally common in primary and secondary forest, from near sea-level up to *c.* 500 m altitude.

4: 161*a* *Dillenia montana* DIELS.

Add to literature: HOOGL. Blumea 9 (1959) 579.

Change in description: Sepals 5 (or 7), variable in size from 29 by 21 to 35 by 30 mm. Petals 5 or 6, yellow, *c.* 36 by 32 mm. Carpels 8–11, *c.* 14–18 by 3–4 mm with 9–11 mm long, recurved styles. *Fruit* dehiscent. Carpels *c.* 30 by 15 mm, 1–3-seeded. *Seeds* 5 by 5 mm, black, with 7 mm long aril split on one side.

4: 161*b* Insert after 9. *Dillenia schlechteri*:

9a. Dillenia insularum HOOGL. Blumea 9 (1959) 583, f. 7.

Tree up to *c.* 20 m tall, 30 cm ⌀, with dark brown or brownish grey, somewhat scaly bark. *Leaves* elliptic-oblong or elliptic, *c.* 10–13-nerved, 10–25 by $5^1/_2$–15 cm, with rounded apex, obtuse to rounded base, and slightly undulate margin. Petiole 3–7 cm long, with narrow lanceolate to linear, 3–5 mm broad wings wholly caducous or usually leaving a pair of small auricles at base of blade. *Flowers* solitary, just after flowering a globular bud *c.* 2–$2^1/_2$ cm ⌀. Pedicel $2^1/_2$–$7^1/_2$ cm long, with a single linear-lanceolate 10–30 mm long bracteole. Sepals 5, *c.* 25–30 by 20–30 mm, densely shortly sericeous outside. Petals unknown. Stamens and staminodes slightly curved in bud; the staminodes (*c.* 60) on the outside, 2–5 mm long; the stamens (*c.* 260) 6–10 mm long. Carpels 7–9, *c.* 10 by 6 mm, with 7 mm long styles, each with 6–8 ovules. *Fruit* dehiscent. Carpels 20 by 16 mm, 1–2-seeded. *Seeds* $4^1/_2$ by $2^1/_2$ mm, dark brown, enclosed by $5^1/_2$ mm long membranous aril.

Distr. *Malesia*: Islands to the SE. of New Guinea (Sudest, Misima).

Ecol. In lowland forest, up to 350 m alt.

9b. Dillenia nalagi HOOGL. Blumea 9 (1959) 581, f. 2–6.

Large tree up to 30 m tall, 60 cm ⌀, with short bole, dull red-brown flaky bark, and reddish wood. *Leaves* ovate or obovate to elliptic-oblong, *c.* 15–23 (–32)-nerved, (18–) 30–65 (–80) by (10–) 18–30 cm, with rounded, often slightly retuse, apex, obtuse base, and undulate to shallowly dentate margin. Petiole 10–18 (–25) cm long, with linear-lanceolate, up to 18 mm broad, densely sericeo-hirsute, wholly caducous wings. Racemes 2 (–3)-flowered, up to *c.* 15 cm long, with axis densely sericeo-hirsute and usually curved backward. *Flowers* not expanding, the sepals only slightly diverging in anthesis, the petals falling off collectively without spreading. Sepals 5, *c.* 35–45 by 28–35 mm. Petals 5, yellow, cucullate when falling, *c.* 35–50 by 18–23 mm. Androecium with *c.* 325 10–15 mm long stamens on the inside and *c.* 365 3–10 mm long staminodes. Carpels 10–11, *c.* 8 by $3^1/_2$ mm with *c.* 9 mm long styles, each with *c.* 6–16 ovules. *Fruit* dehiscent, the sepals enlarged up to *c.* 65 by 40 mm. Carpels *c.* 30–35 by 30–34 mm, up to 2-seeded. *Seeds* *c.* 6 by $4^1/_2$ by 3 mm, enclosed by rather thick fleshy white *c.* 7–8 mm long aril.

Distr. *Malesia*: SE. New Guinea, restricted to the Northern District.

Ecol. Common in grasslands, regrowth forest, and in rain-forest at low altitude (below 100 m).

Vern. *Nalagi*, Robinson Bay area.

4: 161*b* *Dillenia quercifolia* (LANE POOLE) HOOGL. Add to Distr.: SE. New Guinea, including Fergusson I. (HOOGL. Blumea 9, 1959, 583).

4: 162*a* *Dillenia fagifolia* HOOGL.: Blumea 7 (1952) 74, f. 9 a–d.
Dillenia marsupialis HOOGL.: Blumea 7 (1952) 66, f. 8 e.

4: 162*b* *Dillenia reifferscheidia* VILLAR.
Add to synonymy: *Wormia luzonensis* BAILL. Hist. Pl. 1 (1868) 114.

4: 164*a* *Dillenia talaudensis* HOOGL.: Blumea 7 (1952) 59, f. 8 a–d.

4: 165*a* *Dillenia diantha* HOOGL.: Blumea 7 (1952) 57, f. 7.

4: 165*b* *Dillenia castaneifolia*:
The correct authorship is (MIQ.) DIELS, Bot. Jahrb. 57 (1922) 438.
The names of a number of *Dillenia* species were incorrectly attributed to MARTELLI by DUR. & JACKS. Ind. Kew. Suppl. 1 (1902) 136. As DUR. & JACKS. only excepted these as synonyms of the names under *Wormia*, these binomials were not validly published and must be attributed to later authors.

4: 166*a* Change 25. *Dillenia eximia* into:

25. Dillenia grandifolia WALL. [Cat. (1829) *n.* 946, *nomen*] *ex* HOOK. *f.* & TH. Fl. Ind. 1 (1855) 71; HOOK. *f.* Fl. Br. Ind. 1 (1872) 38; RIDL. Fl. Mal. Pen. 1 (1922) 11; CORNER, Ways. Trees (1940) 203; HOOGL. Fl. Mal. I, 4 (1951) 174; Blumea 7 (1952) 134; KOCHUMMEN & WHITMORE, Gard. Bull. Sing. 24 (1969) 3; KOCHUMMEN, Tree Fl. Malaya 1 (1972) 188, f. 2; HOOGL. Fl. Thailand 1, 2 (1972) 100. — *D. eximia* MIQ. Fl. Ind. Bat. Suppl. (1861) 620; HOOGL. Fl. Mal. I, 4 (1951) 166, with further synonymy.

Note. KOCHUMMEN & WHITMORE were able to show that the type of *D. grandifolia*, which consists of sapling leaves only, fits in with the species previously described under the name *Dillenia eximia* MIQ.

4: 166*b* *Dillenia borneensis* HOOGL.: Blumea 7 (1952) 80, f. 9 e–h.

4: 168*b* *Dillenia luzoniensis*:
Authorship and synonymy are to be corrected as follows:

29. Dillenia luzoniensis MERR. Philip. J. Sc. 1 (1906) Suppl. 95. — *Wormia luzoniensis* VIDAL, Rev. Pl. Vasc. Filip. (1886) 36, *non W. luzonensis* BAILL. (1868).

Note. Because of the earlier name of BAILLON, not listed in Index Kewensis, the authorship of this species as given pre-

viously is incorrect. *Wormia luzonensis* BAILL. = *Dillenia reifferscheidia* VILLAR.

4: 174*a* *Dillenia grandifolia* under 'Excluded and Doubtful':
Dillenia grandifolia HOOK. *f.* & TH. is the correct name for 25, previously entered as *Dillenia eximia* MIQ.

Ericaceae

6: 474 *Rhododendron* L.
Dr SLEUMER has published an important supplement on his revision in Blumea 21 (1973) 357–376, with 9 new *spp.* from Borneo, New Guinea, and New Britain, many important new records, and notes on hybridisation.

6: 669, 670 ANDRES had, for the saprophytic Asian *Ericaceae*, a fairly small generic concept, distinguishing 3 genera for 4 species, in which he was followed by SLEUMER, who in Fl. Mal. treated the Malesian *spp.* under *Andresia* (*Wirtgenia*) and *Monotropastrum*. In KENG's opinion (Reinwardtia 9, 1974, 82–84) they all belong to one genus *Cheilotheca*. KENG gave a key with references to the 4 *spp.*; he did not make infrageneric distinctions.

6: 878 *Agapetes* D. DON.
P. F. STEVENS (Not. R. Bot. Gard. Edinb. 32, 1972, 13–28, 5 fig.) reinstated *Paphia* SEEM. as a new subgenus to accommodate 18 Papuan-Melanesian *spp.* and 1 *sp.* from Malaya; the first are distinguished as *sect. Paphia*, the latter as *sect. Pseudagapetes* SHAW. Three new *spp.* and one new *ssp.* are described from New Guinea. An extensive anatomical study was made.

6: 885 *Dimorphanthera* F. v. M.
P. F. STEVENS reviewed the delimitation and relationships of this genus, giving also notes on and new records of some Papuasian *spp.* (Contr. Herb. Austr. 8, 1974, 1–34, 9 fig.). He concluded that *Vaccinium sect. Pachyanthum* SLEUM. (Fl. Mal. 6: 747) should be transferred to *Dimorphanthera* and made the 5 new combinations necessary. He concluded also that *Dimorphanthera* is closely related to the west Central and tropical American genus *Satyria* and suggested that the pair is an other example of trans-Pacific tropical distribution.

For the New Guinean species a number of reductions are made: *D. tridens* and *D. declinata* are reduced to *D. kempteriana*, *D. brassii* and *D. clemensiae* to *D. anchorifera*, *D. gracilis* to *D. denticulifera*, *D. splendens* is considered to be a variety of *D. elegantissima*, *D. alba* is removed from the synonymy of *D. forbesii* and kept distinct.

Furthermore, 5 new *spp.* and 1 new variety were described.

Flacourtiaceae

5: 2 Add: *Palynology.* J. SCHAEFFER (Blumea 20, 1972, 65–79) has made a study of pollen in *Hydnocarpus* and related genera. In the genus two subtypes can be distinguished. Within the family the pollen is ± isolated, but the related monotypic genus *Chlorocarpa* (from Ceylon) has rather similar pollen.
In sculpture there exists some resemblance to that in *Paropsia*, which was classified with either *Flacourtiaceae* or *Passifloraceae*, but newly incorporated in the latter family, according to DE WILDE (Blumea 19, 1971, 99–104; Fl. Mal. I, 7, 1972, 406).

5: 8 *Scolopia* SCHREB.
Through the new world revision of the genus by SLEUMER (Blumea 20, 1972, 25–64) the following additions and changes are necessary:

5: 8, 10*a* *Scolopia macrophylla* (W. & A.) CLOS; SLEUM. Blumea 20 (1972) 35.
Add to Distr.: Malay Peninsula.

5: 11*b* Insert after 3. *Scolopia spinosa*:

3a. Scolopia steenisiana SLEUM. Blumea 20 (1972) 34. — *S. kermodei* (*non* FISCHER) STEEN. Blumea 17 (1969) 270; *cf.* SLEUM. Fl. Mal. I, 6 (1972) 943b.
Leaves with 2 distinct glands at the base of the lamina or apex of the petiole. Extra-staminal disk glands absent. Inflorescence glabrous (only the pedicels puberulent), rather stoutish and dense-flowered. Pedicels robust, 3–5 mm at anthesis. Berry subglobular.
Distr. *Malesia*: Malay Peninsula (Ulu Kelantan, Gua Musang), on summit of limestone hill.
Note. By the characters mentioned above and taken from SLEUMER's key to be distinguished from *S. spinosa*. *S. kermodei* is only known from Burma and Andaman Is.

5: 11*b*, 12*a* *Scolopia luzonensis* (PRESL) WARB.; SLEUM. Blumea 20 (1972) 38.
Add to Distr.: Lesser Sunda Is. (Flores).

5: 12*b* *Scolopia novo-guineensis* WARB.; SLEUM. Blumea 20 (1972) 42. — *S. nitida* C. T. WHITE, J. Arn. Arb. 10 (1929) 243; SLEUM. Fl. Mal. I, 5 (1954) 12.
Add to Distr.: New Britain, New Ireland.

Goodeniaceae (LEENHOUTS)

5: 336, 6: 950*a* *Goodenia* J. E. SMITH.
Distr., change to: Four species known from outside Australia/Tasmania.
The first couplet of the key as given in 6: 950a should accordingly be changed as follows:

1. Plant 20 cm high or more. Leaves linear-lanceolate.
1a. Leaves mainly in a basal rosette; flowers arranged in a terminal inflorescence . . **3. G. purpurascens**
1a. Leaves nearly exclusively cauline; flowers axillary **4. G. armstrongiana**
1. Plant up to 10 cm high. Leaves ovate or obovate.

4. Goodenia armstrongiana DE VRIESE, Nat. Verh. Holl. Mij. Wet. II, 10 (1854) 138, t. 24; BTH. Fl. Austr. 4 (1864) 73; KRAUSE, Pfl. R. Heft 54 (1912) 76.

Erect strigose annual up to *c.* 30 cm high, with few long and slender branches from the base. *Leaves* nearly exclusively cauline, sessile, linear-lanceolate, up to 3 cm by $1^1/_2$ mm, herbaceous, entire, acute. *Flowers* solitary, axillary, on patent, up to 2 cm long, filiform pedicels; bracteoles 0. *Calyx lobes* lanceolate, $1^1/_2$ by 0.3 mm, acute. *Corolla* 1 cm long, yellow, at base reddish, thinly villous, the lobes broadly winged. *Capsules* ellipsoid, 5 mm long. *Seeds c.* 10, ovate, $1^1/_2$ by 1 mm, granulate, with a marginal rib.

Distr. Australia (Northern Terr., Arnhem Land) and *Malesia*: New Guinea (Papua, Western Distr., near Morehead Patrol Post, PULLEN 7161).

Ecol. Open sandy patch in savannah woodland; alt. *c.* 25 m. *Fl. fr.* Aug.

Notes. The present species is included by KRAUSE in his *sect. Ebracteolatae ser. Foliosae.*

We owe the identification of the New Guinea specimen to Prof. R. C. CAROLIN, Sydney.

Haloragaceae

7: 244*b* *Haloragis micrantha* (THUNB.) R. BR. *ex* S. & Z. and Fig. 4.
Add to Distr.: N. Sumatra (Gajo Lands).

7: 253*a* Change 4. *Myriophyllum brasiliense* into: **4. Myriophyllum aquaticum** (VELL.) VERDCOURT, Kew Bull. 28 (1973) 36. — *Enhydria aquatica* VELL. Fl. Flum. (1825) 57, Icon. 1 (1835) t. 150. — *M. brasiliense* CAMBESS. in A. St. Hil. Fl. Bras. 13, 2 (1829) 182; VAN DER MEIJDEN, Fl. Mal. I, 7 (1971) 253.

Hydrocharitaceae

5: 388*b* Change 1. *Vallisneria gigantea* into: **1. Vallisneria natans** (LOUR.) HARA, J. Jap. Bot. 49 (1974) 129–137. — *Physkium natans* LOUR. Fl. Coch. (1790) 663. — *V. gigantea* GRAEBNER, Bot. Jahrb. 49 (1912) 68; DEN HARTOG, Fl. Mal. I, 5 (1957) 388.

Note. This is the proper name if the Indo-Australian taxon is kept separate from *V. spiralis* L.

5: 396*a* Change 1. *Limnobium stoloniferum* into: **1. Limnobium laevigatum** (H. B. *ex* WILLD.) HEINE, Adansonia 8 (1968) 314–316; C. V. MORTON, Contr. U. S. Nat. Herb. 38 (6) (1973) 270. — *Salvinia laevigata* H. B. *ex* WILLD. Sp. Pl. ed. 4, 5 (1810) 537. — *L. stoloniferum* (G. MEYER) GRISEB. Fl. Br. W. Ind. (1861) 506; DEN HARTOG, Fl. Mal. I, 5 (1957) 396.

Icacinaceae

7: 23 Insert in the key, fork 19, first line: 'cm' after 3.5–4.

7: 42*b* *Hartleya inopinata* SLEUM.
Add to Distr.: Bosavi Mts, S. Highlands, 1350–1550 m (JACOBS 8810, fr.).

7: 43*b* In Fig. 15 numbers 3 and 4 are interchanged.

7: 60*b* *Stemonurus malaccensis* (MAST.) SLEUM.
Add to Distr.: Sumatra.

7: 70*b* *Iodes cirrhosa* TURCZ.
Line 11–13 from top: delete the synonym *I. horsefieldii* BAILL.

7: 80 Delete *4. P. malacothrix* from the key.

7: 83*b* Transfer *Phytocrene malacothrix* SLEUM. to 'Excluded' on p. 87*b*. It is *Legnephora minutiflora* (K. SCH.) DIELS: FORMAN. Kew Bull. 27 (1972) 279 (*Menispermaceae*).

7: 87*b* Fourth line under 3. *Phytocrene macrophylla* (BL.) BL. *var. dasycarpa*: 'which is *var. macrocarpa*' must be changed into 'which is *var. macrophylla*'.

Loganiaceae (LEENHOUTS)

6: 294 Add to Morphology: For inflorescences see TIREL-ROUDET, Fl. C. L. & V. 13 (1972) 8–11.

6: 296 Add to (7) *Androya*: See revision by LEEUWENBERG, Acta Bot. Neerl. 22 (1973) 456–459.
Add to (26) *Mitreola*: See revision by LEEUWENBERG, Meded. Landb. Hogesch. Wageningen 74–23 (1975) 1–28.

6: 317*b* *Fagraea ceilanica* THUNB.
Add to Distr.: Solomon Islands.

6: 328*b* *Fagraea auriculata* JACK *ssp. auriculata.*
Add to Distr.: Flores.

6: 331*a* *Fagraea resinosa* LEENH.
Add to Distr.: Sarawak (5th Div., Ulu Sg. Pandarasan).
Add to Ecol.: Kerangas forest on sandy soil, at c. 900 m.

6: 343 *Gelsemium* JUSSIEU.
Add to literature: ORNDUFF, J. Arn. Arb. 51 (1970) 1–17; TIREL-ROUDET, Fl. C. L. & V. 13 (1972) 68–70.
Strychnos LINNÉ.
Add to literature: BISSET *et al.* Lloydia 36 (1973) 179–201.

6: 347*a* *Strychnos ignatii* BERG.
Add to synonymy: *S. lanceolaris* MIQ.

Sum. (1861) 551, 227; HILL, Kew Bull. (1911) 295, excl. fl. material; LEENH. Fl. Mal. I, 6 (1962) 357, *ditto*.

6: 347*b* Add to description: Pericarp up to $1^1/_2$ cm thick.
Add to Distr.: Sumatra (Palembang), N. & S. Vietnam, Hainan (*cf.* TIREL-ROUDET, 1972).

6: 351*a* *Strychnos ovata* HILL.
Add to synonymy: *S. lanceolaris* MIQ. *sensu* HILL, Kew Bull. (1911) 295, as to fl. specimens; LEENH. Fl. Mal. I, 6 (1962) 357, *ditto*.
Add to description: Calyx to $1^1/_2$ mm. Corolla inside sometimes woolly only at the tips of the lobes.
Add to Distr.: Sumatra, Hainan, and Indo-China (*cf.* TIREL-ROUDET, 1972).

6: 357*b* *Strychnos lanceolaris* MIQ.: This name has to be reduced to *S. ignatii* BERG., *vide supra*; the flowering material represents *S. ovata* HILL.

6: 375, 959*b* *Mitreola* LINNÉ.
Add to literature: LEEUWENBERG, Meded. Landb. Hogesch. Wageningen 74–23 (1975) 1–28 (revision).

6: 377*b*, 960*a* *Mitreola sphaerocarpa* (LEENH.) LEENH.
A 3rd collection is from Sarawak (S 30397), Mt Api, at only 120 m. *Fl. fr.* Sept.; on limestone; described as a shrublet 30 cm high (S 30752).
Note. The name *Cynoctonum pedicellatum* (BTH.) B. L. ROB. to be replaced by *Mitreola pedicellata* BTH. This species is also known from Nepal and Bhutan.

6: 378*b* *Spigelia anthelmia* LINNÉ.
Add to Distr.: New Ireland (NGF 40480).

Nyctaginaceae

6: 467*a* *Pisonia aculeata* L.; STEEN. Blumea 20 (1972) 434.
Add to synonymy: *Samyda macrophylla* WILLD. Sp. Pl. 2 (1799) 625, *non Pisonia macrophylla* LINK, 1821. — *Calpidia macrophylla* BOJER, Hort. Maur. (1837) 265. —*P. macrophylla* (BOJER) CHOISY in DC. Prod. 13, 2 (1849) 446.
Note. WILLDENOW's type was based on a specimen collected by KLEIN in India (herb. WILLDENOW, no. 8340, in B); his name was omitted from Indian botany.

Oxalidaceae

7: 158*a* Change 5. *Oxalis deppei* into:
5. Oxalis tetraphylla CAV. Ic. Descr. 3 (1795) 19, t. 237; DENTON, Publ. Mus. Michigan State Univ., biol. ser. 4 (1973) 590. — *O. deppei* LODD. Bot. Cab. 15 (1828) 1500; VELDKAMP, Fl. Mal. I, 7 (1971) 158.
The note under this species on p. 158*b* should be deleted; it was due to a misplaced trust in KNUTH's revision. It should be replaced by:
Note. The Malesian specimens belong to *var. tetraphylla*.

Passifloraceae

7: 406 See Taxonomy and Key: The inclusion of *Paropsia* in *Passifloraceae* is supported by the systematic wood-anatomy according to R. B. MILLER (J. Arn. Arb. 56, 1975, 95).

7: 411 Second line from top, read: *P. incarnata* L.

Pedaliaceae

4: 217*a* Change 1. *Sesamum indicum* into:
1. Sesamum orientale LINNÉ, Sp. Pl. (1753) 634; GAERTN. Fruct. 2 (1791) 132, t. 110 f. 2; BACK. & BAKH. *f.* Fl. Java 2 (1965) 544. — *S. indicum* LINNÉ, Sp. Pl. (1753) 634; BACK. Fl. Mal. I, 4 (1951) 217.
Note. Sofar the first to combine these two names was GRAHAM, Cat. Pl. Bombay (1839) 126; he chose the epithet *orientale*, which must then be followed.

Philydraceae

4: 5*b* *Philydrum lanuginosum* BANKS & SOL. *ex* GAERTN.
Add to Distr.: SE. Borneo (near Bandjermasin, DRANSFIELD, June 1974). A welcome filling of the gap between Papua and Malaya.

Pittosporaceae

5: 360 *Citriobatus* CUNNINGHAM *ex* PUTTERLICK. The occurrence of *C. spinescens* (F. v. M.) DRUCE was expected in the Lesser Sunda Islands and in New Guinea. Now it is found indeed in the Lesser Sunda Is. (Flores) and the genus is also found in New Guinea.
Just before vol. 6 of Fl. Mal. was completed, SCHODDE (Austr. J. Bot. Suppl. 3, 1972, 1–60) published a revision of Papuan *Pittosporaceae* in which he recorded also for the first time *Citriobatus* from New Guinea. He distinguished this as a new species: *C. papuanus* SCHODDE, *l.c.* 5, fig. 1. At that time I had no material to check and refrained from commenting. It would differ from *C. spinescens* in the less thorny habit, the thinner smooth pericarp and less seeds (*c.* 20–30), *c.* 3 placentas, longer funicles (up to 6 mm), and slightly larger fruit ($1^3/_4$–$2^1/_2$ cm).
After re-examination of Malesian and Australian material I have come to the conclusion that the differences in sizes of fruit and seeds, the surface of the pericarp, and the degree of spinescence are

variable and cannot count taxonomically. The number of placentas I cannot well count in the fruit; also SCHODDE adds *circiter* before his count.

The only difference with *C. spinescens* I found in the single Papuan specimen available to me (NGF 49455 HENTY & KATIK); it confirms less seeds (but many ovules abortive), a thinner pericarp, and flatter seeds.

For the present I believe the material available (flowers being absent, also in the type K. PAYMANS 433 = CANB 211692) reveals insufficient knowledge of the variability. I wish to postpone a decision of its being really a distinct species until more material becomes available.

Proteaceae

5: 152 *Gevuina* MOLINA.
In a recent study A. C. SMITH (Amer. J. Bot. 62, 1975, 133–147, 51 fig.) disagreed with SLEUMER about the application of the generic name *Gevuina* to the New Guinean species. In his opinion this should be restricted to South America as a monotypic genus. *Kermadecia* would consist of 4 *spp.* endemic to New Caledonia (with an allied monotypic genus *Sleumerodendron*), while the New Guinean species, together with the N. Queensland species, 2 from Fiji and 1 from the New Hebrides, would together form the genus *Bleasdalea* F. v. M.

5: 190 *Heliciopsis* SLEUM.
Recently 3 new *spp.* have been described by KOCHUMMEN from Malaya (Gard. Bull. Sing. 26, 1973, 286–287; Tree Fl. Malaya 2, 1973, 317–320, 2 fig.), bringing the number of species known from Malaya up to 5. Unfortunately there is no key and there are no diagnoses with the descriptions to point out in which way they differ from the species distinguished by SLEUMER in Fl. Mal. and how they should be inserted in the key given there.

Scyphostegiaceae

5: 297 *Scyphostegiaceae.* DING HOU succeeded
6: 967*b* in studying the *germination* (Blumea 20, 1972, 89–92, pl. 1, fig. 1) which is epigeal, and in which the testa and flimsy endosperm are shed off the cotyledons; the first two leaves are opposite, stipulate, ovate, serrate and decussate to the cotyledons.

The haploid number of *chromosomes* is 9 (*cf.* pl. 1) which is close to the base number in Angiosperms: it is far removed from that in *Monimiaceae*, and closer to that in *Flacourtiaceae*.

Thymelaeaceae

4: 352, *Gonystylus* T. & B.
353; To the 28 *spp.* keyed out by SHAW in Fl.
6: 976 Mal. vol. 6 a new one is to be added: **G. eximius** SHAW, and a new variety: **G. affinis** RADLK. *var.* **elegans** SHAW. *Cf.* SHAW, Kew Bull. 28 (1973) 267–268.

6: 15 *Phaleria* JACK.
Since 1960 much new material has been collected in the highlands of New Guinea between 1500 and 2600 m. Among them are some long-flowered specimens. STEVENS (J. Arn. Arb. 55, 1974, 264–268) described three new species and indicated how these would fit into the key of DING HOU (Fl. Mal. I, 6, 1960, 16), including *P. nisidai* KANEH. (which DING HOU also had), preceding this key as follows:

*1. Flowers 8–8½ cm long. Leaves 5¼–9 by 2½–3¼ cm.
P. longituba STEVENS, *l.c.* 265
*1. Flowers less than 4½ cm long. Leaves usually larger.
*2. Anthers included, ± sessile; stigma included.
*3. Inflorescences borne on twigs, 2–5-flowered. Calyx lobes erect.
P. okapensis STEVENS, *l.c.* 265
*3. Inflorescences usually terminal and/or in the axils of the uppermost or adjacent leaves, 8–20-flowered. Calyx lobes reflexed.
*4. Inflorescences 9–20-flowered. Involucral bracts 2, *c.* 4 by 2 mm. Style with short crisped hairs along its entire length.
P. pilistyla STEVENS, *l.c.* 267
*4. Inflorescences 8–12-flowered. Involucral bracts 4¾–10 by 4–6 mm. Style with long hairs only at the base . . **P. nisidai** KANEH.
*2. Anthers and stigma usually exserted, if included then anthers with prominent filaments and floral tube more than 1 cm ø at the throat.
*5. Follow the key by DING HOU, *l.c.*, as in lead 1, from which then *P. nisidai* KANEH. must be deleted.

DING HOU is at the moment not prepared to restudy and check the new species, especially as he has a new collection of Papua with flowers 6 cm long. He wants to postpone his decisions.

Umbelliferae

4: 125; Change 1. *Sanicula europaea* into:
5: 555*b*, **1. Sanicula europaea** L. *ssp.* **elata** (D.
556*a* DON) HULTÉN, Kungl. Svensk. Vet. Ak. Handl. IV, 13. n. 1 (1971) 363, map 138; STEEN. Mt. Flora Java (1972) pl. 54, *in text.* — *S. elata* D. DON, Prod. Fl. Nepal. (1925) 183; SHAN & CONSTANCE, Un. Cal.

Publ. Bot. 25 (1951) 47; BACK. & BAKH. *f.* Fl. Java 2 (1965) 173.

A close study of abundant material revealed that the Malesian taxon does not deserve more than the rank of a subspecies; it ranges from the Himalayas to S. China, Japan, Formosa, and all Malesian islands, but is yet not found in New Guinea.

Violaceae (JACOBS)

7: 197, 198*b* Add after 1. *Hybanthus enneaspermus* (L.) F. v. M. the following variety:

1a. *var.* **verbi-divini** EVERAARTS, *var. nov.*

Differt a specie; *glandula filamenti anterioris breviter cylindrico-cupulari, dense pilosa, petalo anteriori 28–31 mm longo, aurantiaco.*

Typus. SCHMUTZ 3135 (L, holo; PERTH), Lesser Sunda Is., Flores, Kandang.

Shrubby plant 40–175 cm tall. Anterior petal 28–31 mm long, orange. Gland at the anterior filament straight, cylindrical-cup-shaped, mostly about as long as wide, *c.* 0.3 mm wide, densely long-hairy.

Distr. *Malesia*: Lesser Sunda Is. (W. Flores), 6 collections.

Ecol. Shade-loving, in forest-fringes, in distinct dry season, 160–850 m.

Notes. Named in honour of the Societas Verbi Divini, to which several botanically active missionaries belong, namely Fathers KOOY, LOETERS, SCHMUTZ, and VERHEIJEN, see Cyclopaedia Suppl. 2 in Fl. Mal. vol. 8.

Discovered by Father SCHMUTZ who made field observations and photographs, and corresponded with Dr JACOBS about it. At the latter's request Mr A. P. EVERAARTS at the Rijksherbarium dissected and described these specimens and analysed the differences with other *H. enneaspermus*. He also compared it with the Australian species dealt with in Nuytsia 1 (1972) 218–241 by Mrs E. M. BENNETT, Perth, who was consulted. The decision about the rank was taken by Dr M. JACOBS following an overview of the genus at Kew. Thanks are due to Mr P. G. WILSON, Perth, for his speedy cooperation.