

The plant taxa of H.N. Ridley, 4. The primitive angiosperms (Austrobaileyales, Canellales, Chloranthales, Laurales, Magnoliales, Nymphaeales and Piperales)

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ABSTRACT. The names of plant taxa authored by H.N. Ridley from the orders of primitive angiosperms are enumerated. A total of 157 taxa across 11 families (Annonaceae, Aristolochiaceae, Chloranthaceae, Illiciaceae, Lauraceae, Magnoliaceae, Monimiaceae, Nymphaeaceae, Piperaceae, Trimeniaceae and Winteraceae) and seven orders (Austrobaileyales, Canellales, Chloranthales, Laurales, Magnoliales, Nymphaeales and Piperales) are listed with synonyms and accepted names. The types are listed for those taxa that Ridley described. Lectotypes are designated for 37 taxa. *Melodorum breviflorum* Ridl. (Annonaceae) is transferred to *Fissistigma*, and two Ridley species in Piperaceae that are later homonyms are provided with new names: *Peperomia kerinciensis* I.M.Turner for *Peperomia villosa* Ridl. (1917, *nom. illegit. non P. villosa* C.DC. (1866)) and *Piper angsiense* I.M.Turner for *Piper venosum* Ridl. (1925, *nom. illegit. non P. venosum* (Miq.) C.DC. (1869)).

Keywords. Austrobaileyales, Canellales, Chloranthales, Laurales, Magnoliales, Nymphaeales, Piperales, primitive angiosperms, Ridley

Introduction

This paper continues an intermittent series on the plant taxa named by Henry Nicholas Ridley (1855–1956). The three parts published to date (Turner & Chin 1998a, b; Turner 2000), dealt with the pteridophytes, gymnosperms and Zingiberales, respectively. The focus shifts to the primitive angiosperms in the current paper.

Ridley described many plant species. Among the primitive angiosperm orders there are numerous examples which are enumerated in this paper. Most of these taxa were described in the course of Ridley's many papers documenting the diversity of South-East Asian plants often in relation to the research expeditions undertaken by Ridley and others.

The three families best represented from among the primitive angiosperms are Annonaceae, Lauraceae and Piperaceae. They are here ordered in terms of declining attention from taxonomists since Ridley's day. The Annonaceae are a diverse family in tropical Asia represented by many genera. There has been and remains a considerable activity in Annonaceae systematics. The Lauraceae are more poorly served despite

the efforts of the late A.J.G.H. Kostermans. The Piperaceae in Malesia have been particularly neglected. Ridley's account in his *Flora of the Malay Peninsula* is still the only treatment available for the area, though it relies very heavily on the work of C. de Candolle, particularly his paper describing many new species for the Malay Peninsula (Candolle 1912). In a reversal of the general position, the Piperaceae of eastern Malesia (New Guinea) have received more recent attention, largely thanks to Drs. W.L. Chew and R.O. Gardner, than the far west of the region. One surprise from the enumeration is that Ridley seems never to have named any members of the Myristicaceae, despite the nutmegs being both diverse and common in the lowland forests of South-East Asia. Warburg's monographic work on the family (Warburg 1897) may be one reason for this. Another possible explanation is that the Singapore Botanic Gardens did not have professional tree climbers, so canopy trees were probably little collected by Ridley—there was a vast number of novelties to be found in the lower layers of the forest.

An enumeration of Ridley's primitive angiosperm taxa

The taxa Ridley described as new are listed against Arabic numbers, and purely nomenclatural novelties are itemised with Roman numerals. Ridley's combination starts each entry and is given in bold. Synonyms, including basionym where relevant, are given. Where possible a currently accepted name is included in bold small capitals, either included in the list of synonyms if homotypic to Ridley's taxon or below, preceded by '=', if heterotypic. In some cases the identity of Ridley's taxon is uncertain (e.g., sheets are determined but the information seems not to have been published), in which instances a question mark is employed, or unknown in which case no accepted name is listed. The place of publication of all names is given and reference to important revisions and monographs are included.

For each of the taxa Ridley described, the types are listed including as many syntypes as have been located, and the herbaria in which they are found. The author has seen most of the specimens, but some records come from published sources, information from correspondents or on-line databases. There are doubtless duplicates in other herbaria and there remain a few instances where no type material has yet been found.

A note on typification

A high proportion of Ridley's taxa requires lectotypification because he rarely designated types from among the various specimens he cited when publishing new taxa. Specimen citation by Ridley can frequently be careless—he often omitted collection numbers, rarely noted collection dates, and generally failed to state in which herbaria material was deposited. He was also inconsistent in annotating the specimens he saw. Typification is therefore often problematic. Ridley's career can be divided into two main periods—the Singapore years (1888–1912) and the retirement to Kew (1913 onwards). This information is important in making decisions relating to typification of Ridley taxa as it helps identify what is likely to be original material, but experience

has shown that many types one might expect, from the date of publication, to be in Singapore are found at Kew. In order to reduce the number of repetitive explanatory notes in the list, if choice of lectotype was simply based on selecting the specimen of highest quality from among candidate syntypes, no note is included.

AUSTROBAILEYALES

Illiciaceae

1. ***Illicium cambodianum*** Hance var. ***tenuifolium*** Ridl., Fl. Malay Penins. 1 (1921) 19, as '*tenuifolia*'. **ILlicium TENUIFOLIUM** (Ridl.) A.C. Sm., Sargentia 7 (1947) 68; Saunders, Fl. Males. 13 (1997) 182; Phoon, Fl. Pen. Malaysia, ser. II, 1 (2010) 142. SYNTYPES: Peninsular Malaysia, Pahang, Telom Cascade, *H.N. Ridley 13534*, November 1908 (lectotype, designated by Smith (1947), K (barcode no. K000442171); isoelectotype, BM); Gunong Tahan; Selangor, Menuang Gasing, *C.B. Kloss s.n.*, February 1912 (BM, K). Perak, Taiping Hills, *H.H. Kunstler*. Kedah, Kedah Peak, *L.M. Bell & Md Haniff s.n.*, March 1911 (K[×2]).
2. ***Illicium cambodianum*** var. ***crassifolium*** Ridl., Fl. Malay Penins. 1 (1921) 19, as '*crassifolia*'. SYNTYPES: Peninsular Malaysia, Selangor, Gunong Menkuang, 5000 feet, *H.C. Robinson s.n.*, 18 January 1913 (lectotype, designated here, K (barcode no. K000442171); isoelectotype, BM (barcode no. BM000017468)); Bukit Kutu (flowers fascicled on stems), *H.N. Ridley 7218*, May 1895 (K); Sempang Mines, *H.N. Ridley 15691*, April 1911 (K); Semangkok Pass. Perak, Gunong Kerbau, *Md Haniff 4017*, May 1909 (K); Gunong Batu Putih, *L. Wray 251*, s. dat. (K). Malacca, Mt Ophir, Pahang, K'luang Terbang, *W.D. Barnes 10876*, 1900 (K); Gunong Berembun near Telom, *H.N. Ridley 13563*, November 1908, (BM, K); Gunong Tahan, *H.N. Ridley 16268*, July 1911 (K); *H.N. Ridley 16009*, July 1911 (K).
 ≡ **ILlicium RIDLEYANUM** A.C. Sm., Sargentia 7 (1947) 66; Saunders, Fl. Males. 13 (1997) 181; Phoon, Fl. Pen. Malaysia, ser. II, 1 (2010) 140. The lectotype selected for Ridley's var. *crassifolium* is the holotype of *Illicium ridleyanum* A.C. Sm., which seems appropriate given Smith's choice of epithet for the species. Making these taxa homotypic synonyms may simplify future rearrangements in *Illicium*.

Trimeniaceae

3. **TRIMENIA PAPUANA** Ridl., Trans. Linn. Soc., Bot. 9 (1916) 144; Rodenburg, Blumea 19 (1971) 9; Philipson, Fl. Males. 10 (1986) 331. TYPE: New Guinea, Mt Carstensz, Camp VIb, 3900 ft, *C.B. Kloss s.n.*, 17 February 1913 (holotype, BM (barcode: BM000950880)).

CANELLALES

Winteraceae

4. **Drimys buxifolia** Ridl., Trans. Linn. Soc., Bot. 9 (1916) 12. *Tasmannia buxifolia* (Ridl.) A.C. Sm., Taxon 18 (1969) 288. TYPE: New Guinea, Mt Carstensz, Camp XIII to XVI (13–11 on sheet), 8300 to 10500 ft, *C.B. Kloss s.n.*, 1912–1913 (holotype, BM (Barcode: BM00574841); isotype, K).
= **TASMANNIA PIPERATA** (Hook.f.) Miers, Ann. Mag. Nat. Hist. ser. 3, 2 (1858) 110; Hopkins in Johns et al., Guide Alp. & Subalp. Fl. Mt. Jaya (2006) 496.
5. **Drimys densifolia** Ridl., Trans. Linn. Soc., Bot. 9 (1916) 12. *Tasmannia densifolia* (Ridl.) A.C. Sm., Taxon 18 (1969) 289. TYPE: New Guinea, Mt Carstensz, Camp XII to XIII, 10500 to 11000 ft, *C.B. Kloss s.n.*, 29 January 1913 (holotype, BM (barcode no. BM 000574843)).
= **TASMANNIA PIPERATA** (Hook.f.) Miers, Ann. Mag. Nat. Hist. ser. 3, 2 (1858) 110; Hopkins in Johns et al., Guide Alp. & Subalp. Fl. Mt. Jaya (2006) 496.
6. **Drimys elongata** Ridl., Hook. Icon. Pl. 31 (June 1916) t. 3051; Trans. Linn. Soc., Bot. 9 (August 1916) 12. *Tasmannia elongata* (Ridl.) A.C. Sm., Taxon 18 (1969) 288. SYNTYPES: New Guinea, Mt Carstensz, Camp III to VIII, 2500 to 4900 ft, *C.B. Kloss s.n.*, December 1912 (BM (barcode no. BM00574844)); Camps VIb and VIc, 3900 to 5500 ft, *C.B. Kloss s.n.*, 17 February 1912 (BM (barcode no. BM00574845)); Camp VIb, *s.dat.*, *C.B. Kloss s.n.* (lectotype, designated by Vink (1970), K (barcode no. K0006816245)).
= **TASMANNIA PIPERATA** (Hook.f.) Miers, Ann. Mag. Nat. Hist. ser. 3, 2 (1858) 110; Hopkins in Johns et al., Guide Alp. & Subalp. Fl. Mt. Jaya (2006) 496.

7. ***Drimys grandiflora*** Ridl., Trans. Linn. Soc., Bot. 9 (1916) 11. *Tasmannia grandiflora* (Ridl.) A.C. Sm., Taxon 18 (1969) 288. TYPE: New Guinea, Mt Carstensz, Camp XIII, 10500 ft, *C.B. Kloss s.n.*, 29 January 1913 (holotype, BM (barcode no. BM000574847); isotype, K).
= **TASMANNIA PIPERATA** (Hook.f.) Miers, Ann. Mag. Nat. Hist. ser. 3, 2 (1858) 110; Hopkins in Johns *et al.*, Guide Alp. & Subalp. Fl. Mt. Jaya (2006) 496.
8. ***Drimys parviflora*** Ridl., Trans. Linn. Soc., Bot. 9 (1916) 12. *Bubbia parviflora* (Ridl.) Burt, Hook. Icon. Pl. 34 (1936) t. 3315, p. 3. *Tasmannia parviflora* (Ridl.) A.C. Sm., Taxon 18 (1969) 288. TYPE: New Guinea, Mt Carstensz, Camps XI to XII, 8300 to 11000 ft, *C.B. Kloss s.n.*, 28 January 1913 (holotype, BM (barcode no. BM000574842); isotype, K).
= **TASMANNIA PIPERATA** (Hook.f.) Miers, Ann. Mag. Nat. Hist. ser. 3, 2 (1858) 110; Hopkins in Johns *et al.*, Guide Alp. & Subalp. Fl. Mt. Jaya (2006) 496.
9. ***Drimys rosea*** Ridl., Trans. Linn. Soc., Bot. 9 (1916) 11. *Tasmannia rosea* (Ridl.) A.C. Sm., Taxon 18 (1969) 288. TYPE: New Guinea, Mt Carstensz, Camp XII to XIII, 10,000 ft, *C.B. Kloss s.n.*, 29 January 1913 (holotype BM (barcode no. BM 00057446); isotype, K).
= **TASMANNIA PIPERATA** (Hook.f.) Miers, Ann. Mag. Nat. Hist. ser. 3, 2 (1858) 110; Hopkins in Johns *et al.*, Guide Alp. & Subalp. Fl. Mt. Jaya (2006) 496.
10. ***Drimys umbellata*** Ridl., Trans. Linn. Soc., Bot. 9 (1916) 11. *Bubbia umbellata* (Ridl.) Dandy, J. Bot. 72 (1934) 41. **ZYGOGYNUM UMBELLATUM** (Ridl.) W. Vink, Blumea 31 (1985) 54. TYPE: New Guinea, Mt Carstensz, Camp VIb, 3900 ft, *C.B. Kloss s.n.*, January 1913 (holotype, BM (barcode no. BM000574861)).
11. ***Drimys vaccinioides*** Ridl., Trans. Linn. Soc., Bot. 9 (1916) 13. *Tasmannia vaccinioides* (Ridl.) A.C. Sm., Taxon 18 (1969) 288. TYPE: New Guinea, Mt Carstensz, Camp XIII, 10500 ft, *C.B. Kloss s.n.* (holotype, BM, ? lost).
= **TASMANNIA PIPERATA** (Hook.f.) Miers, Ann. Mag. Nat. Hist. ser. 3, 2 (1858) 110. Hopkins in Johns *et al.*, Guide Alp. & Subalp. Fl. Mt. Jaya (2006) 496.
I have not been able to find the type material of *Drimys vaccinioides*. Vink (1970) also reported it missing.

CHLORANTHALES

Chloranthaceae

12. **Chloranthus brachystachys** var. **melanocarpa** Ridl., J. Straits Branch Roy. Asiat. Soc. 87 (1923) 89. **SARCANDRA GLABRA** (Thunb.) Nakai var. **MELANOCARPA** (Ridl.) Verdc., Kew Bull. 40 (1985) 217; Verdcourt, Fl. Males. 10 (1986) 136. TYPE: Sumatra, Berastagi, *H.N. Ridley s.n.*, February 1921 (holotype, K (barcode no. K000802684); isotype, SING).

LAURALES

Lauraceae

13. **ACTINODAPHNE CONCINNA** Ridl., J. Fed. Malay States Mus. 5 (1914) 44. TYPE: Peninsular Malaysia, Selangor, Gunong Menkuang, 5000 feet, *H.C. Robinson s.n.*, 18 January 1913 (holotype, K (barcode no. K000793048); isotypes, BM, SING (barcode no. SING 0051764)).
14. **Actinodaphne gelonioides** Ridl., Fl. Malay Penins. 3 (1924) 111. TYPE: Peninsular Malaysia, Perak, Gunong Kerbau, *H.C. Robinson s.n.*, June 1913 (holotype, K (barcode no. K000793057); isotype, BM).
= **ACTINODAPHNE OLEIFOLIA** Gamble, Bull. Misc. Inform. Kew 1910 (1910) 313; Kochummen, Tree Fl. Malaya 4 (1989) 106.
15. **Actinodaphne oleifolia** Gamble var. **glabra** Ridl., Fl. Malay Penins. 3 (1924) 111. SYNTYPES: Peninsular Malaysia, Pahang, Gunung Tahan, *H.N. Ridley 16169*, July 1911 (lectotype, designated here, K (barcode no. K000793056)); *H.N. Ridley 16109*, July 1911 (K).
= **ACTINODAPHNE OLEIFOLIA** Gamble, Bull. Misc. Inform. Kew 1910 (1910) 313; Kochummen, Tree Fl. Malaya 4 (1989) 106.
I do not believe the collection numbers of the syntypes are given in error. Both sheets have original SING labels which have different initial determinations.
16. **BEILSCHMIEDIA BREVIPES** Ridl., Fl. Malay Penins. 3 (1924) 86; Kochummen, Tree Fl. Malaya 4 (1989) 118. TYPE: Peninsular Malaysia, Pahang, Ulu Rompin, *F.W. Foxworthy Forest Department FMS 3181*, 21 April 1919 (holotype, K (barcode no. K000768680)).

17. **Beilschmiedia longipedicellata** Ridl., Bull. Misc. Inform. Kew 1926 (1926) 475; **DEHAASIA LONGIPEDICELLATA** (Ridl.) Kosterm., New & Crit. Mal. Pl. IV. (For. Serv. Indones., Div. Plann.) (1955) 37; Kostermans, Bot. Jahrb. Syst. 93 (1973) 462. TYPE: Peninsular Malaysia, Selangor, Semeniyih, *H.L. Hume* 8432, 13 August 1921 (holotype, SING (barcode no. SING 0055156); isotype, BO).

Ridley did not cite the Hume collection number or state in which herbaria the type material was deposited. Given the data and place of the original publication, Kew would seem the likely institution, but I have failed to locate any relevant specimens. Hume worked for the FMS Museums and his collections were deposited in the Museum's herbarium from where they were indefinitely loaned to the Singapore Herbarium (van Steenis-Kruseman 1950). In SING there is a sheet of *Hume* 8432 which is labelled *Beilschmiedia longipedicellata* in Ridley's hand. I assume this to be the holotype which Ridley must either have seen during a visit to Kuala Lumpur or was sent to Kew for him to name and later returned to Kuala Lumpur and then transferred to Singapore.

18. **Beilschmiedia sumatrensis** Ridl., J. Malayan Branch Roy. Asiat. Soc. 1 (1923) 89, as '*Beilschimedia*'. TYPE: Sumatra, Berastagi woods, *H.N. Ridley s.n.*, February 1921 (lectotype, designated here, K (barcode no. K000778438)).

There is another sheet at K (barcode no. K000778439) which may be a duplicate, or another gathering by Ridley from the same locality. The lectotype has a collection label in Ridley's hand; that of the 'duplicate' seems not to be written by him.

19. **BEILSCHMIEDIA TONKINENSIS** Ridl., J. Straits Branch Roy. Asiat. Soc. 82 (1920) 190, as '*Beilschimedia*'; Kochummen, Tree Fl. Malaya 3 (1989) 122. TYPE: Thailand, Satun, Setul, *H.N. Ridley* 15465.

Kostermans (1964) and Kochummen (1989) treat this as a new combination based on *B. glomerata* var. *tonkinensis* Lecomte. However, Ridley refers to *B. tonkinensis* as 'sp. nov.' in the publication. I have not managed to trace any type material.

20. **Cinnamomum iners** var. **angustifolium** Ridl., Fl. Malay Penins. 3 (1924) 93. TYPE: Peninsular Malaysia, Perak, Temengoh, Kelantan River, *H.N. Ridley* 14516, July 1909 (lectotype, designated by Soh (2011), SING (barcode no. SING 0055564); isolectotype, K).

= **CINNAMOMUM INERS** (Nees & T.Nees) Reinw. ex Blume, Bijdr. (1826) 570; Kochummen, Tree Fl. Malaya 4 (1989) 126.

21. **CINNAMOMUM KUNSTLERI** Ridl., J. Straits Branch Roy. Asiat. Soc. 82 (1920) 191; Kochummen, Tree Fl. Malaya 3 (1989) 127. TYPE: Peninsular Malaysia, Perak, Larut, *Dr King's Collector* [H.H. Kunstler] 5568, February 1884 (lectotype, designated here, K(barcode no. K000778640); isolectotypes, BM (barcode no. 000950947), K[×2], SING (barcode no. 0051701), L (barcode no. L0035840)).
Of the three sheets of *King's Collector* 5568 at K, one came from the personal herbarium of J.S. Gamble and was only donated to Kew in 1925 so is unlikely to be original material of *Cinnamomum kunstleri* Ridl. The other two sheets are annotated by Ridley with the species name. All three sheets have red 'type' tickets with one sheet indicated as holotype. I designate this sheet as the lectotype.
22. **Cinnamomum parvifolium** Ridl., J. Fed. Malay States Mus. 6 (1915) 54, *non C. parvifolium* Lecomte (1913); **CINNAMOMUM MICROPHYLLUM** Ridl., Fl. Malay Penins. 3 (1924) 92, *nom. nov.*; Kochummen, Tree Fl. Malaya 4 (1989) 127. TYPE: Peninsular Malaysia, Perak, Gunong Kerbau, *H.C. Robinson s.n.*, 20 March 1913 (holotype, K (barcode no. K000778644)).
23. **CINNAMOMUM PUBERULUM** Ridl., Fl. Malay Penins. 3 (1924) 96; Kochummen, Tree Fl. Malaya 4 (1989) 128. SYNTYPES: Peninsular Malaysia, Pahang, Bentong, Ulu Raub, *Ahmad* [F.W. Foxworthy's collector] 5096, 5 January 1920 (lectotype, designated here, K (barcode no. K000778651)); *Ahmad* 5063, 29 December 1919 (K, SING (barcode no. SING 0055569)); *Ahmad* 5095, 5 January 1920 (SING (barcode no. SING 0055568)).
24. **CINNAMOMUM SCORTECHINII** Gamble var. **SELANGORENSE** Ridl., Fl. Malay Penins. 3 (1924) 95; Kochummen, Tree Fl. Malaya 4 (1989) 131. TYPE: Peninsular Malaysia, Selangor, Ulu Kali, *A.M. Burn-Murdoch* 339 [A. Hashim leg.] (lectotype, designated by Kostermans (1970), SING (barcode no. SING 0051711); isolectotypes, K[×2]).
25. **Cinnamomum velutinum** Ridl., J. Straits Branch Roy. Asiat. Soc. 82 (1920) 190. TYPE: Peninsular Malaysia, Pahang, Gunong Tahan, Teku woods, *H.N. Ridley* 16110, 17 July 1911, (holotype, K (barcode no. K000778660); isotype, SING (barcode no. SING 0051702)).
= **C. SCORTECHINII** Gamble, Bull. Misc. Inform. Kew 1910 (1910) 219; Kochummen, Tree Fl. Malaya 4 (1989) 130.

26. **Cryptocarya tenuifolia** Ridl., J. Straits Branch Roy. Asiat. Soc. 82 (1920) 190. TYPE: Peninsular Malaysia, Selangor, Ulu Gombak, *H.N. Ridley s.n.*, 9 March 1915 (holotype, K).
= **CRYPTOCARYA ZOLLINGERIANA** Miq., Fl. Ind. Bat. 1(1) (1858) 924; Kochummen, Tree Fl. Malaya 4 (1989) 137.
27. **Dehaasia elliptica** Ridl., Fl. Malay Penins. 5 (1925) 329. SYNTYPES: Peninsular Malaysia, Selangor, Klang, Bukit Cheraka, [*F.W. Foxworthy*] 3462 (lectotype, designated here, K (barcode no. K000350888)); Kuala Lumpur, Public Gardens, *F.W. Foxworthy* 4706, 5 July 1919 (K (barcode no. K000350887));.
= **DEHAASIA POLYNEURA** (Miq.) Kosterm., Bot. Jahrb. Syst. 93 (1973) 466. Kostermans cited *Foxworthy* 4760 as the type of *Dehaasia elliptica* but while this specimen was annotated by Ridley it was not cited in the protologue.
28. **DEHAASIA LANCIFOLIA** Ridl., J. Linn. Soc., Bot. 38 (1908) 320; Kostermans, Bot. Jahrb. Syst. 93 (1973) 461. SYNTYPES: Peninsular Malaysia, Gunung Tahan 5000–6000 ft, *L. Wray & H.C. Robinson* 5468, 5 July 1905 (lectotype, designated here, BM; isoelectotypes, K, SING[×2]); *H.C. Robinson* 5525, 12 July 1905 (BM).
29. **Endiandra crassifolia** Ridl., Bull. Misc. Inform. Kew 1926 (1926) 79. **NOTHAPHOEBE CRASSIFOLIA** (Ridl.) Kosterm., Reinwardtia 7 (1968) 354. TYPE: Sumatra, Mentawai Islands, Siberut, *C.B. Kloss* 14593, 27 September 1924 (holotype, K (barcode no. K000778906)).
30. **Lindera caudifolia** Ridl., J. Straits Branch Roy. Asiat. Soc. 82 (1920) 192. SYNTYPES: Peninsular Malaysia, Penang, Penang Hill, Road to Penara Bukit, 2000 ft, *C. Curtis* 2447, June 1890 (lectotype, designated here, K (barcode no. K000815584); isoelectotype, BM); 2000 ft. Tiger Hill, *H.N. Ridley s.n.*, March 1915 (K, BM);.
= **LINDERA SUBUMBELLIFLORA** (Blume) Kosterm., J. Sci. Res., Indonesia 1 (1952) 127; Kochummen, Tree Fl. Malaya 4 (1989) 148, as '*subumbellifera*'.
The Curtis collection may be numbered 2442 - the last figure is not clear.

31. **Lindera cinnamomea** Ridl., J. Fed. Malay States Mus. 6 (1915) 173. **NEOLITSEA CINNAMOMEA** (Ridl.) Kosterm., Reinwardtia 6 (1962) 287. TYPE: Peninsular Malaysia, Pahang, Gunong Tahan, *H.N. Ridley 16124*, July 1911 (holotype, K (barcode nos. K000815497, K000815498)).

There are two sheets of *Ridley 16124* at K. One has the blue collection label typically used in the Singapore Herbarium the other has details written on a Herb. Hort. Bot. Reg. Kew slip. The two sheets were received at Kew on the same date – 9 November 1911. The sheet with the Singapore label is annotated '*Lindera cinnamomea* Ridl.' in Ridley's hand. The other sheet has 'cinnamomea' in Ridley's hand on the Kew slip. Above the collection label on each sheet someone has written 'bis'. My interpretation is that these two sheets represent a single specimen – there was too much material to mount on one sheet so the excess was mounted on a second sheet and the label details copied on to a Kew slip. A type must consist of a single specimen [ICBN (McNeill et al. 2006) Art. 8.1]. A specimen may be mounted as more than one preparation as long as the parts are clearly labelled as being part of the same specimen [ICBN Art. 8.3]. While 'bis' (Latin = twice), seems to have several meanings when put on herbarium sheets, in this case I infer that it means that the specimen was mounted on two sheets and the holotype consists therefore of two sheets.

32. **LINDERA CONCIINNA** Ridl., J. Straits Branch Roy. Asiat. Soc. 82 (1920) 192; Kochummen, Tree Fl. Malaya 4 (1989) 146. SYNTYPES: Peninsular Malaysia, Pahang, Gunong Tahan, *L. Wray & H.C. Robinson 5455*, 2 July 1905 (lectotype, designated here, K (barcode no. K000815604); isotype, BM (barcode no. BM000951093)); *H.N. Ridley 16108*, July 1911 (K[×2]).

33. **LINDERA MONTANA** Ridl., J. Fed. Malay States Mus. 6 (1915) 172; Kochummen, Tree Fl. Malaya 4 (1989) 146. SYNTYPES: Peninsular Malaysia, Pahang, Gunong Tahan, Wray's camp, 3300 ft, *H.N. Ridley 16161*, July 1911 (lectotype, designated here, K (barcode no. K000815596) (excluding fruiting material in capsule)); Gunong Tahan 5600 ft, *H.N. Ridley 16161*, July 1911 (K, fruiting material in capsule only (barcode no. K000815597)).

Ridley 16161 consists of a herbarium sheet with an attached capsule and two collection labels. The mounted specimen is a leafy twig with flowers that the label indicates was collected at 3300 ft on Gunong Tahan. The capsule contains fruits that were collected at 5600 ft. Though Ridley included these under the same collection number they clearly represent separate gatherings and so lectotypification is required.

34. *Lindera selangorensis* Ridl., J. Fed. Malay States Mus. 5 (1914) 44. SYNTYPES: Peninsular Malaysia, Selangor, Gunong Menkuang Lebah, *H.C. Robinson s.n.*, 6 February 1913 (lectotype, designated here, K (barcode no. K000815585); isoelectotypes, BM, SING (barcode no. SING 0046618)); Sempang Mines, *H.N. Ridley 15589*, April 1894, (K[×2], SING (barcode no. SING 0046596)).
= *LINDERA LUCIDA* (Blume) Boerl., Handl. Fl. Ned. Ind. 3 (1900) 147.
The species was described in a paper on plants collected from Gunong Mengkuang Lebah, so the Robinson specimen is chosen as lectotype.
35. *Lindera stricta* Ridl., J. Fed. Malay States Mus. 6 (1915) 172. TYPE: Peninsular Malaysia, Pahang, Gunong Tahan, *H.N. Ridley 16128*, July 1911 (holotype, K (barcode no. K000815595); isotype, BM).
= *LINDERA MONTANA* Ridl., J. Fed. Malay States Mus. 6 (1915) 172; Kochummen, Tree Fl. Malaya 4 (1989) 146.
36. *LITSEA ACRANTHA* Ridl., J. Fed. Malay States Mus. 10 (1920) 152; Kochummen, Tree Fl. Malaya 4 (1989) 151. TYPE: Peninsular Malaysia, Kedah-Perak boundary, Gunong Bintang, *nat. coll. F.M.S. Mus. s.n.*, June 1917 (holotype, K (barcode no. K000797079)).
37. *LITSEA CINERASCENS* Ridl., J. Linn. Soc., Bot. 41 (1913) 296; Kochummen, Tree Fl. Malaya 4 (1989) 153. SYNTYPES: Peninsular Malaysia, Selangor, Gunong Menuang Gasing, *C.B. Kloss*. Pahang, Telom, *H.N. Ridley 13781*, November 1908 (K; SING (barcode no. SING 0055903)).
I have not been able to trace the Kloss specimen. As the species was described in a paper concerning plants collected on Gunong Menuang Gasing, it seems prudent to defer lectotypification in this case.
38. *Litsea glabrifolia* Ridl., J. Fed. Malay States Mus. 10 (1920) 152. TYPE: Peninsular Malaysia, Pahang, Gunong Senyum, *I.H.N. Evans s.n.*, June 1917 (holotype, K; isotype, BM).
= *LITSEA INSIGNIS* (Blume) Boerl., Handl. Fl. Ned. Ind. 3 (1900) 142; Kochummen, Tree Fl. Malaya 4 (1989) 159.

39. **Litsea machilifolia** Gamble var. **montana** Ridl., Fl. Malay Penins. 3 (1924) 127. TYPE: Peninsular Malaysia, Pahang, Bukit Fraser (Sempang), *I.H. Burkill & R.E. Holttum Forest Dept., F.M.S. 7784*, 16–30 September 1922 (holotype, K (barcode no. K000797064)).
= **LITSEA MACHILIFOLIA** Gamble, Bull. Misc. Inform. Kew 1910 (1910) 320; Kochummen, Tree Fl. Malaya 4 (1989) 160.
There are further Burkill & Holttum collections from Fraser's Hill in K made on the same visit but collected under SF numbers. None of these is annotated by Ridley as var. *montana* so I assume the annotated sheet to be the holotype.
40. **Litsea persella** Ridl., Agric. Bull. Straits Fed. Malay States 5 (1906) 6. *Cylicodaphne persella* (Ridl.) Nakai, Bull. Tokyo Sci. Mus. No. 22 (1948) 32. TYPE: Borneo, Sarawak, Kuching, *H.N. Ridley 12429*, September 1905 (lectotype, designated here, K (barcode no. K000815214)).
?= **Litsea garciae** S. Vidal, Revis. Pl. Vasc. Filip. (1886) 228.
In the protologue Ridley wrote 'I found it beautifully in flower in Sarawak in September 1905, in the town of Kuching, and later Mrs Ellis and Mr Hewitt sent me seeds and fruits of it.' I have not been able to locate any fruit or seed material, but there is a flowering specimen as Kew which I designate the lectotype of *Litsea persella*.
41. **Litsea tenuipes** Ridl., Bull. Misc. Inform. Kew 1926 (1926) 79. TYPE: Sumatra, Mentawai Islands, Sipora, *C.B. Kloss 14751*, 22 October 1924 (holotype, K (barcode no. K000815203)).
?= **Litsea insignis** (Blume) Boerl., Handl. Fl. Ned. Ind. 3 (1900) 142.
42. **Litsea terminalis** Ridl., Fl. Malay Penins. 5 (1925) 330. TYPE: Peninsular Malaysia, Perak, Gunong Inas, *R.H. Yapp 494*, 19 December 1899 (holotype, K (barcode no. K000797080)).
= **LITSEA ACRANTHA** Ridl., J. Fed. Malay States Mus. 10 (1920) 152; Kochummen, Tree Fl. Malaya 4 (1989) 151.
43. **Nothaphoebe angustifolia** Ridl., J. Fed. Malay States Mus. 7 (1916) 50, as '*Nothophoebe*'. TYPE: Peninsular Malaysia, Kedah, Kedah Peak, 3800 ft, *H.C. Robinson & C.B. Kloss 5996*, December 1915 (holotype, K (barcode no. K000778892); isotype, SING (barcode no. SING 0056072)).
= **PERSEA FRUTICOSA** (Kurz) Kosterm., Reinwardtia 7 (1968) 355; Kochummen, Tree Fl. Malaya 4 (1989) 173.

44. **NOTHAPHOEBE CONDENSE** Ridl., J. Straits Branch Roy. Asiat. Soc. 82 (1920) 191; Kochummen, Tree Fl. Malaya 4 (1989) 170. TYPE: Peninsular Malaysia, Pulau Langkawi, Kerap [Kesap], *Md. Aniff 15473*, February 1911 (holotype, K (barcode no. K000575991); isotype, SING (barcode no. SING 0056073).
45. **Phoebe tavoyana** var. **villosa** Ridl., Fl. Malay Penins. 3 (1924) 105. SYNTYPES: Peninsular Malaysia, Pulau Langkawi, Gunong Raya, *Md Aniff 15469*, February 1911 (lectotype, designated here, K); Kedah, Bukit Jenun, *Md Haniff SFN 1210*, 19 November 1915 (K[×2]). Burma, Mergui.
= **PHOEBE TAVOYANA** (Meissn.) Hook.f., Fl. Brit. India 5 (1886) 143; Kochummen, Tree Fl. Malaya 4 (1989) 178.
- i. **CINNAMOMUM MICROPHYLLUM** Ridl., Fl. Malay Penins. 3 (1924) 92, *nom. nov. pro Cinnamomum parvifolium* Ridl.; Kochummen, Tree Fl. Malaya 4 (1989) 127.
- ii. **Cinnamomum rhynchophyllum** var. **lampongum** (Miq.) Ridl., Fl. Malay Penins. 3 (1924) 93. Basionym: *Cinnamomum lampongum* Miq., Fl. Ned. Ind., Eerste Bijv. 3 (1861) 358.
= **CINNAMOMUM RHYNCHOPHYLLUM** Miq., Fl. Ned. Ind. 1 (1858) 895. Soh, Blumea 56 (2011) 256.

Monimiaceae

46. **Palmeria paniculata** Ridl., Trans. Linn. Soc., Bot. 9 (1916) 144. TYPE: New Guinea, Mt Carstensz, Camp VIc, 5500 ft, *C.B. Kloss s.n.*, 1912–1913 (?BM).
= **PALMERIA GRACILIS** Perkins, Bot. Jahrb. 31 (1902) 745; Philipson, Fl. Males. 10 (1986) 269.
There is a specimen in BM, labelled Camp Dundok Padang, which may be the type.

MAGNOLIALES

Annonaceae

47. **Mezzettiopsis** Ridl., Bull. Misc. Inform. Kew 1912 (1912) 389. TYPE: *Mezzettiopsis creaghii* Ridl.
= **OROPHEA** Blume, Bijdr. (1825) 18.
48. **Uvariella** Ridl., Fl. Malay Penins. 1 (1922) 35. TYPE: *Uvariella leptopoda* (King) Ridl.
= **UVARIA** L., Sp. Pl. (1753) 536.
49. **Alphonsea keithii** Ridl., J. Straits Branch Roy. Asiat. Soc. 59 (1911) 66. TYPE: Thailand, Phangnga, Bangtaphan, *A. Keith* 311, 16 April 1890 (holotype, SING (barcode: SING0048653)).
50. **Artabotrys havilandii** Ridl., Bull. Misc. Inform. Kew 1912 (1912) 382. SYNTYPES: Borneo, Sarawak, Kuching, *G.D. Haviland* 1629 (lectotype, designated by Turner (2009a), K; isoelectotype, SAR); near Kuching, *G.D. Haviland & C. Hose* 3340, 24 November 1894 (BM, K, SAR); s. loc., *O. Beccari P.B.* 381 (K); *O. Beccari P.B.* 786; *O. Beccari P.B.* 713 (K), *O. Beccari P.B.* 554 (FI-B, K),
= **ARTABOTRYS MAINGAYI** Hook.f. & Thomson, Fl. Brit. India 1 (1872) 55; Turner, *Folia Malaysiana* 10 (2009) 62.
Beccari's *P.B.* 554 is the type of *Artabotrys pleianthus* Diels, a synonym of *Artabotrys roseus* Boerl.
51. **ARTABOTRYS HIRTIPES** Ridl., Bull. Misc. Inform. Kew 1912 (1912) 383; Turner, *Folia malaysiana* 10 (2009) 86. SYNTYPES: Borneo, Sarawak, Rejang Kapit, *G.D. Haviland* 2326, March 1893 (lectotype, designated by Turner (2009a), K); Kuching, *G.D. Haviland* 2106, 19 January 1893 (K, SING); *G.D. Haviland & C. Hose* 2106, 29 November 1894 (K).
52. **Disepalum grandiflorum** Ridl., Bull. Misc. Inform. Kew 1912 (1912) 384. SYNTYPES: Borneo, Sarawak, Baram, *C. Hose* 142 (lectotype, designated by Johnson (1989), K; isoelectotypes, B, BM); Marudi, *C. Hose* 214 (K).
= **DISEPALUM ANOMALUM** Hook.f., Trans. Linn. Soc. 23 (1860) 156; Johnson, *Brittonia* 41 (1989) 375.

53. **DREPANANTHUS CARINATUS** Ridl., Fl. Malay Penins. 1 (1922) 38. **Cyathocalyx carinatus** (Ridl.) J.Sinclair, Gard. Bull. Singapore 14 (1955) 241. TYPE: Peninsular Malaysia, Selangor, Sungei Buluh, *F.W. Foxworthy* 2263, December 1923 (holotype, K (barcode no. K000691221); isotype, SING).
54. **Goniothalamus caudifolius** Ridl., Bull. Misc. Inform. Kew 1914 (1914) 324. TYPE: Peninsular Malaysia, Perak, Pondok Tanjong, *A.M. Burn-Murdoch* 180, 1909 (holotype, K (barcode no. K000691878); isotype, K).
= **GONIOTHALAMUS TENUIFOLIUS** King, J. Asiat. Soc. Bengal, Pt. 2, Nat. Hist. 61 (1892) 71; Saunders, Bot. J. Linn. Soc. 142 (2003) 331.
55. **GONIOTHALAMUS PARALLELIVENIUS** Ridl., Bull. Misc. Inform. Kew 1912 (1912) 385, as '*parallelovenius*'; Saunders, Bot. J. Linn. Soc. 139 (2002) 244. TYPE: Borneo, Sarawak, *O. Beccari P.B.* 3772, s. dat. (holotype, K (barcode no. K000691904); isotypes, FI-B, P).
56. **Goniothalamus pendulifolius** Ridl., Fl. Malay Penins. 5 (1925) 287. TYPE: Peninsular Malaysia, Pahang, 6 miles north of Bentong, *I.H. Burkill & Md. Haniff SFN* 16501, 5 November 1924 (lectotype, designated by Saunders (2003), K (barcode no. K000691852); isolectotypes, K (barcode no. K000691853), SING[×2]).
= **GONIOTHALAMUS UVARIOIDES** King, J. Asiat. Soc. Bengal, Pt. 2, Nat. Hist. 61 (1892) 78, Saunders, Bot. J. Linn. Soc. 142 (2003) 326.
57. **GONIOTHALAMUS UNDULATUS** Ridl., J. Fed. Malay States Mus. 10 (1920) 81. TYPE: Thailand, Tasan, *C.B. Kloss* 6836, s. dat. (holotype, K (barcode no. K000691832); isotype, SING).
58. **Melodorum breviflorum** Ridl., J. Malayan Branch Roy. Asiat. Soc. 1 (1923) 51. **FISSISTIGMA BREVIFLORUM** (Ridl.) I.M. Turner, *comb. nov.* TYPE: Sumatra, Berastagi, *H.N. Ridley s.n.*, 8 February 1921 (lectotype, designated here, K (barcode no. K000691997); isolectotypes, K[×2]).

The generic name *Melodorum* Lour. has a complex nomenclatural history that is not entirely resolved (Ueda 1986). For a long period it was wrongly applied to *Fissistigma* Griff. Merrill (1919) corrected this mistake and transferred many species from *Melodorum* to *Fissistigma*. However Ridley did not follow Merrill when publishing this new species from Sumatra (or in his Flora of the Malay

Peninsula). *Melodorum breviflorum* has the features typical of *Fissistigma* including its climbing habit, scalariform leaf venation, branched inflorescences, inner petals slightly smaller than outer petals and excavated at the base. I am not able to match the specimens to any other described *Fissistigma* species so I transfer *Melodorum breviflorum* to *Fissistigma*.

59. **Melodorum fagifolium** Ridl., Bull. Misc. Inform. Kew 1912 (1912) 386. *Fissistigma fagifolium* (Ridl.) Merr., Philipp. J. Sci., C. 15 (1919) 131. *Fissistigma kingii* (Boerl.) Burkill var. *fagifolium* (Ridl.) Airy Shaw, Bull. Misc. Inform. Kew 1939 (1939) 238. TYPE: Borneo, Sarawak, Entagut River, *C. Hose* 397, December 1894 (lectotype, designated here, K (barcode no. K000574676); isolectotypes, A, B, BM, K, L, P).
 = **FISSISTIGMA KINGII** (Boerl.) Burkill, Bull. Misc. Inform. 1935 (1935) 317. Turner, Nordic J. Bot. 27 (2009) 368.
 There are two herbarium sheets at K with the relevant Hose collection number. The better specimen is chosen as lectotype.

60. **Melodorum longipetalum** Ridl., Bull. Misc. Inform. Kew 1912 (1912) 387. **FISSISTIGMA LONGIPETALUM** (Ridl.) Merr., Philipp. J. Sci., C. 15 (1919) 133. TYPE: Borneo, Sarawak, Kuching, *G.D. Haviland* 2102 [Ngaing leg.], 11 January 1893 (holotype, K (barcode no. K000574672); isotypes, BM, SAR, SING).

61. **Melodorum ovalifolium** Ridl., Bull. Misc. Inform. Kew 1912 (1912) 387. *Fissistigma ovalifolium* (Ridl.) Merr., Philipp. J. Sci., C. 15 (1919) 134. *Oxymitra ovalifolia* (Ridl.) J. Sinclair, Sar. Mus. J. 5 (1951) 607. *Richella ovalifolia* (Ridl.) Steenis, Blumea 12 (1964) 357. **FRIESODIELSIA OVALIFOLIA** (Ridl.) I.M. Turner, Blumea 55 (2010) 118. SYNTYPES: Borneo, Sarawak, Kuching, *G.D. Haviland* & *C. Hose* 3151, 17 May 1894 (lectotype, designated by Turner (2010), K); *G.D. Haviland* & *C. Hose* 3141, 17 May 1894 (K, SAR[×2], SING).

62. **Melodorum paniculatum** Ridl., Bull. Misc. Inform. Kew 1912 (1912) 386. **FISSISTIGMA PANICULATUM** (Ridl.) Merr., Philipp. J. Sci., C. 15 (1919) 134. TYPE: Borneo, Sarawak, near Kuching, *G.D. Haviland* 1845, October 1892 (holotype, K (barcode no. K000574667); isotype, K).

One of the two sheets of *Haviland* 1845 at K has 'Type' written in Ridley's hand on it. I take this to be the holotype.

63. **Melodorum rigidum** Ridl., Bull. Misc. Inform. Kew 1912 (1912) 386.
Fissistigma rigidum (Ridl.) Merr., Philipp. J. Sci., C. 15 (1919) 135. SYNTYPES: Borneo, Sarawak, Kuching, *G.D. Haviland* 421 [Garai leg.] [d.k.m.a.] (lectotype, designated here, K (barcode no. K000574656)); *s. loc.*, *O. Beccari* P.B. 393 (FI-B, K, NY(fragment));
 = **PYRAMIDANTHE PRISMATICA** (Hook.f. & Thomson) Merr., J. Straits Branch Roy. Asiat. Soc., Spec. No. (1921) 262.
 Of the syntypes at K, the Haviland specimen is annotated as 'Type' in Ridley's hand and therefore chosen as lectotype. When Haviland began collecting in Sarawak he used a complex four-letter code for specimens that combined elements of the date and specimen number (Stapf 1907). He was advised to desist from this confusing practice and use a simple running number sequence. Many of the earlier coded collections were renumbered, but unfortunately he tended to give different gatherings of the same species the same number. Therefore it is important to use other information, such as date of collection, when dealing with typification of species based on Haviland collections. In this case, other herbaria (BO, SAR, SING) have *G.D. Haviland* 421 specimens but these are of different collecting dates compared to the K specimen, so are not isoelectotypes.
64. **Mezzettia pauciflora** Ridl., Bull. Misc. Inform. Kew 1912 (1912) 389.
 TYPE: Borneo, Sarawak, Kuching, *G.D. Haviland* 1952, 1 December 1892 (lectotype, designated here, K (barcode no. K000574873; isoelectotypes, K, SAR, SING).
 = **MEZZETTIA UMBELLATA** Becc., Nuovo Giorn. Bot. Ital. 3 (1871) 187; van der Heijden & Keßler, *Blumea* 35 (1990) 220.
65. **Mezzettiopsis creaghii** Ridl., Bull. Misc. Inform. Kew 1912 (1912) 389.
OROPHEA CREAGHII (Ridl.) Leonardía & P.J.A. Kessler, *Blumea* 46 (2001) 149. TYPE: Borneo, British North Borneo [Sabah], Tinkango, *C.V. Creagh s.n.*, April 1895 (holotype, K (barcode no K000574862); isotype, BM).
66. **MILIUSA AMPLEXICAULIS** Ridl., J. Straits Branch Roy. Asiat. Soc. 54 (1910) 13; Mols & Keßler, *Blumea* 48 (2003) 436. TYPE: Peninsular Malaysia, Pulau Langkawi, Coah [Kwah], *C. Curtis* 3205, April 1896 (lectotype, designated here, SING (barcode nos. SING 0045995); isoelectotypes, K, SING (barcode no. SING 0045994), UC).

67. **Miliusa concinna** Ridl., J. Fed. Malay States Mus. 10 (1920) 127. SYNTYPES: Thailand, Phangnga, Hat Sunuk [Hat Sanuk], Koh Lak, *Hamid FMS Field No. 3802*, 3 April 1919 (lectotype, designated here, K (barcode no. K000691547); isolectotype, KEP); near Koh Lak, *Hamid FMS Field No. 3820*, 13 April 1919 (K, KEP).
= **POLYALTHIA ERECTA** (Pierre) Finet & Gagnep., Bull. Soc. Bot. Fr. 53, Mémoire 4 (1906) 91.
68. **Miliusa filipes** Ridl., J. Fed. Malay States Mus. 10 (1920) 81. TYPE: Thailand, Tasan, *C.B. Kloss 6968* (holotype, K).
69. **MILIUSA PARVIFLORA** Ridl., J. Straits Branch Roy. Asiat. Soc. 59 (1911) 65; Mols & Keßler, *Blumea* 48 (2003) 450. SYNTYPES: Peninsular Malaysia, Perlis, Tebing Tinggi, *H.N. Ridley 15340*, March 1910 (lectotype, designated here, SING; isolectotypes, BM, K); limestone rocks, Bukit Lagi, *H.N. Ridley 15239*, March 1910 (SING);
Mols & Keßler (2003) cited *Ridley 15340* as the holotype of *M. parviflora* but the original protologue cites both 15239 and 15340. Though misused terms relating to typification can be corrected [ICBN (McNeill et al. 2006) Art. 9.8], Mols and Keßler's statement is not a valid lectotypification for a publication after 1 January 2001 because 'designated here' or its equivalent was not employed [ICBN Art. 7.11].
70. **MITREPHORA ALBA** Ridl., J. Fed. Malay States Mus. 5 (1915) 158, Weerasooriya & Saunders, *Syst. Bot. Monogr.* 90 (2010) 39. TYPE: Thailand, Koh Samui western side, *H.C. Robinson 5717*, 13 May 1913 (lectotype, designated here, K (barcode no. K000691973); isolectotypes, K[×2] (barcode no. K000691974)).
Of the three sheets of *Robinson 5717* at K, two have original field tickets labelled with the date and Koh Samui. The chosen lectotype also has Robinson's collection label giving more details of the plant and collecting location. Both sheets are labelled '*Mitrephora alba* Ridl.' in Ridley's hand. The third sheet does not have any of Robinson's labels.
71. **Mitrephora crassipetala** Ridl., J. Straits Branch Roy. Asiat. Soc. 54 (1912) 13. TYPE: Peninsular Malaysia, Pahang, Tahan River, *Mat s.n.*, 23 September 1893 (holotype: SING (barcode no. SING 0119273)).
= **ANAXAGOREA JAVANICA** [Blume, *Fl. Javae Anon.* (1830) 66, t. 32] var. *JAVANICA*, Sinclair, *Gard. Bull. Singapore* 14 (1955) 347, 466.

72. **MITREPHORA KEITHII** Ridl., J. Straits Branch Roy. Asiat. Soc. 59 (1911) 66; Weerasooriya & Saunders, Syst. Bot. Monogr. 90 (2010) 70. TYPE: Thailand, Phangnga, Bangtaphan, *A. Keith* 373, 13 May 1890 (holotype, SING (barcode no. SING 0045997); isotype, K).
73. **Mitrephora obtusa** Blume var. **glabra** Ridl., Sarawak Mus. J. 1 (1913) 86. TYPE: Borneo, Sarawak, Mt Koum limestone, *G.D. Haviland* 1714 [Kalong leg.], 22 September 1892 (lectotype, designated here, K (barcode no. K000574547); isolectotypes, BM, L[×2], SAR[×2], SING[×2]).
= **MITREPHORA UNIFLORA** Weeras. & R.M.K. Saunders, Syst. Bot. Monogr. 90 (2010) 122.
74. **MITREPHORA RUFESCENS** Ridl., Bull. Misc. Inform. Kew 1912 (1912) 385. SYNTYPES: Sumatra, Sungei Buluk, Padang, *O. Beccari P.S.* 968 (lectotype, designated by Weerasooriya & Saunders (2010), BM; isolectotypes, FI-B, K), September 1878; *O. Beccari P.S.* 916, September 1878 (BM, FI-B, K[×2], L). Borneo, Sarawak, *O. Beccari P.B.* 1616 (FI-B, K); Matang, *G.D. Haviland* 1035 [leg. Garai] [e.c.q.b.] (K, SAR, SING); near Bau limestone *G.D. Haviland* 2249, 6 December 1893 (K, SAR).
The Sarawak syntypes are *Mitrephora longipetala* Miq. (Weerasooriya & Saunders 2010).
75. **Orophea setigera** Ridl., Trans. Linn. Soc., Bot. 9 (1916) 16. TYPE: New Guinea, Mt Carstensz, Camp III to VIII, 2500–4900 ft, *C.B. Kloss s.n.* (holotype, BM).
76. **Oxymitra linderifolia** Ridl., Bull. Misc. Inform. Kew 1912 (1912) 385. *Friesodielsia linderifolia* (Ridl.) Steen., Blumea 12 (1964) 360. SYNTYPES: Borneo, Sarawak, Kuching, *G.D. Haviland* 2333, 19 April 1893 (lectotype, designated here, K (barcode no. K000691760); isolectotypes, BM, K, SAR, SING); near Kuching, *G.D. Haviland & C. Hose* 3335, 11 October 1894 (K, BM, GH, SAR).
= **FRIESODIELSIA GLAUCA** (Hook.f. & Thomson) Steenis, Blumea 12 (1964) 359.
The Haviland collection was erroneously referred to as 3333 rather than 2333 in the original publication.

77. **POLYALTHIA ANGUSTISSIMA** Ridl., J. Straits Branch Roy. Asiat. Soc. 54 (1910) 11; Sinclair, Gard. Bull. Singapore 14 (1955) 286. SYNTYPES: Singapore: Bukit Timah, *H.N. Ridley 8050* (lectotype, designated by Bunchalee & Chantaranothai (2006), SING; isolectotype, K); sandy woods, Changi, *H.N. Ridley 5917* (SING, CAL); Gardens' Jungle, *H.N. Ridley 4813* (K, SING). Peninsular Malaysia, Johore: Kwala Sembrong, *H.J. Kelsall 4047* (CAL, SING).
78. **POLYALTHIA ASTERIELLA** Ridl., J. Straits Branch Roy. Asiat. Soc. 82 (1920) 169; Sinclair, Gard. Bull. Singapore 14 (1955) 309. TYPE: Perak, Taiping Hills, Maxwell's Hill, *H.N. Ridley 2986*, February 1891 (holotype, K (barcode no. K000691443); isotypes, CAL, SING).
79. **Polyalthia castanea** Ridl., J. Fed. Malay States Mus. 8 (1917) 14. TYPE: Sumatra, Korinchi (Kerinci), Sandaran Agong at 2,450 feet. Small tree, flowers orange-brown.
I have failed to locate any (type) material of *Polyalthia castanea*.
80. **POLYALTHIA CHRYSOTRICHIA** Ridl., Fl. Malay Penins. 1 (1922) 57; Sinclair, Gard. Bull. Singapore 14 (1955) 302. TYPE: Peninsular Malaysia, Selangor, Menuang Gasing, *C.B. Kloss s.n.*, February 1912 (holotype, K (barcode no. K000691577)).
81. **Polyalthia coriacea** Ridl., Bull. Misc. Inform. Kew 1912 (1912) 383. **ENICOSANTHUM CORIACEUM** (Ridl.) Airy Shaw, Bull. Misc. Inform. Kew 1939 (1939) 277. SYNTYPES: Borneo, Sarawak, Mt Buan Limestone, *G.D. Haviland 2002* [Garai leg.], 15 December 1892 (lectotype, designated here, K (barcode no. K000691411); isolectotype, SING); Bidi, *C.J. Brooks 1057*, April 1909 (BM).
82. **Polyalthia curtisii** Ridl., J. Straits Branch Roy. Asiat. Soc. 54 (1910) 11. TYPE: Peninsular Malaysia, Penang, Telok Bahang, *C. Curtis 3644* (holotype, SING; isotype, K).
= **POLYALTHIA GLABRA** (Hook.f. & Thomson) J. Sinclair, Gard. Bull. Singapore 14 (1955) 315.

83. **Polyalthia eriantha** Ridl., Bull. Misc. Inform. Kew 1912 (1912) 384, as '*eriantha*'. *Enicosanthum erianthum* (Ridl.) Airy Shaw, Bull. Misc. Inform. Kew 1939 (1939) 276. *Meiogyne eriantha* (Ridl.) J. Sinclair, Sarawak Mus. J. 5 (1951) 604. TYPE: Borneo, Sarawak, Kuching, *G.D. Haviland 410* [d.e.q.b.] (holotype K (barcode no. K000691133); isotypes, K[×2] (barcode nos. K000691134, K000691135), SAR).
= **MEIOGYNE VIRGATA** (Blume) Miq., Ann. Mus. Bot. Lugd.-Bat. 2 (1865) 12; van Heusden, Blumea 38 (1994) 495.
The holotype sheet is annotated 'Type' in Ridley's hand.
84. **Polyalthia hirta** Ridl., J. Straits Branch Roy. Asiat. Soc. 82 (1920) 168, *non* (Miq.) F. Muell. (1877); **POLYALTHIA HIRTIFOLIA** J. Sinclair, Gard. Bull. Singapore 14 (1955) 300, *nom. nov.* TYPE: Peninsular Malaysia, Penang, Pulau Butong Reserve, *C. Curtis 2745*, March 1892 (lectotype, designated here, K (barcode no. K000691452); isotypes, BM, K (barcode no. K000691453), SING).
85. **Polyalthia montana** Ridl., Journ. Linn. Soc., Bot. 41 (1913) 288. TYPE: Peninsular Malaysia, Selangor, Ulu Langat, Menuang Gasing, *C.B. Kloss s.n.*, February 1912 (lectotype, designated by Turner (2009b), K; isolectotype, BM).
= **TRIVALVARIA COSTATA** (Hook.f. & Thomson) I.M. Turner, Kew Bull. 64 (2009) 577.
86. **POLYALTHIA PARVIFLORA** Ridl., J. Straits Branch Roy. Asiat. Soc. 61 (1912) 49; Gard. Bull. Singapore 14 (1955) 299. SYNTYPES: Peninsular Malaysia, Pulau Langkawi, Kuala Malacca, *C. Curtis 2533*, September 1890 (lectotype, designated here, SING (barcode no. SING 0059296); isolectotype, CAL); Pulau Tengah, *H.N. Ridley 15893*, April 1911 (K, BM, SING (barcode no. SING 0059295)).
87. **POLYALTHIA PUMILA** Ridl., J. Straits Branch Roy. Asiat. Soc. 54 (1910) 12; Gard. Bull. Singapore 14 (1955) 289. SYNTYPES: Peninsular Malaysia, Perak, Dindings, Sera Woods, *H.N. Ridley 7996*, March 1896 (lectotype, designated here, SING (barcode: SING 0059298); isolectotype, K); Johore, Gunong Janing, *H.W. Lake & H.J. Kelsall s.n.*, 20 October 1892 (SING (barcode: SING 0059299)).

88. **Polyalthia purpurea** Ridl., J. Straits Branch Roy. Asiat. Soc. 82 (1920) 168. TYPE: Singapore, cultivated in Singapore Botanic Gardens, *H.N. Ridley 12014*, June 1904 (lectotype, designated here, K (barcode no. K000691573); isoelectotype, SING).
= **POLYALTHIA SCLEROPHYLLA** Hook.f. & Thomson, Fl. Brit. Ind. 1 (1872) 65; Sinclair, Gard. Bull. Singapore 14 (1955) 311.
89. **Polyalthia velutinosa** Ridl., J. Straits Branch Roy. Asiat. Soc. 59 (1911) 64. TYPE: Peninsular Malaysia, Pulau Lankawi, Gunong Raya at 1500 feet, [Aniff] *Haniff 15552*, February 1911 (holotype, SING (barcode no. SING 0058808); isotypes, BM, K).
= **POLYALTHIA CINNAMOMEA** Hook.f. & Thomson, Fl. Ind. 1 (1855) 138; Sinclair, Gard. Bull. Singapore 14 (1955) 286.
90. **Popowia rufescens** Ridl., Bull. Misc. Inform. Kew 1926 (1926) 59. TYPE: Sumatra, Mentawai Islands, Siberut, *C.B. Kloss 14607* (holotype, K (barcode no. K000691711); isotype, BO).
= **POPOWIA PISOCARPA** (Blume) Endl. ex Walp., Repert. Bot. Syst. 1 (1842) 74; Sinclair, Gard. Bull. Singapore 14 (1955) 468.
91. **Unona conchylia** Ridl., Bull. Misc. Inform. Kew 1912 (1912) 384. *Desmos conchylia* (Ridl.) Merr., J. Straits Branch Roy. Asiat. Soc., Spec. No., (1921) 255. TYPE: Borneo, Sarawak, Kuching, *G.D. Haviland 771 [1779]*, 13 October 1892 (holotype, K (barcode no. K000691930)).
= **MEIOGYNE MONOSPERMA** (Hook.f. & Thomson) Heusden, Blumea 38 (1994) 502.
Ridley referred to *Haviland 1779* in describing the species. There are three sheets at Kew bearing this number, but all differ in collection date. One, which has the original collection number 771, has been annotated by Ridley as type. Other herbaria (B, BO, L, SAR, SING) have Haviland specimens with the number 1779 but none appears to be a duplicate of the holotype.
92. **Unona filipes** Ridl., J. Linn. Soc. Bot. 41 (1913) 287. *Desmos filipes* (Ridl.) Ridl., J. Straits Branch Roy. Asiat. Soc. 75 (1917) 6. **DASYMASCHALON FILIPES** (Ridl.) Bân, Bot. Zhurn. 60(2): 229; Wang et al., Syst. Bot. 34 (2009) 259. SYNTYPES: Peninsular Malaysia, Selangor, Menuang Gasing, *C.B. Kloss s.n.*, February 1912 (lectotype, designated here, K (barcode no., K000198741); isoelectotypes, K[×2] (barcode nos. K000198739, K00019840); Perak, *Fr B. Scortechini 342*, September

1892 (BO, CAL, K, SING); Larut, *L. Wray* 609, May 1886 (K), Larut, *Dr King's Collector* [H.H. Kunstler] 5291 (K).

Nurmawati (2003) referred to the Herbarium Bogoriense duplicate of the Scortechini collection as the lectotype of *Unona filipes* but this is invalid as a lectotypification as the term 'designated here' or equivalent was not used [ICBN Art. 7.11]. I choose one of the Kloss specimens as the lectotype because, not only are they good specimens, but the protologue was published in the account of Kloss's expedition to Gunung Menuang Gasing. The chosen sheet has the species name in Ridley's hand.

93. **Unona jambosifolia** Ridl., Bull. Misc. Inform. Kew 1912 (1912) 384. *Desmos jambosifolius* Merr., J. Straits Branch Roy. Asiat. Soc. Spec. No. (1921) 255. *Polyalthia jambosifolia* (Ridl.) D.M. Johnson, Contrib. Univ. Mich. Herb. 22 (1999) 99. SYNTYPES: Borneo, Sabah, Kudat, *M. Fraser* 174, July 1885, (lectotype, designated here, K (barcode no. K000691580); Batu Putik, *C.V. Creagh* s.n. (BM, K (barcode no. K000691581);

= **POLYALTHIA MICROTUS** Miq., Ann. Mus. Bot. Lugd. Bat. 2 (1865) 13.

The Creagh specimen is *Polyalthia igniflora* D.M. Johnson.

94. **Unona purpurata** Ridl., Sar. Mus. J. 1(3) (1913) 79, *nom. illegit.* *Desmos purpuratus* (Ridl.) Merr., J. Straits Branch Roy. Asiat. Soc., Spec. No., (1921) 256, *nom. illegit.* TYPE: Same as *Unona conchyliata* Ridl.

= **MEIOGYNE MONOSPERMA** (Hook.f. & Thoms.) Heusden, Blumea 38 (1994) 502.

95. **UVARIA CAULIFLORA** Ridl., Bull. Misc. Inform. Kew 1912 (1912) 382. SYNTYPES: Borneo, Sarawak, *O. Beccari* P.B. 1120 (FI-B, K); Tegora, *G.D. Haviland* 417 [c.k.q.a.] [Garai leg.] (lectotype, designated here, K (barcode no. K000380300); isoelectotype, K (barcode no. K000380298)); near Kuching, *G.D. Haviland* 417 [Ulak leg.], 6 October 1892 (K); foot of Bembang, *G.D. Haviland* 409 (K, SAR).

The lectotype sheet selected is annotated 'Type' in Ridley's hand.

96. **UVARIA LANUGINOSA** Ridl., Bull. Misc. Inform. Kew 1912 (1912) 382.
TYPE: Borneo, Sarawak, near Kuching, *G.D. Haviland & C. Hose* 3334, 13 November 1894 (holotype, K (barcode no. K000380301); isotypes, BM, SAR).
In the protologue, Ridley cited the type as 334, but the correct number is 3334.
97. **Xylopia congesta** Ridl., Bull. Misc. Inform. Kew 1912 (1912) 387.
POLYALTHIA CONGESTA (Ridl.) J. Sinclair, Sarawak Mus. Journ. 5 (1951) 607. TYPE: Borneo, Sarawak, *O. Beccari P.B.* 2654 (holotype, K (barcode no. K000691591); isotypes, BM, FI-B).
98. **XYLOPIA CORIIFOLIA** Ridl., Bull. Misc. Inform. Kew 1912 (1912) 388.
SYNTYPES: Borneo, Sarawak, near Kuching, *G.D. Haviland & C. Hose* 3337, 6 November 1894 (lectotype, designated here, K (barcode no. K000574692); isoelectotype, SAR); near Kuching, *G.D. Haviland* 1906 [leg. Garai], 26 October 1892 (K); *s. loc.*, *O. Beccari P.B.* 2652 (FI-B, K), *O. Beccari P.B.* 3335 (FI-B, K);.
99. **Xylopia havilandii** Ridl., Bull. Misc. Inform. Kew 1912 (1912) 388.
SYNTYPES: Borneo, Sarawak, near Kuching, *G.D. Haviland* 2334, 17 May 1893 (lectotype, designated here, K (barcode no. K000574708); isoelectotypes, SAR, SING); *G.D. Haviland & C. Hose* 3352, 29 December 1894 (K).
= **XYLOPIA FUSCA** Maingay ex Hook.f. & Thomson, Fl. Brit. India 1 (1872) 83.
100. **Xylopia lanceola** Ridl., Bull. Misc. Inform. Kew 1912 (1912) 389.
SYNTYPES: Borneo, Sarawak, *O. Beccari P.B.* 3368 (K); *O. Beccari P.B.* 1968 (lectotype, designated by Sinclair (1951), K (barcode no. K000574695); isoelectotypes, A, B, FI-B).
= **XYLOPIA CAUDATA** Hook.f. & Thomson var. **RETICULATA** J. Sinclair, Sarawak Mus. J. 5 (1951) 608.
Ridley misreported *P.B.* 1968 as 1908 in the protologue – an excusable error as the labels are hand-written and the down stroke on the 6 is very faint. In K the specimen *G.D. Haviland* 2066 is annotated in Ridley's hand as type of *Xylopia lanceola* although the specimen was not cited in the original publication.

101. **XYLOPIA PULCHELLA** Ridl., Bull. Misc. Inform. Kew 1912 (1912) 388.
TYPE: Borneo, Sarawak, near Kuching, *G.D. Haviland* 2101, 16 January 1893 (holotype, K (barcode no. K000574761); isotype, SAR[×2]).
102. **Xylopi** **rotundata** Ridl., Bull. Misc. Inform. Kew 1926 (1926) 469.
TYPE: Borneo, Sarawak, Kuching, Siol, 7 January 1924, *Jantan bin Omar* [Foxworthy's collector] 00357 (holotype, SING; isotype, NY).
= **DREPANANTHUS BIOVULATUS** (Boerl.) Surves. & R.M.K. Saunders, Taxon 59 (2010) 1730.
- iii. **Sphaerocoryne** (Scheff. ex Boerl.) Scheff. ex Ridl., J. Straits Branch Roy. Asiat. Soc. 75 (1917) 8. Basionym: *Polyalthia* section *Sphaerocoryne* Scheff. ex Boerl., [Cat. Pl. Phan. 1 (1899) 26, *nomen*] Icon. Bogor. 1 (1899) 196. TYPE: *Sphaerocoryne aberrans* (Maingay ex Hook.f. & Thomson) Ridl. (designated by Fries (1959)).
Although Ridley made no direct reference to Boerlage's sectional name, ICBN rules apply such that the genus must be considered to be based on section *Sphaerocoryne* [ICBN Art. 33.3, viz. Ex. 9].
- iv. **Canangium latifolium** [Hook.f. & Thomson] Pierre ex Ridl., Fl. Malay Pen. 1 (1922) 44, *nom. superfl.* *Unona latifolia* Hook.f. & Thomson, Fl. Brit. India 1 (1872) 60, *non U. latifolia* Dunal.
Ridley's intention was to transfer *Unona latifolia* Hook.f. & Thomson to *Canangium*, but as this is a later homonym the transfer is invalid (hence square brackets in citation) and as a new name the combination is superfluous as Pierre had provided the replacement *Unona brandisiana* for Hooker and Thomson's name, which Safford had already transferred to *Canangium* (Turner & Veldkamp 2009).
- v. **Canangium monospermum** (Hook.f. & Thomson) Ridl., J. Straits Branch Roy. Asiat. Soc. 75 (1917) 7. **MEIOGYNE MONOSPERMA** (Hook.f. & Thomson) Heusden, Blumea 38 (1994) 502. Basionym: *Cananga monosperma* Hook.f. & Thomson, Fl. Brit. Ind. 1 (1872) 57.

- vi. **Desmos dasymaschalus** (Blume) Safford var. **wallichii** (Hook.f. & Thomson) Ridl., Fl. Malay Penins. 1 (1922) 47. *Dasymaschalon blumei* Finet & Gagnep. var. *wallichii* (Hook.f. & Thomson) Bân, Bot. Zhurn. 60 (1975) 228. *Dasymaschalon dasymaschalum* (Blume) I.M. Turner var. *wallichii* (Hook.f. & Thomson) I.M. Turner, Gard. Bull. Singapore 58 (2007) 277. **DASYMASCHALON WALLICHII** (Hook.f. & Thomson) Jing Wang & R.M.K. Saunders, Syst. Bot. 34 (2009) 263. Basionym: *Unona dasymaschala* var. *wallichii* Hook.f. & Thomson, Fl. Ind. 1 (1855) 135.
- vii. **Desmos filipes** (Ridl.) Ridl., J. Straits Branch Roy. Asiat. Soc. 75 (1917) 6. **DASYMASCHALON FILIPES** (Ridl.) Bân, Bot. Zhurn. 60(2): 229; Wang et al., Syst. Bot. 34 (2009) 259. Basionym: **Unona filipes** Ridl., J. Linn. Soc., Bot. 41 (1913) 287.
- viii. **MEZZETTIA HAVILANDII** (Boerl.) Ridl., Sarawak Mus. Journ. 1(3) (1913) 96; van der Heijden & Kessler, Blumea 35 (1990) 221. Basionym: *Mezzettia parviflora* Becc. var. *havilandii* Boerl., Icon. Bogor. 1 (1899) 111.
- ix. **Mitrephora chrysocarpa** (Miq.) Boerl. var. **sakumbangensis** (Miq.) Ridl., Sar. Mus. J. 1 (1913) 87. Basionym: *Orophea chrysocarpa* Miq. var. *sakumbangensis* Miq., Ann. Mus. Bot. Lugd.-Bat. 2 (1865) 24.
= **PSEUDUVARIA RETICULATA** (Blume) Miq., Fl. Ned. Ind. 1(2) (1858) 33; Su & Saunders, Syst. Bot. Monogr. 79 (2006) 150.
- x. **Polyalthia crinita** (Hook.f. & Thomson) Ridl., J. Straits Branch Roy. Asiat. Soc. 75 (1917) 6. Basionym: *Unona crinita* Hook.f. & Thomson, Fl. Brit. Ind. 1 (1872) 61.
= **POLYALTHIA STENOPETALA** (Hook.f. & Thomson) Finet & Gagnep., Bull. Soc. Bot. France Mem. 4 (1906) 96; Sinclair, Gard. Bull. Singapore 14 (1955) 285. (Note that this combination is often attributed to Ridley (J. Straits Branch Roy. Asiat. Soc. 75 (1917) 6) but Finet and Gagnepain have priority on the name by more than a decade).

- xi. **Polyalthia desmantha** (Hook.f. & Thomson) Ridl., J. Straits Branch Roy. Asiat. Soc. 75 (1917) 6. *Desmos desmanthus* (Hook.f. & Thomson) Saff., Bull. Torrey Bot. Club 39 (1912) 508. **POLYALTHIA CAULIFLORA** Hook.f. & Thomson var. **DESMANTHA** (Hook.f. & Thomson) J. Sinclair, Gard. Bull. Singapore 14 (1955) 295. Basionym: *Unona desmantha* Hook.f. & Thomson, Fl. Brit. Ind. 1 (1872) 61.
- xii. **Polyalthia submitrata** (Miq.) Ridl., Sar. Mus. J. 1 (1913) 82. Basionym: *Monoon submitratum* Miq., Ann. Mus. Bot. Lugd.-Bat. 2 (1865) 16. = **SPHAEROCORYNE AFFINIS** (Teijsm. & Binn.) Ridl., J. Straits Branch Roy. Asiat. Soc. 75 (1917) 8.
- xiii. **Polyalthia wrayi** (Hemsl.) Ridl., J. Straits Branch Roy. Asiat. Soc. 75 (1917) 6. *Desmos wrayi* (Hemsl.) Saff., Bull. Torrey Bot. Club 39 (1912) 507. **POLYALTHIA CAULIFLORA** Hook.f. & Thomson var. **WRAYI** (Hemsl.) J. Sinclair, Gard. Bull. Singapore 14 (1955) 296. Basionym: *Unona wrayi* Hemsl., Hook. Icon. Pl. 16 (1887) t. 1553.
- xiv. **Popowia nervosa** (Hook.f.) Ridl., Fl. Malay Penins. 1 (1922) 78. **TRIVALVARIA NERVOSA** (Hook.f. & Thomson) J. Sinclair, Gard. Bull. Singapore 14 (1955) 197. Basionym: *Ellipeia nervosa* Hook.f. & Thomson, Fl. Brit. Ind. 1 (1872) 52.
- xv. **Popowia pumila** (King) Ridl., Fl. Malay Penins. 1 (1922) 78. *Trivalvaria pumila* (King) J. Sinclair, Gard. Bull. Singapore 14 (1955) 198. Basionym: *Ellipeia pumila* King, J. Asiat. Soc. Bengal, Pt. 2, Nat. Hist. 61 (1892) 27. = **TRIVALVARIA COSTATA** (Hook.f. & Thomson) I.M. Turner, Kew Bull. 64 (2009) 577.
- xvi. **Sphaerocoryne aberrans** (Maingay ex Hook.f. & Thomson) Ridl., J. Straits Branch Roy. Asiat. Soc. 75 (1917) 8. *Popowia aberrans* (Maingay ex Hook.f. & Thomson) Pierre ex Finet & Gagnep., Bull. Soc. Bot. Fr. Mem. 4(2) (1906) 109. *Melodorum aberrans* (Maingay ex Hook.f. & Thomson) J. Sinclair, Gard. Bull. Singapore 14 (1953) 41. *Mitrella aberrans* (Maing. ex Hook.f. & Thomson) Bân, Bot. Zhurn. 59(2) (1974) 244. Basionym: *Polyalthia aberrans* Maingay ex Hook.f. & Thomson, Fl. Brit. Ind. 1 (1872) 67. = **SPHAEROCORYNE AFFINIS** (Teijsm. & Binn.) Ridl., J. Straits Branch Roy. Asiat. Soc. 75 (1917) 8.

- xvii. **SPHAEROCORYNE AFFINIS** (Teijsm. & Binn. ex Boerl.) Ridl., J. Straits Branch Roy. Asiat. Soc. 75 (1917) 8. Basionym: *Polyalthia affinis* Teijsm. & Binn. ex Boerl., Ic. Bogor 1 (1899) t. 63.
- xviii. **Sphaerocoryne siamensis** (Boerl.) Scheff. ex Ridl., J. Straits Branch Roy. Asiat. Soc. 75 (1917) 8. Basionym: *Polyalthia siamensis* Boerl., Ic. Bogor 1 (1899) 195.
 =**SPHAEROCORYNE AFFINIS** (Teijsm. & Binn.) Ridl., J. Straits Branch Roy. Asiat. Soc. 75 (1917) 8.
 Ridley cited three synonyms when making this combination: *Unona mesnyi* Pierre (Fl. Forest. Cochinch. (1881) t. 17), *Popowia mesnyi* Craib (Bull. Misc. Inform. Kew 1914 (1914) 5) and the apparently unpublished *Popowia edulis* Pierre. The first two, predating Boerlage's *Polyalthia siamensis*, at first sight makes Ridley's new combination superfluous (though this does not invalidate the combination [ICBN Art. 52.3]); but Pierre cited *Polyalthia aberrans* Maingay ex Hook.f. & Thomson (Fl. Brit. Ind. 1 (1872) 67) and *Melodorum clavipes* Hance (J. Bot. 15 (1877) 328) as synonyms when describing *Unona mesnyi*, rendering the name illegitimate. Craib, while explicitly excluding *Polyalthia aberrans* from *Unona mesnyi*, did not refer to *Melodorum clavipes*, so failed to validate Pierre's taxon as *Popowia mesnyi*. Therefore *Sphaerocoryne siamensis* was not superfluous when Ridley published it.
- xix. **Uvariella leptopoda** (King) Ridl., Fl. Malay Penins. 1 (1922) 35. **UVARIA LEPTOPODA** (King) R.E. Fr., Ark. Bot. 3 (1953) 40. Basionym: *Ellipeia leptopoda* King, J. Asiat. Soc. Bengal, Pt. 2, Nat. Hist. 61 (1892) 25.

Magnoliaceae

103. **Talauma beccarii** Ridl., Bull. Misc. Inform. Kew 1912 (1912) 381. *Magnolia candollei* (Blume) Noot. var. *beccarii* (Ridl.) Noot., Blumea 32 (1987) 375. **MAGNOLIA LILIIFERA** Baill. var. **BECCARII** (Ridl.) Govaerts, World Checklist & Bibliogr. Magnoliac. (1996) 71. TYPE: Borneo, Sarawak, Mt Sadong, *O. Beccari* P.B. 3959, November 1867 (holotype, K (barcode no. K000681543); isotype, FI-B).

104. **Talauma oblanceolata** Ridl., Fl. Malay Penins. 5 (1925) 286. TYPE: Peninsular Malaysia, Pahang/Selangor, Sempang, *H.N. Ridley 15590*, April 1911 (holotype, K (barcode no. K000395248); isotype, SING).
= **MAGNOLIA LILIIFERA** var. **OBOVATA** (Korth.) Govaerts, World Checklist & Bibliogr. Magnoliac. (1996) 71.
105. **Talauma singaporensis** Ridl., Bull. Misc. Inform. Kew 1914 (1914) 323. *Magnolia candollei* (Blume) Noot. var. *singaporensis* (Ridl.) Noot., Blumea 32 (1987) 375. **MAGNOLIA LILIIFERA** Baill. var. **SINGAPORENSIS** (Ridl.) Govaerts, World Checklist & Bibliogr. Magnoliac. (1996) 71. SYNTYPES: Singapore, Chan Chu Kang, *H.N. Ridley 5091* (lectotype, designated by Dandy (1928), BM; isolectotypes, B (?destroyed), K, SING); Bukit Mandai Road, *H.N. Ridley 3656* (BM (carpological coll.), K).
K has a sheet of *H.N. Ridley 2110*, Bukit Mandai, January 1891, on which are mounted capsules containing material from the two syntypes. Presumably Ridley used all these collections in describing the species, but failed to cite 2110 in the protologue. Dandy (1928) effectively lectotypified the species name to a BM collection nearly half a century before Nooteboom (1987) proposed the duplicate in SING as lectotype.
- xx. **Talauma longifolia** (Blume) Ridl., J. Fed. Malay States Mus. 7 (1916) 38. Basionym: *Talauma mutabilis* Blume var. *longifolia* Blume, Fl. Jav. Magnol. (1829) 37.
= **MAGNOLIA LILIIFERA** Baill. var. **LILIIFERA**, Govaerts, World Checklist & Bibliogr. Magnoliac. (1996) 33.

NYMPHAEALES

Nymphaeaceae

- xxi. **Barclaya kunstleri** (King) Ridl., Fl. Malay Penins. 1 (1922) 117. **HYDROSTEMMA KUNSTLERI** (King) B.C. Stone, Gard. Bull. Singapore 35 (1982) 71. Basionym. *Barclaya motleyi* var. *kunstleri* King, J. Asiat. Soc. Bengal, Pt. 2, Nat. Hist. 58 (1887) 390.

PIPERALES

Aristolochiaceae

106. **ARISTOLOCHIA GLAUCIFOLIA** Ridl., Bull. Misc. Inform. Kew 1925 (1925) 88; Ding Hou, Fl. Males. 10 (1984) 93. TYPE: Sumatra, Bencoolen, *C.J. Brooks s.n.* (holotype, K (barcode no. K000820375)).
107. **ARISTOLOCHIA KLOSSII** Ridl., Bull. Misc. Inform. Kew 1926 (1926) 78, Ding Hou, Fl. Males. 10 (1984) 93. TYPE: Sumatra, Mentawai Islands, Sipora, *C.B. Kloss SFN 14767*, 24 October 1924 (holotype, K (barcode no. K000820374); isotypes, BO, SING).
108. **ARISTOLOCHIA MINUTIFLORA** Ridl. ex Gamble, Bull. Misc. Inform. Kew 1910 (1910) 79; Ding Hou, Fl. Males. 10 (1984) 93. SYNTYPES: Peninsular Malaysia, Perak, *H.N. Ridley 8022*, March 1896 (lectotype, designated here, SING; isoelectotype, BM); *H.N. Ridley 10259* (SING), *Kunstler* [King's Collector] 1964.
109. **Aristolochia pithecurus** Ridl., J. Bot. 52 (1914) 296. **PARARISTOLOCHIA PITHECURUS** (Ridl.) Mich. J. Parsons, Bot. J. Linn. Soc. 120 (1996) 207. TYPE: New Guinea, Central Province, Sogeri Region, Mt Korkoko 2500 ft, *H.O. Forbes 621* (holotype, BM; isotypes, L, WRS�).
110. **Thottea hirsuta** Ridl., Journ. As. Soc. Mal. 1 (1923) 87. TYPE: Sumatra, Sibolangit, Bukit Pasang, *Mohamed Nur SFN 7223*, 11 August 1921 (holotype, K; isotypes, BM, BO, SING (barcode no. SING 0097461)).
= **THOTTEA MACRANTHA** (Boerl.) Ding Hou, Fl. Males. 10 (1984) 81.
111. **THOTTEA PARVIFLORA** Ridl., J. Straits Branch Roy. Asiat. Soc. 57 (1911) 89; Ding Hou, Fl. Males. 10 (1984) 67. TYPE: Peninsular Malaysia, Perak, Upper Perak, Temengoh hill woods, *H.N. Ridley 14580*, August 1904 (holotype, SING (barcode no. SING 0097415)).

Piperaceae

112. **Peperomia hedyotide** Ridl., Trans. Linn. Soc., Bot. 9 (1916) 142. SYNTYPES: New Guinea, Mt Carstensz, Camp VIc, *C.B. Kloss s.n.*, 22 February 1913 (lectotype, designated here, BM (barcode BM000950712); isoelectotype, K); Camp III, 2500 ft, *C.B. Kloss s.n.*, Febuary 1913 (BM (barcode no. BM000950711)); Camp VIb, *C.B. Kloss s.n.*, 2 February 1913, (BM (barcode no. BM000950710), K). At both BM and K all the syntypes are mounted on one herbarium sheet.
113. **Peperomia malaccensis** Ridl., Bull. Misc. Inform. Kew 1895 (1895) 185. TYPE: Peninsular Malaysia, Malacca, *R. Derry s.n.* (holotype, K (barcode no. K000820265)).
? = **Peperomia gemella** Miq.
114. **Peperomia muscicola** Ridl., Trans. Linn. Soc., Bot. 9 (1916) 141. TYPE: New Guinea, Mt Carstensz, Camp I, 500 ft, *C.B. Kloss s.n.*, November–December 1913 (holotype, BM (barcode no. BM00950714); isotype, K).
115. **Peperomia obliqua** Ridl., Trans. Linn. Soc., Bot. 9 (1916) 142, *non P. obliqua* Ruiz & Pav. (1798). **PEPEROMIA RIDLEYI** C. DC., Candollea 1 (1923) 407. TYPE: New Guinea, Camp IX to XI, 5500 to 8300 ft, *C.B. Kloss s.n.*, February 1912 (holotype, BM (barcode no. BM000950715)).
116. **Peperomia purpurea** Ridl., Trans. Linn. Soc., Bot. 9 (1916) 141; *non P. purpurea* Ruiz & Pavon. (1798). **PEPEROMIA COLOSSINA** C.DC., Candollea 1 (1923) 383. TYPE: New Guinea, Camps I to III, 500 to 2500 ft, *C.B. Kloss s.n.*, 22 November 1912 (holotype, BM (barcode no. BM000950716); isotype, K).
117. **Peperomia villosa** Ridl., J. Fed. Malay States Mus. 8 (1917) 80, *non P. villosa* C. DC. (1866). **PEPEROMIA KERINCIENSIS** I.M. Turner, *nom. nov.* TYPE: Sumatra, Korinchi (Kerinci) Peak, Siolak, Daras 3000 ft, *H.C. Robinson & C.B. Kloss s.n.*, 19 March 1914, annot. 'Peperomia hispidula Ridl.' (lectotype, designated here, K (barcode no. K000820274)).

I have not traced any material labelled *Peperomia villosa* Ridl. In the Kew herbarium there is a Robinson & Kloss specimen that agrees with the details given in the protologue and which is labelled '*Peperomia hispidula* Ridl.', a name apparently never published by Ridley. One

supposes Ridley, realizing his proposed name was already used for a Caribbean species (*Peperomia hispidula* (Sw.) Dietr.), changed to *P. villosa* without correcting the specimen. Unfortunately *P. villosa* is also a later homonym, so I here provide an avowed substitute for it.

118. **PIPER ARGYRITES** Ridl. ex C.DC., Rec. Bot. Surv. India 6 (1912) 25; Suwanphakdee & Chantaranothai, Blumea 56 (2011) 239. SYNTYPES: Peninsular Malaysia, Selangor, Gua Batu, *H.N. Ridley* 8176 (lectotype, designated by Suwanphakdee & Chantaranothai (2011), SING; isotype, G); Ginding Bidai, *H.N. Ridley* 7611.

119. **Piper burkillii** Ridl., J. Straits Branch Roy. Asiat. Soc. 82 (1920) 189. TYPE: Peninsular Malaysia, Negeri Sembilan, Tampin Hill, *I.H. Burkill* SFN 1177, 10 July 1916 (holotype, K (barcode no. K000794927); isotype, SING (barcode no. SING 0068757)).
 ?= **Piper curtisii** C. DC.

120. **Piper coactile** Ridl., Journ. As. Soc. Mal. 1 (1923) 88. TYPE: Sumatra, Berastagi, Karoo Plateau, 5000 ft, *H.N. Ridley* s.n., 15 February 1921 (holotype, K (barcode no. K000820249)).

121. **Piper cyrtostachys** Ridl., J. Straits Branch Roy. Asiat. Soc. 82 (1920) 189. TYPE: Peninsular Malaysia, Pahang, Gunong Berumbun near Telom, *H.N. Ridley* 14013, November 1908 (holotype, K (barcode no. K000794912)).
 The Ridley collection number is the same as that for the type of *Piper subgrande* Ridl., but the location and date are different.

122. **Piper grande** Ridl., Trans. Linn. Soc., Bot. 9 (1916) 112; *non P. grande* Vahl (1798). *Piper pergrande* C. DC., Candollea 1 (1923) 268, *nom. nov.* SYNTYPES: New Guinea, Mt Carstensz, Camp 1, *C.B. Kloss* s.n., October–November 1912 (lectotype, designated by Chew (1992), BM; isotype, K); Canoe Camp, 150 ft, *C.B. Kloss* s.n., October–November 1912 (BM, K).
 = **PIPER SUBBULLATUM** K. Schum. & Lauterb., Fl. Schutzgeb. Südsee (1900) 262; Chew, Blumea 37 (1992) 161.

123. **Piper klossii** Ridl., J. Straits Branch Roy. Asiat. Soc. 82 (1920) 189. TYPE: Peninsular Malaysia, Selangor, Gunong Menuang Gasing, Ulu Langat *C.B. Kloss* s.n., February 1912 (holotype, K (barcode no. K000794928)).

124. **Piper kraense** Ridl., J. Fed. Malay States Mus. 10 (1920) 112, as '*kraensis*'. TYPE: Thailand, Tasan, *C.B. Kloss* 7045, February–March 1919 (holotype, K (barcode no. K000794895); isotype, SING (barcode no. SING 0068765).
 ?= **Piper majusculum** Blume
125. **Piper kurzii** Ridl., J. Straits Branch Roy. Asiat. Soc. 82 (1920) 188. SYNTYPES: Burma, Pegu, *W.S. Kurz* 2220, 21 February 1871 (lectotype, designated here, K (barcode no. K000794423) (excluding fruiting material in attached capsule (barcode no. K000794424)); isotype, CAL). Perak, Temengoh, *H.N. Ridley* 14575, August 1909 (K); Selangor, Batu Caves, *H.N. Ridley s.n.*, 4 March 1915 (K).
 Given Ridley's choice of epithet it seems appropriate to select the Kurz specimen as lectotype. In the protologue, Ridley confused his Ks and mistakenly referred to Kunstler as the collector of the lectotype sheet. The Kew duplicate of this sheet has an attached capsule containing one infructescence. This is labelled as *Kurz* 491 and is therefore specifically excluded from the lectotype as it represents a different gathering. *Piper kurzii* C.DC. (Candollea 1 (1923) 198) is a later homonym of Ridley's species and probably represents the same taxon as *Kurz* 2220 was cited (though *pro parte* – possibly explained by inclusion of material of *Kurz* 491) in the expanded description of the species (Candollea 2 (1925) 205).
126. **Piper melanocarpum** Ridl., Journ. As. Soc. Mal. 1 (1923) 88. TYPE: Sumatra, Berastagi, *H.N. Ridley s.n.*, 11 February 1921 (holotype, K (barcode no. K000820051)).
 ?= **Piper nigrescens** Blume
127. **Piper montivagum** Ridl., Trans. Linn. Soc., Bot. 9 (1916) 143. TYPE: New Guinea, Mt Carstensz, Camps IX to XIII, 5500 to 10500 ft, *C.B. Kloss s.n.* (holotype, BM (barcode no. BM000624276)).
 = **PIPER GIBBILIMBUM** C. DC., Nova Guinea 8 (1910) 416; Johns in Johns et al., Guide Alp. & Subalp. Fl. Mt. Jaya (2006) 401
128. **Piper oreophilum** Ridl., J. Straits Branch Roy. Asiat. Soc. 82 (1920) 188. TYPE: Peninsular Malaysia, Pahang, Gunong Tahan in the gully on the way to the plateau about 4000 ft, *H. N. Ridley* 16106, August 1911 (holotype, K (barcode no. K000794911)).

129. **Piper philodendron** Ridl., J. Malayan Branch Roy. Asiat. Soc. 1 (1923) 87. TYPE: Sumatra, Berastagi woods, *H.N. Ridley s.n.*, 14 February 1921 (holotype, K (barcode no. K000820057)).
130. **Piper polycarpum** Ridl., J. Fed. Malay States Mus. 10 (1920) 112, as '*polycarpa*'. TYPE: Thailand, Tasan, *C.B. Kloss* 6888 (holotype, K (barcode no. K000794894)).
131. **Piper puncticulatum** Ridl., Trans. Linn. Soc., Bot. 9 (1916) 143. TYPE: New Guinea, Mt Carstensz, Camp VIa, 3100 ft, *C.B. Kloss s.n.*, 14 January 1913 (holotype, BM (barcode no. BM00062487); isotype, K).
= **PIPER GIBBILIMBUM** C. DC., Nova Guinea 8 (1910) 416. Johns in Johns et al., Guide Alp. & Subalp. Fl. Mt. Jaya (2006) 401.
132. **Piper salticola** Ridl., J. Malayan Branch Roy. Asiat. Soc. 1 (1923) 88. SYNTYPES: Sumatra, Berastagi, *H.N. Ridley s.n.*, 11 February 1921 (lectotype, designated here, K (barcode no. K00057307); Berastagi forests, *H.N. Ridley s.n.*, 13 February 1921 (K); Berastagi woods, *H.N. Ridley s.n.*, February 1921 (K).
? = **Piper korthalsii** Miq.
133. **Piper subgrande** Ridl., Fl. Malay Penins. 5 (1925) 329. TYPE: Peninsular Malaysia, Perak, Ulu Batang Padang, *H.N. Ridley* 14013, November 1908 (holotype, K (barcode no. K000794913)).
?= **Piper majusculum** Blume
Note that the Ridley collection number is the same as that for the type of *Piper cyrtostachys* Ridl., but the location and date are different.
134. **Piper uncinulatum** Ridl., J. Bot. 62 (1924) 300. TYPE: Peninsular Malaysia, Pahang, Fraser's Hill, 3000 ft, *R.E. Holttum SFN* 11343, 13 September 1923 (holotype, K (barcode no. K000794906)).
135. **Piper venosum** Ridl., Fl. Malay Penins. 5 (1925) 327, *non P. venosum* (Miq.) C.DC. (1869). **PIPER ANGSIENSE** I.M. Turner, *nom. nov.* TYPE: Peninsular Malaysia, Negeri Sembilan, Gunong Angsi west side, *I.H. Burkill* 11510 [Md Nur leg.], 20 November 1923 (holotype, K). Ridley's name is a later homonym. In order to supply a legitimate name for the species I propose an avowed substitute for *Piper venosum* Ridl.

- xxii. **Piper subpenninerve** (C. DC.) Ridl., Fl. Malay Penins. 3 (1924) 47.
 Basionym: *Piper nigrum* var. *subpenninerve* C. DC., J. Asiat. Soc.
 Bengal, Pt. 2, Nat. Hist. 75: 314.

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