

139. MORACEAE

- 139.1.1 **Antiaris toxicaria** Lesch., **FMP3** 351, **TFM3** 120; tree to 45 m tall; lowland forest; widespread.
- 139.2.1 **Artocarpus anisophyllus** Miq., **J07** 138, **TFM3** 123; *Artocarpus superbus* Becc., **FMP3** 356; pinnate-leaved tree to 45 m tall; lowland forest; NS, MI, Jh, Sp.
- 139.2.2 **Artocarpus dadah** Miq., **J08** 91, **TFM3** 124; *Artocarpus lakoocha* auct. non Roxb., **FMP3** 355; tree to 24 m tall; lowland and hill forest; throughout.
- 139.2.3 **Artocarpus elasticus** Reinw. ex Blume, **J07** 346, **TFM3** 124; *Artocarpus kunstleri* King, **FMP3** 353; tree to 45 m tall; lowland forests and open country; common throughout.
- 139.2.4 **Artocarpus fulvicortex** F.M. Jarrett, **J08** 116, **TFM3** 126; tree to 30 m tall; lowland forest; Pk, Ph, NS, MI, Sp.
- 139.2.5 **Artocarpus glaucus** Blume, **J08** 118, **TFM3** 126; *Artocarpus denisonianus* King, **FMP3** 355; tree to 40 m tall; lowland and hill forest; Kd, Pk, Ph, SI, Jh.
- 139.2.6 **Artocarpus gomezianus** Wall. ex Trécul, **J08** 88, **TFM3** 126; tree to 42 m tall; lowland forest; Kd, KI, Ph, NS, Jh, Sp.
- 139.2.7 **Artocarpus hispidus** F.M. Jarrett, **J07** 331, **TFM3** 127; tree to 20 m tall; lowland forest; Pn, Tg, Pk, Ph, SI, MI, Sp; endemic.
- 139.2.8 **Artocarpus integer** (Thunb.) Merr. var. *silvestris* Corner, **J07** 331, **TFM3** 129; *Artocarpus polyphema* Pers., **FMP3** 354; tree to 24 m tall, the wild chempedak (var. *integer* being the cultivated tree); lowland to montane forest; widespread.
- 139.2.9 **Artocarpus kemando** Miq., **FMP5** 335, **J07** 354, **TFM3** 129; tree to 40 m tall; swampy lowland forest; Tg, Ph, SI, Jh, Sp.
- 139.2.10 **Artocarpus lanceifolius** Roxb., **FMP3** 354, **J07** 140, **TFM3** 129; tree to 36 m tall; lowland and hill forest; widespread.
- 139.2.11 **Artocarpus lowii** King, **FMP3** 353, **J07** 339, **TFM3** 131; tree to 25 m tall; lowland forest; widespread but uncommon.
- 139.2.12 **Artocarpus maingayi** King, **FMP3** 354, **J07** 357, **TFM3** 131; tree to 30 m tall; lowland forest, especially swamps; throughout.
- 139.2.13 **Artocarpus nitidus** Trécul ssp. *griffithii* (King) F.M. Jarrett, **J08** 128, **TFM3** 131; *Artocarpus gomezianus* auct. non Trécul, **FMP3** 355; tree to 30 m tall; lowland forest; throughout.

- 139.2.14 **Artocarpus rigidus** Blume, **FMP3** 352, **J07** 150, **TFM3** 131; tree to 45 m tall; lowland and hill forest; throughout.
- 139.2.15 **Artocarpus scortechinii** King, **FMP3** 355, **J07** 344, **TFM3** 134; tree to 45 m tall; lowland forest; widespread.
- 139.2.16 **Artocarpus teysmannii** Miq., **J07** 341, **TFM3** 134; *Artocarpus peduncularis* Kurz, **FMP3** 353; tree to 45 m tall; lowland swamps; Pk, Sl.
- 139.2.17 **Artocarpus sp. A**, **TFM3** 134; tree to 24 m tall; hill forest; once from Gg Tampin, NS; ?endemic.
- 139.2.18 **Artocarpus sp. B**, **TFM3** 134; tree to 15 m tall; lowland forest; once from Gg Ledang, Jh; ?endemic.
- 139.3.1 **Bleekrodea malayana** (Corner) C.C. Berg, **B19** 359; *Streblus malayanus* Corner, **C30** 11; small tree; limestone; Gua Musang, Kl; endemic.
- 139.4.1 **Ficus albipila** (Miq.) King, **TFM3** 139; tall tree; lowlands; scattered.
- 139.4.2 **Ficus allutacea** Blume, **FMP3** 344, **TFM3** 139; epiphytic shrub to 12 m tall; lowland forest; Pk.
- 139.4.3 **Ficus annulata** Blume, **FMP3** 333, **TFM3** 140; strangler to 24 m tall; lowland forest; widespread, commoner in the north.
- 139.4.4 **Ficus apiocarpa** Miq., **FMP3** 338, **TFM3** 140; climber; swampy lowland forest; Tg, Sl, Jh, Sp.
- 139.4.5 **Ficus araneosa** King, **FMP3** 345, **TFM3** 140; slender climber; lowland forest; Pk, Sl.
- 139.4.6a **Ficus aurantiacea** Griff. var. **angustifolia** Corner, **TFM3** 140; climber; montane forest; Main Range.
- 139.4.6b **Ficus aurantiacea** Griff. var. **aurantiacea**, **FMP3** 338, **TFM3** 140; *Ficus callicarpa* Miq., **FMP3** 338; climber; lowland forest; widespread.
- 139.4.7a **Ficus aurata** Miq. var. **aurata**, **TFM3** 140; *Ficus chrysocarpa* Reinw. ex Blume, **FMP3** 348; shrub or small tree to 9 m tall; secondary forest; Kl, Tg, Pk, Ph, Sl, Ml, Jh, Sp.
- 139.4.7b **Ficus aurata** Miq. var. **longipilosa** Corner, **TFM3** 141; shrub; lowland and hill forest; Pk to Sp.
- 139.4.7c **Ficus aurata** Miq. var. **pedunculata** Corner, **TFM3** 141; shrub; lowland and hill forest; Tg, Pk, Sl; endemic variety.
- 139.4.8 **Ficus beccarii** King, **TFM3** 141; shrubby earth-fig to 5 m tall; near rocky streams; Tg to Jh.

- 139.4.9 **Ficus benjamina** L., **FMP3** 336, **TFM3** 141; large strangler; lowland forests and on roadside trees; throughout.
- 139.4.10a **Ficus binnendykii** Miq. var. **binnendykii**, **FMP3** 336, **TFM3** 141; strangler; lowland forest; Pk, Ph, NS, Jh.
- 139.4.10b **Ficus binnendykii** Miq. var. **coriacea** Corner, **TFM3** 141; strangler; lowland forest; Pk, Ml, Sp.
- 139.4.11 **Ficus bracteata** Wall. ex Miq., **FMP3** 331, **TFM3** 141; strangler; lowland forest; Pk, Sl, Jh, Sp.
- 139.4.12 **Ficus calcicola** Corner, **TFM3** 142, **C14** 183; shrub or small tree to 8 m tall, sometime epiphytic; limestone hills; Pk, Ph, Sl.
- 139.4.13 **Ficus callophylla** Blume, **TFM3** 142; scrambler; Kl, Tg.
- 139.4.14 **Ficus callosa** Willd., **TFM3** 142; tree to 33 m tall; lowland forest, often near the sea; Malaya north of Kuala Lumpur.
- 139.4.15 **Ficus caulocarpa** Miq., **TFM3** 142; strangler with many aerial roots; widespread.
- 139.4.16 **Ficus chartacea** Wall. ex King, **FMP3** 350, **TFM3** 142; shrub or small tree to 9 m tall; lowland to montane forest; throughout.
- 139.4.17 **Ficus concinna** Miq., **TFM3** 144; strangler; Ph.
- 139.4.18 **Ficus consociata** Blume var. **murtoni** King, **FMP3** 331, **TFM3** 144; strangler; lowland forests and seashores; throughout.
- 139.4.19 **Ficus crassiramea** Miq., **TFM3** 144; *Ficus procera* Blume, **FMP3** 332; big strangler; lowland forest; throughout.
- 139.4.20 **Ficus cucurbitina** King, **TFM3** 144; scrambler; usually near the sea; Ph, Jh.
- 139.4.21 **Ficus curtipes** Corner, **TFM3** 144; *Ficus obtusifolia* (non H.B.K.) Roxb., **FMP3** 335; scrambler; lowland forest; P. Langkawi, Pn.
- 139.4.22 **Ficus delosyae** Corner, **TFM3** 144; tall strangler; lowland forest; Tg, Pk, Sl, NS, Jh, Sp.
- 139.4.23a **Ficus deltoidea** Jack var. **angustifolia** (Miq.) Corner, **C29** 300, **TFM3** 145; *Ficus diversifolia* Blume var. *ovoidea* Jack, **FMP3** 346; shrub to 4 m tall, sometimes epiphytic; lowland and montane forest, common on seashores; widespread.
- 139.4.23b **Ficus deltoidea** Jack var. **bilobata** Corner, **C29** 303, **TFM3** 145; shrub to 5 m tall; ridge forest at 1000–2000 m, also on limestone; Kd to Ph and Sl, endemic variety.

- 139.4.23c **Ficus deltoidea** Jack var. **deltoidea**, C29 300, TFM3 145; *Ficus diversifolia* Blume var. *deltoidea* (Jack) Ridl., FMP3 346; shrub to 2 m tall, often epiphytic; seashores to mountain tops.
- 139.4.23d **Ficus deltoidea** Jack var. **intermedia** Corner, C29 304, TFM3 145; *Ficus burkillii* Ridl., FMP3 330; *Ficus diversifolia* Blume var. *lutescens* auct. non (Desf.) King, FMP3 346; shrub to 4 m tall, sometimes epiphytic; montane forest.
- 139.4.23e **Ficus deltoidea** Jack var. **kunstleri** (King) Corner, C29 306, TFM3 145; *Ficus diversifolia* Blume var. *kunstleri* King, FMP3 346; epiphytic shrub; lowland and montane forest; Jh northward.
- 139.4.23f **Ficus deltoidea** Jack var. **motleyana** (Miq.) Corner, C29 308, TFM3 145; *Ficus motleyana* Miq., FMP5 334; shrub to 6 m tall; montane forest; Gg Tapis, Ph.
- 139.4.23g **Ficus deltoidea** Jack var. **trengganuensis** Corner, C29 310, TFM3 145; shrub to 2 m tall, sometimes epiphytic; coastal areas, lowland and montane forest; endemic variety.
- 139.4.24 **Ficus depressa** Blume, TFM3 145; *Ficus pruniformis* Blume, FMP3 333; strangler; lowland forest; Kl, Pk, Ph, Sl.
- 139.4.25 **Ficus disticha** Blume, TFM3 145; strangler; montane forest; Tg, Ph.
- 139.4.26 **Ficus drupacea** Thunb., TFM3 145; *Ficus pilosa* Reinw. ex Blume, FMP3 331; big tree; lowland and hill forest; north of Malaya.
- 139.4.27 **Ficus dubia** Wall. ex King, FMP3 333, TFM3 146; large scrambler or strangler; lowland forest; scattered throughout.
- 139.4.28 **Ficus elastica** Roxb. ex Hornem., FMP3 334, TFM3 146; large strangler; lowlands; north Malaya, cultivated elsewhere.
- 139.4.29 **Ficus excavata** King, FMP3 344, TFM3 146; epiphytic climber; lowlands; Tg and Pk to Sp.
- 139.4.30a **Ficus fistulosa** Reinw. ex Blume var. **fistulosa**, FMP3 343, TFM3 146; weedy tree to 15 m tall; secondary forest, waysides; common throughout.
- 139.4.30b **Ficus fistulosa** Reinw. ex Blume var. **tengerensis** (Miq.) Kuntze, TFM3 147; shrub or small tree; hills and mountains; widespread.
- 139.4.31a **Ficus forstenii** Miq. var. **pacifica** (Elmer) Corner, TFM3 147; strangler; lowland forest; once from Larut, Pk.
- 139.4.31b **Ficus forstenii** Miq. var. **villosa** Corner, TFM3 147; strangler; lowland forest; once from Kroh, Ph.

- 139.4.32 **Ficus fulva** Reinw. ex Blume, **FMP3** 347, **TFM3** 147; *Ficus chrysocarpa* Reinw. ex Blume, **FMP3** 348; *Ficus patens* Ridl., **FMP3** 348; small tree to 18 m tall; secondary forests in the lowlands and hills; MI northwards.
- 139.4.33 **Ficus glandulifera** (Wall. ex Miq.) King, **FMP3** 347, **TFM3** 147; tree to 15 m tall; lowland forest; Ps, Kd, Pn, Tg, Pk, Ph, Sl, MI, Jh, Sp.
- 139.4.34 **Ficus globosa** Blume, **FMP3** 333, **TFM3** 147; scrambler; sea coasts to mountains; Pk and Ph southward.
- 139.4.35a **Ficus grossularioides** Burm.f. var. **grossularioides**, **TFM3** 148; *Ficus alba* Reinw. ex Blume, **FMP3** 347; shrub to 9 m tall; secondary forest; common throughout.
- 139.4.35b **Ficus grossularioides** Burm.f. var. **robusta** Corner, **TFM3** 148; shrub to 9 m tall; montane forest at 1200 m; Fraser's Hill, Ph.
- 139.4.36 **Ficus heterophylla** L.f., **FMP3** 339, **TFM3** 148; shrub to 6 m tall; sandy river banks; NS northward.
- 139.4.37 **Ficus heteropleura** Blume, **TFM3** 148; *Ficus urophylla* Wall., **FMP3** 330; epiphytic shrub; lowland to montane forest; common throughout.
- 139.4.38a **Ficus hirta** Vahl var. **hirta**, **TFM3** 148; small tree to 9 m tall; montane forest; Main Range.
- 139.4.38b **Ficus hirta** Vahl var. **malayana** Corner, **TFM3** 148; small tree to 9 m tall; montane forest; Pk, Ph.
- 139.4.39 **Ficus hispida** L.f., **FMP3** 342, **TFM3** 149; tree to 12 m tall; lowland forest; SI northward.
- 139.4.40 **Ficus ischnopoda** Miq., **TFM3** 149; *Ficus pyriformis* Hook. & Arn., **FMP3** 349 incl. var. *angustifolia* Ridl.; narrow-leaved shrub to 5 m tall; in and near rocky streams; Central and North Malaya.
- 139.4.41 **Ficus kerkhovenii** Valetton, **TFM3** 149; large strangler to 36 m tall; lowland and montane forest; Kd, Ph, Jh, Sp.
- 139.4.42 **Ficus kurzii** King, **TFM3** 149; scrambler; rocks near the sea; P. Tioman and islands nearby.
- 139.4.43a **Ficus laevis** Blume var. **laevis**, **FMP3** 344, **TFM3** 149; small tree or epiphyte; lowlands; Ps, Pn, Pk, Ph, Sl, Sp.
- 139.4.43b **Ficus laevis** Blume var. **tomentosa** King, **FMP3** 344, **TFM3** 149; small tree or epiphyte; lowlands; Tg.
- 139.4.44 **Ficus lamponga** Miq., **TFM3** 150; *Ficus lepidosa* Wall. ex Kurz, **FMP3** 350; tree to 24 m tall; lowland and hill forest; Pk, Sl, Jh, Sp.

- 139.4.45 **Ficus lepicarpa** Blume, **FMP3** 343, **TFM3** 150; tree to 12 m tall; lowland to montane forest, usually near streams; widespread.
- 139.4.46 **Ficus litseifolia** Corner, **FMP3** 150; small tree to 8 m tall; montane forest; Gg Padang, Tg.
- 139.4.47 **Ficus lowii** King, **FMP3** 332, **TFM3** 150; climber; hill forest; Pk, Ph.
- 139.4.48 **Ficus maclellandii** King, **TFM3** 150; strangler; lowland forest; Kd.
- 139.4.49 **Ficus madurensis** Miq., **TFM3** 151; *Ficus copiosa* Steud., **FMP3** 340; small tree; lowland and montane forest; MI northwards.
- 139.4.50 **Ficus magnoliifolia** Blume, **TFM3** 151; tree to 33 m tall; lowland forest; SI northward.
- 139.4.51 **Ficus microcarpa** L.f., **TFM3** 151; *Ficus retusa* auct. non L., **FMP3** 335; large tree with aerial roots; swampy places; common and widespread.
- 139.4.52 **Ficus microsyce** Ridl., **FMP3** 335, **TFM3** 151; strangler to 36 m tall; lowlands; Tg, Ph, SI, Jh, Sp.
- 139.4.53 **Ficus mollissima** Ridl., **FMP3** 348, **TFM3** 151; tree to 12 m tall; lowland forest; Kd, NS; endemic.
- 139.4.54 **Ficus montana** Burm.f., **TFM3** 151; *Ficus quercifolia* Roxb., **FMP3** 339 incl. var. *inconstans* (Miq.) Ridl.; shrub or creeper; by rocky streams; MI northward.
- 139.4.55 **Ficus obpyramidata** King, **FMP3** 343, **TFM3** 152; tree to 9 m tall; by rivers of lowlands and hills to 1200 m; throughout.
- 139.4.56a **Ficus obscura** Blume var. *borneensis* (Miq.) Corner, **TFM3** 152; *Ficus obscura* Blume, **FMP3** 339; *Ficus pisifera* Wall. ex Miq., **FMP3** 329; epiphyte or strangler; lowland forest; common throughout.
- 139.4.56b **Ficus obscura** Blume var. *kunstleri* (King) Corner, **TFM3** 152; *Ficus celebica* Blume var. *kunstleri* King, **FMP3** 330; epiphyte or strangler; montane forest; Kd, Pk.
- 139.4.57 **Ficus oligodon** Miq., **TFM3** 152; *Ficus pomifera* Wall. ex King, **FMP3** 350; tree to 12 m tall; by lowland and mountain streams; north of Malaya.
- 139.4.58 **Ficus oreophila** Ridl., **FMP3** 348, **TFM3** 152; shrub or small tree to 9 m tall; montane forest above 1000 m; KI, Pk, Ph; endemic.
- 139.4.59 **Ficus parietalis** Blume, **FMP3** 330, **TFM3** 153; climber or epiphytic shrub; lowland forest; widespread.
- 139.4.60 **Ficus pellucidopunctata** Griff., **TFM3** 153; *Ficus indica* L. var. *gelderi* (Miq.) King, **FMP3** 334; strangling fig to 24 m tall; lowland forest; widespread.

- 139.4.61 **Ficus pendens** Corner, **TFM3** 153; slender climber; montane forest; Pn, Pk, Ph, Jh.
- 139.4.62 **Ficus pisocarpa** Blume, **FMP3** 336, **TFM3** 153; *Ficus microstoma* Wall. ex King, **FMP3** 334; tree to 18 m tall; lowland forest near streams; Pk, Ph, Sl, NS, Ml, Sp.
- 139.4.63 **Ficus punctata** Thunb., **FMP3** 338, **TFM3** 154; large creeper; on tree trunks in open country; widespread.
- 139.4.64 **Ficus pubigera** (Wall. ex Miq.) Miq., **TFM3** 153; climber; once from Ph.
- 139.4.65a **Ficus pubilimba** Merr. var. **pubilimba**, **TFM3** 153; big strangler; lowlands; Pk and Pn northwards.
- 139.4.65b **Ficus pubilimba** Merr. var. **ovata** Corner, **TFM3** 154; strangler; once from Pn; endemic variety.
- 139.4.66 **Ficus racemosa** L., **TFM3** 154; tree to 24 m tall; by rivers; north of Malaya.
- 139.4.67a **Ficus recurva** Blume var. **bridelioides** Corner, **FMP3** 345 in part, **TFM3** 154; epiphyte and rock climber; lowlands; Tg, Pk, Jh.
- 139.4.67b **Ficus recurva** Blume var. **elegantior** Corner, **FMP3** 345 in part, **TFM3** 154; epiphyte and rock climber; lowlands; Tg.
- 139.4.67c **Ficus recurva** Blume var. **ribesioides** King, **FMP3** 345 in part, **TFM3** 154; climber; Pk, Sp.
- 139.4.68 **Ficus religiosa** L., **FMP3** 337; large tree; around towns, widely planted; naturalized from India.
- 139.4.69 **Ficus retusa** L., **TFM3** 154; *Ficus truncata* Miq., **FMP3** 335; tree to 18 m tall; by rivers; Pk, Ph, Sl, Jh.
- 139.4.70 **Ficus ribes** Reinw. ex Blume, **TFM3** 155; *Ficus staphylosyce* Ridl., **FMP5** 334; small tree to 8 m tall; montane forest; NS northward.
- 139.4.71 **Ficus ruginervia** Corner, **TFM3** 155; climber; lowland forest; Jh, Sp.
- 139.4.72 **Ficus rumphii** Blume, **FMP3** 337, **TFM3** 155; large tree or strangler; rocky coasts; Ps, P. langkawi.
- 139.4.73 **Ficus sagittata** Vahl, **TFM3** 155; *Ficus ramentacea* Roxb., **FMP3** 345; climber; lowland forest; common throughout.
- 139.4.74 **Ficus schwarzii** Koord., **TFM3** 155; *Ficus miquelii* Hook.f., **FMP3** 341; small tree to 12 m tall; lowland and hill forest to 1200 m; widespread.
- 139.4.75 **Ficus scortechinii** King, **FMP3** 343, **TFM3** 156; *Ficus fasciculata* Hook.f., **FMP3** 343; tree to 5 m tall; lowland forest; common throughout.

- 139.4.76 **Ficus semicordata** Buch.-Ham. ex Sm., **TFM3** 156; *Ficus cunia* Buch.-Ham. ex Roxb., **FMP3** 341; earth-fig tree to 12 m tall; secondary forest, often near streams; north of Malaya.
- 139.4.77a **Ficus sinuata** Thunb. ssp. **cuspidata** (Reinw.) Corner, **TFM3** 156; *Ficus cuspidata* Rienw., **FMP3** 340; small tree; montane forest; widespread.
- 139.4.77b **Ficus sinuata** Thunb. ssp. **sinuata** var. **oblonga** Corner, **TFM3** 156; small tree; lowlands; Pk, Jh.
- 139.4.77c **Ficus sinuata** Thunb. ssp. **sinuata** var. **sinuata**, **TFM3** 156; *Ficus rostrata* Lam., **FMP3** 340; epiphyte or small tree; lowlands to mountains; common throughout.
- 139.4.78 **Ficus spathulifolia** Corner, **TFM3** 156; epiphytic tree; peat swamp forest; Sl.
- 139.4.79 **Ficus stricta** Miq., **TFM3** 157; tree to 18 m tall; lowland forest; Kd, Pk.
- 139.4.80a **Ficus stupenda** Miq. var. **minor** Corner, **TFM3** 157; strangler; lowland forest; Jh, Sp.
- 139.4.80b **Ficus stupenda** Miq. var. **stupenda**, **TFM3** 157; strangler to 30 m tall; hill and montane forest; Tg, Pk, Sl.
- 139.4.81 **Ficus subcordata** Blume var. **malayana** Corner, **TFM3** 157; strangler; hill forest at 600 m; once from near Fraser's Hill, Ph.
- 139.4.82a **Ficus subgelderii** Corner var. **rigida** (Miq.) Corner, **TFM3** 157; *Ficus rigida* Miq., **FMP3** 332; strangler; lowland forest; Pn, Pk, Ph, Jh, Sp.
- 139.4.82b **Ficus subgelderii** Corner var. **subgelderii**, **TFM3** 157; strangler; lowland forest; Pk to Sp.
- 139.4.83 **Ficus subsecta** Corner, **TFM3** 158; big strangler; lower montane forest at 1200 m; Cameron Highlands, Ph.
- 139.4.84 **Ficus subulata** Blume, **FMP3** 329; large climber; lowland and hill forest; widespread.
- 139.4.85a **Ficus sumatrana** Miq. var. **circumscissa** Corner, **TFM3** 158 '*circumissa*'; *Ficus acamptophylla* Miq., **FMP3** 335; tree; Tg, Pk, Jh; endemic variety.
- 139.4.85b **Ficus sumatrana** Miq. var. **microsyce** Corner, **TFM3** 158; tree; Pk, Jh.
- 139.4.85c **Ficus sumatrana** Miq. var. **sumatrana**, **TFM3** 158; tree, epiphytic when young; lowland forest; Pk, Sl, NS.
- 139.4.86a **Ficus sundaica** Blume var. **beccariana** (King) Corner, **TFM3** 158; big tree; lowland forest; Kd, Tg, Ph.

- 139.4.86b **Ficus sundaica** Blume var. **sundaica**, **TFM3** 158; *Ficus indica* auct. non L., **FMP3** 334; big stilt-rooted tree; lowland forest; common throughout.
- 139.4.87 **Ficus superba** (Miq.) Miq., **TFM3** 159; big tree; rocky coasts; common throughout.
- 139.4.88 **Ficus tinctoria** G. Forst. ssp. **gibbosa** (Blume) Corner, **TFM3** 159; *Ficus gibbosa* Blume, **FMP3** 329; big tree with many aerial roots; lowlands, often on rocky coasts; NS northwards.
- 139.4.89 **Ficus trichocarpa** Blume, **TFM3** 159; *Ficus obtusa* Hassk., **FMP3** 344; climber; lowland and hill forest; Pn, Pk, Ph, Sl.
- 139.4.90 **Ficus tricolor** Miq., **TFM3** 159; tree to 18 m tall; montane forest; Tg, Ph.
- 139.4.91 **Ficus tristaniifolia** Corner, **TFM3** 159; strangler; peat swamp forest; Ml, Jh.
- 139.4.92 **Ficus uncinata** (King) Becc. var. **strigosa** Corner, **TFM3** 160; earth-fig tree to 10 m tall; lowland forest margins; widespread.
- 139.4.93 **Ficus uncinulata** Corner, **TFM3** 160; climber; lowland forest; Jh.
- 139.4.94 **Ficus uniglandulosa** Wall. ex Miq., **TFM3** 160; small tree, sometimes epiphytic; lowlands; widespread.
- 139.4.95 **Ficus urnigera** Miq., **TFM3** 160; climber; swampy lowland forest; Ph, Jh.
- 139.4.96 **Ficus variegata** Blume, **FMP5** 335, **TFM3** 160; *Ficus polysyce* Ridl., **FMP3** 342; tree to 33 m tall; open country, forest margins; common throughout.
- 139.4.97 **Ficus vasculosa** Wall. ex Miq., **FMP3** 337, **TFM3** 160; tree to 45 m tall; lowland forest; common throughout.
- 139.4.98a **Ficus villosa** Blume var. **tonsa** Corner, **FMP3** 345, **TFM3** 161; climber; montane forest at 1300 m; Cameron Highlands, Ph; ?endemic variety.
- 139.4.98b **Ficus villosa** Blume var. **villosa**, **FMP3** 345, **TFM3** 161; climber; lowlands; common throughout.
- 139.4.99a **Ficus virens** Aiton var. **glabella** (Blume) Corner, **TFM3** 161; *Ficus infectoria* Miq., **FMP3** 337; *Ficus glabella* Blume, **FMP3** 336; big tree; lowland and hill forest; common throughout.
- 139.4.99b **Ficus virens** Aiton var. **sublanceolata** (Miq.) Corner, **TFM3** 161; tree; rare.
- 139.4.99c **Ficus virens** Aiton var. **virens**, **TFM3** 161; *Ficus infectoria* Miq., **FMP3** 337; tree; lowlands; P. Langkawi.
- 139.4.100 **Ficus viridicarpa** Corner, **TFM3** 161; tall tree; lowland forests and open country; Kl, Tg, Ph, NS.

- 139.4.101 **Ficus vrieseana** Miq. var. **chamaecarpa** (Ridl.) Corner, **TFM3** 162; small earth-fig tree; forest margins; widespread.
- 139.4.102 **Ficus xylophylla** Wall. ex Miq., **FMP3** 332, **TFM3** 162; strangler; lowland and hill forest; frequent throughout.
- 139.5.1 **Hullettia dumosa** King, **FMP3** 358, **J09** 337, **TFM3** 162; shrub or small tree to 10 m tall; forest from lowlands to mountains at 2000 m; widespread.
- 139.6.1 **Maclura amboinensis** Blume; **C28** 239, **TFM3** 120; spiny climber; hill and montane forest; Pk, Ph.
- 139.6.2 **Maclura cochinchinensis** (Lour.) Corner; **C28** 239; *Cudrania javensis* Trécul, **FMP3** 356; small tree; mostly on limestone; Ps, Kd, Pn.
- 139.7.1 **Parartocarpus bracteatus** (King) Becc., **J09** 324, **TFM3** 164; *Artocarpus bracteatus* King, **FMP3** 352; tree to 45 m tall; lowland forest to 600 m; Pn, Sl, NS, MI, Jh, Sp.
- 139.7.2a **Parartocarpus venenosus** (Zoll & Moritzi) Becc. ssp. **forbesii** (King) F.M. Jarrett, **J09** 333, **TFM3** 165; *Artocarpus forbesii* King, **FMP3** 352; tree to 40 m tall; lowland and hill forest to 900 m; Pn, Kl, Tg, Pk, Sl, Jh, Sp.
- 139.7.2b **Parartocarpus venenosus** (Zoll & Moritzi) Becc. ssp. **venenosus**, **J09** 328, **TFM3** 165; tree to 40 m tall; lowland forest; north of Malaya.
- 139.8.1a **Prainea limpato** (Miq.) Beumée ex K. Heyne var. **limpato**, **J06** 34, **TFM3** 167; tree to 18 m tall; lowland forest; once from Baling, Kd.
- 139.8.1b **Prainea limpato** (Miq.) Beumée ex K. Heyne var. **longipedunculata** Kochummen, **TFM3** 167; tree to 18 m tall; hill forest; once from Ulu Gombak, Sl; endemic variety.
- 139.8.2 **Prainea scandens** King, **FMP3** 358, **J06** 32; liana; lowland forest; Pk, Sl; endemic.
- 139.9.1 **Streblus asper** Lour., **FMP3** 323, **TFM3** 168; tree to 10 m tall; open country including limestone; north of Malaya.
- 139.9.2 **Streblus elongatus** (Miq.) Corner, **TFM3** 168; *Sloetia sideroxylon* Teijsm. & Binn. ex Kurz, **FMP3** 324; tree to 33 m tall; lowland forest; Kd, Pn, Tg, Pk, Ph, Sl, NS, Jh, Sp.
- 139.9.3 **Streblus glaber** (Merr.) Corner, **TFM3** 168; *Pseudostreblus caudatus* Ridl., **FMP3** 324; shrub; montane forest above 1000 m; Pk, Ph, Sl.
- 139.9.4 **Streblus ilicifolius** (Vidal) Corner, **TFM3** 167; *Taxotrophis ilicifolia* Vidal, **FMP3** 322; small spiny tree; limestone and other rocky habitats; widespread.

- 139.9.5 **Streblus laxiflorus** (Hutch.) Corner, **TFM3** 167; small spiny tree; lowlands including limestone; north of Malaya.
- 139.9.6 **Streblus macrophyllus** Blume, **TFM3** 168; small tree; lowlands.
- 139.9.7 **Streblus perakensis** Corner, **TFM3** 168; small tree; lowlands; Pk, Ph; endemic.
- 139.9.8 **Streblus taxoides** (K. Heyne) Kurz, **TFM3** 167; *Phyllochlamys wallichii* King, **FMP3** 322; *Phyllochlamys spinosa* (Roxb.) Bureau, **FMP3** 323; spiny tree to 10 m tall; lowlands, hills, also on limestone; widespread.
- 139.10.1 **Trophis scandens** (Lour.) Hook. & Arn., **B19** 354; *Malaisia torulosa* Blanco, **FMP3** 325, **TFM3** 120; *Malaisia scandens* (Lour.) Planch., **C14** 185; spiny scandent shrub; lowlands; Tg.

140. MYRICACEAE

- 140.1.1 **Myrica esculenta** Buch.-Ham., **FMi4** 278, **TFM2** 295; *Myrica farquhariana* Wall., **FMP3** 370; *Myrica auriculata* (Gamble) Ridl., **FMP3** 371; tree to 15 m tall; lowland forest, particularly secondary forest on poor soil, mountain tops; widespread, commoner in the south.

141. MYRISTICACEAE

- 141.1.1 **Endocomia canarioides** (King) W.J. de Wilde, **D13** 190; *Horsfieldia canarioides* (King) Warb., **FMP3** 55; *Horsfieldia racemosa* (King) Warb., **FMP3** 60; *Embelia ridlei* King & Gamble, **FMP2** 234; *Horsfieldia macrocoma* (Miq.) Warb. var. *canarioides* (King) J. Sinclair, **TFM1** 327; tree to 35 m tall; lowland forest; Pn, Pk, Ph, Sl, Ml, Jh, Sp.
- 141.2.1 **Gymnancranthera bancana** (Miq.) J. Sinclair, **TFM1** 319, **S10** 463; *Gymnancranthera murtonii* (Hook.f.) Warb., **FMP3** 61; tree to 40 m tall; lowland forest; ?Ph, Jh, Sp.
- 141.2.2a **Gymnancranthera farquhariana** (Hook.f. & Thomson) Warb. var. **eugeniifolia** (A. DC.) R.T.A. Schouten, **S10** 480; *Gymnancranthera farquhariana* auct. non (Hook.f. & Thomson) Warb., **FMP3** 62 in part; *Gymnancranthera eugeniifolia* (A. DC.) J. Sinclair var. *eugeniifolia*, **TFM1** 320 in part; tree to 30 m tall; lowland and hill forest to 1300 m; P. Langkawi, Kd, Pn, Tg, Pk, Ph, Sl, Ml, Jh, Sp.

- 141.2.2b **Gymnacranthera farquhariana** (Hook.f. & Thomson) Warb. var. **farquhariana**, **S10** 477; *Gymnacranthera farquhariana* (Hook.f. & Thomson) Warb. var. *griffithii* (Hook.f.) Warb., **FMP3** 62; *Gymnacranthera eugeniifolia* (A. DC.) J. Sinclair var. *eugeniifolia*, **TFM1** 320 in part; tree to 30 m tall; lowland and hill forest to 900 m; Pn, Tg, Pk, Ph, Sl, Ml, Jh, Sp.
- 141.2.2c **Gymnacranthera farquhariana** (Hook.f. & Thomson) Warb. var. **zippeliana** (Miq.) R. T.A. Schouten, **S10** 482; *Gymnacranthera farquhariana* auct. non (Hook.f. & Thomson) Warb., **FMP3** 62 in part; *Gymnacranthera eugeniifolia* (A. DC.) J. Sinclair var. *griffithii* (Hook.f.) J. Sinclair, **TFM1** 320; ?*Gymnacranthera contracta* auct. non Warb., **TFM1** 320; tree to 30 m tall; swampy lowland forest; Pk, Ph, Sl, Jh, Sp.
- 141.2.3 **Gymnacranthera forbesii** (King) Warb., **FMP3** 61, **TFM1** 320, **S10** 472; tree to 35 m tall; lowland forest; Pn, Kl, Tg, Pk, Ph, Sl, NS, Ml, Jh, Sp.
- 141.3.1 **Horsfieldia brachiata** (King) Warb., **FMP3** 59, **TFM1** 325, **D16** 3; tree to 35 m tall; lowland forest; Kd, Kl, Tg, Pk, Ph, Ml, Jh.
- 141.3.2 **Horsfieldia crassifolia** (Hook.f. & Thomson) Warb., **FMP3** 59, **TFM1** 324, **D15** 219; tree to 25 m tall; swampy lowland forest; Tg, Pk, Sl, NS, Ml, Jh, Sp.
- 141.3.3 **Horsfieldia elongata** W.J. de Wilde, **D17** 465; tree about 8 m tall; lower mountain forest at 1300 m; only known form type, Fraser's Hill, Ph; endemic.
- 141.3.4 **Horsfieldia flocculosa** (King) Warb., **FMP3** 55, **TFM1** 324, **D15** 207; tree to 28 m tall; lowland forest; Ph, NS, Sl, Jh; endemic.
- 141.3.5 **Horsfieldia fulva** (King) Warb., **FMP3** 56, **TFM1** 326, **D15** 199; tree to 20 m tall; lowland forest; Pk, Sl, NS, Ml.
- 141.3.6 **Horsfieldia grandis** (Hook.f.) Warb., **FMP3** 56, **TFM1** 323, **D15** 203; tree to 25 m tall; lowland forest; Ph, Jh, Sp.
- 141.3.7 **Horsfieldia irya** (Gaertn.) Warb., **TFM1** 326, **D14** 55; *Horsfieldia lemanniana* (A. DC.) Warb., **FMP3** 59; tree to 25 m tall; damp lowland forest; Kd, Pn, Kl, Tg, Pk, Ph, Sl, Ml, Jh, Sp.
- 141.3.8 **Horsfieldia macilenta** W.J. de Wilde, **D16** 13; tree to 17 m tall; lowland forest; Kl, Jh.
- 141.3.9 **Horsfieldia majuscula** (King) Warb., **FMP3** 57, **D16** 48; tree to 25 m tall; lowland and hill forest; Kl, Pk, Ph.
- 141.3.10 **Horsfieldia parviflora** (Roxb.) J. Sinclair, **D14** 69; *Horsfieldia globularia* (Blume) Warb., **FMP3** 54; tree to 20 m tall; lowland forest; established in the Botanic Gardens' Jungle, Sp; introduced from the Moluccas.

- 141.3.11 **Horsfieldia penangiana** J. Sinclair, **TFM1** 324, **D16** 52; tree to 25 m tall; hill and lower montane forest; Pn, Ph, Sl.
- 141.3.12a **Horsfieldia polyspherula** (Hook.f.) J. Sinclair var. **polyspherula**, **TFM1** 325, **D16** 19; tree to 35 m tall; lowland forest; Kd, Tg, Pk, Ph, Sl, Ml, Jh, Sp.
- 141.3.12b **Horsfieldia polyspherula** (Hook.f.) J. Sinclair var. **sumatrana** (Miq.) W.J. de Wilde, **D16** 20; *Horsfieldia subglobosa* auct. non (Miq.) Warb., **FMP1** 60; *Horsfieldia brachiata* (King) Warb. var. *sumatrana* (Miq.) J. Sinclair ex Whitmore, *nom. inval.*, **TFM1** 325; tree to 35 m tall; lowland forest; Kd, Kl, Pk, Ph, Sl, NS, Jh, Sp.
- 141.3.13 **Horsfieldia pulcherrima** W.J. de Wilde, **D15** 206; tree to 27 m tall; swampy lowland forest; Ph, Jh.
- 141.3.14 **Horsfieldia punctata** W.J. de Wilde, **D16** 37; tree to 25 m tall; lower montane forest at about 1000 m; Ph; endemic.
- 141.3.15 **Horsfieldia punctatifolia** J. Sinclair, **TFM1** 327, **D16** 54; tree to 30 m tall; lowland and hill forest; Pk, Sl, NS, Ml, Sp.
- 141.3.16 **Horsfieldia ridleyana** (King) Warb., **FMP3** 60, **TFM1** 324, **D16** 7; tree to 25 m tall; lowland forest on poor soils; Kl, Tg, Pk, Ph, Sl, Ml.
- 141.3.17 **Horsfieldia sparsa** W.J. de Wilde, **D15** 194; tree to 40 m tall; lowland forest; Kl, Tg, Pk, Ph, Sl, NS, Jh, Sp.
- 141.3.18 **Horsfieldia subalpina** J. Sinclair, **TFM1** 325, **D16** 40; tree to 30 m tall; montane forest at 800–1500 m; Pk, Ph, Sl.
- 141.3.19 **Horsfieldia sucosa** (King) Warb., **TFM1** 328, **D15** 188; tree to 20 m tall; lowland forest; Kl, Tg, Pk, Ph, Sl, Ml, Jh, Sp.
- 141.3.20 **Horsfieldia superba** (Hook.f. & Thomson) Warb., **FMP3** 55, **TFM1** 328, **D15** 200; tree to 30 m tall; lowland forest; absent from three states only.
- 141.3.21 **Horsfieldia tomentosa** Warb., **FMP3** 56, **TFM1** 324, **D15** 210; tree to 20 m tall; lowland forest; Kd, Pn, Kl, Tg, Pk, Ph, Sl, Ml, Jh, ?Sp.
- 141.3.22 **Horsfieldia wallichii** (Hook.f. & Thomson) Warb., **FMP3** 57, **TFM1** 330, **D15** 204; tree to 30 m tall; lowland forest; Kd, Pn, Kl, Tg, Pk, Ph, Sl, Ml, Jh, Sp.
- 141.4.1 **Knema andamanica** (Warb.) W.J. de Wilde ssp. **nicobarica** (Warb.) W.J. de Wilde, **D12** 370; tree to 16 m tall; once from Pn.
- 141.4.2 **Knema communis** J. Sinclair, **TFM1** 334, **D12** 461; tree to 16 m tall; lowland forest; Tg, Pk, Ph, Jh, Sp; endemic.

- 141.4.3 ***Knema conferta*** (King) Warb., **FMP3** 70, **TFM1** 335, **D12** 472; tree to 20 m tall; swampy lowland forest; Pk, Ph, MI, Jh, Sp.
- 141.4.4a ***Knema curtisii*** (King) Warb. var. **curtisii**, **FMP3** 69 in part, **TFM1** 334 in part, **D12** 416; tree to 10 m tall; lowland forest; Pn, Kl, Tg, Pk, Ph, Sl, NS, MI, Jh.
- 141.4.4b ***Knema curtisii*** (King) Warb. var. **paludosa** J. Sinclair, **D12** 420; *Knema curtisii* (King) Warb., **FMP3** 69 in part, **TFM1** 334 in part; tree to 10 m tall; freshwater swamp forest; Pk, Jh, Sp.
- 141.4.5 ***Knema furfuracea*** (Hook.f. & Thomson) Warb., **FMP3** 70, **TFM1** 335, **D12** 387; tree to 20 m tall; lowland forest; P. Langkawi, Kd, Pn, Kl, Tg, Pk, Ph, Sl, NS, MI, Jh, Sp.
- 141.4.6 ***Knema glauca*** (Blume) Warb., **D12** 452; *Knema cinerea* (Poir.) Warb. var. *sumatrana auct. non* (Blume) J. Sinclair, **TFM1** 334 in part; tree to 25 m tall; lowland forest; Tg, Pk, Ph, Jh.
- 141.4.7 ***Knema glaucescens*** Jack, **D12** 462; *Knema geminata* (Miq.) Warb., **FMP3** 72 in part; *Knema cinerea* (Poir.) Warb. var. *sumatrana auct. non* (Blume) J. Sinclair, **TFM1** 334 in part; tree to 25 m tall; lowland forest; Kl, Jh, Sp.
- 141.4.8 ***Knema globularia*** (Lam.) Warb., **TFM1** 336, **D12** 411; *Knema missionis* (Wall. ex King) Warb., **FMP3** 71; tree about 10 m tall; usually coastal; P. Langkawi, Kd, Pn, Kl, Tg, Ph, MI, Jh, Sp.
- 141.4.9 ***Knema hookeriana*** (Wall. ex Hook.f. & Thomson) Warb., **FMP3** 67, **TFM1** 336, **D12** 387; tree to 25 m tall; lowland and hill forest; Pn, Kl, Tg, Pk, Ph, NS, MI, Jh, Sp.
- 141.4.10 ***Knema intermedia*** (Blume) Warb., **FMP3** 68, **TFM1** 334, **D12** 427; tree to 10 m tall; lowland forest; Pk, Ph, Sl, MI, Jh, Sp.
- 141.4.11 ***Knema kunstleri*** (King) Warb., **FMP3** 69, **TFM1** 338, **D12** 468; tree to 25 m tall; lowland and hill forest on poor soils; Kl, Tg, Pk, Ph, Sl, NS, Jh.
- 141.4.12 ***Knema lamellaria*** W.J. de Wilde, **D12** 389; tree to 20 m tall; lowland forest; Tg, Ph; endemic.
- 141.4.13 ***Knema latericia*** Elmer ssp. **ridleyi** (Gand.) W.J. de Wilde, **D12** 396; *Knema latericia* Elmer, **TFM1** 332; tree to 10 m tall; lowland forest; Tg, Jh, Sp.
- 141.4.14a ***Knema laurina*** (Blume) Warb. var. **heteropilis** W.J. de Wilde, **D12** 381; small tree; lowland forest; Kd, Pk, Ph, Sl, NS.
- 141.4.14b ***Knema laurina*** (Blume) Warb. var. **laurina**, **FMP3** 72, **TFM1** 338, **D12** 379; small tree; lowland forest; P. Langkawi, Kd, Tg, Pk, Ph, Sl, NS, MI, Jh, Sp.

- 141.4.15 ***Knema malayana*** Warb., **FMP3** 69, **TFM1** 338, **D12** 456; tree to 15 m tall; lowland forest; Kd, Kl, Tg, Pk, Ph, Sl, NS, Ml, Jh, Sp.
- 141.4.16 ***Knema mandaharan*** (Miq.) Warb., **TFM1** 333, **D12** 404; tree to 20 m tall; swampy lowland forest; Pk, Tg, Jh.
- 141.4.17 ***Knema oblongifolia*** (King) Warb., **FMP3** 71, **TFM1** 333, **D12** 369; *Knema oblongifolia* (King) Warb. var. *monticola* Warb., **FMP3** 71, **TFM1** 333; tree to 13 m tall; Tg, Pk, Ph, Sl; endemic.
- 141.4.18 ***Knema patentinervia*** (J. Sinclair) W.J. de Wilde, **D12** 456; *Knema cinerea* (Poir.) Warb. var. *patentinervia* (J. Sinclair) J. Sinclair, **TFM1** 334; tree to 16 m tall; lowland forest; Kl, Tg, Pk, Ph, Ml, Jh.
- 141.4.19 ***Knema plumulosa*** J. Sinclair, **TFM1** 332, **D12** 426; *Knema cantleyi* auct. non (Hook.f.) Warb., **FMP3** 68; tree to 16 m tall; swampy lowland forest; Pn, Tg, Pk, Sl, Jh; endemic.
- 141.4.20 ***Knema pseudolaurina*** W.J. de Wilde, **D12** 377; tree; lowland forest; Kd, Pn, Kl, Tg, Pk, Ph, Sl, NS, Jh.
- 141.4.21 ***Knema pulchra*** (Miq.) Warb., **D12** 399; *Knema cinerea* (Poir.) Warb. var. *cordata* J. Sinclair, **TFM1** 333; tree to 13 m tall; lowland forest; Tg, Jh.
- 141.4.22 ***Knema retusa*** (King) Warb., **FMP3** 72, **TFM1** 332, **D12** 384; tree to 18 m tall; Pk; endemic.
- 141.4.23a ***Knema rigidifolia*** J. Sinclair ssp. *camerona* W.J. de Wilde, **TFM1** 339 in part, **D12** 398; tree to 10 m tall; lower montane forest at 1500–1800 m; Cameron Highlands, Ph; endemic.
- 141.4.23b ***Knema rigidifolia*** J. Sinclair ssp. *rigidifolia*, **TFM1** 339 in part, **D12** 398; tree to 10 m tall; lower montane forest; Ph, Sl; endemic.
- 141.4.24 ***Knema rubens*** (J. Sinclair) W.J. de Wilde, **D12** 450; *Knema cinerea* (Poir.) Warb. var. *rubens* J. Sinclair, **TFM1** 334; tree to 16 m tall; lowland forest; Kd, Pn, Kl, Tg, Ph, Jh, sp.
- 141.4.25 ***Knema scortechinii*** (King) J. Sinclair, **TFM1** 339, **D12** 431; *Knema conferta* (King) Warb. var. *scortechinii* Warb., **FMP3** 70; tree to 20 m tall; lowland forest; Kd, Kl, Tg, Pk, Ph, Sl, NS, Ml, Jh.
- 141.4.26 ***Knema stenophylla*** (Warb.) J. Sinclair, **TFM1** 334, **D12** 457; tree to 10 m tall; lowland forest; Kd, Pn, Kl, Tg, Pk, Ph, NS, Ml, Jh.
- 141.4.27 ***Knema sumatrana*** (Blume) W.J. de Wilde, **D12** 454; *Knema wrayi* (King) Warb., **FMP3** 70; *Knema cinerea* (Poir.) Warb. var. *sumatrana* (Blume) J. Sinclair, **TFM1** 334 in part; tree to 25 m tall; lowland forest; Kl, Pk.

- 141.5.1 **Myristica cinnamomea** King, **FMP3** 65, **TFM1** 342; tree to 25 m tall; lowland and hill forest; throughout.
- 141.5.2 **Myristica crassa** King, **FMP3** 66, **TFM1** 341; *Myristica suavis* King, **FMP3** 65; tree to 25 m tall; lowland forest; Pk, Ml, Jh, Sp; endemic.
- 141.5.3 **Myristica elliptica** Hook.f. & Thomson, **FMP3** 65, **TFM1** 342; tree to 30 m tall; swampy lowland forest; throughout.
- 141.5.4 **Myristica gigantea** King, **FMP3** 64, **TFM1** 342; tree to 45 m tall; lowland forest; common throughout.
- 141.5.5 **Myristica guatteriifolia** A. DC., **TFM1** 341; tree to 20 m tall; beach forest; Tg, Ph, Jh.
- 141.5.6 **Myristica iners** Blume, **FMP3** 64, **TFM1** 343; tree to 30 m tall; lowland forest; common throughout.
- 141.5.7 **Myristica lowiana** King, **FMP3** 66, **TFM1** 344; stilt-rooted tree to 25 m tall; peat swamp forest; scattered.
- 141.5.8 **Myristica maingayi** Hook.f., **FMP3** 64, **TFM1** 344; stilt-rooted tree to 45 m tall; lowland forest; common throughout.
- 141.5.9 **Myristica malaccensis** Hook.f., **FMP3** 64, **TFM1** 344; tree; lowlands; Kd, Pk, Ph, Sl, Ml.
- 141.5.10 **Myristica maxima** Warb., **FMP3** 63, **TFM1** 345; tree to 35 m tall; lowland forest; commonest in the south.

142. MYRSINACEAE

- 142.1.1 **Aegiceras corniculatum** (L.) Blanco, **TFM4** 266; *Aegiceras majus* Gaertn., **FMP2** 256; small tree to 5 m tall; tidal mud, river estuaries; widespread, frequent on west coast.
- 142.2.1 **Antistrophe caudata** King & Gamble, **FMP2** 255, **TFM4** 268; slender shrub; hill forest; Pk, Sl, NS, Ml; endemic.
- 142.2.2 **Antistrophe curtisii** King & Gamble, **FMP2** 256, **TFM4** 268; slender shrub; hill forest at 1200 m; Kd, Pk; endemic.
- 142.3.1 **Ardisia bambusetorum** King & Gamble, **FMP2** 255, **TFM4** 270, **Y07** 248; shrub to 60 cm tall; bamboo forest; Pk.
- 142.3.2 **Ardisia barnesii** Ridl., **FMP2** 244, **TFM4** 274; shrub; montane forest; Tg, Pk, Ph; endemic.

- 142.3.3 ***Ardisia biflora*** King & Gamble, **FMP2** 244, **TFM4** 274; shrub to 3 m tall; limestone hills; Pk; endemic.
- 142.3.4 ***Ardisia biniflora*** Ridl., **FMP2** 241, **TFM4** 274; shrub to 4 m tall; montane forest; Gg Tahan, Ph; endemic.
- 142.3.5 ***Ardisia calophylla*** Furtado, **TFM4** 272; shrub; lowland forest; Pk; endemic.
- 142.3.6 ***Ardisia cameronensis*** Yuen P. Yang, **Y07** 258; shrub 50–60 cm tall; forest at 1200–1400 m; Tg, Pk, Ph, Sl; endemic.
- 142.3.7 ***Ardisia cardiophylla*** B.C. Stone, **S54** 104, **TFM4** 272; ?shrub; Sg Tahan, Ph; endemic.
- 142.3.8 ***Ardisia chrysophyllifolia*** King & Gamble, **FMP2** 250, **TFM4** 272; shrub or small tree; montane forest; Tg, Pk; endemic.
- 142.3.9a ***Ardisia colorata*** Roxb. var. **colorata**, **FMP2** 246, **TFM4** 276; shrub or small tree to 8 m tall; lowland and hill forest; throughout.
- 142.3.9b ***Ardisia colorata*** Roxb. var. **complanata** C.B. Clarke, **FMP2** 247, **TFM4** 276; shrub or small tree to 8 m tall; lowland and hill forest; widespread.
- 142.3.9c ***Ardisia colorata*** Roxb. var. **elliptica** King & Gamble, **FMP2** 247, **TFM4** 276; shrub or small tree to 8 m tall; lowland and hill forest; Pk.
- 142.3.9d ***Ardisia colorata*** Roxb. var. **polyneura** C.B. Clarke, **FMP2** 247, **TFM4** 276; shrub or small tree to 8 m tall; lowland and hill forest; widespread.
- 142.3.9e ***Ardisia colorata*** Roxb. var. **salicifolia** King & Gamble, **FMP2** 247, **TFM4** 276; shrub or small tree to 8 m tall; lowland and hill forest; Pk, MI.
- 142.3.10 ***Ardisia crassa*** C.B. Clarke, **FMP2** 249 in part, **TFM4** 274; small tree; lowland forest; NS, MI, Sp.
- 142.3.11 ***Ardisia crenata*** Sims, **FMP2** 253, **TFM4** 270; shrub; open areas; throughout.
- 142.3.12 ***Ardisia denticulata*** Blume, **L02** 162; *Tetrardisia corneri* Furtado, **TFM4** 284; *Tetrardisia denticulata* (Blume) Mez, **S63** 4; shrub to 60 cm tall; swamp forest; Jh.
- 142.3.13 ***Ardisia elliptica*** Thunb., **TFM4** 274; *Ardisia littoralis* Andr., **FMP2** 241; shrub to 3 m tall; tidal areas, sea shores; coasts from Ps to Sp.
- 142.3.14 ***Ardisia ferox*** Furtado, **TFM4** 272; shrub; Gg Pulai, Jh; endemic.
- 142.3.15 ***Ardisia foliosa*** Furtado, **TFM4** 270, **Y07** 251; *Ardisia linearifolia* (non Miq.) Ridl., **FMP2** 255; shrub to 20 cm tall; Pk, Kl, Jh; endemic.
- 142.3.16 ***Ardisia fulva*** King & Gamble, **FMP2** 250, **TFM4** 271; shrub to 4 m tall; lowland and hill forest; P. Langkawi, Kd, Pn, Kl, Pk; endemic.

- 142.3.17 ***Ardisia furtadoi*** B.C. Stone, **S54** 109, **TFM4** 274; small tree to 13 m tall; lowland forest; Jh; endemic.
- 142.3.18 ***Ardisia gambleana*** Furtado, **TFM4** 275; shrub; lowland forest; Ph; endemic.
- 142.3.19 ***Ardisia glanduligera*** Ridl., **FMP2** 243, **TFM4** 275; shrub; montane forest; Cameron Highlands, Ph; endemic.
- 142.3.20 ***Ardisia goodenoughii*** Furtado, **TFM4** 269; shrub; lowland forest; Kl, Tg, Pk, Ph, Sl.
- 142.3.21 ***Ardisia hullettii*** Mez, **FMP2** 244, **TFM4** 275; shrub; NS, Jh; endemic.
- 142.3.22 ***Ardisia junghuhniana*** Miq. var. ***multiflora*** B.C. Stone, **S54** 111, **TFM4** 275; shrub or small tree to 10 m tall; lowland forest including swamps; Ph, Sl, Jh; endemic variety.
- 142.3.23 ***Ardisia korthalsiana*** Scheff., **TFM4** 276; *Ardisia teysmanniana* auct. non Scheff., **FMP2** 241 in part; shrub or small tree; lowland and hill forest to 1400 m; Tg, Ph, Ml, Jh.
- 142.3.24 ***Ardisia kunstleri*** King & Gamble, **FMP2** 243, **TFM4** 275; shrub to 6 m tall; hill forest at 600 m; Pk; endemic.
- 142.3.25 ***Ardisia laevigata*** Blume, **TFM4** 270; shrub; montane forest; Cameron Highlands, Ph.
- 142.3.26 ***Ardisia lanceolata*** Roxb., **FMP2** 249, **TFM4** 276; tree to 8 m tall; lowland and hill forest; Kd to Sp.
- 142.3.27 ***Ardisia lankawiensis*** King & Gamble, **FMP2** 251, **TFM4** 271; tree; often on limestone; P. Langkawi; endemic.
- 142.3.28 ***Ardisia linearifolia*** Miq., **TFM4** 273; once from Jh.
- 142.3.29 ***Ardisia longepedunculata*** King & Gamble, **FMP2** 254, **TFM4** 271; shrub; montane forest; Gg Batu Puteh, Pk; endemic.
- 142.3.30 ***Ardisia lurida*** Blume, **FMP2** 242, **TFM4** 277; tree reaching 6–7 m tall; lowland forest; Pk and Ph to Jh.
- 142.3.31 ***Ardisia maingayi*** King & Gamble, **FMP2** 254, **TFM4** 270, **Y07** 255; *Ardisia odontophylla* auct. non Wall. ex A. DC., **FMP2** 255, **TFM4** 270; creeping shrub to 1 m tall; lowland and montane forest; Kl, Pk, Ph, Sl, Ml, Jh.
- 142.3.32 ***Ardisia mawaiensis*** Furtado ex B.C. Stone, **S54** 113, **TFM4** 274; shrub; lowland swamp forest; Jh; endemic.
- 142.3.33 ***Ardisia metallica*** N.E. Br., **Y07** 261; shrub to 40 cm tall; lowland forest; once from Tg.

- 142.3.34 *Ardisia meziana* King & Gamble, **FMP2** 253, **TFM4** 271; shrub to 60 cm tall; on limestone; Pk; endemic.
- 142.3.35 *Ardisia minor* King & Gamble, **FMP2** 252, **TFM4** 271; shrub to 50 cm tall; once from Pk; endemic.
- 142.3.36 *Ardisia miqueliana* Scheff., **TFM4** 273; shrub; Jh, Sp.
- 142.3.37a *Ardisia montana* King & Gamble var. *montana*, **FMP2** 246, **TFM4** 273; shrub to 2 m tall; montane forest 1000–2000 m; Pk, Ph, Sl; endemic.
- 142.3.37b *Ardisia montana* King & Gamble var. *selangorensis* B.C. Stone, **TFM4** 274; shrub; montane forest at 1100–1500 m; Genting Highlands, Ph/Sl; endemic.
- 142.3.38 *Ardisia monticola* Ridl., **FMP2** 241, **TFM4** 274; shrub; montane forest; Ph, Sl; endemic.
- 142.3.39 *Ardisia mystica* B.C. Stone, **S54** 114, **TFM4** 272; small tree to 10 m tall; montane forest; Genting Highlands, Ph/Sl; endemic.
- 142.3.40 *Ardisia nurii* Furtado, **TFM4** 273; shrub; montane forest; Fraser's Hill, Ph; endemic.
- 142.3.41 *Ardisia oblongifolia* King & Gamble, **FMP2** 243, **TFM4** 275; shrub; hill forest; Pk; endemic.
- 142.3.42a *Ardisia ophirensis* Mez var. *labisiifolia* (King & Gamble) B.C. Stone, **TFM4** 273; *Ardisia labisiifolia* King & Gamble, **FMP2** 246; shrub; montane forest; Pk; endemic.
- 142.3.42b *Ardisia ophirensis* Mez var. *ophirensis*, **FMP2** 245, **TFM4** 273; shrub; montane forest, often on rocks; Pk, Ph, Jh; endemic.
- 142.3.43 *Ardisia oxyphylla* Wall. ex A. DC., **FMP2** 242, **TFM4** 275; shrub or small tree; lowland and hill forest; widespread and common.
- 142.3.44 *Ardisia pachysandra* (Wall. ex Roxb.) Mez, **FMP2** 240, **TFM4** 277; shrub or tree to 12 m tall; lowland and hill forest; Kd, Pn, Tg, Pk, Sl, Jh.
- 142.3.45 *Ardisia pallidiflora* Ridl., **FMP2** 245, **TFM4** 273; shrub; riverbanks; Jh; endemic.
- 142.3.46 *Ardisia pendula* Mez, **FMP2** 244, **TFM4** 274; shrub; open country in the lowlands; Ps, Ph, Ml.
- 142.3.47 *Ardisia perakensis* King & Gamble, **FMP2** 252, **TFM4** 271; small shrub; lowland forest; Pk; endemic.
- 142.3.48 *Ardisia petricola* Ridl., **FMP2** 247, **TFM4** 273; shrub; montane forest; Ph; endemic.

- 142.3.49 ***Ardisia platyclada*** King & Gamble, **FMP2** 247, **TFM4** 273; shrub to 5 m tall; lowland forest; Pk; endemic.
- 142.3.50 ***Ardisia porosa*** C.B. Clarke, **FMP2** 248, **L02** 162; *Tetrardisia porosa* (C.B. Clarke) Furtado, **TFM4** 284, **S63** 7; shrub to 3 m tall; lowland and hill forest; Pn, Pk, NS, MI.
- 142.3.51 ***Ardisia praetermissa*** Furtado, **TFM4** 270; shrub; lowland swamp forest; SI, MI; endemic.
- 142.3.52 ***Ardisia punctata*** Jack, **TFM4** 269; *Ardisia divergens* Roxb., **FMP2** 247; small tree to 6 m tall; hill forest at 800 m; Pn; endemic.
- 142.3.53 ***Ardisia retinervia*** Ridl., **FMP2** 241, **TFM4** 272; shrub to 4 m tall; montane forest; Gg Tahan, Ph; endemic.
- 142.3.54 ***Ardisia ridleyi*** King & Gamble, **FMP2** 253, **TFM4** 271; shrub to 4 m tall; forests, commoner in the hills; Kd to Sp.
- 142.3.55 ***Ardisia rosea*** King & Gamble, **FMP2** 253, **TFM4** 271; shrub to 2 m tall; hill and montane forest above 800 m; Pk, Ph, SI; endemic.
- 142.3.56 ***Ardisia scortechinii*** King & Gamble, **FMP2** 243, **TFM4** 277; tree to 16 m tall; lowland forest; Pk; endemic.
- 142.3.57 ***Ardisia sessilis*** Scheff., **TFM4** 273; *Ardisia crassa* auct. non C.B. Clarke, **FMP2** 249 in part; shrub or small tree; lowland forest; Sp.
- 142.3.58 ***Ardisia singaporensis*** Ridl., **FMP2** 251, **TFM4** 270; small tree; coastal; Jh, Sp; endemic.
- 142.3.59 ***Ardisia sinuata*** King & Gamble, **FMP2** 246, **TFM4** 274; shrub to 4 m tall; lowland forest; Pk; endemic.
- 142.3.60 ***Ardisia solanacea*** Roxb., **FMP2** 242, **TFM4** 275; shrub to 3 m tall; lowland forest; Pk, SI.
- 142.3.61 ***Ardisia solanoides*** King & Gamble, **FMP2** 250, **TFM4** 271; shrub to 2 m tall; lowland and hill forest; Pk; endemic.
- 142.3.62 ***Ardisia solida*** B.C. Stone, **S54** 113, **TFM4** 272; shrub to 5 m tall; lower montane forest at 1000 m; Gg Besar, Jh; endemic.
- 142.3.63 ***Ardisia suffruticosa*** Ridl., **FMP2** 243, **TFM4** 275; shrub to 30 cm tall; lowland and hill forest; Pk, Ph, Jh (once each); endemic.
- 142.3.64 ***Ardisia sumatrana*** Miq., **FMP2** 249, **TFM4** 274; shrub or small tree to 6 m tall; Pk, SI.
- 142.3.65 ***Ardisia tahanica*** King & Gamble, **FMP2** 242, **TFM4** 275; shrub; lowland river banks; KI, Ph, Jh; endemic.

- 142.3.66 ***Ardisia tetrasepala*** King & Gamble, **FMP2** 244, **L02** 162; *Tetrardisia tetrasepala* (King & Gamble) Furtado, **TFM4** 284, S60 9; shrub; hill forest; Jh; endemic.
- 142.3.67 ***Ardisia teysmanniana*** Scheff., **FMP2** 240 in part, **TFM4** 272; shrub or small tree to 6 m tall; lowland and hill forest; MI, Jh, Sp.
- 142.3.68 ***Ardisia theifolia*** King & Gamble, **FMP2** 254, **TFM4** 270, **Y07** 236; slender shrub to 2 m tall; montane forest, mostly above 1400 m; Pk, Ph; endemic.
- 142.3.69 ***Ardisia tuberculata*** Wall. ex A. DC., **FMP2** 245, **TFM4** 273; shrub to 4 m tall; lowland forest; MI, Jh, Sp.
- 142.3.70 ***Ardisia tumida*** Furtado, **TFM4** 270; shrub; lowland forest by streams; Tg; endemic.
- 142.3.71 ***Ardisia vauhanii*** Ridl., **FMP2** 248, **TFM4** 272; shrub; hill forest; Ps, Kd, Kl, Pk, Ph; endemic.
- 142.3.72a ***Ardisia villosa*** Roxb. var. **glabrata** Kurz, **FMP2** 251, **TFM4** 271; shrub to 1 m tall; lowland forest; Kd, Pn, Pk, Ph.
- 142.3.72b ***Ardisia villosa*** Roxb. var. **villosa**, **FMP2** 251, **TFM4** 271; shrub to 1 m tall; lowland forest; throughout.
- 142.3.73 ***Ardisia viminea*** Ridl., **TFM4** 270; shrub; hill and montane forest; Ulu Gombak and Genting Highlands, SI; endemic.
- 142.3.74 ***Ardisia virens*** Kurz, **FMP2** 252, **TFM4** 271; large shrub; hill forest; Pk.
- 142.3.75 ***Ardisia wrayi*** King & Gamble, **FMP2** 252, **TFM4** 271; shrub to 2 m tall; lowland and hill forest to 1200 m; Kl to Jh; endemic.
- 142.3.76 ***Ardisia* sp. X**, **TFM4** 273; montane forest at 1300 m; once from Gg Lawit, Tg; ?endemic.
- 142.3.77 ***Ardisia* sp. Z**, **TFM4** 273; *Ardisia andamanica* auct. non Kurz, **FMP2** 245; shrub to 4 m tall; hill and lower montane forest; Kl, Pk, SI, MI, Jh; ?endemic.
- 142.4.1 ***Embelia angulosa*** King & Gamble, **FMP2** 234, **TFM4** 279; liana; montane forest generally above 1400 m; Pk, Ph, SI.
- 142.4.2a ***Embelia canescens*** Jack var. **canescens**, **FMP2** 232, **TFM4** 279; slender liana; lowland and hill forest; Pn, Pk, SI, MI, Jh, Sp; endemic.
- 142.4.2b ***Embelia canescens*** Jack var. **glabrescens** Ridl., **FMP2** 232, **TFM4** 279; slender liana; lowland and hill forest; MI, Sp; endemic.
- 142.4.3 ***Embelia coriacea*** Wall. ex A.DC., **FMP2** 233, **TFM4** 279; large liana; lowland and hill forest; Kd, Pn, Tg, Pk, ?Ph, SI, NS, MI, Jh, Sp.

- 142.4.4 ***Embelia dasythyrsa*** Miq., **FMP2** 232, **TFM4** 279; liana; lowland forest; Pk, Ph, Sl, Jh, Sp.
- 142.4.5 ***Embelia furculosa*** B.C. Stone, **S54** 116, **TFM4** 280; slender liana; montane forest; Gg Benom, Ph; endemic.
- 142.4.6 ***Embelia macrocarpa*** King & Gamble, **FMP2** 234, **TFM4** 279; liana; lowland and hill forest; P. Langkawi, Pn.
- 142.4.7 ***Embelia myrtillos*** Kurz, **FMP2** 235, **TFM4** 280; climbing shrub; montane forest; mountain tops; Kd to Jh.
- 142.4.8 ***Embelia parviflora*** Wall. ex A. DC., **FMP2** 236, **TFM4** 280; slender liana; montane forest above 1000 m; Kl, Pk, Ph.
- 142.4.9 ***Embelia penangiana*** (Oliv.) Mez, **FMP2** 233, **TFM4** 279; large liana; lowland and hill forest; Pn, Pk; endemic.
- 142.4.10 ***Embelia ribes*** Burm., **TFM4** 279; *Embelia garciniifolia* Wall. ex Miq., **FMP2** 232; liana; lowland forest; throughout.
- 142.4.11 ***Embelia rotundifolia*** Ridl., **FMP2** 235, **TFM4** 280; climbing shrub; montane forest at 1500 m; Gg Kerbau, Pk; endemic.
- 142.4.12 ***Embelia rugosa*** (King & Gamble) Ridl., **FMP2** 233, **TFM4** 279; liana; hill and montane forest; Pn, Pk, Ph, Sl; endemic.
- 142.4.13 ***Embelia scortechinii*** King & Gamble, **FMP2** 233, **TFM4** 279; liana; Pk; endemic.
- 142.4.14 ***Embelia subcordata*** Ridl., **FMP2** 236, **TFM4** 280; slender liana; lower montane forest; Semangkok Pass, Sl; endemic.
- 142.5.1 ***Grenacheria amentacea*** (C.B. Clarke) Mez; *Embelia amentacea* C.B. Clarke, **FMP2** 234, **TFM4** 278; slender liana; lowland forest; widespread.
- 142.5.2 ***Grenacheria fulva*** (Mez) Airy Shaw, **A01** 514; *Embelia fulva* Mez, **TFM4** 279; climber; lowland forest; Jh, Sp.
- 142.5.3 ***Grenacheria lampani*** (Scheff.) Mez; *Embelia lampani* Scheff., **FMP2** 234, **TFM4** 279; slender liana; lowland forest; Pn to Sp.
- 142.6.1 ***Hymenandra iteophylla*** (Ridl.) Furtado, **TFM4** 281; *Ardisia iteophylla* Ridl., **FMP5** 318; shrub; hill forest at 500 m; Gg Besidong, Jh; endemic.
- 142.7.1 ***Labisia acuta*** Ridl., **FMP2** 237, **S62** 47, **TFM4** 282; subshrub to 30 cm tall; lowland forest; Jh; endemic.
- 142.7.2 ***Labisia longistyla*** King & Gamble, **FMP2** 237, **S62** 45, **TFM4** 281; shrub to 60 cm tall; montane forest; Pk, Ph, Sl; endemic.

- 142.7.3 **Labisia paucifolia** King & Gamble, **FMP2** 237, **S62** 47, **TFM4** 282; subshrub to 40 cm tall; montane forest above 1000 m; Kd, Tg, Pk, Ph, Sl; endemic.
- 142.7.4a **Labisia pumila** (Blume) Fern.-Vill. var. **alata** Scheff., **S62** 50; *Labisia pothoina* Lindl. var. *alata* (Scheff.) Ridl., **FMP2** 237; herbaceous undershrub; lowland and hill forest; widespread.
- 142.7.4b **Labisia pumila** (Blume) Fern.-Vill. var. **lanceolata** (Scheff.) Mez, **S62** 47, **TFM4** 282; *Labisia pothoina* Lindl. var. *lanceolata* (Scheff.) Ridl., **FMP2** 237; herbaceous undershrub; lowland and hill forest; widespread.
- 142.7.4c **Labisia pumila** (Blume) Fern.-Vill. var. **pumila**, **S62** 47, **TFM4** 281; *Labisia pothoina* Lindl., **FMP2** 237; herbaceous undershrub; lowland and hill forest; Kd, Pn, Kl, Tg, Pk, Ph, Sl, NS, MI, Jh, Sp.
- 142.8.1 **Maesa arborea** Ridl., **FMP2** 228, **TFM4** 283; small tree; lowland forest; Kl; ?endemic.
- 142.8.2 **Maesa impressinervis** King & Gamble, **FMP2** 228, **TFM4** 282; shrub to 7 m tall; mountain summits above 1500 m; Gg Bubu, Pk, Gg Brinchang, Ph; endemic.
- 142.8.3 **Maesa indica** Wall., **FMP2** 229, **TFM4** 282; shrub; lowland and hill forest; Ps & Kd to MI.
- 142.8.4 **Maesa lancifolia** Ridl., **FMP2** 228, **TFM4** 283; shrub; lowlands; Kl; ?endemic.
- 142.8.5 **Maesa macrophylla** Wall. ex Roxb., **TFM4** 283; shrub; montane forest; Gg Brinchang, Ph.
- 142.8.6 **Maesa macrothyrsa** Miq., **FMP2** 227, **TFM4** 283; slender liana; lowland forest; Ph to Jh.
- 142.8.7 **Maesa oocarpa** Ridl., **FMP2** 229, **TFM4** 283; large shrub; lowland forest; Kl; ?endemic.
- 142.8.8 **Maesa ramentacea** Wall. ex Roxb., **FMP2** 227, **TFM4** 283; shrub or small tree to 15 m tall; lowland and hill forest to 1200 m; throughout.
- 142.8.9 **Maesa striata** Mez, **FMP2** 228, **TFM4** 283; *Maesa pahangiana* King & Gamble, **FMP2** 229; shrub; lowland and hill forest; Kd, Pn, Pk, Ph.
- Stone [**TFM4**] considers *M. arborea*, *M. lanceifolia* and *M. oocarpa* nearly impossible to separate from *M. ramentacea* and each other.
- 142.9.1 **Rapanea perakensis** (King & Gamble) B.C. Stone, **TFM4** 283; *Myrsine perakensis* King & Gamble, **FMP2** 230; *Myrsine wrayi* King & Gamble, **FMP2** 230; shrub or small tree to 10 m tall; hill and montane forest at 700–2100 m; Kl, Tg, Pk, Ph, Sl; endemic.

- 142.9.2 **Rapanea porteriana** Wall. ex A. DC., **TFM4** 284; *Myrsine avenis* (Blume) DC., **FMP2** 230; *Myrsine porteriana* Wall. ex A. DC., **FMP2** 230; *Myrsine umbellulata* (Wall.) DC., **FMP2** 231; shrub or small tree to 10 m tall; coasts, lowlands, hills and mountains to 1700 m; throughout.
143. MYRTACEAE
- 143.1.1 **Acmena acuminatissima** (Blume) Merr. & L.M. Perry; **M33** 361; *Eugenia acuminatissima* (non Miq.) Kurz, **FMP1** 747; *Eugenia cumingiana* Vidal, **H36** 260, **TFM3** 188; tree to 21 m tall; lowland to montane forest; widespread.
- 143.2.1 **Baeckea frutescens** L., **FMP1** 712, **TFM3** 170; shrub or small tree to 6 m tall; mountain tops, quartzite ridges and sandy lowland heaths; widespread.
- 143.3.1 **Cleistocalyx nervosum** (DC.) Kosterm., **K06**; *Cleistocalyx operculata* (Roxb.) Merr. & L.M. Perry, **M33** 363; *Syzygium operculatum* (Roxb.) Niedenzu, **H59** 108; *Eugenia operculata* Roxb., **FMP1** 754, **H36** 264, **TFM3** 205; *Syzygium nervosum* DC., **P03** 299; tree to 39 m tall; lowland forest, often near streams; Kd, Pn, Tg, Pk, Ph, Sl, Jh.
- 143.4.1a **Decaspermum parviflorum** (Lam.) A.J. Scott var. **caudatum** A.J. Scott, **S15** 410; shrub; on limestone; Bt Takun, Sl; endemic variety.
- 143.4.1b **Decaspermum parviflorum** (Lam.) A.J. Scott var. **parviflorum**, **S15** 409; *Decaspermum paniculatum* Kurz, **FMP1** 717; *Decaspermum fruticosum* auct. non J.R. Forst. & G. Forst., **TFM3** 171; shrub or small tree to 15 m tall; secondary forest and primary forest margins; widespread.
- Parnell and Nic Lughadha [**P07** 704] refer the Malayan material of *Decaspermum parviflorum* to their subspecies *quadripartitum*.
- 143.4.2 **Decaspermum montanum** Ridl., **FMP1** 718, **TFM3** 172, **S15** 406; shrub; montane forest above 900 m; Gg Jerai, Kd; Gg Ulu Kali, Ph; Gg Ledang, Jh; ?endemic.
- 143.5.1 **Leptospermum amboinense** Blume, **B15** 653; *Leptospermum flavescens* Sm. var. *angustifolium* Ridl., **FMP1** 713; *Leptospermum flavescens* Sm., **TFM3** 248 in part; *Leptospermum javanicum* Blume, **T11** in part; shrub or small tree; montane forest; Kd, Ml, Jh.
- 143.5.2 **Leptospermum javanicum** Blume, **T11** 390 in part, **B15** 652; *Leptospermum flavescens* Sm., **FMP1** 713 incl. var. *javanicum* King, **TFM3** 248 in part; shrub or small tree; montane forest at high altitudes; Ph, Sl.
- 143.6.1 **Melaleuca cajuputi** Powell, **TFM3** 248; *Melaleuca leucadendron* L. *sensu lato*, **FMP1** 713; shrub or tree to 24 m tall; swampy ground near the sea; widespread.

- 143.7.1 **Rhodamnia cinerea** Jack, **FMP1** 716 incl. var. *caudata* Ridl., **TFM3** 250, **S14** 435; tree to 15 m tall; lowland (secondary) forest, often near the sea; common throughout.
- 143.7.2 **Rhodamnia dumetorum** (DC.) Merr. & L.M. Perry, **S14** 437; shrub or small tree to 8 m tall; P. Langkawi.
- 143.7.3 **Rhodamnia uniflora** (Ridl.) Burkill, **S14** 440; *Rhodamnia cinerea* Jack var. *uniflora* Ridl., **FMP1** 716; shrub to 9 m tall; montane forest at 600–1700 m; Kd, Kl, Tg, Pk, Ph, Jh.
- 143.8.1 **Rhodomyrtus tomentosa** (Aiton) Hassk., **FMP1** 717, **S13** 313; shrub to 3 m tall; open sandy ground; common throughout, particularly on the East Coast.
- 143.9.1 **Stereocaryum symingtonianum** (M.R. Hend.) A.J. Scott, **S16** 496; *Eugenia symingtoniana* M.R. Hend., **H36** 267, **TFM3** 218; tree to 13 m tall; hill and montane forest; Kl, Tg, Pk, Ph; endemic.
- 143.9.2 **Stereocaryum watsonianum** (M.R. Hend.) A.J. Scott, **S16** 496; *Eugenia watsoniana* M.R. Hend., **H36** 268, **TFM3** 222; tree to 10 m tall; lowland forest; Sl; endemic.
- 143.10.1 **Syzygium alyxiifolium** (Ridl.) I.M. Turner, **T22** 15; *Eugenia alyxiifolia* Ridl., **FMP5** 309, **H36** 215, **TFM3** 182; shrub; montane forest; once from Fraser's Hill, Ph; endemic.
- 143.10.2 **Syzygium anacardiifolium** (Craib) P. Chantaranothai & J. Parn., **C03** 592, **T22** 15, **C04** 34; tree to 15 m tall; lowland forest; once from Ulu Trengganu, Tg.
- 143.10.3 **Syzygium anisosepalum** (Duthie) I.M. Turner, **T22** 15; *Eugenia anisosepala* Duthie, **FMP1** 736, **H36** 114, **TFM3** 183; tree to 20 m tall; lowland and hill forest; Kd, Ph, Sl, NS, Ml; endemic.
- 143.10.4a **Syzygium attenuatum** (Miq.) Merr. & L.M. Perry ssp. *attenuatum* var. *attenuatum*, **M34** 185, **M33** 376, **T22** 15; *Eugenia attenuata* (Miq.) Koord. & Valeton, **H36** 238, **TFM3** 183; *Eugenia penangiana* Duthie, **FMP1** 740, in part; tree to 6 m tall; lowland to lower montane forest; Kd, Pn, Ph, Sl, Ml, Jh, Sp.
- 143.10.4b **Syzygium attenuatum** (Miq.) Merr. & L.M. Perry ssp. *attenuatum* var. *montanum* (M.R. Hend.) P. Chantaranothai & J. Parn., **C03** 593, **C04** 40, **T22** 15; *Eugenia attenuata* (Miq.) Koord. & Valeton var. *montana* M.R. Hend., **H36** 242, **TFM3** 183; small tree; montane forest, rocky ridges; Ph, Sl.

- 143.10.4c **Syzygium attenuatum** (Miq.) Merr. & L.M. Perry ssp. **attenuatum** var. **ophirense** (M.R. Hend.) I.M. Turner, **T22** 15; *Eugenia attenuata* (Miq.) Koord. & Valetton var. *ophirensis* M.R. Hend., **H36** 241, **TFM3** 183; small tree; montane forest; only known from Gg Ledang (Mt Ophir), Jh; endemic variety.
- 143.10.4d **Syzygium attenuatum** (Miq.) Merr. & L.M. Perry ssp. **circumscissum** (Gagnep.) P. Chantaranothai & J. Parn., **C03** 593, **C04** 41; *Eugenia rhamphiphylla* Craib, **H36** 242, **TFM3** 214; tree to 24 m tall; lowland forest; Kd, Pn.
- 143.10.5 **Syzygium avene** Miq., **T22** 15; *Eugenia avenis* (Miq.) M.R. Hend., **H36** 171, **TFM3** 184; *Eugenia scoparia* Duthie, **FMP1** 748; tree; lowland forest; Ml, Jh, Sp.
- 143.10.6 **Syzygium borneense** (Miq.) Miq., **C04** 45, **T22** 15; *Eugenia microcalyx* Duthie, **FMP1** 745 incl. var. *obovata* King in part, **H36** 205, **TFM3** 202; *Eugenia microcalyx* Duthie var. *irregularis* (Craib) M.R. Hend., **H36** 207, **TFM3** 202; tree to 16 m tall; lowland forest; Pn to Sp to west of Main Range.
- 143.10.7a **Syzygium burkillianum** (King) I.M. Turner var. **burkillianum**, **T22** 15; *Eugenia burkilliana* King, **FMP1** 735, **H36** 116, **TFM3** 184; tree to 18 m tall; lowland forest; Pk; endemic.
- 143.10.7b **Syzygium burkillianum** (King) I.M. Turner var. **garcinifolioides** (M.R. Hend.) I.M. Turner, **T22** 15; *Eugenia burkilliana* King var. *garcinifolioides* M.R. Hend., **H36** 118, **TFM3** 184; tree; Ph, Sl; lowland forest; endemic.
- 143.10.8 **Syzygium cameronum** I.M. Turner, **T22** 15; *Eugenia goniocalyx* Ridl., **FMP5** 309, **H36** 165, **TFM3** 193; tree to 18 m tall; montane forest at 1500 m; Cameron Highlands and Fraser's Hill, Ph; endemic.
- 143.10.9 **Syzygium campanulatum** Korth., **C04** 47, **T22** 15; *Eugenia myrtifolia* (non Salisb.) Roxb., **FMP1** 750; *Eugenia oleina* Wight nom. nud., **H36** 150, **TFM3** 205; small tree; coasts; Pn, Jh, Sp.
- 143.10.10 **Syzygium camptophyllum** (M.R. Hend.) I.M. Turner, **T22** 15; *Eugenia camptophylla* M.R. Hend., **H36** 140, **TFM3** 184; tree to 15 m tall; lowland forest; once from near Gopeng, Pk; endemic.
- 143.10.11 **Syzygium castaneum** (Merr.) Merr. & L.M. Perry, **M34** 156, **T22** 15; *Eugenia castanea* Merr., **H36** 156, **TFM3** 185; small tree; swampy lowland forest; Pk, Jh; endemic.
- 143.10.12 **Syzygium cerasiforme** (Blume) Merr. & L.M. Perry, **M34** 187, **C04** 49, **T22** 15; *Eugenia cerasiformis* (Blume) DC., **H36** 196, **TFM3** 185; *Eugenia expansa* (non Mart.) Duthie, **FMP1** 745; *Eugenia robinsoniana* Ridl., **FMP1** 734; *Eugenia evansii* Ridl., **FMP1** 747; small tree to 6 m tall; lowland forest; P. Langkawi to Ml.

- 143.10.13a **Syzygium cerinum** (M.R. Hend.) I.M. Turner var. **cerinum**, **T22** 15; *Eugenia cerina* M.R. Hend., **H36** 168, **TFM3** 185; *Eugenia punctulata* (non F.M. Bailey) King, **FMP1** 747; tree to 27 m tall; swampy lowland forest; Pn to Sp.
- 143.10.13b **Syzygium cerinum** (M.R. Hend.) I.M. Turner var. **montanum** (M.R. Hend.) I.M. Turner, **T22** 15; *Eugenia cerina* M.R. Hend. var. *montana* M.R. Hend., **H36** 171, **TFM3** 186; tree; montane forest; Tg, Pk, Ph, Jh.
- 143.10.13c **Syzygium cerinum** (M.R. Hend.) I.M. Turner var. **turbinatum** (M.R. Hend.) I.M. Turner, **T22** 15; *Eugenia cerina* M.R. Hend. var. *turbinata* M.R. Hend.; **H36** 170, **TFM3** 186; tree; lowland forest; Ph, Sl, NS, Jh, Sp.
- 143.10.14 **Syzygium chloranthum** (Duthie) Merr. & L.M. Perry, **M34** 173; *Eugenia chlorantha* Duthie, **FMP1** 734, **H36** 107, **TFM3** 186; tree to 24 m tall; lowland and hill forest; Kd to Sp.
- 143.10.15 **Syzygium chloroleucum** (King) Masam.; *Eugenia chloroleuca* King, **FMP1** 744, **H36** 189, **TFM3** 186; shrub or small tree; lowland and hill forest; Pk, Ph, Sl, Jh.
- 143.10.16 **Syzygium cinereum** (Kurz) P. Chantaranothai & J. Parn., **C03** 596, **C04** 51; *Eugenia cinerea* Kurz, **FMP1** 744; *Eugenia pseudosubtilis* King, **FMP1** 746 incl. var. *subacuminata* King, **H36** 202 incl. var. *montana* M.R. Hend., **TFM3** 212; tree to 30 m tall; lowland forest, sometimes in the mountains; widespread.
- 143.10.17a **Syzygium claviflorum** (Roxb.) Wall. ex A.M. Cowan & Cowan var. **claviflorum**, **M33** 382, **C04** 53, **T22** 15; *Eugenia claviflora* Roxb., **FMP1** 742, **H36** 252, **TFM3** 186; *Eugenia leptantha* (non Benth.) Wight, **FMP1** 741; *Eugenia claviflora* Roxb. var. *leptalea* (Craib) M.R. Hend., **H36** 255, **TFM3** 187; *Acmenosperma claviflorum* (Roxb.) Kausel var. *claviflorum*, **H59** 24; medium-sized tree; lowland and hill forest; Ps, P. Langkawi, Tg, Kd, Pn, Pk, Ph, Sp.
- 143.10.17b **Syzygium claviflorum** (Roxb.) Wall. ex A.M. Cowan & Cowan var. **excavatum** (King) I.M. Turner, **T22** 15; *Eugenia claviflora* Roxb. var. *excavata* King, **H36** 257, **TFM3** 187; medium-sized tree; lowland and hill forest; Pn, Pk; endemic variety.
- 143.10.17c **Syzygium claviflorum** (Roxb.) Wall. ex A.M. Cowan & Cowan var. **glandulosum** (King) P. Chantaranothai & J. Parn., **C02** 590, **T22** 15; tree.
- 143.10.17d **Syzygium claviflorum** (Roxb.) Wall. ex A.M. Cowan & Cowan var. **maingayi** (Duthie) P. Chantaranothai & J. Parn., **C03** 590, **T22** 15; *Eugenia claviflora* Roxb. var. *maingayi* (Duthie) King, **H36** 257, **TFM3** 187; shrub or small tree; lowland and hill forest; Pn, Kl, Ph, NS, Jh; endemic variety.

- 143.10.17e **Syzygium claviflorum** (Roxb.) Wall. ex A.M. Cowan & Cowan var. **montanum** (M.R. Hend.) I.M. Turner, **T22** 15; *Eugenia claviflora* var. *montana* M.R. Hend., **H36** 260, **TFM3** 187; tree; hill and montane forest; Kd, Tg, Ph, Sl, Jh; endemic variety.
- 143.10.17f **Syzygium claviflorum** (Roxb.) Wall. ex A.M. Cowan & Cowan var. **riparium** (M.R. Hend.) I.M. Turner, **T22** 15; *Eugenia claviflora* var. *riparia* M.R. Hend., **H36** 257, **TFM3** 187; tree; river banks; Sg Tahan, Ph; endemic variety.
- 143.10.18 **Syzygium clypeolatum** (Ridl.) I.M. Turner, **T22** 15; *Eugenia clypeolata* Ridl., **FMP1** 754, **H36** 227, **TFM3** 197; shrub; once from Gg Tahan, Ph; endemic.
- 143.10.19a **Syzygium conglomeratum** (Duthie) I.M. Turner var. **conglomerata**, **T22** 15; *Eugenia conglomerata* Duthie, **FMP1** 742, **H36** 198, **TFM3** 188; tree to 27 m tall; ?lowland forest; Sl, Ml, Jh, Sp; endemic.
- 143.10.19b **Syzygium conglomeratum** (Duthie) I.M. Turner var. **paniculatum** (M.R. Hend.) I.M. Turner, **T22** 15; *Eugenia conglomerata* Duthie var. *paniculata* M.R. Hend., **H36** 201, **TFM3** 188; tree; lowland forest; once from Sg Kayu Ara, Jh; endemic.
- 143.10.20 **Syzygium cordifoliatum** (Ridl.) I.M. Turner, **T22** 15; *Eugenia cordifoliata* Ridl., **FMP1** 736, **H36** 95, **TFM3** 188 '*cordifoliolata*'; tree; once from Pk; endemic.
- 143.10.21a **Syzygium curtisii** (King) Merr. & L.M. Perry var. **curtisii**, **T22** 15, **M34** 182; *Eugenia curtisii* King, **FMP1** 749, **H36** 174, **TFM3** 188; tree to 25 m tall; lowland forest; Kl, Pk, Jh.
- 143.10.21b **Syzygium curtisii** (King) Merr. & L.M. Perry var. **holttumii** (Ridl.) I.M. Turner, **T22** 15; *Eugenia holttumii* Ridl., **FMP5** 309; *Eugenia curtisii* King var. *holttumii* (Ridl.) M.R. Hend., **H36** 176, **TFM3** 189; montane forest; Ph; endemic variety.
- 143.10.21c **Syzygium curtisii** (King) Merr. & L.M. Perry var. **minus** (King) I.M. Turner, **T22** 15; *Eugenia curtisii* King var. *minor* King, **FMP1** 749, **H36** 175, **TFM3** 189; lowland forest; Pk, Ph, Ml; endemic variety.
- 143.10.22 **Syzygium cyrtophylloides** (Ridl.) I.M. Turner, **T22** 15; *Eugenia cyrtophylloides* Ridl., **FMP1** 749, **H36** 167, **TFM3** 189; tree; montane forest; once from Gg Tahan, Ph; endemic.
- 143.10.23 **Syzygium diospyrifolium** (Wall. ex Duthie) S.N. Mitra, **C04** 57, **T22** 15; *Eugenia diospyrifolia* Wall. ex Duthie, **H36** 67, **TFM3** 190; small tree; lowland and hill forest; Kd, Pn, Tg, Ph.
- 143.10.24 **Syzygium duthieanum** (King) Masam., **C04** 58, **T22** 15; *Eugenia duthieana* King, **FMP1** 731, **H36** 118, **TFM3** 190; tree to 36 m tall; lowland and hill forest; Kd, Pn, Tg, Pk, Ph, Jh, Sp; endemic.

- 143.10.25 **Syzygium dyerianum** (King) P. Chantaranothai & J. Parn., **C03** 596, **C04** 59, **T22** 15; *Eugenia dyeriana* King, **FMP1** 732 incl. var. *oblonga* King, **H36** 126, **TFM3** 190; *Eugenia corrugata* King, **FMP1** 732; *Eugenia atronervia* M.R. Hend., **H34** 91; tree to 24 m tall; lowland to lower montane forest at 1300 m; common throughout.
- 143.10.26 **Syzygium fastigiatum** (Blume) Merr. & L.M. Perry, **M34** 152, **M33** 389, **C04** 60, **T22** 15; *Eugenia fastigiata* (Blume) Koord. & Valetton, **H36** 190, **TFM3** 191; *Eugenia bracteolata* Wight, **FMP1** 747; tree to 25 m tall; lowland and hill forest; widespread.
- 143.10.27a **Syzygium filiforme** (Wall. ex Duthie) P. Chantaranothai & J. Parn. var. **clavimyrthus** (Koord. & Valetton) I.M. Turner, **T22** 15; *Eugenia filiformis* Wall. ex Duthie var. *clavimyrthus* (Koord. & Valetton) M.R. Hend., **H36** 147, **TFM3** 191; tree; lowland and hill forest; Pn to Sp.
- 143.10.27b **Syzygium filiforme** (Wall. ex Duthie) P. Chantaranothai & J. Parn. var. **constrictum** (Kochummen) I.M. Turner, **T22** 15; *Eugenia filiformis* Wall. ex Duthie var. *constricta* Kochummen, **TFM3** 191; tree; hill forest; once from Ulu Gombak F.R., Sl; endemic variety.
- 143.10.27c **Syzygium filiforme** (Wall. ex Duthie) P. Chantaranothai & J. Parn. var. **filiforme**, **C03** 598, **C04** 61; *Eugenia filiformis* Wall. ex Duthie, **FMP1** 740, **H36** 145, **TFM3** 191; tree to 42 m tall; lowland forest; Pk to Sp.
- 143.10.28 **Syzygium flosculiferum** (M.R. Hend.) Sreek., **T22** 15; *Eugenia flosculifera* M.R. Hend., **H36** 237, **TFM3** 191; tree to 45 m tall; lowland and hill forest; Kd, Pk, Ph, Sl, Ml, Jh, Sp.
- 143.10.29 **Syzygium foxworthianum** (Ridl.) Merr. & L.M. Perry, **M32** 168, **C04** 63, **T22** 15, *Eugenia densiflora* (Blume) Miq. var. *angustifolia* Ridl., **FMP1** 729, **H36** 79, **TFM3** 189; *Eugenia foxworthyi* (non Elmer) Ridl., **FMP1** 728; *Eugenia foxworthiana* Ridl., **FMP5** 308; small bushy tree; riverbanks; Kl, Tg, Pk, Ph.
- 143.10.30 **Syzygium fusticuliferum** (Ridl.) Merr. & L.M. Perry, **M34** 184, **T22** 15; *Eugenia fusticulifera* Ridl., **H36** 246, **TFM3** 192; tree to 15 m tall; lowland forest; once from near Rompin, Ph.
- 143.10.31 **Syzygium gageanum** (King) I.M. Turner, **T22** 15; *Eugenia gageana* King, **FMP1** 729, **H36** 133, **TFM3** 192; tree to 15 m tall; lowland forest; once from near Larut, Pk; endemic.
- 143.10.32 **Syzygium garcinifolium** (King) Merr. & L.M. Perry, **M34** 167, **T22** 15; *Eugenia garcinifolia* King, **FMP1** 730, **H36** 83, **TFM3** 192; tree to 39 m tall; lowland and hill forest; Kl, Tg, Pk, Sl, NS, Jh.

- 143.10.33 **Syzygium glaucum** (King) P. Chantaranothai & J. Parn., **C03** 598, **C04** 66, **T22** 15; *Eugenia glauca* King, **FMP1** 737, **H36** 112, **TFM3** 193; *Eugenia pseudoglauca* (King) Ridl., **FMP1** 737; *Eugenia glauca* King var. *pseudoglauca* King, **H36** 113, **TFM3** 193; tree to 45 m tall; lowland forest; Kd, Pn, Pk, Ph, Sl, NS, Ml, Jh, Sp.
- 143.10.34 **Syzygium goodenovii** (King) Masam., **T22** 15; *Eugenia goodenovii* King, **FMP1** 731 in part, **H36** 172, **TFM3** 193; tree to 27 m tall; lowland forest; Pk, NS, Ml; endemic.
- 143.10.35 **Syzygium gracile** (Korth.) Amsh., **M33** 392, **T22** 15; *Eugenia virens* (Blume) Koord. & Valetton, **H36** 249, **TFM3** 222; *Eugenia fusiformis* Duthie, **FMP1** 727; *Syzygium fusiforme* (Duthie) Merr. & L.M. Perry, **M34** 176; tree to 30 m tall; lowland forest; Pk, Ml, Jh, Sp.
- 143.10.36 **Syzygium graeme-andersoniae** (Ridl.) I.M. Turner, **T22** 15; *Eugenia graeme-andersoniae* Ridl., **FMP1** 743, **H36** 111, **TFM3** 193; tree to 6 m tall; lowland river banks; Kl, Ph; endemic.
- 143.10.37 **Syzygium grande** (Wight) Walp., **T22** 15, **M34** 176, **C04** 68; *Eugenia grandis* Wight, **FMP1** 729, **H36** 87, **TFM3** 195; tree to 30 m tall; sandy and rocky coasts, also widely planted; throughout.
- 143.10.38 **Syzygium gratum** (Wight) S.N. Mitra, **C04** 70, **T22** 15; *Eugenia grata* Wight, **FMP1** 739, **H36** 233; *Eugenia spicata* auct. non Lam., **TFM3** 217 in part; tree to 20 m tall; mostly on rocky and sandy shore; widespread.
- 143.10.39 **Syzygium griffithii** (Duthie) Merr. & L.M. Perry, **M34** 174, **T22** 15; *Eugenia griffithii* Duthie, **FMP1** 731, **H36** 120, **TFM3** 195; tree to 36 m tall; lowland and hill forests; Kd to Sp.
- 143.10.40 **Syzygium haniffii** (M.R. Hend.) I.M. Turner, **T22** 15; *Eugenia haniffii* M.R. Hend., **H36** 139, **TFM3** 195; tree to 18 m tall; hill forest; Pn, Sl; endemic.
- 143.10.41 **Syzygium helferi** (Duthie) P. Chantaranothai & J. Parn., **C03** 599, **C04** 73, **T22** 15; *Eugenia helferi* Duthie, **FMP1** 735, **H36** 109, **TFM3** 196; tree to 18 m tall; rocky forest, often near the sea; P. Langkawi, Kd, Pn.
- 143.10.42 **Syzygium hemsleyanum** (King) P. Chantaranothai & J. Parn., **C03** 599, **T22** 15; *Eugenia hemsleyana* King, **FMP1** 732, **H36** 129, **TFM3** 196; tree to 10 m tall; lowland forest; Pk, Ph.
- 143.10.43 **Syzygium hendersonii** Merr., **M33** 369, **T22** 15; *Eugenia auriculata* Ridl., **FMP1** 726, **H36** 54, **TFM3** 183; tree; lowland forest; once from near Lumut, Pk; endemic.
- 143.10.44 **Syzygium hoseanum** (King) Merr. & L.M. Perry, **M34** 150, **T22** 15; *Eugenia hoseana* King, **FMP1** 733, **H36** 103, **TFM3** 196; tree to 15 m tall; lowland and hill forest; Pk, Jh.

- 143.10.45 **Syzygium hulletianum** (King) P. Chantaranothai & J. Parn., **C03** 601, **C04** 75, **T22** 15; *Eugenia hulletiana* King, **FMP1** 735; tree; lowland forest; Pk.
- 143.10.46 **Syzygium inasense** (King) I.M. Turner, **T22** 15; *Eugenia inasensis* King, **FMP1** 751, **H36** 100, **TFM3** 196; small tree; montane forest at 1700 m; thrice from Gg Inas, Pk; endemic.
- 143.10.47a **Syzygium inophyllum** DC. var. **bernardii** (King) I.M. Turner, **T22** 15; *Eugenia bernardii* King, **H36** 142; *Eugenia inophylla* (DC.) Roxb. var. *bernardii* (King) Ridl., **FMP1** 750, **TFM3** 197; tree; lowland to montane forest; Pn, Pk, Ph, Sl; endemic variety.
- 143.10.47b **Syzygium inophyllum** DC. var. **inophyllum**, **M34** 188; *Eugenia inophylla* (DC.) Roxb., **FMP1** 750, **H36** 141, **TFM3** 197; tree to 24 m tall; lowland to montane forest; throughout.
- 143.10.48 **Syzygium jasminifolium** (Ridl.) P. Chantaranothai & J. Parn., **C03** 602, **C04** 78, **T22** 15; *Eugenia jasminifolia* Ridl., **FMP1** 740, **H36** 223, **TFM3** 197; small bushy tree; montane forest; Kl, Tg, Pk, Ph, NS, Ml, Jh.
- 143.10.49 **Syzygium kemamanense** (M.R. Hend.) I.M. Turner, **T22** 15; *Eugenia kemamanensis* M.R. Hend., **H36** 93, **TFM3** 198 'kemamensis'; tree to 18 m tall; lowland forest; Kl, Tg, Ph, Sl; endemic.
- 143.10.50a **Syzygium kiahii** (M.R. Hend.) I.M. Turner var. **angustifolium** (M.R. Hend.) I.M. Turner, **T22** 15; *Eugenia kiahii* M.R. Hend. var. *angustifolia* M.R. Hend., **H36** 116, **TFM3** 198; tree; lowland swamp forest; Jh; endemic.
- 143.10.50b **Syzygium kiahii** (M.R. Hend.) I.M. Turner var. **kiahii**, **T22** 15; *Eugenia kiahii* M.R. Hend., **H36** 115, **TFM3** 198; tree to 27 m tall; lowland forest including swamps; Tg, Ph, Sl, Jh; endemic.
- 143.10.51 **Syzygium klossii** (Ridl.) Masam., **T22** 15; *Eugenia klossii* Ridl., **FMP1** 744, **H36** 179, **TFM3** 198; tree; forest; known only from type, Rantau Panjang, Sl; endemic.
- 143.10.52 **Syzygium koordersianum** (King) I.M. Turner, **T22** 15; *Eugenia koordersiana* King, **FMP1** 732, **H36** 212, **TFM3** 198; tree to 39 m tall; lowland forest; widespread; endemic.
- 143.10.53 **Syzygium kunstleri** (King) Bahadur & R.C. Gaur, **T22** 15; *Eugenia kunstleri* King, **FMP1** 746, **H36** 209, **TFM3** 199; tree to 30 m tall; lowland and hill forest; Kd, Pn, Pk, Tg, Jh, Sp.
- 143.10.54 **Syzygium leptostemon** (Korth.) Merr. & L.M. Perry, **M34** 156, **C04** 82, **T22** 15; *Eugenia urceolata* [non (Korth.) Cordem.] King, **FMP1** 742; *Eugenia leptostemon* (Korth.) Miq., **H36** 201, **TFM3** 199; tree to 21 m tall; lowland to montane forest; Kd to Sp.

- 143.10.55 **Syzygium leucoxylum** Korth., **M34** 193, **M33** 398, **T22** 15; *Eugenia leucoxylon* (Korth.) Miq., **H36** 235, **TFM3** 199; *Eugenia verecunda* Duthie, **FMP1** 748 incl. var. *major* Ridl.; tree to 15 m tall; sea coasts and tidal rivers; Pn, Tg, Pk, Ph, Jh, Sp.
- 143.10.56 **Syzygium lineatum** (DC.) Merr. & L.M. Perry, **C04** 83, **T22** 15; *Eugenia longiflora* (C. Presl) Fern.-Vill., **H36** 159, **TFM3** 201; *Eugenia lineata* [non DC.] (Blume) Duthie, **FMP1** 738; tree to 22 m tall; secondary forests and open country in the lowlands; common throughout.
- 143.10.57 **Syzygium linoceroide** (King) I.M. Turner, **T22** 15; *Eugenia linoceroidea* King, **FMP1** 749, **H36** 163, **TFM3** 201; tree to 18 m tall; lowland forest; Pk, Sl, Sp; endemic.
- 143.10.58 **Syzygium maingayi** P. Chantaranothai & J. Parn., **C03** 605, **C04** 84, **T22** 15; *Eugenia oblongifolia* Duthie, **FMP1** 744 incl. var. *parviflora* King, **H36** 184, **TFM3** 204; tree to 40 m tall; lowland and hill forest; Kd, Tg, Pk, Ph, NS, MI, Sp.
- 143.10.59 **Syzygium malayanum** (Gagnep.) I.M. Turner, **T22** 15; *Eugenia malayana* Gagnep., **H36** 50, **TFM3** 201; tree to 9 m tall; lowland forest; Kl, Tg; endemic.
- 143.10.60 **Syzygium millsii** (M.R. Hend.) I.M. Turner, **T22** 15; *Eugenia millsii* M.R. Hend., **H36** 92, **TFM3** 202; tree to 20 m tall; lowland forest; Kd, Ph, Sl; endemic.
- 143.10.61 **Syzygium muelleri** (Miq.) Miq., **M36** 186, **C04** 88, **T22** 15; *Eugenia muelleri* Miq., **H36** 186, **TFM3** 202; *Eugenia venulosa* Duthie, **FMP1** 746; tree to 22 m tall; lowlands, often near streams; Pk to Sp.
- 143.10.62 **Syzygium myrianthum** (King) I.M. Turner, **T22** 15; *Eugenia myriantha* King, **FMP1** 745, **H36** 209, **TFM3** 202; tall tree; once from Pk; endemic.
- 143.10.63 **Syzygium napiforme** (Koord. & Valetton) Merr. & L.M. Perry, **M34** 183, **T22** 15; *Eugenia napiformis* Koord. & Valetton, **H36** 247, **TFM3** 203; tree to 36 m tall; lowland and hill forest; Tg, Pk, Ph, Sl, NS, Jh.
- 143.10.64 **Syzygium nemestrinum** (M.R. Hend.) I.M. Turner, **T22** 15; *Eugenia nemestrina* M.R. Hend., **H36** 192, **TFM3** 203; tree to 39 m tall; lowland and hill forest; Tg, Ph, Sp; endemic.
- 143.10.65 **Syzygium ngadimanianum** (M.R. Hend.) I.M. Turner, **T22** 15; *Eugenia ngadimaniana* M.R. Hend., **H36** 108, **TFM3** 203; tree to 27 m tall; lowland forest; Kl, Jh, Sp; endemic.
- 143.10.66 **Syzygium nigricans** (King) Merr. & L.M. Perry, **M34** 194, **T22** 15; *Eugenia nigricans* King, **FMP1** 751, **H36** 194, **TFM3** 203; tree to 39 m tall; lowland and hill forest; Kd, Pn, Kl, Tg, Pk, Ph, Sl, NS, MI, Jh, Sp.

- 143.10.67 **Syzygium nitidulum** (Ridl.) I.M. Turner, **T22** 15; *Eugenia nitidula* Ridl., **FMP5** 308, **H36** 226, **TFM3** 204; shrub or small tree to 15 m tall; montane forest; Pk, Ph; endemic.
- 143.10.68a **Syzygium oblatum** (Duthie) Wall. ex A.M. Cowan & Cowan var. **laevicaule** (Duthie) P. Chantaranothai & J. Parn., **C04** 91, **T22** 15; *Eugenia oblata* auct. non Roxb., **FMP1** 749 in part; *Eugenia laevicaulis* Duthie, **H36** 138, **TFM3** 199; tree to 21 m tall; lowland forest; Kd, Pn, Kl, Ml, Jh; endemic.
- 143.10.68b **Syzygium oblatum** (Roxb.) Wall. ex A.M. Cowan & Cowan var. **oblatum**, **M34** 187, **T22** 15; *Eugenia oblata* Roxb., **FMP1** 749, **H36** 136, **TFM3** 204; *Eugenia limnaea* Ridl., **FMP1** 729; *Eugenia laxiuscula* Ridl., **FMP1** 750; *Eugenia brantiana* M.R. Hend., **H36** 145; shrub or tree to 24 m tall; lowland forest, mostly near the sea; Kl to Jh.
- 143.10.69 **Syzygium oreophilum** (Ridl.) I.M. Turner, **T22** 15; *Eugenia oreophila* Ridl., **FMP1** 753, **H36** 61, **TFM3** 205; *Eugenia jugalis* Ridl., **FMP1** 727; shrub to 8 m tall; ridges above 1300 m; Pk, Ph, Sl; endemic.
- 143.10.70 **Syzygium orites** (Ridl.) I.M. Turner, **T22** 15; *Eugenia orites* Ridl., **FMP5** 308, **H36** 214, **TFM3** 205; shrub or small tree; montane forest; Gg Tapis, Ph; Gg Belumut, Jh; endemic.
- 143.10.71 **Syzygium pachyphyllum** (Kurz) Merr. & L.M. Perry, **M34** 168, **C04** 92, **T22** 15; *Eugenia pachyphylla* Kurz, **FMP1** 733, **H36** 90, **TFM3** 206; tree to 13 m tall; lowland forest; Kd and Kl to Sp.
- 143.10.72a **Syzygium pahangense** (Ridl.) I.M. Turner var. **fraseri** (M.R. Hend.) I.M. Turner, **T22** 15; *Eugenia pahangense* Ridl. var. *fraseri* M.R. Hend., **H36** 102, **TFM3** 206; small tree; montane forest; once from Fraser's Hill, Ph; endemic.
- 143.10.72b **Syzygium pahangense** (Ridl.) I.M. Turner var. **pahangense**, **T22** 15; *Eugenia pahangensis* Ridl. var. *pahangensis*, **FMP1** 751, **H36** 101, **TFM3** 206; small tree; montane forest; Gg Tahan, Ph; endemic.
- 143.10.73 **Syzygium palembanicum** Miq., **T22** 15; *Eugenia palembanica* (Miq.) Merr., **H36** 85, **TFM3** 206; *Eugenia lepidocarpa* Kurz, **FMP1** 730; *Eugenia selangorensis* Ridl., **FMP1** 730, **H36** 84; tree to 24 m tall; lowland to montane forest; Tg to Sp.
- 143.10.74 **Syzygium pallidulum** (Ridl.) I.M. Turner, **T22** 15; *Eugenia pallidula* Ridl., **FMP1** 748, **H36** 192, **TFM3** 207; tree to 21 m tall; lowland forest; Pk, Ph; endemic.
- 143.10.75 **Syzygium papillosum** (Duthie) Merr. & L.M. Perry, **M34** 157, **C04** 93, **T22** 15; *Eugenia papillosa* Duthie, **FMP1** 730, **H36** 77, **TFM3** 207; stilt-rooted tree to 21 m tall; swampy lowland forest; Pk and Tg to Sp.

- 143.10.76 **Syzygium pauper** (Ridl.) I.M. Turner, **T22** 15; *Eugenia pauper* Ridl., **FMP1** 745, **H36** 178, **TFM3** 207; small tree to 7 m tall; lowland and hill forest; NS, Jh, Sp; endemic.
- 143.10.77 **Syzygium pearsonianum** (King) I.M. Turner, **T22** 15; *Eugenia pearsoniana* King, **H36** 134, **TFM3** 207; *Eugenia prainiana* King var. *pearsoniana* (King) Ridl., **FMP1** 751; tree to 30 m tall; lowland forest; Pk, Jh; endemic.
- 143.10.78 **Syzygium pendens** (Duthie) I.M. Turner, **T22** 15; *Eugenia pendens* Duthie, **FMP1** 726, **H36** 71, **TFM3** 209; small tree; lowland forest; Kl and Pk to Sp; endemic.
- 143.10.79 **Syzygium perakense** (King) I.M. Turner, **T22** 15; *Eugenia perakensis* King, **FMP1** 726, **H36** 51, **TFM3** 209; stilt-rooted tree to 15 m tall; swampy lowland forest, river banks; Pk, Sl; endemic.
- 143.10.80 **Syzygium pergamentaceum** (King) P. Chantaranothai & J. Parn., **C03** 607, **C04** 94, **T22** 15; *Eugenia pergamentacea* King, **FMP1** 732, **H36** 130, **TFM3** 209; tree to 10 m tall; lowland forest; Kd, Pn, Pk.
- 143.10.81 **Syzygium perryae** I.M. Turner; *Eugenia benjamina* King, **FMP1** 734, **H34** 152, **TFM3** 184; shrub or small tree; hill and montane forest; Pk; endemic.
- 143.10.82 **Syzygium plumbeum** (King) I.M. Turner, **T22** 15; *Eugenia plumbea* King, **FMP1** 727, **H36** 63, **TFM3** 209; tree; montane forest at 1200 m; once from Gg Batu Puteh, Pk; endemic.
- 143.10.83 **Syzygium politum** (King) I.M. Turner, **T22** 15; *Eugenia polita* King, **FMP1** 739, **H36** 221, **TFM3** 210; shrub or small tree sometimes to 25 m tall; lowland and hill forest; Kd, Pn, Pk, Ph, Sl, Ml, Jh; endemic.
- 143.10.84a **Syzygium polyanthum** (Wight) Walp. var. **polyanthum**, **M34** 155, **M33** 409, **C04** 95, **T22** 15; *Eugenia polyantha* Wight, **FMP1** 742, **H36** 211, **TFM3** 210; *Eugenia balsamea* auct. non Wight, **FMP1** 754; tree to 30 m tall; lowland forest; P. Langkawi & Kl to Sp.
- 143.10.84b **Syzygium polyanthum** (Wight) Walp. var. **sessile** (M.R. Hend.) I.M. Turner, **T22** 15; *Eugenia polyantha* Wight var. *sessilis* M.R. Hend., **H36** 212, **TFM3** 210; tree; lowland swamp forest; once from Sg Kayu, Jh; endemic variety.
- 143.10.85 **Syzygium praestigiosum** (M.R. Hend.) I.M. Turner, **T22** 15; *Eugenia praestigiosa* M.R. Hend., **H36** 158, **TFM3** 210; tree; once from Pk; endemic.
- 143.10.86 **Syzygium prainianum** (King) P. Chantaranothai & J. Parn., **C03** 608, **T22** 15; *Eugenia prainiana* King, **FMP1** 750, **H36** 133, **TFM3** 210; tree to 48 m tall; lowland forest; Kd, Kl, Pk, Ph, Sl.

- 143.10.87 **Syzygium porphyrantherum** (Ridl.) I.M. Turner, **T22** 15; *Eugenia porphyranthera* Ridl., **FMP1** 727, **H36** 59, **TFM3** 211 '*prophyranthera*'; small tree; hill forest; Ph, Sl; endemic.
- 143.10.88 **Syzygium pseudoclaviflorum** (M.R. Hend.) I.M. Turner, **T22** 15; *Eugenia pseudoclaviflora* M.R. Hend., **H36** 252, **TFM3** 211; tree to 7 m tall; lowland forest; base of Gg Tahan, Ph; endemic.
- 143.10.89 **Syzygium pseudocrenulatum** (M.R. Hend.) I.M. Turner, **T22** 15; *Eugenia pseudocrenulata* M.R. Hend., **H36** 216, **TFM3** 211; *Eugenia crenulata* (non Willd.) Duthie, **FMP1** 751; stilt-rooted tree to 24 m tall; lowland forest; Tg, Pk, NS, Ml, Sp; endemic.
- 143.10.90 **Syzygium pseudoformosum** (King) Merr. & L.M. Perry, **M34** 165, **C04** 98, **T22** 15; *Eugenia pseudoformosa* King, **FMP1** 725 in part, **H36** 69, **TFM3** 211; tree to 10 m tall; lowland to montane forest; Tg and Pk to Sp.
- 143.10.91 **Syzygium pseudomolle** (M.R. Hend.) I.M. Turner, **T22** 15; *Eugenia pseudomollis* M.R. Hend., **H36** 75, **TFM3** 212; *Eugenia mollis* (non Willd. ex Berg.) King, **FMP1** 728; shrub or small tree; lowland forest; Pk.
- 143.10.92 **Syzygium pulaiense** I.M. Turner, **T22** 15; *Eugenia johorensis* Ridl., **FMP1** 725, **H36** 73, **TFM3** 197; tree; once from Gg Pulai, Jh; endemic.
- 143.10.93 **Syzygium pustulatum** (Duthie) Merr., **M33** 421, **T22** 15; *Eugenia pustulata* Duthie, **FMP1** 736, **H36** 188, **TFM3** 212; tree to 24 m tall; lowland forest; Kd to Sp.
- 143.10.94 **Syzygium pycnanthum** Merr. & L.M. Perry, **M34** 168, **C04** 100, **T22** 15; *Eugenia densiflora* (Blume) Miq., **FMP1** 728, **H36** 78, **TFM3** 189; tree to 21 m tall; lowland forests, seashores; Pn and Tg to Sp.
- 143.10.95 **Syzygium pyrifolium** (Blume) DC., **M34** 182, **C04** 100, **T22** 15; *Eugenia pyrifolia* [non Desv.] (Blume) Duthie, **FMP1** 738; *Eugenia tumida* Duthie, **H36** 161, **TFM3** 221; tree to 18 m tall; lowlands; Kd to Sp.
- 143.10.96 **Syzygium quadratum** (King) I.M. Turner, **T22** 15; *Eugenia quadrata* King, **FMP1** 730, **H36** 55, **TFM3** 214; tree to 10 m tall; lowland forest; once from near Larut, Pk; endemic.
- 143.10.97 **Syzygium quadribacteatum** (M.R. Hend.) I.M. Turner, **T22** 15; *Eugenia quadribacteata* M.R. Hend., **H36** 166, **TFM3** 214; tree to 21 m tall; lowland forest; Pn, Kl, Tg, Pk, Ph, Jh; endemic.
- 143.10.98 **Syzygium rhomboideum** (Ridl.) I.M. Turner, **T22** 15; *Eugenia rhomboidea* Ridl., **FMP1** 753, **H36** 80, **TFM3** 214; shrub or small tree to 12 m tall; montane forest at 1300 m; only known from Gg Mengkuang, Sl; endemic.

- 143.10.99 **Syzygium ridleyi** (King) P. Chantaranothai & J. Parn., **C03** 608, **C04** 102, **T22** 15; *Eugenia ridleyi* King, **FMP1** 735, **H36** 125, **TFM3** 214; tree to 30 m tall; lowland forest; Kd to Sp.
- 143.10.100 **Syzygium rostadonis** (Ridl.) I.M. Turner, **T22** 15; *Eugenia rostadonis* Ridl., **FMP1** 727, **H36** 65, **TFM3** 215; ?tree; lowland forest; once from Bundi, Tg; endemic.
- 143.10.101a **Syzygium rugosum** Korth. var. **cordatum** (M.R. Hend.) I.M. Turner, **T22** 15; *Eugenia rugosa* (Korth.) Merr. var. *cordata* M.R. Hend., **H36** 246, **TFM3** 215; tree; montane forest; Kl, Ph, Sl; endemic variety.
- 143.10.101b **Syzygium rugosum** Korth. var. **rugosum**, **M34** 185; *Eugenia rugosa* (Korth.) Merr., **H36** 244 incl. var. *saxitana* (Ridl.) M.R. Hend., **TFM3** 215; *Eugenia goodenovii* King, **FMP1** 731 in part; *Eugenia johorensis* (non Ridl.) Ridl., **FMP5** 308; tree to 38 m tall; lowland and hill forest; Ps, Kd, Tg, Pk, Ph, Sl, Ml, Jh, Sp.
- 143.10.102 **Syzygium salictoides** (Ridl.) I.M. Turner, **T22** 15; *Eugenia salictoides* Ridl., **FMP1** 728, **H36** 82, **TFM3** 215; rheophytic shrub; in and near streams; Tg, Ph; endemic.
- 143.10.103 **Syzygium scalarinerve** (King) I.M. Turner, **T22** 15; *Eugenia scalarinervis* King, **H36** 57, **TFM3** 216; tree to 10 m tall; lowland forest; Pk; endemic.
- 143.10.104a **Syzygium scortechinii** (King) P. Chantaranothai & J. Parn. var. **cuneatum** (M.R. Hend.) I.M. Turner, **T22** 15; *Eugenia scortechinii* King var. *cuneata* M.R. Hend., **H36** 67, **TFM3** 216; lowland forest; Tg, Ph, Sl, NS, Jh; endemic variety.
- 143.10.104b **Syzygium scortechinii** (King) P. Chantaranothai & J. Parn. var. **scortechinii**, **C03** 609, **C04** 107, **T22** 15; *Eugenia scortechinii* King, **FMP1** 725 incl. var. *parvifolia* King, **H36** 66, **TFM3** 216; tree to 16 m tall; lowland forest; Pn to Jh.
- 143.10.105 **Syzygium setosum** (King) I.M. Turner, **T22** 15; *Eugenia setosa* King, **FMP1** 755, **H36** 176, **TFM3** 216; shrub or small tree; peatswamp forest mostly; Pk, Sl; endemic.
- 143.10.106 **Syzygium siamense** (Craib) P. Chantaranothai & J. Parn., **C03** 609, **C04** 108, **T22** 15; *Eugenia siamensis* Craib, **FMP1** 726, **H36** 59, **TFM3** 217; shrub or small tree to 15 m tall; lowland forest; north Malaya.
- 143.10.107 **Syzygium singaporense** (King) Airy Shaw, **A02** 124, **T22** 15; *Aphanomyrtus rostrata* Miq., **M32** 109; *Pseudoeugenia singaporensis* King, **FMP1** 755, **TFM3** 250; tree to 27 m tall; lowland forest; Kd, Pk, Ph, Sl, Jh, Sp.

- 143.10.108 **Syzygium skiophilum** (Duthie) Airy Shaw, **A02** 124, **T22** 15; *Aphanomyrtus skiophila* (Duthie) Valetton, **M32** 110; *Pseudoeugenia perakiana* Scort., **FMP1** 755, **TFM3** 250; tree to 5 m tall; lowland to montane forest; Pn, Kl, Pk, Ph.
- 143.10.109 **Syzygium spissifolium** (Ridl.) I.M. Turner, **T22** 15; *Eugenia spissifolia* Ridl., **FMP1** 753, **H36** 235, **TFM3** 217; shrub; montane forest at 1500 m; once from Gg Mengkuang, Sl; endemic.
- 143.10.110 **Syzygium stapfianum** (King) I.M. Turner, **T22** 15; *Eugenia stapfiana* King, **FMP1** 753, **H36** 228, **TFM3** 217; shrub or small tree to 8 m tall; montane forest; Kl, Tg, Pk, Ph, Sl; endemic.
- 143.10.111a **Syzygium subdecussatum** (Wall. ex Duthie) I.M. Turner var. **montanum** (King) I.M. Turner, **T22** 15; *Eugenia subdecussata* Duthie var. *montana* King, **FMP1** 752, **H36** 97, **TFM3** 218; montane forest, rarely in the lowlands; throughout.
- 143.10.111b **Syzygium subdecussatum** (Wall. ex Duthie) I.M. Turner var. **subdecussatum**, **T22** 15; *Eugenia subdecussata* Duthie, **FMP1** 752 incl. var. *colorata* King, **H36** 95, **TFM3** 218; tree to 30 m tall; lowland forest and rocky shores; common throughout.
- 143.10.112 **Syzygium subhorizontale** (King) P. Chantaranothai & J. Parn., **C03** 590, **T22** 15; *Eugenia subhorizontalis* King, **FMP1** 733, **H36** 124, **TFM3** 218; small tree; lowland forest; Pk, NS.
- 143.10.113 **Syzygium subrufum** (King) Masam., **C04** 110, **T22** 15; *Eugenia subrufa* King, **FMP1** 733 incl. var. *robusta* King; tree.
- 143.10.114 **Syzygium swettenhamianum** (King) I.M. Turner, **T22** 15; *Eugenia swettenhamiana* King, **FMP1** 755, **H36** 124, **TFM3** 218; tree to 21 m tall; once from near Gg Pondok, Pk; endemic.
- 143.10.115 **Syzygium syzygioides** (Miq.) Merr. & L.M. Perry, **M34** 171, **C04** 111; *Eugenia syzygioides* (Miq.) M.R. Hend., **H36** 154, **TFM3** 219; *Eugenia cymosa* auct. non Lam., **FMP1** 737 in part; *Eugenia pseudosyzygioides* M.R. Hend., **H36** 157; tree to 30 m tall; lowlands, often near sandy coasts; common throughout.
- 143.10.116 **Syzygium tahanense** (Ridl.) I.M. Turner, **T22** 15; *Eugenia tahanensis* Ridl., **FMP1** 752, **H36** 102, **TFM3** 219; shrub; high montane forest; Gg Tahan, Ph; endemic.
- 143.10.117 **Syzygium taipingense** (M.R. Hend.) I.M. Turner, **T22** 15; *Eugenia taipingensis* M.R. Hend., **H36** 193, **TFM3** 219; shrub or small tree; lowland forest; only known from near Taiping, Pk; endemic.

- 143.10.118 **Syzygium tectum** (King) I.M. Turner, **T22** 15; *Eugenia tecta* King, **FMP1** 739, **H36** 223, **TFM3** 220; tree; montane forest; Pk, Ph; endemic.
- 143.10.119 **Syzygium tekunense** (M.R. Hend.) I.M. Turner, **T22** 15; *Eugenia tekunensis* M.R. Hend., **H36** 48, **TFM3** 220; *Eugenia trunciflora* (non G. Don) Ridl., **FMP1** 724; small cauliflorous tree to 13 m tall; lowland forest; known only from Kuala Teku, Ph; endemic.
- 143.10.120 **Syzygium tenuifolium** (Ridl.) Airy Shaw, **A02** 124, **T22** 15; *Aphanomyrtus tenuifolia* (Ridl.) Merr., **M32** 110; *Pseudoeugenia tenuifolia* Ridl., **TFM3** 250; tree to 6 m tall; lowland forest; once each from Kemasul F.R., Ph, and Sg Lalang F.R., Sl; endemic.
- 143.10.121a **Syzygium tetrapterum** (Miq.) P. Chantaranothai & J. Parn. var. **pseudotetrapterum** (King) I.M. Turner, **T22** 15; *Eugenia pseudotetraptera* King, **FMP1** 739; *Eugenia tetraptera* (Miq.) M.R. Hend. var. *pseudotetraptera* (King) M.R. Hend., **H36** 220, **TFM3** 220; *Syzygium pseudotetrapterum* (King) P. Chantaranothai & J. Parn., **C03** 590; tree to 9 m tall; mostly in the mountains; Ph, Jh.
- 143.10.121b **Syzygium tetrapterum** (Miq.) P. Chantaranothai & J. Parn. var. **tetrapterum**, **C03** 590; *Eugenia tetraptera* (Miq.) M.R. Hend., **H36** 218, **TFM3** 220; shrub; lowland forest; Sg Buloh F.R., Sl.
- 143.10.122 **Syzygium thumra** (Roxb.) Merr. & L.M. Perry var. **penangianum** (King) I.M. Turner; *Eugenia thumra* Roxb. var. *penangiana* King, **FMP1** 734, **H34** 121, **TFM3** 220; tree; hill forest; twice from Penang Hill; endemic variety.
- 143.10.123 **Syzygium tiumanense** (Ridl.) I.M. Turner, **T22** 15; *Eugenia tiumanensis* Ridl., **FMP1** 725, **H36** 70, **TFM3** 221; large tree; lowland forest; twice from P. Tioman; endemic.
- 143.10.124 **Syzygium urophyllum** Merr., **M33** 369; *Eugenia caudata* King, **FMP1** 740, **H36** 148, **TFM3** 185; *Syzygium enervosum* P. Chantaranothai & J. Parn. *nom. superfl.*, **C03** 596; shrub or small tree to 12 m tall; hill and montane forest, often on high ridges; Pn, Tg, Pk, Ph, Sl; endemic.
- 143.10.125 **Syzygium valdevenosum** (Duthie) Merr. & L.M. Perry, **M34** 182, **T22** 15; *Eugenia valdevenosa* Duthie, **FMP1** 743, **H36** 180, **TFM3** 221; *Eugenia alata* Ridl., **FMP1** 743; tree to 9 m tall; lowland and hill forest; Pn to Jh.
- 143.10.126 **Syzygium variolosum** (King) P. Chantaranothai & J. Parn., **C03** 590, **T22** 15; *Eugenia variolosa* King, **FMP1** 736, **H36** 105, **TFM3** 221; shrub or small tree to 6 m tall; lowland forest; Pk, Sl; endemic.
- 143.10.127 **Syzygium viridescens** (Ridl.) I.M. Turner, **T22** 15; *Eugenia viridescens* Ridl., **FMP1** 752, **H36** 97, **TFM3** 222; shrub; montane forest at 1500 m; only known from Gg Tahan, Ph; endemic.

- 143.10.128 **Syzygium wrayi** (King) I.M. Turner, **T22** 15; *Eugenia wrayi* King, **FMP1** 753, **H36** 98, **TFM3** 222; shrub or small tree; montane forest above 1500 m; Pk, Ph, Sl; endemic.
- 143.10.129 **Syzygium zeylanicum** (L.) DC., **M34** 159, **C04** 118, **T22** 15; *Eugenia zeylanica* (non Willd.) Wight, **FMP1** 738; *Eugenia spicata* Lam., **H36** 231 incl. var. *tenuiramis* (Miq.) M.R. Hend., **TFM3** 217; *Eugenia longicaudata* Ridl., **FMP1** 752; shrub or tree to 18 m tall; sea shores and river banks, rarely in the mountains; Kd and Tg to Sp.
- 143.10.130 **Eugenia sp. 1**, **TFM3** 224; tree to 27 m tall; lowland forest; Jh; ?endemic.
- 143.10.131 **Eugenia sp. 2**, **TFM3** 224; tree to 15 m tall; lowland forest; once from Jh; ?endemic.
- 143.10.132 **Eugenia sp. 3**, **TFM3** 224; tree to 27 m tall; bamboo forest; once from Ps; ?endemic.
- 143.10.133 **Eugenia sp. 4**, **TFM3** 224; tree to 27 m tall; lowland and hill forest; Tg, Ph, Sl; ?endemic.
- 143.10.134 **Eugenia sp. 5**, **TFM3** 225; tree to 12 m tall; hill forest; Sl, Jh; ?endemic.
- 143.10.135 **Eugenia sp. 6**, **TFM3** 225; ?tree; once from Sepang, Sl; ?endemic.
- 143.10.136 **Eugenia sp. 7**, **TFM3** 225; tree to 27 m tall; lowland forest; Pk, Sl; ?endemic.
- 143.10.137 **Eugenia sp. 8**, **TFM3** 225; tree to 48 m tall; lowland forest; Kd, Tg, Pk, Ph, Sl, NS, MI, Jh, Sp; ?endemic.
- 143.10.138 **Eugenia sp. 9**, **TFM3** 227; tree to 30 m tall; lowland forest; Kd, Kl, Pk, Ph; ?endemic.
- 143.10.139 **Eugenia sp. 10**, **TFM3** 227; tree to 10 m tall; lowland and hill forest; Kl, Tg, Ph, Sl, NS, MI.
- 143.10.140 **Eugenia sp. 11**, **TFM3** 227; tree to 24 m tall; lowland forest; twice from Tg; ?endemic.
- 143.10.141 **Eugenia sp. 12**, **TFM3** 227; tree to 18 m tall; hill and montane forest; Kl, Tg, Ph, MI; ?endemic.
- 143.10.142 **Eugenia sp. 13**, **TFM3** 229; tree to 21 m tall; lowland forest; once from Ulu Besut, Tg; ?endemic.
- 143.10.143 **Eugenia sp. 14**, **TFM3** 229; stilt-rooted tree to 21 m tall; lowland swamp forest; Sl, Jh; ?endemic.
- 143.10.144 **Eugenia sp. 15**, **TFM3** 229; tree to 27 m tall; hill forest at 1000 m; once from Gg Mandi Angin, Tg; ?endemic.

- 143.10.145 **Eugenia sp. 16, TFM3** 229; tree to 24 m tall; lowland forest; Kd, Jh; ?endemic.
- 143.10.146 **Eugenia sp. 17, TFM3** 231; tree to 30 m tall; lowland forest; Kd, Tg, Jh; ?endemic.
- 143.10.147 **Eugenia sp. 18, TFM3** 231; small tree; hill and montane forest over 700 m; Gg Mandi Angin, Tg; Fraser's Hill, Ph; ?endemic.
- 143.10.148 **Eugenia sp. 19, TFM3** 231; tree to 18 m tall; lowland forest; Kd, Ph; ?endemic.
- 143.10.149 **Eugenia sp. 20, TFM3** 231; tree to 14 m tall; montane forest at 1700 m; Cameron Highlands, Ph; ?endemic.
- 143.10.150 **Eugenia sp. 21, TFM3** 231; tree to 18 m tall; lowland forest; once from Ulu Muda FR, Kd; ?endemic.
- 143.10.151 **Eugenia sp. 22, TFM3** 233; tree to 24 m tall; lowland forest; Tg, Jh; ?endemic.
- 143.10.152 **Eugenia sp. 23, TFM3** 233; tree to 27 m tall; montane forest at 1000–1800 m; Cameron Highlands and Fraser's Hill, Ph; ?endemic.
- 143.10.153 **Eugenia sp. 24, TFM3** 233; tree to 21 m tall; lowland forest; Ph, Jh; ?endemic.
- 143.10.154 **Eugenia sp. 25, TFM3** 233; shrub about 2.5 m tall; montane forest at 1500 m; only known from Gg Sagi, Kl; ?endemic.
- 144.10.155 **Eugenia sp. 26, TFM3** 233; tree to 21 m tall; lowland forest; once from Mersing, Jh; ?endemic.
- 143.10.156 **Eugenia sp. 27, TFM3** 234; shrub to 6 m tall; lowland forest; once from Kluang FR, Jh; ?endemic.
- 143.10.157 **Eugenia sp. 28, TFM3** 234; tree to 21 m tall; hill forest; Ph, N; ?endemic.
- 143.10.158 **Eugenia sp. 29, TFM3** 234; tree to 30 m tall; lowland forest; Tg, Ph; ?endemic.
- 143.10.159 **Eugenia sp. 30, TFM3** 234; small tree; lowland forest; once from Tasek Bera, Ph; ?endemic.
- 143.10.160 **Eugenia sp. 31, TFM3** 234; tree to 5 m tall; montane forest at 1200 m; Gg Padang, Tg; ?endemic.
- 143.10.161 **Eugenia sp. 32, TFM3** 236; tree to 21 m tall; lowland forest; once from Tg; ?endemic.
- 143.10.162 **Eugenia sp. 33, TFM3** 236; tree to 42 m tall; lowland forest; Panti FR, Jh; ?endemic.
- 143.10.163 **Eugenia sp. 34, TFM3** 236; tree; lowland forest; Tg; ?endemic.

- 143.10.164 **Eugenia sp. 35, TFM3 236**; tree to 30 m tall; lowland forest; Jh; ?endemic.
- 143.10.165 **Eugenia sp. 36, TFM3 236**; tree to 28 m tall; lowland forest; Pk, Ph, Sl, Jh; ?endemic.
- 143.10.166 **Eugenia sp. 37, TFM3 237**; tree to 28 m tall; lowland and hill forest; Ph, Jh; ?endemic.
- 143.10.167 **Eugenia sp. 38, TFM3 237**; large tree; hill forest above 1000 m; twice from Gg Inas, Pk; ?endemic.
- 143.10.168 **Eugenia sp. 39, TFM3 237**; tree to 36 m tall; lowland forest; Jh, Sp; ?endemic.
- 143.10.169 **Eugenia sp. 40, TFM3 237**; tree to 33 m tall; lowlands; P. Langkawi, Kd; ?endemic.
- 143.10.170 **Eugenia sp. 41, TFM3 237**; tree; montane forest; Kl, Ph; ?endemic.
- 143.10.171 **Eugenia sp. 42, TFM3 238**; tree to 48 m tall; lowland and montane forest; Ph, Jh; ?endemic.
- 143.10.172 **Eugenia sp. 43, TFM3 238**; tree to 9 m tall; montane forest at 1200 m; once from Gg Lawit, Tg; ?endemic.
- 143.10.173 **Eugenia sp. 44, TFM3 238**; tree to 36 m tall; swampy lowland forest; Sl, Jh; ?endemic.
- 143.10.174 **Eugenia sp. 45, TFM3 238**; stilt-rooted tree to 18 m tall; peat swamp forest; only known from Klang, Sl; ?endemic.
- 143.10.175 **Eugenia sp. 46, TFM3 240**; tree to 27 m tall; montane forest at 1700 m; once from Cameron Highlands, Ph; ?endemic.
- 143.10.176 **Eugenia sp. 47, TFM3 240**; tree to 15 m tall; lowland forest; once from Labis FR, Jh; ?endemic.
- 143.10.177 **Eugenia sp. 48, TFM3 240**; tree to 24 m tall; lowland forest; once from Cabang Tongkat F.R., Kl; ?endemic.
- 143.10.178 **Eugenia sp. 49, TFM3 240**; shrub to 3 m tall; montane forest at 900 m; only known from the summit of Gg Belumut, Jh; ?endemic.
- 143.10.179 **Eugenia sp. 50, TFM3 240**; tree to 15 m tall; montane forest at 1200 m; Gg Padang, Tg; Fraser's Hill, Ph; ?endemic.
- 144.10.180 **Eugenia sp. 51, TFM3 240**; tree to 27 m tall; once from Gg Arong F.R., Ph; ?endemic.
- 143.10.181 **Eugenia sp. 52, TFM3 241**; tree to 21 m tall; hill forest at 600 m; once from Ph; ?endemic.

- 143.10.182 **Eugenia sp. 53, TFM3 241**; tree to 36 m tall; once from Jh; ?endemic.
- 143.10.183 **Eugenia sp. 54, TFM3 241**; tree to 30 m tall; lowland forest; once each from Pk, Sl and Jh; ?endemic.
- 143.10.184 **Eugenia sp. 55, TFM3 241**; ?tree; montane forest at 1200 m; once from Gg Padang, Tg; ?endemic.
- 143.10.185 **Eugenia sp. 56, TFM3 241**; tree to 6 m tall; once from Pk; ?endemic.
- 143.10.186 **Eugenia sp. 57, TFM3 242**; tree to 18 m tall; lowland forest; once from Sg Lallang F.R., Sl; ?endemic.
- 143.10.187 **Eugenia sp. 58, TFM3 242**; large tree; lowland forest; once from Lepar Hill F.R., Ph; ?endemic.
- 143.10.188 **Eugenia sp. 59, TFM3 242**; tree to 18 m tall; once from Tg; ?endemic.
- 144.10.189 **Eugenia sp. 60, TFM3 242**; tree to 12 m tall; coastal forest; once from Jh; ?endemic.
- 143.10.190 **Eugenia sp. 61, TFM3 242**; tree to 12 m tall; montane forest at 1300 m; once from Cameron Highlands, Ph; ?endemic.
- 143.10.191 **Eugenia sp. 62, TFM3 242**; tree to 21 m tall; lowland forest; once from Gg Panti, Jh; ?endemic.
- 143.10.192 **Eugenia sp. 63, TFM3 244**; ?tree; montane forest at 1800 m; once from Gg Berembun, Ph; ?endemic.
- 143.10.193 **Eugenia sp. 64, TFM3 244**; shrub about 2 m tall; montane forest at 1500 m; once from Gg Mengkuang, Sl; ?endemic.
- 143.10.194 **Eugenia sp. 65, TFM3 244**; tree to 3 m tall; hill forest at about 1000 m; once from Labis FR, Jh; ?endemic.
- 143.10.195 **Eugenia sp. 66, TFM3 244**; tree about 12 m tall; lowland forest; Sl; ?endemic.
- 143.11.1 **Tristaniaopsis fruticosa** (Ridl.) Peter G. Wilson & J.T. Waterh., **W21 439**; *Tristania fruticosa* Ridl., **FMP1 715, TFM3 252**; shrub to 1 m tall; montane forest above 1350 m; Gg Tahan, Ph; endemic.
- 143.11.2 **Tristaniaopsis merguensis** (Griff.) Peter G. Wilson & J.T. Waterh., **W21 439**; *Tristania merguensis* Griff., **FMP1 715, TFM3 252**; *Tristania subauriculata* King, **FMP1 714**; *Tristania maingayi* Duthie, **FMP1 715**; tree to 21 m tall; rocky coasts to mountains; widespread.
- 143.11.3 **Tristaniaopsis obovata** (R.Br.) Peter G. Wilson & J.T. Waterh., **W21 439**; *Tristania spatulata* Ridl., **FMP1 715**; *Tristania obovata* R.Br., **TFM3 253**; tree to 45 m tall; lowlands; Kd, Tg, Jh, Sp.

- 143.11.4 **Tristaniopsis pontianensis** (M.R. Hend.) Peter G. Wilson & J.T. Waterh., **W21** 440; *Tristania pontianensis* M.R. Hend., **TFM3** 253; tree to 27 m tall; South Jh; endemic.
- 143.11.5 **Tristaniopsis razakiana** (Kochummen) Peter G. Wilson & J.T. Waterh., **W21** 440; *Tristania razakiana* Kochummen, **TFM3** 253; tree to 21 m tall; montane forest; Pk, Ph; endemic.
- 143.11.6 **Tristaniopsis whiteana** (Griff.) Peter G. Wilson & J.T. Waterh., **W21** 440; *Tristania whiteana* Griff., **FMP1** 716, **TFM3** 253; tree to 24 m tall; river banks in the lowlands; widespread.

144. NELUMBONACEAE

- 144.1.1 **Nelumbo nucifera** Gaertn., **N11** 197; *Nelumbium speciosum* Willd. *nom. illeg.*, **FMP1** 118; large rhizomatous aquatic herb, leaves emergent; pools, ditches, much cultivated, dubiously native; widespread.

145. NEPENTHACEAE

- 145.1.1 **Nepenthes albomarginata** Lobb *ex* Lindl., **FMP3** 21, **D02** 262; slender climber; hills and mountains; Kd, Pn, Pk, Ml.
- 145.1.2 **Nepenthes ampullaria** Jack, **FMP3** 21, **D02** 365; climber; secondary forest, forest margins; Pn, Pk, Ml, Jh, Sp.
- 145.1.3 **Nepenthes gracilis** Korth., **FMP3** 24 incl. var. *arenaria* Ridl., **D02** 290; slender climber to 6 m long; secondary forest, forest margins in the lowlands; Kd, Pn, Tg, Pk, Ph, NS, Ml, Jh, Sp.
- 145.1.4 **Nepenthes gracillima** Ridl., **FMP3** 22 incl. var. *major* Ridl., **D02** 296; *Nepenthes alba* Ridl., **FMP3** 22; *Nepenthes ramispina* Ridl., **FMP3** 22; climber; mountain ridges at 600–2100 m; Kl, Ph, Sl; endemic.
- 145.1.5 **Nepenthes hookerana** Lindl., **D02** 309; climber; secondary forest; Sp.
- 145.1.6 **Nepenthes macfarlanei** Hemsl., **FMP3** 24, **D02** 323; stout climber; mountains at 1200–1600 m; Pk, Ph, Sl; endemic.
- 145.1.7 **Nepenthes mirabilis** Druce, **D02** 330; *Nepenthes phyllamphora* Willd., **FMP3** 25; climber to 7 m long; lowlands; P. Langkawi, Kd, Pn, Pk, Ml, ?Sp.
- 145.1.8 **Nepenthes rafflesiana** Jack, **FMP3** 24, **D02** 357; stout climber to 4 m or more long; forest margins in lowlands and hills; Pk, Ml, Jh, Sp.
- 145.1.9 **Nepenthes sanguinea** Lindl., **FMP3** 23, **D02** 366; climber; mountains at 900–1300 m; Pk, Ph, Sl, Ml; endemic.

- 145.1.10 **Nepenthes trichocarpa** Miq., **D02** 389; climber; open places; widespread.

Danser cites the following hybrids *N. gracillima* x *macfarlanei* [**D02** 299] {Gg Batu Puteh, Pk, Gg Tahan, Ph}, *N. macfarlanei* x *sanguinea* [**D02** 324] {Kl, Ph, Sl, Ml}.

146. NYCTAGINACEAE

- 146.1.1 **Boerhavia chinensis** (L.) Asch. & Schweinf., **FM16** 455, **TFM2** 297; *Boerhavia repanda* Willd., **FMP3** 2; erect herb to 1 m tall; on limestone; Ps.

- 146.1.2 **Boerhavia diffusa** L., **FMP3** 1, **FM16** 454, **TFM2** 297; creeping or erect herb to 1 m tall; dry sandy open places; widespread.

- 146.1.3 **Boerhavia erecta** L., **FM16** 454, **TFM2** 297, **M47** 366; erect herb to 80 cm tall; roadsides, open sandy places; Sp.

- 146.2.1 **Pisonia aculeata** L., **FMP3** 3, **FM16** 467, **TFM2** 298; thorny scrambling liana reaching to 20 m; on limestone; Ps, P. Langkawi.

- 146.2.2 **Pisonia grandis** R.Br., **FM16** 464, **TFM2** 298; shrub or tree to 30 m tall; coastal; both coasts and offshore islands.

- 146.2.3 **Pisonia umbellifera** (J.R. Forst. & G. Forst.) Seem., **FM16** 460, **TFM2** 298; *Pisonia excelsa* Blume, **FMP3** 3; shrub or tree to 28 m tall; bases of limestone hills; Pk, Ph.

147. NYMPHAEACEAE

- 147.1.1 **Barclaya kunstleri** (King) Ridl., **FMP1** 117; *Hydrostemma kunstleri* (King) B.C. Stone, **S56** 71; aquatic herb; shallow water; Pk, Ph, Sl, Jh, Sp.

- 147.1.2 **Barclaya longifolia** Wall., **FMP1** 118; *Hydrostemma longifolium* (Wall.) Mabb., **M04** 68; small aquatic herb; fast-flowing streams; P. Langkawi.

- 147.1.3 **Barclaya motleyi** Hook.f., **FMP1** 116; *Hydrostemma motleyi* (Hook.f.) Mabb., **M04** 68; small aquatic herb; small slow-flowing streams in lowland forest; Pn, Ph, Ml, Sp.

- 147.2.1 **Nymphaea pubescens** Willd., **M42** 431; *Nymphaea lotus* L., **FMP1** 116; aquatic rhizomatous herb with floating leaves; pools and ditches, often cultivated; Ml.

- 147.2.2 **Nymphaea nouchali** Burm.f., **N11** 198, **M42** 430; *Nymphaea stellata* Willd., **FMP1** 116; aquatic rhizomatous herb with floating leaves; pools and ditches; widespread.

148. OCHNACEAE

- 148.1.1 **Brackenridgea hookeri** (Planch.) A. Gray, **FMi7** 102, **TFM3** 256; *Gomphia hookeri* Planch., **FMP1** 366; tree to 27 m tall; lowland and hill forest to 1000 m; throughout.
- 148.1.2 **Brackenridgea palustris** Bartell., **FMi7** 102, **TFM3** 256; *Gomphia corymbosa* (King) Ridl., **FMP1** 367; tree to 9 m tall; swampy lowland forest and montane forest; Kd, Pk, Ph, Sl, Ml, Jh, Sp.
- 148.2.1 **Campylospermum serratum** (Gaertn.) Bittrich & M.C.E. Amaral, **B20** 92; *Gomphia microphylla* Ridl., **FMP1** 365; *Gomphia sumatrana* Jack, **FMP1** 365; *Gomphia oblongifolia* Ridl., **FMP5** 296; *Gomphia serrata* (Gaertn.) Kanis, **FMi7** 105, **TFM3** 258; tree to 25 m tall; lowland and hill forest to 1000 m, common near the sea; throughout.
- 148.3.1 **Euthemis leucocarpa** Jack, **FMP1** 368, **FMi7** 108, **TFM3** 257; shrub to 2 m tall; lowland swamps, ridges and mountain sides to 1000 m; Kd, Pn, Kl, Pk, Ph, Sl, NS, Ml, Jh, Sp.
- 148.3.2 **Euthemis minor** Jack, **FMP1** 368, **FMi7** 108, **TFM3** 257; prostrate shrub; sandy forest; Chua Chu Kang, Sp.
- 148.4.1 **Ochna integerrima** (Lour.) Merr., **FMi7** 99, **TFM3** 260; *Ochna grandis* Ridl., **FMP1** 365; shrub or small tree to 12 m tall; sandy beaches, swampy places; Ps, P. Langkawi, Kd.
- 149.5.1 **Sauvagesia serrata** (Korth.) Sastre, **S01** 18; *Neckia malayana* Ridl., **FMP1** 134; *Neckia serrata* Korth., **FMi7** 110, **TFM3** 260; shrub to 1 m tall; damp shady places in lowland and hill forest; Tg, Ph, Jh.

149. OLACACEAE

- 149.1.1 **Anacolosia frutescens** (Blume) Blume, **FMi10** 25; *Anacolosia heptandra* Maingay ex Mast., **FMP1** 425, **TFM2** 301; small tree to 15 m tall; lowland and hill forest to 600 m; Kd, Ph, Sl, NS, Ml, Jh, Sp.
- 149.2.1 **Erythralium scandens** Blume, **FMP1** 436, **TFM2** 299, **FMi10** 17; scandent shrub or liana to 10 m tall; lowland and hill forest; widespread.
- 149.3.1 **Harmandia mekongensis** Pierre ex Baill., **FMi10** 9; *Harmandia kunstleri* King, **FMP1** 421, **TFM2** 301; tree to 21 m tall; lowland forest to 240 m; Tg, Ph, Pk, Sl, NS, Ml.
- 149.4.1 **Ochanostachys amentacea** Mast., **FMP1** 422, **TFM2** 302, **FMi10** 14; tree to 30 m tall; lowland and hill forest to 900 m; Kd, Pn, Kl, Tg, Pk, Ph, Sl, NS, Ml, Jh, Sp.

- 149.5.1 ***Olax imbricata*** Roxb., **FMP1** 421, **TFM2** 300, **FM10** 8; unarmed climbing shrub; lowland forest; scattered.
- 149.5.2 ***Olax psittacorum*** (Willd.) Vahl, **FM10** 717; *Olax scandens* Roxb., **FMP1** 421, **TFM2** 300, **FM10** 7; prickly scandent shrub; open sandy country; widespread.
- 149.6.1 ***Scorodocarpus borneensis*** (Baill.) Becc., **FMP1** 424, **TFM2** 303, **FM10** 15; pungent tree to 36 m tall; lowland forest; Kd, Pn, Kl, Tg, Pk, Ph, Sl, NS, Ml, Jh, Sp.
- 149.7.1 ***Strombosia ceylanica*** Gardn., **FM10** 22; *Strombosia multiflora* King, **FMP1** 425, **TFM2** 306; *Strombosia rotundifolia* King, **FMP1** 425; *Strombosia maingayi* (Mast.) Whitmore, **TFM2** 306; tree to 20 m tall; lowland forest; widespread.
- 149.7.2 ***Strombosia javanica*** Blume, **FMP1** 425, **TFM2** 306, **FM10** 21; tree to 24 m tall; lowland forest; Kd, Pn, Kl, Pk, Ph, Sl, NS, Jh, Sp.
- 149.7.3 ***Strombosia* sp. A**, **TFM2** 307; shrub; lowland forest; Tg, Ph, Sl; ?endemic.
- 149.8.1 ***Ximenia americana*** L., **FMP1** 424, **TFM2** 300, **FM10** 11; sprawling shrub or small tree to 10 m tall; sandy shores; common on west coast, rare on east.

150. OLEACEAE

- 150.1.1 ***Chionanthus calcicolus*** (Kerr) Kiew, **K23** 265, **TFM4** 287; shrub or small tree to 5 m tall; on limestone; P. Langkawi, Kl, Pk.
- 150.1.2 ***Chionanthus callophylus*** Blume, **K25** 210, **TFM4** 287; *Linociera paludosa* King & Gamble, **FMP2** 316; *Olea platycarpa* King & Gamble, **FMP2** 319; *Chionanthus platycarpus* (King & Gamble) Kiew, **K23** 272; tree to 25 m tall; lowland forest including swamps; Ph, Sl, Jh.
- 150.1.3 ***Chionanthus caudifolius*** (Ridl.) Kiew, **K24** 266, **TFM4** 287; *Linociera caudifolia* Ridl., **FMP2** 317; tree to 13 m tall; montane forest at 1200–1600 m; Pk, Ph; endemic.
- 150.1.4 ***Chionanthus curvicaupus*** Kiew, **K25** 211, **TFM4** 287; tree to 23 m tall; lowland forest; once from Sg Kayu, Jh.
- 150.1.5 ***Chionanthus evenius*** (Stapf) Kiew, **K24** 268, **TFM4** 288; tree to 50 m tall; lowland swamp forest; Pk, Sl, Jh.
- 150.1.6 ***Chionanthus grandifolius*** (Elmer) Kiew, **K25** 210, **TFM4** 287; *Chionanthus macrocarpus* auct. non Blume, **K24** 271; tree to 7 m tall; lowland forest; once from Batu Biwa, Tg.

- 150.1.7 **Chionanthus lancifolius** (Ridl.) Kiew, **K24** 269, **TFM4** 287; *Linociera lancifolia* Ridl., **FMP2** 317; *Linociera parvifolia* Ridl., **FMP2** 317; shrub or tree to 8 m tall; montane forest at 1500–1700 m; Kl, Pk, Ph, Sl; endemic.
- 150.1.8 **Chionanthus laxiflorus** Blume, **K24** 270, **TFM4** 287; tree to 4 m tall; lowlands and mountains; Ph, Jh (thrice in all).
- 150.1.9 **Chionanthus lucens** Kiew, **W30** 268; small tree; Gg Janing, Jh.
- 150.1.10 **Chionanthus macrocarpus** Blume, **K25** 209, **TFM4** 288; *Linociera insignis* (Miq.) C.B. Clarke, **FMP2** 316 in part; *Chionanthus elaeocarpus* (Stapf) Kiew, **K24** 267; tree to 42 m tall; lowland and hill forest to 1000 m; Tg, Ph, Jh, Sp.
- 150.1.11 **Chionanthus ramiflorus** Roxb., **K24** 274, **TFM4** 289; *Linociera pauciflora* (Wall.) C.B. Clarke, **FMP2** 317; tree to 17 m tall; coastal, riverine and swamp forest; throughout.
- 150.1.12 **Chionanthus spiciferus** (Ridl.) Kiew, **K24** 275; *Linociera spicifera* Ridl., **FMP2** 316; tree; lowland forest; only known from type, Rawang F.R., Sl; endemic.
- 150.2.1 **Jasminum cordatum** Ridl., **K41** 4; limestone hills; West Coast.
- 150.2.2 **Jasminum curtisii** King & Gamble, **FMP2** 312; climber; Ipoh, Pk; endemic.
- 150.2.3 **Jasminum decussatum** Wall., **FMP2** 313; bushy climber; open country; Ps, Kd.
- 150.2.4 **Jasminum elongatum** (Bergius) Willd., **G16** 572; *Jasminum bifarium* Wall. ex G. Don, **FMP2** 313; *Jasminum evansii* Ridl., **FMP2** 313; *Jasminum arenarium* Ridl., **FMP2** 313; *Jasminum aemulum* R.Br., **K42** 312; climbing shrub; forest margins and clearings; common throughout.
- 150.2.5 **Jasminum griffithii** C.B. Clarke, **FMP2** 311; slender climber; lowland forest; Pk, Sl, Ml, Jh, Sp; endemic.
- 150.2.6 **Jasminum insigne** Blume, **FMP2** 314; stout liana; lowland forest; Pk, Ph.
- 150.2.7 **Jasminum insularum** Kerr, **K41** 7; on limestone; P.Langkawi, Kl.
- 150.2.8 **Jasminum kedahense** Ridl., **FMP2** 311; stout climber; Gg Jerai, Kd; endemic.
- 150.2.9 **Jasminum lanceolaria** Roxb. ssp. *scortechinii* (King & Gamble) P.S. Green, **G16** 576; *Jasminum scortechinii* King & Gamble, **FMP2** 315; climber; hill forest; Pn, Pk, Ph.
- 150.2.10 **Jasminum longipetalum** King & Gamble, **FMP2** 314; slender climber; lowland forest; Pk, Sp; endemic.

- 150.2.11 **Jasminum maingayi** C.B. Clarke, **FMP2** 311; stout climber; hill forest; Ps, Pn, Pk, Ph, Sl.
- 150.2.12 **Jasminum malayanum** Kiew, **K40** 77; *Jasminum adenophyllum* auct. non Wall., **FMP2** 314; slender climber; hill forest on limestone; Kd; endemic.
- 150.2.13 **Jasminum smilacifolium** Griff. ex C.B. Clarke, **FMP2** 314; climber; lowland forest; NS, Ml.
- 150.2.14a **Jasminum wrayi** King & Gamble var. **axillare** King & Gamble, **FMP2** 312 'axillaris', **K41** 13; climber; Maxwell's Hill, Pk; endemic.
- 150.2.14b **Jasminum wrayi** King & Gamble var. **wrayi**, **FMP2** 312, **K41** 13; slender climber; lowland forest; Pk, Sl; endemic.
- 150.3.1 **Ligustrum confusum** Decne., **K22** 144, **TFM4** 290; *Olea puberula* Ridl., **FMP2** 318; shrub or small tree to 8 m tall; on limestone; Ps, P. Langkawi, Ph, Sl.
- 150.3.2 **Ligustrum glomeratum** Blume, **K22** 147, **TFM4** 290; shrub or tree to 15 m tall; open areas; Ps.
- 150.4.1 **Myxopyrum nervosum** Blume, **FMP2** 320, **K26** 505, **TFM4** 285; climbing shrub; lowland forests and swamps; widespread.
- 150.5.1 **Olea brachiata** (Lour.) Merr., **TFM4** 291; *Olea maritima* Wall. ex Don, **FMP2** 318; tree to 10 m tall; rocky shores; widespread.
- 150.5.2 **Olea dentata** Wall. ex DC., **TFM4** 292; *Olea penangiana* Ridl., **FMP2** 318; tree to 20 m tall; rocky coasts; Pn.
- 150.6.1 **Osmanthus scortechinii** King & Gamble, **FMP2** 315 incl. var. *oblonga* King & Gamble, **TFM4** 286; *Olea capitellata* Ridl., **FMP2** 319; shrub or small tree; montane forest; Tg, Pk, Ph, Sl, Jh.

151. ONAGRACEAE

- 151.1.1 **Ludwigia adscendens** (L.) H. Hara, **FMi8** 104, **M47** 368; *Jussiaea repens* L., **FMP1** 827; creeping or floating herb, ascending to 60 cm; pools, ditches and swamps; widespread.
- 151.1.2 **Ludwigia hyssopifolia** (G. Don) Exell, **FMi8** 104, **M47** 370; *Jussiaea suffruticosa* auct. non L., **FMP1** 827; herb to 3 m tall; weed of shallow water and wet places; widespread.
- 151.1.3 **Ludwigia octovalvis** (Jacq.) P.H. Raven, **FMi8** 101, **M47** 372; *Jussiaea erecta* auct. non L., **FMP1** 827; *Jussiaea villosa* Lam., **FMP1** 828; herb to 4 m tall; wet places, near rivers and ditches; widespread.

- 151.1.4 **Ludwigia perennis** L., **FMi8** 103, **M47** 374; *Ludwigia parviflora* Roxb., **FMP1** 828; herb to 1 m tall; wet places; Pk, Sl.
- 151.1.5 **Ludwigia peruviana** (L.) H. Hara, **FMi8** 100, **M47** 376; *Jussiaea speciosa* Ridl., **FMP1** 828; shrub to 3 m tall; ditches, damp waste ground; Sp; naturalized from tropical America.
- 151.1.6 **Ludwigia prostrata** Roxb., **FMP1** 829, **FMi8** 103; herb to 60 cm tall; water margins; widespread.

152. OPILIACEAE

- 152.1.1 **Cansjera rheedei** J.F. Gmel., **FMi10** 50, **TFM4** 294; *Cansjera zizypholia* Griff., **FMP3** 172; liana or shrub to 5 m tall; coastal vegetation; Ph, NS, MI, Jh, Sp.
- 152.2.1 **Champereia manillana** (Blume) Merr., **FMi10** 35, **TFM4** 294; *Champereia griffithii* Planch. ex Kurz, **FMP3** 172; shrub or small tree to 10 m tall; lowland forest; widespread.
- 152.3.1 **Lepionurus sylvestris** Blume, **FMP3** 172, **FMi10** 43, **TFM4** 295; *Lepionurus oblongifolius* (Griff.) Mast. var. *angustifolius* Ridl., **FMP3** 173; shrub to 3 m tall; lowland and hill forest to 600 m; throughout.
- 152.4.1 **Melientha suavis** Pierre, **FMi10** 39, **TFM4** 296; small tree to 12 m tall; lowland forest; Pn, Kl, Ph (once each).

153. OXALIDACEAE

- 153.1.1 **Averrhoa bilimbi** L., **FMP1** 331, **TFM1** 348, **FMi7** 177; tree to 15 m tall; lowland forest, often near rivers; native in the north, widely cultivated; Ps, Kd.
- 153.2.1 **Biophytum adiantoides** Wight ex Edgew. & Hook.f., **FMP1** 331, **FMi7** 165; woody-stemmed 'herb' to 30 cm tall; along rivers, forest clearings; Ps, Pk, Ph.
- 153.2.2 **Biophytum reinwardtii** (Zucc.) Klotzsch, **FMP1** 331, **FMi7** 164; herb to 35 cm tall; waste places, plantations; Kl.
- 153.2.3 **Biophytum sensitivum** (L.) DC., **FMP1** 331, **FMi7** 162; herb to 35 cm tall; weed; Pn, MI.
- 153.3.1 **Dapania racemosa** Korth., **TFM1** 347, **FMi7** 167; *Dapania scandens* Stapf, **FMP1** 334; liana to 30 m long; swampy lowland forest; Pk.

- 153.4.1 **Oxalis barrelieri** L., **FMP1** 330, **FMi7** 155, **M44** 378; erect herb to 1.5 m tall; waste places; widespread; naturalized from tropical South America.
- 153.4.2 **Oxalis corniculata** L., **FMP1** 330, **FMi7** 155, **M44** 380; small herb; garden weed, waste places; Pn, Pk, Ml, Sp.
- 153.4.3 **Oxalis corymbosa** DC., **FMP1** 330, **FMi7** 159; bulbous herb to 30 cm tall; waste places, lowlands and hills; scattered; naturalized from tropical South America.
- 153.5.1 **Sarcotheca glomerula** Veldkamp, **TFM1** 348, **FMi7** 170; *Connaropsis macrophylla* King, **FMP1** 334; shrub or small tree to 9 m tall; lowland forest; Kd, Pk, Ph; endemic.
- 153.5.2 **Sarcotheca griffithii** (Planch. ex Hook.f.) Hallier f., **TFM1** 349, **FMi7** 170; *Connaropsis griffithii* Planch. ex Hook.f., **FMP1** 332; tree to 42 m tall; lowland forest; Ps, Kd, Pn, Tg, Pk, Ph, Sl, NS, Ml, Jh, Sp.
- 153.5.3a **Sarcotheca laxa** (Ridl.) Knuth var. **hirsuta** Veldkamp, **TFM1** 349, **FMi7** 171; shrub or tree to 23 m tall; swamps and forest margins; Jh; endemic variety.
- 153.5.3b **Sarcotheca laxa** (Ridl.) Knuth var. **laxa**, **TFM1** 349, **FMi7** 171; *Connaropsis glabra* Ridl., **FMP1** 332; *Connaropsis laxa* Ridl., **FMP1** 333; shrub or tree to 23 m tall; swamps and forest margins; Ps, Kd, Kl, Tg, Pk; endemic variety.
- 153.5.3c **Sarcotheca laxa** (Ridl.) Knuth var. **sericea** (Ridl.) Veldkamp, **TFM1** 349, **FMi7** 171; *Connaropsis sericea* Ridl., **FMP1** 334; *Connaropsis simplicifolia* Ridl., **FMP1** 334; shrub or tree to 23 m tall; swamps and forest margins; Tg, Ph, Jh, Sp; endemic variety.
- 153.5.4 **Sarcotheca monophylla** (Planch. ex Hook.f.) Hallier f., **TFM1** 349, **FMi7** 172; *Connaropsis monophylla* Planch. ex Hook.f., **FMP1** 332; tree to 30 m tall; lowland forest; Pk, Ph, Sl, Ml; endemic.

154. PANDACEAE

- 154.1.1 **Galearia fulva** (Tul.) Miq., **FMP3** 257, **TFM2** 98; *Galearia affinis* (R.Br.) Miq., **FMP3** 255; *Galearia lindleyana* (Tul.) Hook.f., **FMP3** 255; *Galearia phlebocarpa* (R.Br.) Miq., **FMP3** 255; *Galearia minor* Gage, **FMP3** 256; *Galearia ridleyi* Gage, **FMP3** 256; *Galearia wallichii* (R.Br.) Kurz, **FMP3** 256; *Galearia finlaysonii* (R.Br.) Miq., **FMP3** 257; *Galearia fusca* Ridl., **FMP3** 257; *Galearia pedicellata* (R.Br.) Miq., **FMP3** 257; *Galearia subulata* (Müll.Arg.) Hook.f., **FMP3** 258; small tree; lowland and hill forest to 690 m; throughout.
- 154.1.2 **Galearia maingayi** Hook.f., **FMP3** 255, **TFM2** 98; tree to 30 m tall; lowland forest to 300 m; Kd, Pn, Kl, Pk, Ph, Sl, NS, Jh, Sp.

- 154.1.3 **Galearia stenophylla** Merr., **TFM2** 98; treelet; hill and montane forest; Ulu Gombak and Klang Gates, Sl.
- 154.2.1 **Microdesmis caseariifolia** Planch., **FMP3** 258, **TFM2** 118; shrub to 3 m tall; lowlands, often on or near limestone; throughout.
155. PASSIFLORACEAE
- 155.1.1 **Adenia cordifolia** (Blume) Engl., **FMI7** 430; *Adenia populifolia* var. *pentamera* King, **FMP1** 841; liana to 50 m long; lowland forest margins and clearings; widespread.
- 155.1.2a **Adenia macrophylla** (Blume) Koord. var. **macrophylla**, **FMI7** 428; *Adenia acuminata* (non Blume) King, **FMP1** 841; *Adenia grandifolia* Ridl., **FMP1** 842; liana to 25 m long; lowland and hill forest; widespread.
- 155.1.2b **Adenia macrophylla** (Blume) Koord. var. **singaporeana** (Wall. ex G. Don) W.J. de Wilde, **FMI7** 429; *Adenia singaporeana* (Wall. ex G. Don) Engl., **FMP1** 841; liana to 25 m long; lowland forest margins; Jh, Sp; endemic variety.
- 155.1.3a **Adenia penangiana** (Wall. ex G. Don) W.J. de Wilde var. **parvifolia** (Pierre ex Gagnep.) W.J. de Wilde, **FMI7** 423; tuberous climber or creeper to 2 m long; on limestone hills; Ps, Kd, P. Langkawi.
- 155.1.3b **Adenia penangiana** (Wall. ex G. Don) W.J. de Wilde var. **penangiana**, **FMI7** 423; *Adenia nicobarica* (Kurz ex Trimen) King, **FMP1** 840; climber to 6 m tall; lowland forest margins; widespread.
- 155.2.1 **Paropsia vareciformis** (Griff.) Mast., **FMP1** 842, **FMI5** 14, **TFM2** 157; tree to 24 m tall; lowland and hill forest to 500 m; Tg, Pk, Ph, Sl, NS, Ml.
- 155.3.1 **Passiflora foetida** L., **FMP1** 839, **M47** 384; slender hairy vine; waste places in the lowlands; widespread; naturalized from tropical America.
- 155.3.2 **Passiflora laurifolia** L.; **B02** 290; wiry vine; forest margins; widespread; naturalized from tropical America.
- 155.3.3 **Passiflora perakensis** Hallier f., **FMI7** 414; *Passiflora horsfieldii* auct. non Blume, **FMP1** 839; slender climber to 15 m long; lowland and hill forest to 1000 m; Kd, Pk, Ph.
- 155.3.4 **Passiflora suberosa** L., **B02** 290, **C26** 662; vine; waste places; Sp; naturalized from tropical America.

156. PEDALIACEAE

- 156.1.1 **Sesamum orientale** L., **S18** 656; *Sesamum indicum* L., **FMP2** 553, **FMi4** 217; herb to 2 m tall; waste places in the lowlands; naturalized probably from Africa.
- 156.1.2 **Sesamum radiatum** L., **FMi4** 218, **T05** 131; herb to 1.2 m tall; waste places; Sp; naturalized from Africa.

157. PENTAPHRAGMATACEAE

- 157.1.1 **Pentaphragma aurantiacum** Stapf, **FMi4** 521; *Pentaphragma grande* Ridl., **FMP2** 203; herb to 90 cm tall; montane forest; Gg Tahan, Ph.
- 157.1.2 **Pentaphragma begoniifolium** (Roxb. ex Jack) Wall. ex G. Don, **FMP2** 202, **FMi4** 525; herb to 20 cm tall; lowland forest to 600 m; north of Malaya.
- 157.1.3 **Pentaphragma cyrtandriforme** Airy Shaw, **FMi4** 522, **K37** 549; prostrate herb 10–20 cm long; montane forest to 1800 m; Gg Mandi Angin, Gg Padang, Tg, and Gg Tapis, Ph; endemic.
- 157.1.4a **Pentaphragma ellipticum** Poulsen var. **ellipticum**, **K33** 7; *Pentaphragma ridleyi* King & Gamble, **FMP2** 202; *Pentaphragma ellipticum* Poulsen, **FMi4** 527; glabrous succulent herb to 40 cm tall; lowland forest to 550 m; Jh, Sp.
- 157.1.4b **Pentaphragma ellipticum** Poulsen var. **flocculosum** (King & Gamble) Kiew, **K33** 7; woolly succulent herb to 40 cm tall; lowland forest to 1000 m; Kl, Tg, Ph, NS, MI, Jh; endemic variety.
- 157.1.5 **Pentaphragma horsfieldii** (Miq.) Airy Shaw, **FMi4** 527, **K33** 9; *Pentaphragma scortechinii* King & Gamble, **FMP2** 203; herb to 35 cm tall; lowland and montane forest to 2000 m; Pk, Ph, SI, MI.

158. PENTAPHYLACACEAE

- 158.1.1 **Pentaphylax euryoides** Gardner & Champ., **FMi5** 123, **TFM2** 308; *Pentaphylax malayana* Ridl., **FMP1** 206; *Pentaphylax arborea* Ridl., **FMP5** 291; shrub or small tree to 12 m tall; montane forest at 975–1800 m; Ph, SI.

159. PHYTOLACCACEAE

- 159.1.1 **Phytolacca octandra** L., **S48** 255; herb to 60 cm tall; mountains above 1200 m; Cameron Highlands, Ph; naturalized from tropical America.
- 159.2.1 **Rivina humilis** L., **FMi4** 229; erect herb to 1 m tall; waste places, usually slightly shaded; Sp; naturalized from tropical America.

160. PIPERACEAE

- 160.1.1 **Peperomia blanda** (Jacq.) H.B.K. var. **leptostachya** (Hook. & Arn.) Düll, **D44** 110; *Peperomia dindygulensis* Miq., **FMP3** 26, **C14** 197, **K50** 33; succulent herb to 30 cm tall; on shaded limestone; Ph, Sl.
- 160.1.2 **Peperomia decumbens** C. DC., **FMP5** 327; creeping herb to 15 cm tall; Gg Raya, P. Langkawi.
- 160.1.3 **Peperomia kotana** C. DC., **FMP3** 27, **C14** 198; creeping herb to 20 cm tall; on rocks including limestone; Kd, Kl, Ph, Jh; endemic.
- 160.1.4 **Peperomia malaccensis** Ridl., **FMP3** 27; succulent herb; on rocks; Batu Tiga, Ml; ?endemic.
- 160.1.5 **Peperomia maxwelliana** C. DC., **FMP3** 27, **S48** 248; succulent decumbent herb; on shaded rocks; Maxwell's Hill, Pk, and Bt Takun, Sl (limestone); endemic.
- 160.1.6 **Peperomia pellucida** (L.) Kunth, **FMP3** 27; succulent herb to 20 cm tall; common weed of damp shaded sites; throughout; naturalized from tropical America.
- 160.1.7 **Peperomia portulacoides** (Lam.) A. Dietr., **FMP3** 26, **C14** 198; succulent herb; on limestone; Gua Batu, Sl.
- 160.1.8 **Peperomia wrayi** DC., **FMP3** 26; decumbent herb; on dead trees in lowland forest; Ulu Batang Padang, Pk; ?endemic.
- 160.1.9 **Peperomia** sp. A, **C14** 198, **K50** 34; succulent herb to 30 cm tall; mostly on limestone; Pk, Ph, Sl; ?endemic.
- 160.2.1 **Piper acre** Blume, **FMP3** 44; climber; montane forest; Pk.
- 160.2.2 **Piper aduncum** L., **M46** 307, **C11** 3; shrub or small tree to 3 m tall; roadsides and clearings in lowlands and hills; Sl; naturalized from tropical America.
- 160.2.3 **Piper argyrites** Ridl., **FMP3** 40; stout climber; lowland forest; Sl; ?endemic.
- 160.2.4 **Piper bipedale** C. DC., **FMP3** 33; subshrub to 60 cm tall; lowland forest; Pk; ?endemic.
- 160.2.5 **Piper boehmeriifolium** (Miq.) DC., **FMP3** 41; shrub to 1 m tall; lowland forest; Pk, Ph, NS.
- 160.2.6 **Piper burkillii** Ridl., **FMP3** 36; slender climber; hill forest; NS; ?endemic.
- 160.2.7 **Piper caninum** Blume, **FMP3** 38, **C11** 5; slender climber; lowland forest; widespread.

- 160.2.8 **Piper collinum** C. DC., **FMP3** 36, **C14** 198; slender climber to 4 m; on limestone; once from Gopeng, Pk; endemic.
- 160.2.9 **Piper conibaccum** C. DC., **FMP3** 48; hill forest; Ph; ?endemic.
- 160.2.10 **Piper curtisii** C. DC., **FMP3** 46; Gg Inas, Pk; ?endemic.
- 160.2.11 **Piper curtisii** C. DC., **FMP3** 37; slender creeper; lowland and hill forest; Pk, Sl, Ml, Jh; ?endemic.
- 160.2.12 **Piper cyrtostachys** Ridl., **FMP3** 41; herb to 60 cm tall; montane forest; Gg Berembun, Pk; ?endemic.
- 160.2.13 **Piper dindingsanum** C. DC., **FMP3** 38; ?climber; hill forest; Dindings, Pk; ?endemic.
- 160.2.14 **Piper erecticaule** C. DC., **FMP3** 43; ?shrub; montane forest; Gg Jerai, Kd; ?endemic.
- 160.2.15 **Piper eucalyptolimbium** C. DC., **FMP3** 49; scandent shrub; hill forest; Larut, Pk; ?endemic.
- 160.2.16 **Piper febrifugum** C. DC., **FMP3** 39; scandent shrub; lowland forest; Pk; ?endemic.
- 160.2.17 **Piper filipes** C. DC., **FMP3** 49; ?; Larut, Pk; ?endemic.
- 160.2.18 **Piper firmum** C. DC., **FMP3** 31; ?climber; Tapah, Pk.
- 160.2.19 **Piper flavibaccum** C. DC., **FMP3** 49; ?; Gg Batu Puteh, Pk; ?endemic.
- 160.2.20 **Piper flavimarginatum** C. DC., **FMP3** 31; stout climber; lowland forest; Sp; ?endemic.
- 160.2.21 **Piper flavispicum** C. DC., **FMP3** 46; herb to 60 cm tall; on limestone; Sg Prya, Pk; ?endemic.
- 160.2.22 **Piper globulistigium** C. DC., **FMP3** 43; ?; Pk; ?endemic.
- 160.2.23 **Piper gymnocladum** C. DC., **FMP3** 46; straggling climber; hill forest; Pk; ?endemic.
- 160.2.24 **Piper gymnophyllum** C. DC., **FMP3** 49; ?; Gg Bujong Malacca, Pk; ?endemic.
- 160.2.25 **Piper klossii** Ridl., **FMP3** 35; scandent shrub; montane forest; Sl; ?endemic.
- 160.2.26 **Piper kotanum** C. DC., **FMP3** 45, **C14** 198; herb to 20 cm tall; mostly from limestone; Kd, Kl, Ph; endemic.
- 160.2.27 **Piper kunstleri** C. DC., **FMP3** 50; herb to 1 m tall; among rocks; Pn; ?endemic.

- 160.2.28 **Piper kurzii** Ridl., **FMP3** 43; small shrub; lowland and montane forest; K1, Pk, Ph, Sl.
- 160.2.29 **Piper lanatum** Roxb., **FMP3** 38; creeper; lowland forest; scattered.
- 160.2.30 **Piper larutanum** C. DC., **FMP3** 37; scandent shrub; lowland forest; Larut, Pk; ?endemic.
- 160.2.31 **Piper leptonema** Hook.f., **FMP3** 50; climber; hill forest; Pn, Pk.
- 160.2.32 **Piper lonchites** Wall., **FMP3** 49; slender woody climber; on rocks in hill forest; Pn, Pk; ?endemic.
- 160.2.33 **Piper longamentum** C. DC., **FMP3** 48; scandent shrub; hill forest; Pk; ?endemic.
- 160.2.34 **Piper longibracteum** C. DC., **FMP3** 37; climber; hill forest; Pk; ?endemic.
- 160.2.35 **Piper longicaule** C. DC., **FMP3** 51; climber; lowland forest; Pn, Pk, Ml.
- 160.2.36 **Piper lowong** Blume, **FMP5** 328; climber; P. Langkawi, Pk.
- 160.2.37 **Piper macropiper** Pennant, **C11** 10; *Piper miniatum* Blume, **FMP3** 39; *Piper arborescens* Roxb., **Q02** 20; climber; on rocks and trees in lowland and hill forest; widespread west of Main Range.
- 160.2.38 **Piper magnibaccum** C. DC., **FMP3** 46; climber reaching to 4 m; hill forest; Pk, Ph, Sl; ?endemic.
- 160.2.39 **Piper maingayi** Hook.f., **FMP3** 31; ?climber; lowland forest; Sl, Ml, Sp; ?endemic.
- 160.2.40 **Piper maxwellianum** C. DC., **FMP3** 35; climber; hill forest; Taiping Hills, Pk; ?endemic.
- 160.2.41 **Piper minutistigmum** C. DC., **FMP3** 43; large climber; Larut, Pk; ?endemic.
- 160.2.42 **Piper mucronatum** C. DC., **FMP3** 36; slender liana; lowland forest, occasionally on limestone; Pk; endemic.
- 160.2.43 **Piper muricatum** Blume, **FMP3** 32; subshrub to 60 cm tall; lowland forest; widespread.
- 160.2.44 **Piper obovantherum** C. DC., **FMP3** 47; ?; Penang Hill; ?endemic.
- 160.2.45 **Piper oreophilum** Ridl., **FMP3** 41; small shrub; montane forest; Gg Tahan, Ph; ?endemic.
- 160.2.46 **Piper pachyphyllum** Hook.f., **FMP3** 31; ?climber; lowland forest; Sl, Ml, Sp; ?endemic.

- 160.2.47 **Piper paucistigmum** C. DC., **FMP3** 35; slender creeper; bamboo forest; Pk; ?endemic.
- 160.2.48 **Piper pedicellosum** Wall., **FMP3** 34; slender liana; lowland forest; Pk, Sl, Ml, Sp.
- 160.2.49 **Piper penangense** C. DC., **FMP3** 42; subshrub to 60 cm tall; hill forest; Pn, Pk; ?endemic.
- 160.2.50 **Piper pentandrum** C. DC., **FMP3** 30; ?climber; Pk; ?endemic.
- 160.2.51 **Piper polyganum** C. DC., **FMP3** 31; large climber; hill forest; Pk.
- 160.2.52 **Piper porphyrophyllum** N.E. Br., **FMP3** 45; slender climber; lowland forest; widespread; ?endemic.
- 160.2.53 **Piper protractum** C. DC., **FMP3** 33, **C10** 147; *Piper malaccense* C. DC., **FMP3** 33; shrub; lowland forest; NS, Ml, Jh, Sp.
- 160.2.54 **Piper puberulirameum** C. DC., **FMP3** 45; ?shrub; hill forest; Pn; ?endemic.
- 160.2.55 **Piper ramipilum** C. DC., **FMP3** 39; creeper to 6 m long; hill forest; Pn, Pk, Jh; ?endemic.
- 160.2.56 **Piper rarispicum** C. DC., **FMP3** 32; ?climber; hill forest; Pn; ?endemic.
- 160.2.57 **Piper retrofractum** Vahl, **Q02** 106; *Piper officinarum* C. DC., **FMP5** 328; scandent shrub; coastal scrub; Ml, Jh.
- 160.2.58 **Piper ribesioides** Wall., **FMP3** 34; climber; common in lowland forest; widespread.
- 160.2.59 **Piper ridleyi** C. DC., **FMP3** 33, **C10** 148; shrub; hill forest; Pk, Sl.
- 160.2.60 **Piper rufibracteatum** C. DC., **FMP3** 48; Ml; ?endemic.
- 160.2.61 **Piper rufispicum** C. DC., **FMP3** 42; Gg Hijau, Pk; ?endemic.
- 160.2.62 **Piper sarmentosum** Roxb., **FMP3** 40; creeping herb to 20 cm tall; banks, waste ground, plantations; widespread.
- 160.2.63 **Piper schizonephros** C. DC., **FMP3** 32; ?climber; Pn, Ml.
- 160.2.64 **Piper scortechinii** C. DC., **FMP3** 50; slender creeper; hill forest and limestone; Pk; ?endemic.
- 160.2.65 **Piper selangorensense** C. DC., **FMP3** 34; scandent shrub; montane forest; Sl; ?endemic.
- 160.2.66 **Piper semangkoanum** C. DC., **FMP3** 45; erect plant; hill forest; Pk, Sl; ?endemic.

- 160.2.67 **Piper stylosum** Miq., **FMP3** 42; herb to 40 cm tall; lowland forest; widespread.
- 160.2.68 **Piper subalbicans** C. DC., **FMP3** 37; ?climber; montane forest; Gg Batu Puteh, Pk; ?endemic.
- 160.2.69 **Piper subfragile** C. DC., **FMP3** 46; climber; Kurau, Pk; ?endemic.
- 160.2.70 **Piper subgrande** Ridl., **FMP5** 329; woody climber; lowland forest; Ulu Batang Padang, Pk; ?endemic.
- 160.2.71 **Piper subpenninerve** (C. DC.) Ridl., **FMP3** 47; climber; Pk, Sl.
- 160.2.72 **Piper subrubrispicum** C. DC., **FMP3** 44; shrub to 1 m tall; Pk; ?endemic.
- 160.2.73 **Piper subsessililimum** C. DC., **FMP3** 48; scandent shrub; Gopeng, Pk; ?endemic.
- 160.2.74 **Piper umbellatum** L., **FMP3** 51; shrub to 2 m tall; damp rocky forest; widespread.
- 160.2.75 **Piper uncinulatum** Ridl., **FMP5** 329; scandent shrub; hill forest; Fraser's Hill, Ph; ?endemic.
- 160.2.76 **Piper velutinervium** C. DC., **FMP3** 44; ?shrub; among rocks in hill forest; near Larut, Pk.
- 160.2.77 **Piper venosum** Ridl., **FMP3** 327; climber; Gg Angsi, NS; ?endemic.
- 160.2.78 **Piper xanthocarpum** C. DC., **FMP3** 36; climber; hill forest; Pk; ?endemic.
- 160.3.1 **Zippelia begoniifolia** Blume, **C14** 199; *Zippelia lappacea* Blume, **FMP3** 25; herb to 30 cm tall; lowland forest; Pk.

161. PITTOSPORACEAE

- 161.1.1 **Pittosporum ferrugineum** W.T. Aiton, **FMP1** 136, **FMi5** 355, **TFM2** 310; shrub or tree to 15 m tall; common near rocky or sandy shores, rarely on limestone; throughout.
- 161.1.2 **Pittosporum reticosum** Ridl., **FMP1** 137, **FMi5** 354, **TFM2** 309; shrub 3-5 m tall; montane forest 1000-1800 m; Tg, Ph, Sl.

162. PLANTAGINACEAE

- 162.1.1 **Plantago major** L., **C26** 662; *Plantago asiatica* Michx., **FMP2** 225; herb; waste ground; widespread.

163. PLUMBAGINACEAE

- 163.1.1 **Plumbago zeylanica** L., **FMP2** 225, **FMi4** 109; straggling shrub to 2.5 m long; open sites, roadsides; widespread.

164. PODOSTEMACEAE

- 164.1.1 **Malaccotristicha malayana** (J. Dransf. & Whitmore) C. Cusset & G. Cusset, **C34** 175; **Indotristicha malayana** J. Dransf. & Whitmore, **D37** 154; creeping herb with leafy shoots to 2 cm tall; on rocks submerged in fast-flowing rivers; Tg, Ph; endemic.

165. POLYGALACEAE

- 165.1.1 **Epirixanthes elongata** Blume, **FMP1** 140, **FMi10** 490; violet or red saprophytic herb to 25 cm tall; lowland to montane forest; quite widespread.
- 165.2.1 **Polygala cardiocarpa** Kurz, **FMP1** 139 in part, **FMi10** 463; herb to 25 cm tall; on limestone; P. Langkawi.
- 165.2.2 **Polygala chinensis** L., **FMi10** 478; herb to 75 cm tall; waste places; Pn.
- 165.2.3 **Polygala glaucoides** L., **FMi10** 480; *Polygala brachystachya* (non Poir.) Blume, **FMP1** 139; erect or prostrate herb to 40 cm tall; waste places; Sp.
- 165.2.4 **Polygala malesiana** Adema, **FMi10** 463; *Polygala cardiocarpa* auct. non Kurz, **FMP1** 139 in part; herb to 25 cm tall; on open limestone; Pk, Ph, Sl.
- 165.2.5 **Polygala oreotrephe**s B.L. Burtt, **FMi10** 467; *Polygala monticola* (non Kunth) Ridl., **FMP1** 138; shrub 30–90 cm tall; rocky places in the mountains; Pk, Ph, Sl.
- 165.2.6 **Polygala paniculata** L., **FMi10** 475, **M47** 480; erect herb to 50 cm tall; waste places; Sp; naturalized from Tropical America.
- 165.2.7 **Polygala polifolia** Presl, **FMi10** 476; erect or prostrate herb to 50 cm tall; roadsides, waste places; Jh.
- 165.2.8 **Polygala venenosa** Juss. ex Poir., **FMP1** 138, **FMi10** 468; *Polygala pulchra* Hassk., **FMP1** 138; shrub to 5 m tall; lowland and hill forest; widespread.
- 165.3.1 **Salomonina cantoniensis** Lour., **FMP1** 139, **FMi10** 487; small herb to 30 cm tall; open grassy places; widespread.
- 165.3.2 **Salomonina ciliata** (L.) DC., **FMP1** 140, **FMi10** 487; *Salomonina oblongifolia* DC., **FMP1** 140; herb to 25 cm tall; open sandy places; P. Langkawi.

- 165.4.1 **Securidaca inappendiculata** Hassk., **FMi10** 483; *Securidaca tavoyana* Wall. ex Benn., **FMP1** 141; *Securidaca bracteata* Benn., **FMP1** 141; liana; lowland and hill forest to 1000 m; scattered.
- 165.5.1 **Xanthophyllum affine** Korth. ex Miq., **FMP1** 143 in part, **TFM1** 354 in part, **FMi10** 503; tree to 30 m tall, usually smaller; lowlands and mountains; widespread.
- 165.5.2 **Xanthophyllum amoenum** Chodat, **TFM1** 356, **FMi10** 533; tree to 35 m tall; lowland and hill forest; Kd, Kl, Tg, Pk, Ph, Sl, NS, ML.
- 165.5.3 **Xanthophyllum bullatum** King, **FMP1** 144, **TFM1** 356, **FMi10** 501; shrub or small tree to 5 m tall; moist sites in lowland forest; Tg, Pk, Sl; endemic.
- 165.5.4 **Xanthophyllum chartaceum** Meijden, **FMi10** 539; *Xanthophyllum* sp. E, **TFM1** 366; tree to 30 m tall; lowland forest; Tg, Ph.
- 165.5.5 **Xanthophyllum cockburnii** Meijden, **FMi10** 502; tree 20 m tall; lowland forest; only known from type, Sg Anak Endau, Ph; endemic.
- 165.5.6 **Xanthophyllum discolor** Chodat, **FMP1** 147, **TFM1** 356, **FMi10** 520; shrub or small tree to 10 m tall; lowland forest; Jh, Sp.
- 165.5.7 **Xanthophyllum ellipticum** Korth. ex Miq., **TFM1** 357, **FMi10** 530; *Xanthophyllum kingii* Chodat, **FMP1** 143; tree to 30 m tall; lowlands, sometimes at much higher elevations; Kd, Pn, Pk, Ph, Sl, Sp.
- 165.5.8a **Xanthophyllum eurhynchum** Miq. ssp. *eurhynchum*, **FMi10** 525; *Xanthophyllum verrucosum* Chodat, **FMP1** 147; *Xanthophyllum maingayi* auct. non Hook.f. ex A.W. Benn., **FMP1** 360 in part; shrub or tree to 20 m tall; lowland to mountains, forest understorey; widespread.
- 165.5.8b **Xanthophyllum eurhynchum** Miq. ssp. *maingayi* (Hook.f. ex A.W. Benn.) Meijden, **FMi10** 525; *Xanthophyllum palembanicum* auct. non Miq., **FMP1** 149; *Xanthophyllum maingayi* Hook.f. ex A.W. Benn., **FMP1** 360 in part; lowland to mountains, forest understorey; widespread.
- 165.5.9 **Xanthophyllum flavescens** Roxb., **FMi10** 500; *Xanthophyllum affine* auct. non Korth. ex Miq., **FMP1** 143 in part, **TFM1** 354 in part; tree to 36 m tall; lowlands and mountains; widespread.
- 165.5.10a **Xanthophyllum griffithii** Hook.f. ex A.W. Benn. ssp. *angustifolium* (Ng) Meijden, **FMi10** 513; *Xanthophyllum griffithii* Hook.f. ex A.W. Benn., **FMP1** 149 in part; *Xanthophyllum griffithii* Hook.f. ex A.W. Benn. var. *angustifolium* Ng, **TFM1** 358; tree to 27 m tall; lower montane forest to 1400 m; Pk, Sl, NS, ML.

- 165.5.10b **Xanthophyllum griffithii** Hook.f. ex A.W. Benn. ssp. **erectum** Meijden, **FM10** 514; *Xanthophyllum griffithii* Hook.f. ex A.W. Benn., **FMP1** 149 in part; *Xanthophyllum griffithii* Hook.f. ex A.W. Benn. var. *griffithii*, **TFM1** 359; tree to 27 m tall; lowland and hill forest; Kd, Pn, Tg, Pk, Ph, Sl, NS, Ml, Sp.
- 165.5.11 **Xanthophyllum lanceatum** (Miq.) J.J. Sm., **FM10** 527; *Xanthophyllum glaucum* Wall. ex Hassk., **FMP1** 147, **TFM1** 357; shrub or tree to 12 m tall; swampy lowland forest usually near streams; Ps, P. Langkawi, Pn, Kl, Pk, Ph.
- 165.5.12 **Xanthophyllum malayanum** Meijden, **FM10** 526; *Xanthophyllum* sp. A, **TFM1** 365; tree to 10 m tall; lowland forest; Ph, Jh; endemic.
- 165.5.13 **Xanthophyllum monticolum** Meijden, **FM10** 514; *Xanthophyllum griffithii* Hook.f. ex A.W. Benn. var. *montanum* Ng, **FMP1** 359; tree to 10 m tall; lower montane forest at 1000–1500 m; Ph; endemic.
- 165.5.14 **Xanthophyllum ngii** Meijden, **FM10** 526; *Xanthophyllum* sp. C, **TFM1** 365; tree to 35 m tall; lowland forest; Tg, NS, Ml.
- 165.5.15 **Xanthophyllum obscurum** A.W. Benn., **FMP1** 144, **TFM1** 361, **FM10** 536; *Xanthophyllum scortechinii* King, **FMP1** 143, **TFM1** 363; tree to 47 m tall; lowland forest; Kd, Pn, Kl, Tg, Pk, Ph, Sl, NS, Ml, Jh, Sp.
- 165.5.16 **Xanthophyllum pubescens** Meijden, **FM10** 504; *Xanthophyllum* sp. B, **TFM1** 365; shrub or small tree to 12 m tall; lowland to lower montane forest; Ph, Jh; endemic.
- 165.5.17 **Xanthophyllum pulchrum** King, **FMP1** 146, **TFM1** 361, **FM10** 521; shrub or small tree to 8 m tall; lowland forest; Pn, Tg, Pk, Jh.
- 165.5.18 **Xanthophyllum retinerve** Meijden, **FM10** 524; tree to 12 m tall; Pk, Tg, Ph; endemic.
- 165.5.19 **Xanthophyllum rufum** Benn., **FMP1** 145, **TFM1** 361, **FM10** 505; tree to 32 m tall; lowland forest; Kd, Kl, Tg, Pk, Ph, Sl, NS, Ml, Jh.
- 165.5.20 **Xanthophyllum stipitatum** A.W. Benn., **FMP1** 145, **TFM1** 363, **FM10** 535; tree to 50 m tall; lowland and hill forest, usually on ridges; Tg, Pk, Ph, Sl, NS, Ml, Jh, Sp.
- 165.5.21 **Xanthophyllum sulphureum** King, **FMP1** 145, **TFM1** 363, **FM10** 502; tree 30–50 m tall; lowland forest; Kl, Pk, Ph; endemic.
- 165.5.22 **Xanthophyllum venosum** King, **FMP1** 144, **FM10** 525; *Xanthophyllum wrayi* auct. non King, **TFM1** 363 in part; shrub or small tree to 10 m tall; lowland forest; Pk, Sl.

- 165.5.23 **Xanthophyllum virens** Roxb., **FMI10** 528; tree to 30 m tall; lowland forest; Kl, Pk.
- 165.5.24 **Xanthophyllum vitellinum** (Blume) Dietr., **FMI10** 514; *Xanthophyllum hookerianum* King, **FMP1** 144, **TFM1** 359; *Xanthophyllum curtisii* King, **FMP1** 146; *Xanthophyllum kunstleri* King, **FMP1** 146, **TFM1** 359; *Xanthophyllum griffithii* Hook.f. ex A.W. Benn. var. *curtisii* (King) Ng, **FMP1** 359; tree to 30 m tall; lowland to lower montane forest; Pn, Kl, Pk, Ph, NS, Ml, Jh, Sp.
- 165.5.25 **Xanthophyllum wrayi** King, **FMP1** 148, **TFM1** 363 in part, **FMI10** 525; *Xanthophyllum puberulum* Ridl., **FMP1** 146; shrub or small tree to 10 m tall; lowland and hill forest; Pn, Kl, Pk, Ph, Sl, NS, Jh, Sp.

166. POLYGONACEAE

- 166.1.1 **Aconogonum molle** (D. Don) var. **frondosum** (Meisn.) H. Hara, **H17** 172; *Polygonum paniculatum* Blume, **D01** 233, **S46** 254; herb; montane forest clearings; Gg Brinchang, Cameron Highlands, Ph.
- 166.2.1 **Persicaria attenuata** (R.Br.) Soják ssp. **pulchra** (Blume) K.L. Wilson, **W20** 629; *Polygonum tomentosum* (non Schrank) Willd., **FMP3** 11; *Polygonum pulchrum* Blume ssp. *hallieri* Danser, **D01** 157; herb to 60 cm tall; wet places in open country; Ps, Pn, Pk, Ml.
- 166.2.2 **Persicaria barbata** (L.) H. Hara var. **gracilis** (Danser) H. Hara, **H17** 175; *Polygonum barbatum* L. ssp. *gracile* Danser, **FMP3** 11, **D01** 145; herb to 3 m tall; wet open spots in lowlands and hills; widespread; herb to 1 m tall; ditches and other damp places; widespread.
- 166.2.3 **Persicaria capitata** (Buch.-Ham. ex D. Don) H. Gross, **H17** 175; *Polygonum capitatum* Buch.-Ham. ex D. Don, **FMP5** 326; tufted wiry herb; waste ground at the hill resorts; Pk, Ph; naturalized from India.
- 166.2.4a **Persicaria chinensis** (L.) H. Gross var. **chinensis**, **H17** 175; *Polygonum chinense* L., **FMP3** 12, **D01** 209; scrambling herb; damp waste ground in lowlands and mountains; widespread.
- 166.2.4b **Persicaria chinensis** (L.) H. Gross var. **ovalifolia** (Meisn.) H. Hara, **H17** 175; *Polygonum malaicum* Danser, **D01** 218; *Polygonum auriculatum* Meisn., **V18** 357; herb to 1.5 m tall; damp open places in the mountains; Ph.
- 166.2.5 **Persicaria dichotoma** (Blume) Masam., **W19** 179; *Polygonum dichotomum* Blume, **D01** 222; *Polygonum pedunculare* Meisn., **FMP3** 14; slender aquatic herb to 30 cm tall; ditches and ponds; widespread.

- 166.2.6 **Persicaria hydropiper** (L.) Spach, **H17** 176, **W19** 179; *Polygonum hydropiper* L. ssp. *microcarpum* Danser, **FMP3** 12, **D01** 187; herb to 50 cm tall; damp sandy spots; Kl, Ph, NS
- 166.2.7 **Persicaria nepalensis** (Meisn.) H. Gross, **H17** 177, **T19** 126; herb; damp open places; Cameron Highlands, Ph; probably naturalized from Continental Asia.
- 166.2.8 **Persicaria orientalis** (L.) Spach, **W19** 179; *Polygonum orientale* L., **D01** 168, **T05** 131; herb; waste ground; Sp.
- 166.2.9 **Persicaria pubescens** (Blume) H. Hara, **H17** 177; *Polygonum flaccidum* auct. non Roxb., **FMP3** 12; *Polygonum pubescens* Blume, **D01** 193; herb; damp places; widespread.
The Malayan plants are probably var. *acuminata* (Franch. & Sav.) H. Hara.
- 166.2.10 **Persicaria strigosa** (R.Br.) Nakai, **H17** 178; *Polygonum strigosum* R.Br., **FMP3** 13, **D01** 227; straggling herb to 1 m tall; once from Pn.
- 166.2.11 **Persicaria tenella** (Blume) H. Hara var. **kawagoeana** (Makino) H. Hara, **H17** 178; *Polygonum minus* Huds. ssp. *micranthum* Danser, **D01** 176, **FMP3** 11; slender herb to 30 cm tall; wet places; Pk, Ph, Sl.
- 166.2.1 **Rumex crispus** L., **S48** 255; herb; weed of tea plantation; Cameron Highlands, Ph; naturalized from Europe.
- 166.2.2 **Rumex patentia** L., **S48** 255; herb; weed of tea plantation; naturalized from Central Asia.
167. PORTULACACEAE
- 167.1.1 **Portulaca oleracea** L., **FMP1** 151, **FMi7** 129, **M47** 490; fleshy herb to 40 cm tall; waste places, weed of cultivation; widespread.
- 167.1.2 **Portulaca pilosa** L., **FMP5** 289, **FMi7** 131; herb to 30 cm tall; open sandy places; Sl, Jh; naturalized.
- 167.1.3 **Portulaca quadrifida** L., **FMP1** 151, **FMi7** 127; small creeping herb; open sandy ground, weed of cultivation; widespread.
- 167.2.1 **Talinum paniculatum** (Jacq.) Gaertn., **FMi7** 124, **T05** 131; semi-woody plant to 70 cm tall; waste places; Sp; naturalized from tropical America.
168. PRIMULACEAE
- 168.1.1 **Lysimachia peduncularis** Wall. ex Kurz, **FMi6** 182, **C14** 201; herb to 30 cm tall; on open limestone; twice collected at Batu Ayam on P. Langkawi.

169. PROTEACEAE

- 169.1.1 **Helicia attenuata** (Jack) Blume, **FMP3** 141, **FMi5** 186, **TFM2** 313; *Helicia suffruticosa* Ridl., **FMP3** 141; shrub or small tree to 20 m tall; lowlands and mountains near streams; Ps, Kd, Kl, Tg, Pn, Pk, Ph, Sl, Jh.
- 169.1.2 **Helicia excelsa** (Roxb.) Blume, **FMP3** 143 incl. var. *forbesii* Gamble & var. *salicifolia* (Prain) Gamble, **FMi5** 174, **TFM2** 315; *Alseodaphne crassipes* Hook.f., **FMP3** 100; small tree to 10 m tall; lowland forests; Kd, Pk, Sl, NS, Ml, Sp.
- 169.1.3 **Helicia maxwelliana** Gibbs, **FMi5** 178, **TFM2** 312; small tree to 3 m tall; montane forest at 1200 m; one sterile specimen from Gg Padang, Tg.
- 169.1.4a **Helicia petiolaris** Benn. var. **kingiana** (Prain) Sleumer, **FMi5** 189, **TFM2** 315; *Helicia kingiana* Prain, **FMP3** 142; tree to 27 m tall; montane forests 650–1300 m; Kd, Tg, Pk, Ph, Sl.
- 169.1.4b **Helicia petiolaris** Benn. var. **petiolaris**, **FMP3** 141, **FMi5** 188, **TFM2** 315; shrub or small tree to 18 m tall; lowland and hill forest to 900 m; Kd, Pk, Sl, NS, Ml.
- 169.1.5 **Helicia robusta** (Roxb.) R.Br. ex Wall., **FMP3** 142, **FMi5** 184, **TFM2** 315; small tree to 10 m tall; lowland and hill forest, mostly near streams; Kd, Kl, Tg, Ph, Sl, Ml, Jh, Sp.
- 169.1.6 **Helicia rufescens** Prain, **FMP3** 142, **FMi5** 171, **TFM2** 315; tree to 27 m tall; lowland and montane forest to 1700 m; Kd, Kl, Pk, Ph, Sl, Jh.
- 169.1.7 **Helicia serrata** (R.Br.) Blume, **FMi5** 176, **TFM2** 316; *Helicia curtisii* Gamble, **FMP3** 142; *Helicia scortechinii* Gamble, **FMP3** 143; tree to 8 m tall; hill forest; Pn, Pk (one collection each).
- 169.2.1 **Heliciopsis cockburnii** Kochummen, **TFM2** 317; tree to 24 m tall; lowland and hill forest to 800 m; Tg, Pk; endemic.
- 169.2.2 **Heliciopsis montana** Kochummen, **TFM2** 317; tree to 26 m tall; montane forest about 1300 m; Pk, Ph; endemic.
- 169.2.3 **Heliciopsis ruficula** Sleumer, **FMi5** 192, **TFM2** 319; tree to 33 m tall; lowland and montane forest to 1500 m; Tg, Pk, Ph, Sl; endemic.
- 169.2.4 **Heliciopsis velutina** (Prain) Sleumer, **FMi5** 191, **TFM2** 320; *Helicia velutina* Prain, **FMP3** 143; tree to 23 m tall; lowland forests; Tg, Pk, Ph, Sl, Jh; endemic.
- 169.2.5 **Heliciopsis whitmorei** Kochummen, **TFM2** 320; tree to 21 m tall; lowland and hill forest 200–700 m; Tg; endemic.

170. RAFFLESIACEAE

- 170.1.1 **Rafflesia cantleyi** Solms, **M29** 210; *Rafflesia hasseltii* auct. non Suringar, **FMP3** 19; parasite of *Tetrastigma* lianas; lowland forest; widespread; ?endemic.
- 170.1.2 **Rafflesia kerrii** Meijer, **M29** 210; parasite of *Tetrastigma* lianas; lowland forest.
- 170.2.1 **Rhizanthus lowi** (Becc.) Harms, **M30** 335; *Brugmansia lowi* Becc., **FMP3** 20; parasite of *Tetrastigma* lianas; lowland and hill forest; Tg, Pk, Ph.
- 170.2.2 **Rhizanthus zippelii** (Blume) Spach, **M30** 339; parasite of lianas; lowland forest; once from near Chenderiang, Pk.

Plants similar to *Rafflesia hasseltii* Suringar [**M29** 210] have recently been reported from the Gerik area of Perak [**L14** 185].

171. RANUNCULACEAE

- 171.1.1 **Anemone sumatrana** de Vriese, **FMP5** 286, **E02** 10; herb to 60 cm tall; mountains; Cameron Highlands, Ph.
- 171.2.1 **Clematis papillosa** H. Eichler, **E02** 50; climber; once from near Taiping, Pk.
- 171.2.2 **Clematis smilacifolia** Wall., **FMP1** 1, **E02** 44; slender climber; open places; Pn, Jh.
- 171.3.1 **Naravelia dasyoneura** Korth., **E02** 58; *Naravelia axillaris* Ridl., **FMP1** 2; slender climber; hedges in ricefields; once from Kangar, Ps.
- 171.3.2 **Naravelia laurifolia** Wall. ex Hook.f. & Thomson, **FMP1** 2, **E02** 54; climber; lowland to montane forest; Pn, Tg, Pk, Ph, Sl.

172. RHAMNACEAE

- 172.1.1 **Colubrina asiatica** L. ex Brongn., **FMP1** 465, **TFM4** 298; shrub to 3 m tall; sandy and rocky shores; all coasts.
- 172.1.2 **Colubrina beccariana** Warb., **S76** 312; *Colubrina anomala* King, **FMP1** 465, **TFM4** 298; small tree to 15 m tall; hill forest; Pk.
- 172.2.1 **Gouania javanica** Miq., **FMP1** 469; slender woody climber; open country; MI northwards.
- 172.2.2 **Gouania leptostachya** DC., **FMP1** 469; slender woody climber; lowland forest margins; scattered localities.

- 172.3.1a **Rhamnus borneensis** Steenis var. **borneensis**, **TFM4** 299; tree to 12 m tall; montane forest; Gg Jerai, Kd.
- 172.3.1b **Rhamnus borneensis** Steenis var. **estellare** Steenis, **TFM4** 299; *Oreorhamnus serrulata* Ridl., **FMP1** 464; tree to 12 m tall; montane forest; Ph, Sl.
- 172.3.2 **Rhamnus nipalensis** (Wall.) Lawson, **TFM4** 299; liana; lowland forest; Taman Negara, Ph.
- 172.4.1 **Sageretia thea** (Osbeck) M.C. Johnst., **TFM4** 297; *Sageretia parviflora* Don, **FMP1** 464; scrambling shrub; exposed limestone; only known from Gua Batu, Sl.
- 172.5.1 **Smythea lanceata** (Tul.) Summerh., **S72** 389; *Smythea pacifica* Seem., **FMP1** 468; liana; seashores; widespread.
- 172.5.2 **Smythea lancifolia** Ridl., **FMP5** 300; slender climber; lowland and hill forest; Pn; ?endemic.
- 172.5.3 **Smythea macrocarpa** Hemsl., **FMP1** 468; liana; lowland forest; Pn, Pk.
- 172.5.4a **Smythea velutina** (Ridl.) S.P. Banerjee & P.K. Mukh. var. **kingiana**, **B09** 251; *Ventilago velutina* Ridl., **FMP1** 467 in part; woody climber; Pk; endemic.
- 172.5.4b **Smythea velutina** (Ridl.) S.P. Banerjee & P.K. Mukh. var. **velutina**, **B09** 251; *Ventilago velutina* Ridl., **FMP1** 467 in part; woody climber; Pk; endemic.
- 172.6.1 **Ventilago gladiata** Pierre, **FMP1** 467; woody climber; lowland forest, mostly on limestone; Kl, Pk, Ph.
- 172.6.2 **Ventilago kurzii** Ridl., **FMP5** 300; woody climber; P. Langkawi.
- 172.6.3 **Ventilago maingayi** Lawson, **FMP1** 467; woody climber; lowland forest margins; widespread.
- 172.6.4 **Ventilago malaccensis** Ridl., **FMP1** 466; woody climber; lowland forest; widespread.
- 172.6.5 **Ventilago oblongifolia** Blume, **FMP1** 467; stout woody climber; lowland forest, also on limestone; widespread.
- 172.7.1 **Ziziphus affinis** Hemsl., **FMP1** 464, **TFM4** 300; prickly liana; lowland forest; Ps, Kd, Pk.
- 172.7.2 **Ziziphus angustifolia** (Miq.) Hatus. ex Steenis, **TFM4** 300; small tree without prickles; lowland forest; Ps, Kd, Kl, Pk, Ph.
- 172.7.3 **Ziziphus calophylla** Wall. ex Hook.f., **FMP1** 463, **TFM4** 300; prickly liana or scandent shrub; lowland forests; throughout.

- 172.7.4 **Ziziphus elegans** Wall., **FMP1** 463, **TFM4** 300; slender thorny climbing shrub; lowland forest margins; Pk, Ph, Sl, Ml, Sp.
- 172.7.5 **Ziziphus grewoides** (Warb.) L.M. Perry, **V15** 595, **TFM4** 300 '*grewiodes*'; prickly liana or scandent shrub; lowland forests; Ps, Kd, Pk.
- 172.7.6 **Ziziphus horsfieldii** Miq., **FMP1** 463, **TFM4** 300; slender thorny liana; lowland forest; Sl, Ml, Sp.
- 172.7.7 **Ziziphus kunstleri** King, **FMP1** 462, **TFM4** 300; thorny scrambling shrub; lowland forests; throughout.
- 172.7.8 **Ziziphus oenoplia** (L.) Mill., **FMP1** 462, **TFM4** 300; rambling thorny bush; thickets and open country; throughout.
- 172.7.9 **Ziziphus pernettyoides** Ridl., **FMP1** 463; thorny scrambling shrub; on limestone; Ps, Kd, Pk, Sl; endemic.

173. RHIZOPHORACEAE

- 173.1.1 **Bruguiera cylindrica** (L.) Blume, **FMi5** 467, **TFM4** 310; *Bruguiera caryophylloides* Blume, **FMP1** 695; tree to 23 m tall; muddy mangroves; widespread.
- 173.1.2 **Bruguiera gymnorhiza** (L.) Lam., **FMP1** 695, **FMi5** 461, **TFM4** 310; tree to 36 m tall; mangroves, usually to the landward fringe; widespread.
- 173.1.3 **Bruguiera hainesii** C.G. Rogers, **FMi5** 468, **TFM4** 310; tree to 33 m tall; inland edge of mangrove; Sl, NS.
- 173.1.4 **Bruguiera parviflora** (Roxb.) Wight & Arn. *ex* Griff., **FMP1** 695, **FMi5** 464, **TFM4** 310; tree to 24 m tall; inner side of mangrove forests; all coasts.
- 173.1.5 **Bruguiera sexangula** (Lour.) Poir., **FMi5** 463, **TFM4** 312; *Bruguiera eriopetala* Wight & Arn. *ex* Arn., **FMP1** 695; tree to 33 m tall; mangroves, usually to the landward fringe; all coasts.
- 173.2.1 **Carallia brachiata** (Lour.) Merr., **FMi5** 485, **TFM4** 313; *Carallia integerrima* DC., **FMP1** 696; *Carallia scortechinii* King, **FMP1** 697; *Carallia spinulosa* Ridl., **FMP1** 698; *Carallia lancaefolia* Roxb., **TFM4** 315; tree to 33 m tall; lowland and hill forest, also in swamps; Kd, Pk, Ph, Sl, NS, Ml, Jh, Sp.
- 173.2.2 **Carallia eugenioidea** King, **FMP1** 697, **FMi5** 484, **TFM4** 313; *Carallia montana* Ridl., **FMP1** 697; *Carallia euryoides* Ridl., **FMP1** 698, **TFM4** 313; shrub or small tree to 21 m tall; montane forests above 1200 m; Kl, Pk, Ph.
- 173.2.3 **Carallia suffruticosa** Ridl., **FMP1** 698, **FMi5** 485, **TFM4** 315; shrub 2-3 m tall; lowland forest; Tg, Pk, Sl.

- 173.3.1 **Ceriops decandra** (Griff.) W. Theob., **FMi5** 471, **TFM4** 316, **M06** 154; small tree to 15 m tall; mangrove; East Coast.
- 173.3.2 **Ceriops tagal** (Pers.) C.B. Rob., **FMi5** 469, **TFM4** 316; *Ceriops candolliana* Arn., **FMP1** 694; tree to 15 m tall; mangrove; commoner on West Coast.
- 173.4.1 **Gynotroches axillaris** Blume, **FMP1** 698, **FMi5** 488, **TFM4** 317; small tree exceptionally reaching 36 m tall; lowlands, including swamps, to mountains at 1400 m; throughout.
- 173.5.1 **Kandelia candel** (L.) Druce, **FMi5** 473, **TFM4** 319; *Kandelia rheedii* Wight & Arn., **FMP1** 694 'rheedii'; shrub or small tree to 7 m tall; banks of tidal rivers; sporadic.
- 173.6.1 **Pellacalyx axillaris** Korth., **FMP1** 699, **FMi5** 493, **TFM4** 320; tree to 24 m tall; damp or wet lowland or hill forest; widespread.
- 173.6.2 **Pellacalyx saccardianus** Scott., **FMP1** 699, **FMi5** 491, **TFM4** 320; tree to 30 m tall; lowland and hill forest to 900 m; widespread; endemic.
- 173.7.1 **Rhizophora apiculata** Blume, **FMi5** 452, **TFM4** 322; *Rhizophora conjugata* auct. non L., **FMP1** 693; stilt-rooted tree to 30 m tall; mangrove gregarious on soft estuarine mud; all coasts.
- 173.7.2 **Rhizophora mucronata** Lam., **FMP1** 693, **FMi5** 453, **TFM4** 322; stilt-rooted tree to 30 m tall; gregarious mangrove of muddy or sandy shores; all coasts.
- 173.7.3 **Rhizophora stylosa** Griff., **FMP1** 693, **FMi5** 456, **TFM4** 323; stilt-rooted tree to 10 m tall; sandy and rocky shores; P. Langkawi, Ml, Jh, Sp.
174. **ROSACEAE**
- 174.1.1 **Eriobotrya bengalensis** (Roxb.) Hook.f., **FMP1** 681, **TFM2** 326, **FMi11** 309; shrub or large tree to 27 m tall; offshore islands, limestone hills and mountains; scattered widely.
- 174.2.1a **Photinia integrifolia** Lindl. var. **integrifolia**, **S59** 190; shrub; montane forest at 1550 m; Gg Ulu Kali, Ph.
- 174.2.1b **Photinia integrifolia** Lindl. var. **sublanceolata** Miq., **TFM2** 323, **FMi11** 314; shrub or small tree to 15 m tall; montane forest at 1200 m; once from Gg Benom, Ph.
- 174.3.1 **Potentilla indica** (Andr.) Wolf, **FMi11** 291; *Duchesnea indica* (Andr.) Focke, **K09** 27; stoloniferous rosette herb; waste places; scattered; naturalized from elsewhere in tropical Asia.

- 174.4.1a **Prunus arborea** (Blume) Kalkman var. **arborea**, **TFM2** 338 in part, **FMI11** 332; *Pygeum parviflorum* Teijsm. & Binn., **FMP1** 675; *Pygeum persimile* Kurz, **FMP1** 675; *Pygeum griffithii* Hook.f., **FMP1** 676; tree to 30 m tall; lowland to lower montane forest at 1300 m; Pk, Sl, NS, Ml, Sp.
- 174.4.1b **Prunus arborea** (Blume) Kalkman var. **densa** (King) Kalkman, **TFM2** 338 in part, **FMI11** 332; *Pygeum patens* Ridl., **FMP1** 676; *Pygeum ovalifolium* King, **FMP1** 677; *Pygeum rubiginosum* Ridl., **FMP1** 677; tree to 26 m tall; lowland to lower montane forest at 1300 m; Kd, Pn, Pk, Ph, Sl, Jh.
- 174.4.1c **Prunus arborea** (Blume) Kalkman var. **stipulacea** (King) Kalkman, **TFM2** 338 in part, **FMI11** 332; *Pygeum stipulaceum* King, **FMP1** 673; tree to 20 m tall; lowland to lower montane forest at 1300 m; Kd, Pk, Ph, Jh, Sp.
- 174.4.2 **Prunus glabrifolia** Kalkman, **TFM2** 338, **FMI11** 337; *Pygeum scortechinii* King, **FMP1** 674; *Pygeum brevifolium* Hook.f., **FMP1** 676; shrub or small tree to 15 m tall; montane forest; Pk, Sl, Ml, Jh.
- 174.4.3 **Prunus grisea** (Blume) Kalkman var. **tomentosa** (Koord. & Valetton) Kalkman, **TFM2** 337, **FMI11** 339; *Pygeum lanceolatum* Hook.f., **FMP1** 674 incl. var. *maingayi* (Hook.f.) Ridl.; *Pygeum hookerianum* King, **FMP1** 676; *Pygeum velutinosum* Ridl., **FMP5** 306; shrub or small tree to 15 m tall; lowland forest to 600 m; widespread.
- 174.4.4 **Prunus javanica** (Teijsm. & Binn.) Miq., **TFM2** 338, **FMI11** 328; *Prunus martabanica* Kurz var. *scortechinii* King, **FMP1** 672; tree to 35 m tall; lowland forest; Kd, Pk, Ph.
- 174.4.5 **Prunus lamponga** (Miq.) Kalkman, **TFM2** 338, **FMI11** 340; *Pygeum coriifolium* Ridl., **FMP1** 675; tree to 15 m tall; lowland forest to 750 m; Pk, Ph, Jh.
- 174.4.6 **Prunus malayana** Kalkman, **TFM2** 338, **FMI11** 341; tree to 30 m tall; lower montane forest at about 1200 m; Tg, Ph, Pk; endemic.
- 174.4.7 **Prunus polystachya** (Hook.f.) Kalkman, **TFM2** 339, **FMI11** 343; *Pygeum polystachyum* Hook.f., **FMP1** 674; tree to 36 m tall; lowland forest; Kl and Pk southward.
- 174.4.8 **Prunus wallichii** Steud., **TFM2** 337, **FMI11** 329; small tree to 9 m tall; montane forest; Tg, Ph.
- Prunus odorata* (M.R. Hend.) Whitmore [**TFM2** 338, **FMI11** 349] remains a dubious species.
- 174.5.1 **Rubus alceifolius** Poir., **FMP1** 677, **FMI11** 268; *Rubus hasskarlii* auct. non Miq., **FMP1** 679 in part; scandent shrub; forest margins; mostly in the hills; Pk, Ph.

- 174.5.2 **Rubus elongatus** Sm., **FMP1** 679, **FMi11** 272; thorny climbing or scrambling shrub; forest margins, roadsides; Pn, Pk, Sl, Jh.
- 174.5.3 **Rubus glomeratus** Blume, **FMi11** 272; weakly prickly scrambling shrub to 3 m tall; forest margins and clearings in the mountains; Pn, Pk.
- 174.5.4a **Rubus moluccanus** L. var. **angulosus** Kalkman, **FMi11** 278; *Rubus angulosus* (*non* Greml.) Focke, **FMP1** 678; climbing and scrambling shrub; forest margins, riverbanks; Kl, Pk, Ph, Sl, Ml, Jh, Sp.
- 174.5.4b **Rubus moluccanus** L. var. **discolor** (Blume) Kalkman, **FMi11** 278; *Rubus hasskarlii* Miq., **FMP1** 679 in part; climbing and scrambling shrub; forest clearings; Pn, Ph.
- 174.5.4c **Rubus moluccanus** L. var. **moluccanus**, **FMi11** 278; *Rubus glomeratus* auct. *non* Blume, **FMP1** 679; climbing and scrambling shrub; forest margins in the lowlands and hills; P. Langkawi, Pn, Tg, Pk, Ph, Sl, NS, Sp.
- 174.5.4d **Rubus moluccanus** L. var. **obtusangulus** Miq., **FMi11** 278; climbing and scrambling shrub; montane forest margins; Cameron Highlands, Ph.
- 174.5.5 **Rubus niveus** Thunb., **FMi11** 264; shrub, sometimes scandent, to 2 m tall; open places in the mountains; Fraser's Hill, Ph; naturalized from continental Asia.
- 174.5.6 **Rubus sumatranus** Miq., **FMi11** 266; *Rubus rosifolius* auct. *non* Sm., **FMP1** 680; erect or scrambling shrub to 2 m tall; forest margins and waste places; hills and mountains at 500–2000 m; Pk, Ph, Sl.
- 174.6.1 **Sorbus corymbifera** (Miq.) Khep & Yakovlev, **K20** 1188; *Pyrus granulosa* Bertol., **FMP1** 680, **TFM2** 340; *Micromeles malayensis* Ridl., **FMP5** 307; *Micromeles corymbifera* (Miq.) Kalkman, **FMi11** 311; tree to 30 m tall, starting life as an epiphyte; montane forest at about 1200 m; quite widespread.
175. RUBIACEAE
- 175.1.1 **Acranthera pulchella** (Ridl.) K.M. Wong, **W22** 29; *Gardenia pulchella* Ridl., **FMP2** 81; *Gardenia virescens* Ridl., **FMP2** 81; subshrub; lower montane forest; Pk, Ph; endemic.
- 175.1.2 **Acranthera didymocarpa** (Ridl.) K.M. Wong, **W22** 30; *Gardenia didymocarpa* Ridl., **FMP2** 81; subshrub; hill forest; Sl, NS; endemic.
- 175.2.1 **Aidia acuminata** (Blume) K.M. Wong, **R20** 167; *Randia binata* King & Gamble, **FMP2** 76; *Gynopachis binata* (King & Gamble) Tirveng., **T14** 283; *Aidia binata* (King & Gamble) K.M. Wong, **W26** 18 in part; climber; Pk, Jh.

- 175.2.2 ***Aidia auriculata*** (Wall.) Ridsdale, **R20** 16; *Randia auriculata* (Wall.) Steud., **FMP2** 75; *Anomanthodia auriculata* (Wall.) Hook.f., **T14** 277; *Aidia corymbosa* (Blume) K.M. Wong, **W26** 19; liana to 30 m long; lowland forest; Kd, Pk, Sl, NS.
- 175.2.3 ***Aidia densiflora*** (Wall.) Masam., **R20** 150; *Randia densiflora* (Wall.) Benth., **FMP2** 75; *Aidia wallichiana* (Wall.) Tirveng., **T14** 263, **TFM4** 338; *Aidia cochinchinensis* auct. non Lour., **W26** 10; small tree to 15 m tall; lowland to montane forest; throughout.
- 175.2.4 ***Aidia impressinervis*** (King & Gamble) Ridsdale, **R20** 168; *Randia impressinervis* King & Gamble, **FMP2** 77; *Gynopachis impressinervis* (King & Gamble) Tirveng., **T14** 283; *Aidia binata* (King & Gamble) K.M. Wong, **W26** 18 in part; strangling root climber; lowland forest; Pk.
- 175.2.5 ***Aidia lancifolia*** K.M. Wong, **W26** 20, **R20** 16, **T14** 271; *Anomanthodia lancifolia* (K.M. Wong) Tirveng., **T14** 279; climber to 30 m long; once from Jh.
- 175.2.6 ***Aidia parvifolia*** (King & Gamble) K.M. Wong, **W26** 16, **T14** 271, **TFM4** 338, **R20** 152; *Randia densiflora* (Wall.) Benth var. *parvifolia* King & Gamble, **FMP2** 76; small tree to 10 m tall; hill forest; P. Langkawi, Kd, Pn, P. Tioman.
- 175.2.7 ***Aidia racemosa*** (Cav.) Tirveng., **R20** 149; tree to 15 m tall; on limestone.
- 175.3.1 ***Aidiopsis orophila*** (Miq.) Ridsdale, **R20** 176; *Randia forbesii* King & Gamble, **FMP2** 76; *Aidiopsis forbesii* (King & Gamble) Tirveng., **T14** 288; *Aidia forbesii* (King & Gamble) K.M. Wong, **W26** 17; epiphytic strangler or free-standing shrub; lowland forest; Pk, Sl, Jh.
- 175.4.1 ***Aleisanthia rupestris*** (Ridl.) Ridl., **FMP2** 20, **TFM4** 339; shrub to 1 m tall; quartzite ridges; only known from Klang Gates, Sl; endemic.
- 175.4.2 ***Aleisanthia sylvatica*** Ridl., **FMP2** 20, **TFM4** 339; shrub to 4 m tall; lowland and hill forest; Ulu Kelantan; endemic.
- 175.5.1 ***Antirhea atropurpurea*** (Craib) Chaw ex K.M. Wong, **W27** 493, **TFM4** 339; *Timonius hirsutus* (non Merr.) Ridl., **FMP2** 115; *Timonius atropurpureus* Craib, **C15** 150; *Guettardella atropurpurea* (Craib) M.E. Jansen, **J03** 571; shrub to 3 m tall; lowlands, mostly on limestone; P. Langkawi, Kd, Pn, Pk.
- 175.6.1 ***Argostemma acuminatissimum*** Ridl., **FMP5** 315; erect herb to 20 cm tall; hill forest; Pk; ?endemic.
- 175.6.2a ***Argostemma aequifolium*** Ridl. var. *aequifolium*, **FMP2** 25, **B07** 333; creeping herb; montane streams; Mount Ophir, Ml; ?endemic.

- 175.6.2b **Argostemma aequifolium** Ridl. var. **albociliatum** (Ridl.) Bakh.f., **B07** 333; *Argostemma albociliatum* Ridl., **FMP2** 25; creeping herb; mossy rocks; Gg Tahan, Ph; ?endemic.
- 175.6.3 **Argostemma bicolor** King; herb to 10 cm tall; Pk; ?endemic.
- 175.6.4 **Argostemma bifolium** Ridl., **FMP5** 314; *Argostemma pictum* auct. non Wall., **FMP2** 24 in part; small herb; montane forest; Pk; ?endemic.
- 175.6.5 **Argostemma curtisii** King, **FMP2** 33; erect herb to 20 cm tall; in rocky mountain streams; Gg Bujong Malacca, Pk; ?endemic.
- 175.6.6 **Argostemma debile** Ridl., **FMP2** 32; succulent herb to 20 cm tall; montane forest; Gg Mengkuang Lebah, Sl; ?endemic.
- 175.6.7 **Argostemma denticulatum** Ridl., **FMP2** 32; erect herb to 30 cm tall; lower montane forest; Genting Simpah, Sl; ?endemic.
- 175.6.8 **Argostemma diversifolium** Ridl., **FMP2** 23; succulent herb to 1.5 m tall; on limestone; collected once at Lenggong, Pk.
- 175.6.9a **Argostemma elatostemma** Hook.f. var. **elatostemma**, **FMP2** 26, **B33** 14; creeping herb to 10 cm tall; hill forest; Pk, NS.
- 175.6.9b **Argostemma elatostemma** Hook.f. var. **obovatum** King, **FMP2** 26 'obovata'; creeping herb; hill forest; Pn, Pk.
- 175.6.10 **Argostemma elongatum** Ridl., **FMP2** 34; succulent creeping herb; montane forest near streams; Ph; ?endemic.
- 175.6.11 **Argostemma enerve** Ridl., **FMP2** 33; creeping herb to 20 cm tall; montane forests; Gg Angsi, NS; ?endemic.
- 175.6.12 **Argostemma grandiflorum** Ridl., **FMP2** 33; ascending herb; montane forest; Gg Kerbau, Pk; ?endemic.
- 175.6.13 **Argostemma hirsutum** Ridl., **FMP2** 33; slender creeping herb; Gg Bintang, Kd; ?endemic.
- 175.6.14 **Argostemma hookeri** King, **FMP2** 33; slender creeping herb to 15 cm tall; hill and montane forest; Pn, Ph, Sl, Jh; ?endemic.
- 175.6.15 **Argostemma humile** Benn., **FMP5** 314; small herb to 10 cm tall; hill forest; Penang Hill; endemic.
- 175.6.16 **Argostemma inaequilaterum** Benn., **FMP5** 314; *Argostemma acuminatum* King, **FMP2** 23 in part; erect herb; on rocks, often limestone; Pn, Pk, Sl.
- 175.6.17 **Argostemma involucratum** Hemsl., **FMP2** 28; creeping herb ascending to 25 cm; hill and montane forest; Pn, Pk, Ph, Sl, ML.

- 175.6.18a **Argostemma johorense** Ridl. var. **johorense**, **FMP2** 31; herb to 25 cm tall; lowland forest; Jh; ?endemic.
- 175.6.18a **Argostemma johorense** Ridl. var. **kelsallii** Ridl., **FMP2** 32; herb to 25 cm tall; forest; Bt Hitam, Sl; ?endemic.
- 175.6.19 **Argostemma klossii** Ridl., **FMP2** 28; erect herb to 15 cm tall; lowland and hill forest; NS, Jh; ?endemic.
- 175.6.20 **Argostemma lanceolatum** Ridl., **FMP2** 29; erect herb to 20 cm tall; montane forest; Cameron Highlands, Ph; ?endemic.
- 175.6.21 **Argostemma longifolium** Benn., **FMP5** 315; *Argostemma spinulosum* C.B. Clarke, **FMP2** 29; erect herb to 20 cm tall; montane forest; Pk, Sl, Jh.
- 175.6.22 **Argostemma longistipulum** Ridl., **FMP5** 315; woody-stemmed herb to 20 cm tall; hill forest; NS, Jh; ?endemic.
- 175.6.23 **Argostemma muscicola** Ridl., **FMP2** 25; small creeping herb to 5 cm tall; wet mountain rocks; Gg Tahan, Ph; ?endemic.
- 175.6.24 **Argostemma nervosum** Ridl., **FMP2** 27; creeping herb to 20 cm tall; montane forest; Sl; ?endemic.
- 175.6.25 **Argostemma neurosepalum** Bakh.f., **B07** 331; *Argostemma acuminatum* auct. non King, **FMP2** 23 in part; herb about 20 cm tall; on limestone rocks; only known from Lenggong, Pk; endemic.
- 175.6.26 **Argostemma nigrum** M.R. Hend., **H30** 220; creeping herb; montane forest; Gg Benom, Ph; ?endemic.
- 175.6.27 **Argostemma nutans** King, **FMP2** 24; succulent herb to 30 cm tall; hill forest; Pk; ?endemic.
- 175.6.28 **Argostemma oblongum** King, **FMP2** 31; herb to 15 cm tall; hill forests; Pk, Sl, NS, Jh; ?endemic.
- 175.6.29 **Argostemma ophirens** Maing. ex Hook.f., **FMP2** 32, **B33** 18; herb to 25 cm tall; montane forest; Pk, Ph, Sl, Ml, Jh.
- 175.6.30 **Argostemma perakense** King, **FMP2** 31; herb; Pk; ?very dubious species.
- 175.6.31 **Argostemma pictum** Wall., **FMP2** 24 in part; succulent herb to 15 cm tall; damp rocks in montane forest; widespread.
- 175.6.32 **Argostemma propinquum** Ridl., **FMP2** 29; erect hairy herb to 10 cm tall; forest; Tg, Pk; ?endemic.
- 175.6.33 **Argostemma reptans** Ridl., **FMP2** 34; slender creeping herb to 10 cm tall; in rocky streams; Gg Jerai, Kd; ?endemic.

- 175.6.34 **Argostemma rugosum** Ridl., **FMP2** 30; herb to 10 cm tall; montane forest; Gg Mengkuang Lebah, Sl; ?endemic.
- 175.6.35 **Argostemma stipulaceum** Ridl., **FMP2** 30; herb to 30 cm tall; lowland forest; Kuala Lebir, Kl; ?endemic.
- 175.6.36 **Argostemma subcrassum** King, **FMP2** 30; succulent herb to 45 cm tall; lower montane forest; Pk, Ph, Sl; ?endemic.
- 175.6.37 **Argostemma subinaequale** Benn., **FMP2** 23; fleshy herb to 20 cm tall; Pk.
- 175.6.38 **Argostemma tenue** Ridl., **FMP2** 26; small tuberous herb; on rocks in streams; NS; ?endemic.
- 175.6.39 **Argostemma trichanthum** Ridl., **FMP2** 29; small creeping herb; hill forest; Sl; ?endemic.
- 175.6.40 **Argostemma unifolioides** King, **FMP2** 26; tuberous herb to 20 cm tall; on rocks in hill forest; Pk; ?endemic.
- 175.6.41 **Argostemma unifolium** Benn., **FMP2** 26; tuberous herb to 20 cm tall; on rocks in hill forest; Kd, Pn, Ml, Jh; ?endemic.
- 175.6.42 **Argostemma urticifolium** King, **FMP2** 25; herb to 30 cm tall; montane forest; Pk, Ph, Sl.
- 175.6.43 **Argostemma viscidum** Ridl., **FMP2** 25; sticky herb to 15 cm tall; on rocks near mountain streams; Cameron Highlands, Ph; ?endemic.
- 175.6.44 **Argostemma wrayi** King, **FMP2** 34; slender procumbent herb; montane forest; Pk; ?endemic.
- 175.6.45 **Argostemma yappii** King, **FMP2** 24; succulent herb to 30 cm tall; on banks in montane forest; Pk, Ph, Sl; ?endemic.
- 175.7.1 **Brachytome scortechinii** King & Gamble, **FMP2** 70, **W26** 22, **T14** 293, **TFM4** 340; shrub to 4 m tall; montane forest above 900 m; Kd, Pk, Ph.
- 175.8.1 **Canthium aciculatum** Ridl., **FMP2** 124, **C15** 142, **TFM4** 341; spiny shrub; on limestone; Kd, Kl, Pk; endemic.
- 175.8.2 **Canthium cochinchinense** Pierre *ex* Pit., **TFM4** 342 '*cochinchinensis*'; shrub or small tree; open areas and rocky places near the sea; P. Langkawi, Tg.
- 175.8.3 **Canthium confertum** Korth., **FMP2** 125, **TFM4** 342; tree to 18 m tall; lowland to lower montane forest; throughout.
- 175.8.4 **Canthium congestiflorum** Ridl., **FMP2** 126, **TFM4** 342; small tree; lowland forest; Jh; endemic.

- 175.8.5 **Canthium depressinerve** Ridl., **FMP2** 124, **TFM4** 341; shrub to 4 m tall; lowland forest; throughout.
- 175.8.6 **Canthium glabrum** Blume, **FMP2** 124, **TFM4** 343; tree to 25 m tall; lowland to montane forest; widespread.
- 175.8.7 **Canthium hirtellum** Ridl., **FMP5** 317, **TFM4** 342; thorny shrub; lowland to lower montane forest; Kl, Ph, Sl, NS, Jh.
- 175.8.8 **Canthium horridum** Blume, **FMP2** 123, **TFM4** 341; spiny scrambling shrubs; lowland forest margins; throughout.
- 175.8.9 **Canthium molle** King & Gamble, **FMP2** 123, **TFM4** 341; spiny liana; lowland forest; Ml, Sp; endemic.
- 175.8.10 **Canthium pauciflorum** King & Gamble, **FMP2** 123, **TFM4** 342; shrub or small tree to 4 m tall; Pk; endemic.
- 175.8.11 **Canthium scabridum** Ridl., **FMP5** 317, **TFM4** 342; spiny shrub; Kluang, Jh; ?endemic.
- 175.8.12 **Canthium strigosum** Craib, **TFM4** 341; shrub to 1.5 m tall; lowland forest; P. Langkawi.
- 175.8.13 **Canthium strychnoides** Craib, **FMP4** 342; shrub or small tree; lowland to lower montane forest; Kl, Tg.
- 175.8.14 **Canthium** sp. 1, **TFM4** 341; shrub or small tree to 5 m tall; lowland forest; Pk, Ph, Sl; ?endemic.
- 175.8.15 **Canthium** sp. 2, **TFM4** 342; shrub or small tree to 10 m tall; lowland forest; P. Langkawi; ?endemic.
- 175.8.16 **Canthium** sp. 3, **TFM4** 342; climber; hill forest; Bt Pengantin, Jh; ?endemic.
- 175.9.1 **Catunaregam spinosa** (Thunb.) Tirveng., **W26** 25; *Randia oocarpa* Ridl., **FMP2** 71; thorny shrub or small tree; lowland forest; Ps, P. Langkawi, Kd, Tg, Pk, Ph, Sl, NS.
- 175.9.2 **Catunaregam tomentosa** (Blume ex DC.) Tirveng., **W26** 26; *Randia tomentosa* (Blume ex DC.) Hook.f., **FMP2** 72; large spiny shrub; open sandy places; Kl, Tg.
- 175.10.1 **Cerisoides perakensis** (King & Gamble) K.M. Wong, **W26** 27, **TFM4** 343; *Randia perakensis* King & Gamble, **FMP2** 72; small spiny tree to 5 m tall; twice collected in Pk; endemic.
- 175.11.1 **Chassalia bracteata** Ridl., **FMP2** 143; shrub to 60 cm tall; lower montane forest; Semangkok Pass, Sl; ?endemic.
[**TFM4** 344 says probably *Cephaelis*].

- 175.11.2 **Chassalia chartacea** Craib, **TFM4** 344; shrub to 3 m tall; lowland to lower montane forest; widespread.
- 175.11.3 **Chassalia curviflora** (Wall.) Thwaites, **FMP2** 142, **TFM4** 344; shrub to 2 m tall; lowland and hill forest; Kd, Pn.
- 175.11.4 **Chassalia longifolia** (Dalzell) K.M. Wong, **TFM4** 344; *Chassalia curviflora* (Wall.) Thwaites var. *longifolia* (Dalzell) Hook.f., **FMP2** 142; shrub to 2 m tall; lowland and hill forest; Kl, Pn, Pk, Ph, Jh.
- 175.11.5 **Chassalia minor** Ridl., **FMP2** 142, **TFM4** 344; shrub to 2 m tall; montane forest at 1200–1600 m; Kd, Pk, Ph, Sl; endemic.
- 175.11.6 **Chassalia pubescens** Ridl., **FMP2** 143, **TFM4** 344; shrub to 2 m tall; lowland forest; Kl, Ph, Sl, Jh, Sp; endemic.
- 175.12.1 **Coelospermum truncatum** (Wall.) Baill. ex K. Schum., **FMP2** 121, **J13** 277; *Coelospermum biovulatum* C.B. Clarke ex Ridl., **FMP2** 121; *Coelospermum scandens* Blume, **FMP2** 121; liana climbing to 15 m; forest margins; widespread.
- 175.13.1 **Coptophyllum bracteatum** Korth., **P27** 18; *Pomazota rivularis* M.R. Hend., **H33** 411, **B27** 201; *Coptophyllum capitatum* auct. non Miq., **FMP2** 43; shrub to 30 cm tall; hill forest; Pk, Sl, Jh.
- 175.13.2 **Coptophyllum sylvestre** (Ridl.) I.M. Turner, **T24** 222; *Pomazota sylvestris* Ridl., **FMP2** 43, **B27** 199; sparsely-branched herb to 10 cm tall; open places in lowland forest; Ph.
- 175.14.1 **Coptosapelta griffithii** Hook.f., **FMP2** 17; liana; lowland forest; widespread.
- 175.14.2 **Coptosapelta parviflora** Ridl., **FMP2** 18; lofty liana; lowland forest; Pn, Sp.
- 175.14.3 **Coptosapelta tomentosa** (Blume) Valetton ex K. Heyne, **K09** 153; *Coptosapelta flavescens* Korth., **FMP2** 17; high-climbing liana; lowland forest; widespread.
- 175.15.1 **Dentella repens** (L.) J.R. Forst. & G. Forst., **FMP2** 44, **M44** 500; small prostrate herb; waste places; widespread.
- 175.16.1 **Diodia ocyimifolia** (Willd. ex Roem. & Schult.) Bremek., **K09** 153; herb to 1 m tall; waste places, forest margins; Sp; naturalized from tropical America.
- 175.16.2 **Diodia sarmentosa** Sw., **FMP2** 174; scrambling herb; damp waste places; widespread; naturalized from tropical America.
- 175.17.1 **Diplospora beccariana** King & Gamble, **FMP2** 86, **TFM4** 345; *Discospermum beccarianum* (King & Gamble) S.J. Ali & Robbr., **A08** 300; tree to 15 m tall; wet lowland forest; Tg, Pk, Jh.

- 175.17.2 **Diplospora kunstleri** King & Gamble, **FMP2** 87, **TFM4** 345; *Diplospora pubescens* auct. non Hook.f., **FMP2** 88; shrub or small tree to 4 m tall; montane forest 1100–1400 m; Pk, Ph, MI; endemic.
- 175.17.3 **Diplospora lasiantha** Ridl., **FMP2** 88, **TFM4** 345; shrub; lowland to montane forest; Pk, Ph, NS, Jh; ?endemic.
- 175.17.4 **Diplospora majumdarii** M.G. Gangop. & Chakrab., **G02** 86; tree/shrub; lower montane forest; Pk; endemic.
- 175.17.5 **Diplospora malaccensis** Hook.f., **FMP2** 86, **TFM4** 346; tree to 18 m tall; lowland to montane forest at 1500 m; throughout. [not *Diplospora* according to **A08** 298].
- 175.17.6 **Diplospora stylosa** Ridl., **TFM4** 345; *Coffea viridiflora* Ridl., **FMP2** 111 in part; shrub; lowland forest; Kd.
- 175.17.7 **Diplospora velutina** King & Gamble, **FMP2** 87, **TFM4** 345; small tree to 5 m tall; lower montane forest; Selama, Pk; endemic.
- 175.17.8 **Diplospora wrayi** King & Gamble, **FMP2** 87, **TFM4** 345, **A08** 300; *Coffea viridiflora* Ridl., **FMP2** 111 in part; shrub to 4 m tall; lowland to lower montane forest; Pk, Ph, SI; endemic.
- 175.18.1a **Fagerlindia fasciculata** (Roxb.) Tirveng. var. **fasciculata**, **T13** 458, **W26** 29, **TFM4** 346; *Randia fasciculata* (Roxb.) DC., **FMP2** 73; *Randia hirsuta* Ridl., **FMP2** 73; shrub or small tree to 6 m tall; lowland and hill forest; Ps, Kd, KI, Tg, Pn, Pk, Ph, MI, Jh.
- 175.18.1b **Fagerlindia fasciculata** (Roxb.) Tirveng. var. **parviflora** (King & Gamble) K.M. Wong, **W26** 31, **TFM4** 346; shrub or small tree to 6 m tall; lowland and hill forest; P. Langkawi, Kd, Pn; endemic variety.
- 175.19.1 **Gaertnera grisea** Hook.f. ex C.B. Clarke, **FMP2** 431, **V01** 373, **TFM4** 347; shrub or small tree to 5 m tall; lowland and hill forest; SI, Jh, Sp.
- 175.19.2 **Gaertnera obesa** Hook.f. ex C.B. Clarke, **FMP2** 431, **V01** 381, **TFM4** 347; shrub to 4 m tall; damp lowland forest, often near rivers; MI, Jh, Sp; endemic.
- 175.19.3a **Gaertnera oblanceolata** King & Gamble var. **diversifolia** (Ridl.) Beusekom, **V01** 384; *Gaertnera diversifolia* Ridl., **FMP2** 430; *Gaertnera intermedia* Ridl., **FMP2** 430; *Gaertnera lanceolata* Ridl., **FMP2** 430; *Gaertnera rigida* Ridl., **FMP2** 430; *Gaertnera ovata* Ridl., **FMP2** 431; *Gaertnera latifolia* Ridl., **FMP5** 323; *Gaertnera oblanceolata* King & Gamble, **TFM4** 347 in part; shrub to 3 m tall; hill and montane forest to 1500 m; Ph, SI, NS.
- 175.19.3b **Gaertnera oblanceolata** King & Gamble var. **oblanceolata**, **V01** 384; *Gaertnera oblanceolata* King & Gamble, **FMP2** 429, **TFM4** 347 in part; shrub to 3 m tall; hill and montane forest to 1500 m; Pk, SI.

- 175.19.4 **Gaertnera schizocalyx** Bremek., **V01** 372, **TFM4** 347; shrub to 1.5 m tall; riverine or swampy lowland forest; a few times from Jh.
- 175.19.5 **Gaertnera vaginans** (DC.) Merr. ssp. **junghuhniana** (Miq.) Beusekom, **V01** 385, **TFM4** 348; *Gaertnera sessiliflora* Ridl., **FMP2** 427; *Gaertnera acuminata* Benth., **FMP2** 427 incl. var. *oxyphylla* (Benth.) Ridl. and var. *montana* Ridl.; *Gaertnera caudata* Ridl., **FMP2** 429; *Gaertnera pedicellata* Ridl., **FMP2** 429; *Gaertnera ramosa* Ridl., **FMP2** 429; shrub or small tree to 10 m tall; lowland to montane forest; throughout.
- 175.19.6 **Gaertnera viminea** Hook.f. ex C.B. Clarke, **FMP2** 427, **V01** 377, **TFM4** 348; shrub to 3 m tall; lowland forest; NS, Jh, Sp.
- 175.20.1 **Gardenia carinata** Wall., **FMP2** 82, **TFM4** 349; small tree to 15 m tall; lowland and hill forest; commonest in the north.
- 175.20.2 **Gardenia coronaria** Buch.-Ham., **W22** 27, **TFM4** 349; small tree; only known from P. Langkawi.
- 175.20.3 **Gardenia griffithii** Hook.f., **FMP2** 83, **TFM4** 349; small tree; lowland forest; south of Malaya; ?endemic.
- 175.20.4 **Gardenia pterocalyx** Veleton, **W22** 27, **TFM4** 349; small tree to 5 m tall; swamp forest, heath forest, hill forest; Tg, Ph.
- 175.20.5a **Gardenia tubifera** Wall. var. **subcarinata** Corner, **TFM4** 350; *Gardenia tubifera* Wall., **FMP2** 82 in part; *Gardenia resinifera* Korth., **FMP2** 82; tree usually 8-15 m but sometimes to 25 m tall; lowland and hill forest; Kd, Kl, Tg, Pn, Pk, Ph, Sl, Ml, Jh, Sp.
- 175.20.5b **Gardenia tubifera** Wall. var. **tubifera**, **TFM4** 350; *Gardenia tubifera* Wall., **FMP2** 82 in part; *Gardenia elata* Ridl., **FMP2** 83; *Gardenia speciosa* [non Salisb.] (Hook.) Hook.f., **FMP2** 83; tree usually 8-15 m but sometimes to 25 m tall; lowland and hill forest; Kd, Kl, Tg, Pk, Ph, Sl, NS, Ml, Jh, Sp.
- 175.21.1 **Gardeniopsis longifolia** Miq., **FMP2** 112, **TFM4** 350; shrub or small tree to 8 m tall; lowland to montane forest; throughout.
- 175.22.1 **Gentingia subsessilis** (King & Gamble) J.T. Johanss. & K.M. Wong, **J15** 352, **TFM4** 425; *Prismatomeris subsessilis* King & Gamble, **FMP2** 117, **TFM4** 395; shrub to 4 m tall; montane forest above 1200 m; Pk, Ph, Sl; endemic.
- 175.23.1 **Geophila humifusa** King & Gamble, **FMP2** 146; slender creeping herb; Pk; ?endemic.
- 175.23.2 **Geophila melanocarpa** Ridl., **FMP2** 147; creeping herb to 10 cm tall; hill forest; Pk, Sl; ?endemic.
- 175.23.3 **Geophila pilosa** H. Pearson, **FMP2** 146; long-creeping herb; lowland forest; Sp.

- 175.23.4 ***Geophila repens*** (L.) I.M. Johnst. var. ***asiatica*** (Cham. & Schltdl.) Fosberg, **F14** 58; *Geophila reniformis* D. Don, **FMP2** 147; *Geophila herbacea* (Jacq.) K. Schum; creeping herb to 10 cm tall; lowland forest; widespread.
- 175.23.5 ***Geophila scortechinii*** King, **FMP2** 148; creeping herb; Pk; ?endemic.
- 175.24.1 ***Greenea corymbosa*** (Jack) K. Schum., **TFM4** 351; *Greenea jackii* Wight & Arn., **FMP2** 19; shrub or small tree to 10 m tall; rocky coasts and hill ridges to 700 m; widespread.
- 175.25.1 ***Guettarda speciosa*** L., **FMP2** 112, **W27** 496, **TFM4** 351; tree to 10 m tall; sea shores; all coasts.
- 175.26.1 ***Gynochthodes coriacea*** Blume, **FMP2** 122; high-climbing liana; lowland forest; NS, Sp.
- 175.26.2 ***Gynochthodes macrophylla*** Kurz, **FMP2** 122; liana; lowland to montane forest; Pk.
- 175.26.3 ***Gynochthodes sublanceolata*** Miq., **FMP2** 122; slender liana; open country, forest margins; widespread, commonest in the south.
- 175.27.1 ***Haldina cordifolia*** (Roxb.) Ridsdale, **R16** 361, **TFM4** 353; tree to 40 m tall; lowland forest; once from Ps.
- 175.28.1 ***Hedyotis andamanica*** Kurz, **FMP2** 49; slender creeping herb; montane forest; Gg Senyum, Ph.
- 175.28.2 ***Hedyotis auricularia*** L., **FMP2** 49; wiry herb to 60 cm tall; open places, roadsides; widespread.
- 175.28.3 ***Hedyotis biflora*** (L.) Lam., **F18** 333, **F16** 65; *Oldenlandia paniculata* L., **FMP2** 53; *Oldenlandia biflora* L., **H01** 689; herb; waste places; Pn, Sp.
- 175.28.4 ***Hedyotis brachypoda*** (DC.) Sivar. & Biju, **S26** 672; *Oldenlandia diffusa* auct. non (Willd.) Roxb., **FMP2** 54 in part; straggling herb; open sandy places; Sp at least.
- 175.28.5 ***Hedyotis capitellata*** Wall. ex G. Don, **FMP2** 46, **F18** 326; scrambling herb; lowlands to mountains; common and widespread.
- 175.28.6 ***Hedyotis coronaria*** (Kurz) Craib, **F18** 320, **C15** 143; *Hedyotis coronata* Wall. ex Hook.f. & B.D. Jacks., **FMP2** 48; slender decumbent herb 15-20 cm tall; lowland and hill forest, often on limestone; north of Malaya.
- 175.28.7 ***Hedyotis corymbosa*** (L.) Lam., **F18** 333, **F16** 67, **M47** 502; *Oldenlandia corymbosa* L., **FMP2** 54, **V38** 308, **H01** 690; herb to 30 cm tall; common in open sandy places; widespread.
- 175.28.8 ***Hedyotis cyanantha*** Kurz, **F16** 69; *Hedyotis caerulea* auct. non (L.) Hook., **FMP2** 52; wiry herb to 20 cm tall; Pn.

- 175.28.9 **Hedyotis dichotoma** Koenig ex Roth, **F18** 332; *Oldenlandia dichotoma* (Koenig ex Roth) Hook.f., **FMP2** 53; much-branched herb to 30 cm tall; garden weed and open sandy places; widespread.
- 175.28.10 **Hedyotis diffusa** Willd., **F18** 333, **S26** 672, **M47** 504; *Oldenlandia diffusa* (Willd.) Roxb., **FMP2** 54 in part; straggling herb; open sandy places; widespread.
- 175.28.11 **Hedyotis flexuosa** Ridl., **FMP2** 47; slender herb to 30 cm tall; on rocks in lowlands and hills; Kd, Ml, Jh; ?endemic.
- 175.28.12 **Hedyotis globiceps** Ridl., **FMP2** 47, **F18** 336; herb to 30 cm tall; damp places; P. Langkawi.
- 175.28.13 **Hedyotis havilandii** King, **FMP2** 50; herb to 30 cm tall; Pn, Pk, Ph.
- 175.28.14 **Hedyotis herbacea** L., **F18** 335; *Oldenlandia heynei* (R.Br. ex Wight & Arn.) G. Don, **FMP2** 54; *Oldenlandia herbacea* (L.) Roxb., **V38** 305; bushy herb to 60 cm tall; open sandy places, often near the sea; widespread.
- It is possible that this is really *Hedyotis lancifolia* Schumach. [**V38** 292].
- 175.28.15 **Hedyotis insularis** (Spreng.) Deb & R. Dutta, **D20** 285; *Hedyotis glabra* R.Br. ex Wall., **FMP2** 48, **F18** 312; slender branched herb to 60 cm tall; dry places in lowland and hill forest; Ps, Kd, Pn, Pk.
- 175.28.16 **Hedyotis kunstleri** King, **FMP2** 50; herb to 45 cm tall; near hill forest streams; Ulu Kerling, Pk; ?endemic.
- 175.28.17 **Hedyotis lindleyana** Hook. ex Wight & Arn., **F18** 327; *Hedyotis stipulata* R.Br. ex Hook.f., **FMP2** 48; slender creeping herb; on rocks in mountain streams; Pk, Ph.
- 175.28.18 **Hedyotis maingayi** Hook.f., **FMP2** 46; herb to 30 cm tall; open grassy places on mountains; Gg Ledang, Ml; ?endemic.
- 175.28.19 **Hedyotis mollis** Wall. ex G. Don, **FMP2** 45; scandent herb; hill forest; north of Malaya.
- 175.28.20 **Hedyotis nitida** Wight & Arn., **FMP2** 51; diffuse wiry herb; Pn, Pk.
- 175.28.21 **Hedyotis ovatifolia** Cav., **F18** 334; *Oldenlandia nudicaulis* Roth, **FMP2** 53; *Oldenlandia ovatifolia* (Cav.) DC., **C15** 145; *Oldenlandia rosettifolia* Geddes, **C15** 146; small herb to 15 cm tall; on limestone; P. Langkawi.
- 175.28.22 **Hedyotis pachycarpa** Ridl., **FMP2** 50, **F18** 314; herb to 30 cm tall; damp forest near the sea; Kl.
- 175.28.23 **Hedyotis patens** Ridl., **FMP2** 46; herb to 60 cm tall; rocky slopes on mountains; Gg Tahan, Ph; ?endemic.

- 175.28.24 **Hedyotis peduncularis** King, **FMP2** 47; herb; open grassy places on mountains; Gg Jerai, Kd; ?endemic.
- 175.28.25 **Hedyotis philippinensis** (Willd. ex Spreng.) Merr. ex C.B. Rob., **F18** 315, **H01** 716; *Hedyotis congesta* R.Br. ex G. Don, **FMP2** 51 incl. var. *nicobarica* King; herb to 60 cm tall; lowland and hill forests; widespread.
- 175.28.26 **Hedyotis pinifolia** Wall. ex G. Don, **FMP2** 52, **F18** 324; *Oldenlandia pinifolia* (Wall. ex G. Don) K. Schum.; diffuse wiry herb; open sandy places; widespread.
- 175.28.27 **Hedyotis prainiana** King, **FMP2** 45, **F18** 324; scandent herb; once from Telok Bahang, Pn.
- 175.28.28 **Hedyotis pterita** Blume, **F18** 332; *Oldenlandia alata* (non Koenig) Roxb., **FMP2** 53; *Oldenlandia pterita* (Blume) Miq., **C15** 146; succulent herb to 30 cm tall; open places, garden weed, on limestone; Ps, Ml.
- 175.28.29 **Hedyotis pumila** L.f., **T05** 131; *Oldenlandia pumila* (L.f.) DC., **V38** 307; herb; weed of lawns and waste ground; Sp.
- 175.28.30 **Hedyotis rivalis** Ridl., **FMP2** 47; rheophytic herb to 1 m tall; on rocks in river; Ph, Jh; endemic.
- 175.28.31 **Hedyotis similis** Geddes, **F18** 324; scandent herb; locality unclear.
- 175.28.32 **Hedyotis stelligera** Ridl., **FMP2** 47; herb to 60 cm tall; open sandy places; once from Besut, Tg.
- 175.28.33 **Hedyotis tenelliflora** Blume, **FMP2** 51, **F18** 322; slender erect herb to 40 cm tall; open dry places; widespread.
- 175.28.34 **Hedyotis tetrandia** (Roxb.) Craib, **F18** 315; *Hedyotis macrophylla* Wall. ex Wight & Arn., **FMP2** 50; herb to 30 cm tall; sporadic.
- 175.28.35 **Hedyotis trinervia** (Retz.) Roem. & Schult., **K09** 155; *Oldenlandia trinervia* Retz., **FMP2** 55; small prostrate herb; open sandy places; quite widespread.
- 175.28.36 **Hedyotis verticillata** (L.) Lam., **F18** 322, **F16** 81; *Oldenlandia verticillata* L.; *Hedyotis hispida* Retz., **FMP2** 52; herb to 60 cm tall; open places; north of Malaya.
- 175.28.37 **Hedyotis vestita** R.Br. ex G. Don, **FMP2** 49, **F18** 312, **F16** 82; *Oldenlandia vestita* (R.Br. ex G. Don) Drake; herb to 1 m or more tall; open ground; common and widespread.
- 175.28.38 **Hedyotis viarum** (Craib) Fukuoka, **F18** 331; herb; waste places; Pn, Sp.
- 175.29.1 **Hydnophytum formicarum** Jack, **FMP2** 172; large tuberous myrmecophytic epiphyte; forest near the sea, also in the mountains; widespread.

- 175.30.1 **Hymenodictyon orixense** (Roxb.) Mabb., **M04** 66, **N11** 224; *Hymenodictyon excelsum* (Roxb.) Wall. ex DC., **FMP2** 18, **TFM4** 353; tree to 12 m tall; lowland forest; P. Langkawi, Kd.
- 175.31.1 **Hypobathrum coniferum** (Ridl.) Bakh.f., **K09** 156; *Petunga conifera* Ridl., **FMP2** 85; *Hypobathrum* sp. 11, **TFM4** 355; tree to 9 m tall; lowland forest; only known from type; Botanic Gardens' Jungle, Sp; endemic.
- 175.31.2a **Hypobathrum longifolium** (DC.) K.M. Wong var. **hirtum** (Ridl.) K.M. Wong, **TFM4** 354 'hirta'; small tree to 4 m tall; lowland to hill forest; Kl, Pk, Ph.
- 175.31.2b **Hypobathrum longifolium** (DC.) K.M. Wong var. **longifolium**, **TFM4** 354; *Petunga longifolia* DC., **FMP2** 84; small tree to 4 m tall; lowland to hill forest; Kl, Pn, Pk, Ph.
- 175.31.3 **Hypobathrum microcarpum** (Blume) Bakh.f., **TFM4** 355; small tree; lowland forest; once from Ps.
- 175.31.4 **Hypobathrum racemosum** (Roxb.) Kurz, **TFM4** 355; *Petunga roxburghii* DC., **FMP2** 84; *Petunga floribunda* (King & Gamble) Ridl., **FMP2** 85; small tree to 12 m tall; wet lowland forest; widespread.
- 175.31.5 **Hypobathrum venulosum** (Hook.f.) K.M. Wong, **TFM4** 355; *Petunga venulosa* Hook.f., **FMP2** 85; tree to 6 m tall; lowland and hill forest; widespread; ?endemic.
- 175.31.6 **Hypobathrum** sp. 1, **TFM4** 355; *Diplospora minutiflora* Ridl., **FMP2** 87; small tree to 4 m tall; lowland and hill forest; Chaning, Kl; Kuala Lompat, Ph; endemic.
- 175.31.7 **Hypobathrum** sp. 2, **TFM4** 355; tree to 10 m tall; lowland forest; Pk, Ml; ?endemic.
- 175.31.8 **Hypobathrum** sp. 3, **TFM4** 355; small tree to 11 m tall; lowland forest; Ph, Ml; ?endemic.
- 175.31.9 **Hypobathrum** sp. 4, **TFM4** 355; small tree; swampy lowland forest; Pk, Jh; ?endemic.
- 175.31.10 **Hypobathrum** sp. 5, **TFM4** 355; small tree to 4 m tall; Tasek Bera, Ph; ?endemic.
- 175.31.11 **Hypobathrum** sp. 6, **TFM4** 355; shrub to 2 m tall; Kluang, Jh; ?endemic.
- 175.31.12 **Hypobathrum** sp. 7, **TFM4** 354; shrub or small tree; lowland forest; Lemoi, Ph; ?endemic.
- 175.31.13 **Hypobathrum** sp. 8, **TFM4** 355; small tree to 4 m tall; lowland forest; Kl, Tg; ?endemic.

- 175.31.14 **Hypobathrum** sp. 9, **TFM4** 355; shrub; hill forest at 700 m; Gg Tapis, Ph; ?endemic.
- 175.31.15 **Hypobathrum** sp. 10, **TFM4** 355; shrub to 2 m tall; swampy forest; Mawai, Jh; ?endemic.
- 175.32.1 **Ixora brunonis** Don, **FMP2** 91, **TFM4** 356; shrub to 3 m tall; lowland forest; Kd, Pn, Pk.
- 175.32.2 **Ixora clerodendron** Ridl., **FMP2** 91, **TFM4** 358; *Ixora pumila* Ridl., **FMP2** 91; shrub to 4 m tall; lowland forest, also on limestone; Kd, Tg, Ph; endemic.
- 175.32.3 **Ixora concinna** Hook.f., **FMP2** 95, **TFM4** 360; shrub to 8 m tall; lowland and hill forest; throughout.
- 175.32.4 **Ixora congesta** Roxb., **FMP2** 93, **TFM4** 361; shrub or small tree to 6 m tall; lowland and hill forest to 1000 m; throughout.
- 175.32.5a **Ixora grandifolia** Zoll. & Moritz var. **grandifolia**, **FMP2** 97, **TFM4** 364; *Ixora fluminalis* Ridl., **FMP2** 97; *Ixora crassifolia* (non Merr.) Ridl., **FMP2** 98; *Ixora elliptica* Ridl., **FMP2** 98; *Ixora ridleyi* Merr., **M28** 132; shrub or tree to 18 m tall; lowland and hill forest; throughout.
- 175.32.5b **Ixora grandifolia** Zoll. & Moritz var. **lancifolia** Corner, **TFM4** 364; shrub or tree to 18 m tall; lowland and hill forest; Kl, Tg, Pn, Ph, NS, Ml, Jh.
- 175.32.6a **Ixora javanica** (Blume) DC. var. **javanica**, **TFM4** 360; *Ixora stricta* auct. non Roxb., **FMP2** 94 in part incl. var. *amoena* (Don) Ridl.; shrub to 4 m tall; lowland and hill forest, often cultivated; widespread.
- 175.32.6b **Ixora javanica** (Blume) DC. var. **retinervia** Corner, **TFM4** 360; shrub or small tree to 9 m tall; lowland and hill forest to 1000 m; widespread; endemic variety.
- 175.32.7 **Ixora kingstonii** Hook.f., **TFM4** 358; shrub or small tree to 8 m tall; swampy lowland forest; Tg, Pk, Ph, Sl, Ml, Jh; endemic.
- 175.32.8a **Ixora lobbii** King & Gamble var. **lobbii**, **FMP2** 93 incl. var. *angustifolia* King & Gamble, **TFM4** 361; shrub or small tree to 6 m tall; lowland to montane forest at 1200 m; throughout.
- 175.32.8b **Ixora lobbii** King & Gamble var. **stenophylla** Corner, **TFM4** 361; *Ixora stenophylla* sensu Ridl., **FMP2** 94; shrub to 2 m tall; rocky stream banks in lowland forest; widespread.
- 175.32.9 **Ixora micrantha** Ridl., **FMP2** 98, **TFM4** 360; *Ixora patens* Ridl., **FMP2** 98; *Ixora undulata* auct. non Roxb., **FMP2** 98; shrub or small tree to 10 m tall; hill and montane forest above 700 m; Pk, Ph, Sl; endemic.

- 175.32.10a ***Ixora nigricans*** Wight & Arn. var. ***nigricans***, **TFM4** 359; *Ixora arguta* King, **FMP2** 92; *Ixora plumea* Ridl., **FMP2** 92; shrub to 4 m tall; lowland forest, also on limestone; widespread.
- 175.32.10b ***Ixora nigricans*** Wight & Arn. var. ***ovalis*** Pit., **TFM4** 359; shrub to 3 m tall; lowland forest, also on limestone; Kd, Kl, Pn, Pk.
- 175.32.11a ***Ixora pendula*** Jack var. ***montana*** (Ridl.) K.M. Wong, **TFM4** 359; *Ixora montana* Ridl., **FMP2** 97; shrub to 7 m tall; montane forest above 1200 m; Pk, Ph, Sl; endemic variety.
- 175.32.11b ***Ixora pendula*** Jack var. ***pendula***, **FMP2** 95 incl. var. *opaca* (Don) Ridl., **TFM4** 359; *Ixora candida* Ridl., **FMP2** 95; *Ixora diversifolia sensu* King & Gamble, **FMP2** 96; shrub or small tree to 10 m tall; lowland and hill forest to 600 m; throughout.
- 175.32.12 ***Ixora robinsonii*** Ridl., **FMP2** 92, **TFM4** 360; shrub or small tree to 7 m tall; montane forest about 1100 m; Kl, Tg, Ph; endemic.
- 175.32.13a ***Ixora scortechinii*** King & Gamble var. ***caulescens*** Corner, **TFM4** 358; shrub to 4 m tall; lowland forest; Kl, Pk, Ph, Sl.
- 175.32.13b ***Ixora scortechinii*** King & Gamble var. ***scortechinii***, **TFM4** 357; *Ixora humilis* King & Gamble, **FMP2** 94 incl. var. *scortechinii* Ridl.; shrub to 1 m tall; lowland forest; Kl, Tg, Pn, Pk, Ph, Ml; endemic variety.
- 175.32.14a ***Ixora umbellata*** Koord. & Valetton var. ***multibracteata*** (H. Pearson ex King & Gamble) Corner, **TFM4** 358; *Ixora multibracteata* H. Pearson ex King & Gamble, **FMP2** 92; shrub to 2 m tall; lowland forest; Ps, Kd, Pk.
- 175.32.14b ***Ixora umbellata*** Koord. & Valetton var. ***umbellata***, **TFM4** 358; shrub to 4 m tall; lowland and hill forest, also limestone; throughout.
- 175.33.1 ***Jackiopsis ornata*** (Wall.) Ridsdale, **R18** 296, **TFM4** 364; *Jackia ornata* Wall., **FMP2** 89; tree to 35 m tall; lowlands swamps or near rivers; widespread.
- 175.34.1 ***Kailarsenia campanula*** (Ridl.) Tirveng., **T13** 464; *Randia campanula* Ridl., **FMP2** 81; shrub to 2 m tall; open sandy places; Ps, Ph.
- 175.34.2 ***Kailarsenia tentaculata*** (Hook.f.) Tirveng., **T13** 464; *Gardenia tentaculata* Hook.f., **FMP2** 80; shrub to 1.5 m tall; river banks; widespread.
- 175.35.1 ***Keenania modesta*** Hook.f., **H35** 107; subshrub; once from Ps.
- 175.36.1 ***Klossia montana*** Ridl., **FMP2** 43; herb to 50 cm tall; montane forest; Ph, Sl; endemic.
- 175.37.1 ***Knoxia corymbosa*** L., **FMP2** 177; erect herb; open grassy places; Pn, Ml.

- 175.38.1 **Kochummenia parviflora** K.M. Wong, **W26** 34, **TFM4** 366; shrub; lowland forest; twice from Tg; endemic.
- 175.38.2 **Kochummenia stenopetala** (King & Gamble) K.M. Wong, **W26** 32, **TFM4** 366; *Randia stenopetala* (King & Gamble) Ridl., **FMP2** 79; shrub; lowland and hill forest; Pk; endemic.
- 175.38.3 **Kochummenia sp.**, **TFM4** 366; shrub to 2 m tall; once from Tg; endemic.
- 175.39.1 **Lasianthus angustifolius** King & Gamble, **FMP2** 161, **TFM4** 368; *Lasianthus stercorarius* auct. non Blume, **FMP2** 166; shrub; lowland and montane forest to 1500 m; Kd, Pk, Ph, Jh; endemic.
- 175.39.2 **Lasianthus appressus** Hook.f., **FMP2** 156, **TFM4** 371; shrub to 3 m tall; lowland and hill forest; Kd, Pn, Pk, Sl, Jh, Sp.
- 175.39.3 **Lasianthus attenuatus** Jack, **FMP2** 156, **TFM4** 367; shrub to 1 m tall; lowland and hill forest; Pk, Ph, NS, MI, Jh, Sp.
- 175.39.4 **Lasianthus barbellatus** Ridl., **FMP2** 164, **TFM4** 368; shrub to 1 m tall; lowland forest; P. Tioman, P. Pemanggil.
- 175.39.5 **Lasianthus biflorus** (Blume) M.G. Gangop. & Chakrab., **G05** 338; *Lasianthus gracilis* King & Gamble, **FMP2** 169, **TFM4** 367; shrub about 1 m tall; lowland and hill forest; P. Langkawi, Pk, Ph.
- 175.39.6 **Lasianthus bractescens** Ridl., **FMP2** 154, **TFM4** 370; shrub to 2 m tall; lowland and hill forest; Pk, Sl; endemic.
- 175.39.7 **Lasianthus conspicuus** Ridl., **FMP2** 167, **TFM4** 369; shrub to 2 m tall; montane forest at 1200 m; Pk, Ph; endemic.
- 175.39.8 **Lasianthus constrictus** Wight, **FMP2** 163, **TFM4** 369; shrub to 2 m tall; throughout.
- 175.39.9 **Lasianthus curtisii** King & Gamble, **FMP2** 161, **TFM4** 369; *Lasianthus pseudolucidus* King, **FMP2** 168; shrub to 2 m tall; hill and montane forest to 1700 m; Pn, Pk; endemic.
- 175.39.10 **Lasianthus cyanocarpus** Jack, **FMP2** 153, **TFM4** 370; shrub to 1 m tall; lowland and hill forest to 1100 m, sometimes on limestone; throughout.
- 175.39.11 **Lasianthus densifolius** Miq., **FMP2** 156 incl. var. *calycinus* King and var. *latifolius* King, **TFM4** 368; shrub or small tree to 5 m tall; lowland and hill forest; Kd, Tg, Pk, Ph, Sl, NS, MI, Jh, Sp.
- 175.39.12 **Lasianthus ellipticus** Wight, **FMP2** 159, **TFM4** 372; shrub; lowland and hill forest; Pn, Jh, Sp; endemic.

- 175.39.13a **Lasianthus filiformis** King & Gamble var. **bracteatus** King & Gamble, **TFM4** 367 '*bracteata*'; *Litosanthes filiformis* (King & Gamble) Deb & M.G. Gangop. var. *bracteata* (King & Gamble) Deb & M.G. Gangop., **D22** 222; shrub to 1 m tall; lowland and hill forest, including swamps; Tg, Pk, Ph, Sl, NS; endemic.
- 175.39.13b **Lasianthus filiformis** King & Gamble var. **filiformis**, **FMP2** 169, **TFM4** 367; *Litosanthes filiformis* (King & Gamble) Deb & M.G. Gangop. var. *filiformis*, **D22** 222; shrub to 1 m tall; lowland and hill forest; Pk, Ph; endemic.
- 175.39.14 **Lasianthus foxworthyanus** Craib, **TFM4** 369; shrub to 2 m tall; Kl.
- 175.39.15 **Lasianthus glaber** Ridl., **FMP2** 155, **TFM4** 373; shrub; lowland forest including swamps; Kl, Pk, Ph, NS, Sp; endemic.
- 175.39.16 **Lasianthus griffithii** Wight, **FMP2** 152 incl. var. *latibracteatus* King & Gamble, **TFM4** 371; shrub or small tree to 4 m tall; lowland and hill forest; Kl, Tg, Pk, Ph, Sl, NS, Ml, Jh, Sp.
- 175.39.17 **Lasianthus harveyanus** King & Gamble, **FMP2** 162, **TFM4** 370; shrub; montane forest; Pk, Ml; endemic.
- 175.39.18 **Lasianthus inaequalis** Blume, **FMP2** 155, **TFM4** 370; *Lasianthus subinaequalis* King & Gamble, **FMP2** 155; shrub to 2 m tall; lowland and hill forest; Pn, Pk, Ph, Sl, NS.
- 175.39.19 **Lasianthus lowianus** King & Gamble, **FMP2** 167, **TFM4** 368; *Lasianthus glaberrimus* Ridl., **FMP2** 166; *Amaracarpus caudatus* Ridl., **FMP2** 172; shrub to 2 m tall; lowland and montane forest to 1500 m; Kd, Pn, Kl, Tg, Pk, Ph, Sl, NS, Ml, Jh, Sp.
- 175.39.20 **Lasianthus maingayi** Hook.f., **FMP2** 160 incl. var. *subglabrus* (King) Ridl., **TFM4** 369; shrub or small tree to 3 m tall; lowland and hill forest; Kl, Tg, Pk, Ph, Sl, NS, Ml, Jh, Sp.
- 175.39.21 **Lasianthus malaccensis** King & Gamble, **FMP2** 165, **TFM4** 368; shrub or small tree to 3 m tall; hill tops and montane forest at 600–2100 m; Kl, Tg, Ph, NS, Ml, Jh; endemic.
- 175.39.22 **Lasianthus mollis** Ridl., **FMP2** 158, **TFM4** 373; shrub to 2 m tall; lowland forest; Ml; endemic.
- 175.39.23 **Lasianthus montanus** King & Gamble, **FMP2** 163, **TFM4** 373; *Lasianthus coronatus* King & Gamble, **FMP2** 157; *Lasianthus caudiculatus* Ridl., **FMP2** 167; shrub to 3 m tall; montane forest at 1200–1500 m; Pk; endemic.
- 175.39.24 **Lasianthus myrtifolius** Ridl., **FMP2** 161, **TFM4** 369; shrub to 2 m tall; montane forest above 1300 m; Cameron Highlands, Ph; endemic.

- 175.39.25 **Lasianthus nervosus** King & Gamble, **FMP2** 163, **TFM4** 367; shrub about 1 m tall; montane forest above 1500 m; Pk, Sl; endemic.
- 175.39.36 **Lasianthus oblongus** King & Gamble, **FMP2** 166, **TFM4** 368; shrub or small tree to 9 m tall; lowland and hill forest to 1200 m; Kd, Pk, Sl; endemic.
- 175.39.27 **Lasianthus pendulus** Ridl., **FMP2** 168, **TFM4** 372; *Litosanthes pendula* (Ridl.) Deb & M.G. Gangop., **D22** 222 'pendulus'; shrub to 4 m tall; montane forests at 1500–1900 m; Cameron Highlands and Gg Tahan, Ph; endemic.
- 175.39.28 **Lasianthus perakensis** King & Gamble, **FMP2** 160, **TFM4** 372; *Lasianthus flavinervius* Ridl., **FMP2** 162; shrub or small tree to 4 m tall; lowland to montane forest; Kd, Kl, Tg, Pn, Pk, Ph, Jh, Sp; endemic.
- 175.39.29 **Lasianthus pergamaceus** King & Gamble, **FMP2** 164, **TFM4** 369; *Lasianthus chinensis* auct. non Benth., **FMP2** 164; *Lasianthus longifolius* auct. non Wight, **FMP2** 164 in part; *Lasianthus crassifolius* Ridl., **FMP2** 165; shrub or small tree; hill and montane forest to 1700 m; Kl, Tg, Pk, Ph, Sl, Jh.
- 175.39.30a **Lasianthus pilosus** Wight var. **angustifolius** King & Gamble, **FMP2** 157 'angustifolia', **TFM4** 372; shrub; lowland and hill forest; Pk, Sl, Ml.
- 175.39.30b **Lasianthus pilosus** Wight var. **pilosus**, **FMP2** 157, **TFM4** 370; *Lasianthus hirtus* Ridl., **FMP2** 156; *Lasianthus ferrugineus* King & Gamble, **FMP2** 158; *Lasianthus robustus* King & Gamble, **FMP2** 165; shrub or small tree to 7 m tall; lowland forests; throughout.
- 175.39.31 **Lasianthus politus** Ridl., **FMP2** 158, **TFM4** 372; shrub or small tree to 6 m tall; hill and lower montane forest to 1100 m; Ph, Sl, NS; endemic.
- 175.39.32 **Lasianthus pterospermus** Wight, **FMP2** 160, **TFM4** 368; *Lasianthus longifolius* auct. non Wight, **FMP2** 164 in part; shrub or small tree to 3 m tall; lowland and hill forest to 1200 m; Pk, Ph, Sl, NS, Ml, Jh, Sp; endemic.
- 175.39.33 **Lasianthus retosus** Wight, **TFM4** 371; *Lasianthus pilosus* Wight var. *retosus* (Wight) Ridl., **FMP2** 157 'setosus'; shrub; lowland and hill forest; Pk, NS, Ml; endemic.
- 175.39.34 **Lasianthus rhinocerotis** Blume, **FMP2** 154, **TFM4** 372; shrub; montane forest; 1200–1800 m; Pk, Ph, Sl.
- 175.39.35 **Lasianthus ridleyi** King & Gamble, **FMP2** 154, **TFM4** 371; *Lasianthus singaporensis* King & Gamble, **FMP2** 159; *Lasianthus maingayi* Hook.f. var. *hirtus* Ridl., **FMP2** 160 'hirta'; shrub to 2 m tall; lowland and hill forest including swamps; Ph, Sl, Jh, Sp; endemic.
- 175.39.36 **Lasianthus robinsonii** Ridl., **FMP2** 169, **TFM4** 373; *Litosanthes robinsonii* (Ridl.) Deb & M.G. Gangop., **D22** 222; shrub to 2 m tall; montane forest at about 1200 m; Pk, Ph, Sl; endemic.

- 175.39.37 **Lasianthus salicifolius** Ridl., **FMP2** 166, **TFM4** 367; shrub; montane forest above 1500 m; Ph, Sl; endemic.
- 175.39.38 **Lasianthus scabridus** King & Gamble, **FMP2** 152, **TFM4** 370; shrub to 2 m tall; lowland and hill forest; Ml, Jh, Sp.
- 175.39.39 **Lasianthus scalariformis** King & Gamble, **FMP2** 167, **TFM4** 369; *Litosanthes scalariformis* (King & Gamble) Deb & M.G. Gangop., **D22** 222; shrub to 2 m tall; montane forest at 1800–2200 m; Main Range, Gg Tahan.
- 175.39.40a **Lasianthus stipularis** Blume var. **hirtus** Ridl., **FMP2** 153, **TFM4** 370; shrub to 2 m tall; lowland forest, also on limestone; Sl; endemic variety.
- 175.39.40b **Lasianthus stipularis** Blume var. **stipularis**, **FMP2** 152, **TFM4** 368; shrub to 2 m tall; lowland and hill forest; Kl, Tg, Pk, Ph, Sl, Jh, Sp.
- 175.39.41 **Lasianthus subaureus** Craib, **TFM4** 368; shrub; hill and lower montane forest; P. Langkawi, Jh.
- 175.39.42 **Lasianthus subspicatus** King & Gamble, **FMP2** 168, **TFM4** 373; *Litosanthes subspicata* (King & Gamble) Deb & M.G. Gangop., **D22** 223 'subspicatus'; small tree; montane forest; Pk, Pn.
- 175.39.43 **Lasianthus tomentosus** Blume, **FMP2** 161, **TFM4** 371; *Lasianthus chryseus* Ridl., **FMP2** 158; shrub or small tree to 5 m tall; lowland and hill forest; Tg, Ph, Sl, NS, Ml, Jh, Sp.
- 175.39.44 **Lasianthus velutinus** Ridl., **FMP2** 159, **TFM4** 372; shrub to 1 m tall; lowland forest; Kl, Tg; endemic.
- 175.39.45 **Lasianthus villosus** Ridl., **FMP2** 168, **TFM4** 371; *Litosanthes villosa* (Ridl.) Deb & M.G. Gangop., **D22** 223 'villosus'; shrub; lowland forest; Tapah, Pk; endemic.
- 175.39.46 **Lasianthus wrayi** King & Gamble, **FMP2** 162, **TFM4** 369; shrub or small tree; hill forest at 600–900 m; Kd, Ph; endemic.
- 175.39.47 **Lasianthus** sp. 1, **TFM4** 367; shrub about 1 m tall; lowland forest; Ph; endemic.
- 175.39.48 **Lasianthus** sp. 2, **TFM4** 370; small tree to 5 m tall; lowland forest; Sg Petuang, Tg; endemic.
- 175.39.49 **Lasianthus** sp. 3, **TFM4** 370; shrub; lowland forest; Gali, Ph; endemic.
- 175.39.50 **Lasianthus** sp. 4, **TFM4** 371; shrub to 2 m tall; lowland forest; Kl, Ph, Sl, NS; endemic.
- 175.39.51 **Lasianthus** sp. 5, **TFM4** 371; shrub; lowland forest; P. Tioman; endemic.

- 175.39.52 **Lasianthus sp. 6**, **TFM4** 372; shrub to 3 m tall; montane forest at 1500–1900 m; Tg, Ph; endemic.
- 175.39.53 **Lasianthus sp. 7**, **TFM4** 372; shrub to 3 m tall; hill forest; Pk, Sl; endemic.
- 175.39.54 **Lasianthus sp. 8**, **TFM4** 373; shrub; lowland forest; Ph, Jh, Sp; endemic.
- 175.40.1 **Lecananthus erubescens** Jack, **FMP2** 57; epiphytic shrub; wet lowland forest; widespread.
- 175.41.1 **Lucinaea membranacea** King, **FMP2** 56; slender climber; lowland and montane forest; widespread.
- 175.41.2 **Lucinaea morinda** DC.; scandent shrub; open sandy spots; widespread.
- 175.41.3 **Lucinaea paniculata** King, **FMP2** 56; climber; Pk; ?endemic.
- 175.41.4 **Lucinaea ridleyi** King, **FMP2** 56; epiphytic climber; montane forest; Pk.
- 175.42.1 **Metadina trichotoma** (Zoll. & Moritzi) Bakh.f., **R16** 374, **TFM4** 374; *Adina polycephala* Benth., **FMP2** 10; tree to 40 m tall; hill and montane forests to 1300 m; scattered.
- 175.43.1 **Meyna grisea** (King & Gamble) Robyns, **TFM4** 375; *Vangueria grisea* (King & Gamble) Ridl., **FMP2** 126; shrub or small spiny tree; open sandy places; Ps, P. Langkawi.
- 175.43.2 **Meyna sp.**, **TFM4** 375; shrub or small spiny tree; lowland and secondary forest; Kl, Tg.
- 175.44.1 **Mitracarpus hirtus** (L.) DC., **T19** 127; *Mitracarpus villosus* (Sw.) DC., **M47** 506; erect or spreading herb to 40 cm tall; sandy waste ground; Sl, Jh, Sp; naturalized from tropical America.
- 175.45.1 **Mitragyna diversifolia** (Wall. ex G. Don) Havil., **R17** 65, **TFM4** 375; *Mitragyne parvifolia* auct. non (Roxb.) Korth., **FMP2** 6; small tree; Ps.
- 175.45.2 **Mitragyna speciosa** (Korth.) Havil., **FMP2** 6, **R17** 65, **TFM4** 375; tree to 25 m tall; wet lowland forest; Kl, Pk, Ph, Sl.
- 175.46.1 **Morinda calciphila** K.M. Wong, **W25** 97, **TFM4** 377; climber; on limestone; P. Langkawi, Kd, Kl, Pk, Sl; endemic.
- 175.46.2 **Morinda citrifolia** L., **FMP2** 117, **W25** 94, **TFM4** 376; tree to 9 m tall; lowland forests and rocky coasts, often cultivated; scattered.
- 175.46.3 **Morinda corneri** K.M. Wong, **W25** 96, **TFM4** 376; small tree to 5 m tall; forest margins and secondary forest in the lowlands; Tg, Ph; endemic.

- 175.46.4 **Morinda elliptica** (Hook.f.) Ridl., **FMP2** 118, **W25** 94, **TFM4** 377; tree to 16 m tall; lowland secondary forest and forest margins; widespread and common.
- 175.46.5 **Morinda hispida** K.M. Wong, **W30** 269, **TFM4** 377; climber; heath forest; only known from type, Padang Temambun, Jh; endemic.
- 175.46.6 **Morinda lacunosa** King & Gamble, **FMP2** 119, **W25** 95, **TFM4** 377; liana; hill forest; a few collections from Pk.
- 175.46.7 **Morinda ridleyi** (King & Gamble) Ridl., **FMP2** 118, **W25** 96, **TFM4** 377; liana; lowland forest; south of Malaya; endemic.
- 175.46.8 **Morinda rigida** Miq., **FMP2** 118, **W25** 95, **TFM4** 377; liana; lowland to montane forest; widespread and common.
- 175.46.9 **Morinda scortechinii** (King & Gamble) Ridl., **FMP2** 118, **W25** 95, **TFM4** 377; liana; lowland forest; a few collections from Pk and Ph; endemic.
- 175.46.10 **Morinda umbellata** L., **FMP2** 119, **W25** 95, **TFM4** 377; climber; sea shores to mountains; widespread.
- 175.47.1 **Mussaenda angustisepala** Ridl., **FMP2** 60; large climber; forest margins; north of Malaya; ?endemic.
- 175.47.2 **Mussaenda cordifolia** Wall. ex G. Don, **FMP2** 62; climbing shrub; hill forest; widespread.
- 175.47.3 **Mussaenda glabra** Vahl, **FMP2** 61; shrub or climber; common in secondary forests; widespread.
- 175.47.4 **Mussaenda malaccensis** Ridl., **FMP2** 59; shrub; lowland forest; Ml; ?endemic.
- 175.47.5 **Mussaenda mutabilis** Hook.f., **FMP2** 58; scrambling shrub; lowland to montane forest; widespread.
- 175.47.6 **Mussaenda oblonga** King, **FMP2** 62; large shrub; hill forests; widespread.
- 175.47.7 **Mussaenda polyneura** King, **FMP2** 62; large climber; hill forest; Pk.
- 175.47.8 **Mussaenda purpurascens** Ridl., **FMP2** 61; scrambling shrub; montane forest; Sl; ?endemic.
- 175.47.9 **Mussaenda spectabilis** Ridl., **FMP2** 59; shrub; lowland forest; P. Tioman; ?endemic.
- 175.47.10 **Mussaenda villosa** Wall. ex Hook.f., **FMP2** 60; shrub; lowland and hill forest; widespread.

- 175.47.11 **Mussaenda wrayi** King, **FMP2** 59; scandent shrub; montane forest; widespread.
- 175.48.1 **Mussaendopsis beccariana** Baill., **FMP2** 19, **TFM4** 378; tree to 35 m tall; swampy lowland forest; Pk, Ph, Sl, NS, Ml, Jh, Sp.
- 175.49.1 **Mycetia cauliflora** Reinw., **TFM4** 379; *Mycetia scortechinii* (King & Gamble) Ridl., **FMP2** 63; shrub or small tree to 3 m tall; hill forest to 700 m; Ph, Sl.
- 175.49.2 **Mycetia flava** (Ridl.) Ridl., **FMP2** 64, **TFM4** 379; shrub; hill to lower montane forest; Pk, Ph, Sl; endemic.
- 175.49.3 **Mycetia lanceolata** (Ridl.) Ridl., **FMP2** 64, **TFM4** 379; shrub; montane forest at 1000–1600 m; Ph, Sl.
- 175.49.4 **Mycetia malayana** (Wall. ex Ridl.) Craib, **TFM4** 379; *Adenosacme malayana* Wall. ex Ridl., **FMP2** 63; shrub or small tree to 4 m tall; lowland and hill forest, also on limestone; Pn, Pk, Ph, Sl, NS.
- 175.50.1 **Myrmecodia tuberosa** Jack, **FMP2** 173, **H58** 276; spiny ant-inhabited tuberous epiphyte; lowland forest, usually near the sea; Kl, Pk, Ph, Sp.
- 175.51.1 **Nauclea officinalis** (Pierre ex Pit.) Merr. & Chun, **R16** 328, **TFM4** 380; *Sarcocephalus junghuhnii* auct. non Miq., **FMP2** 7; tree to 30 m tall; lowland and hill forest; throughout.
- 175.51.2 **Nauclea subdita** (Korth.) Steud., **R16** 329, **TFM4** 381; *Sarcocephalus subditus* (Korth.) Miq., **FMP2** 8; tree to 25 m tall; lowland and hill forest; throughout.
- 175.52.1 **Neolamarckia cadamba** (Roxb.) Bosser, **TFM4** 381; *Anthocephalus indicus* A. Rich., **FMP2** 8; *Anthocephalus chinensis* auct. non (Lam.) A. Rich.; pagoda tree to 40 m tall; lowland and hill forest, often near rivers; Jh northwards.
- 175.53.1 **Neonauclea calycina** (DC.) Merr., **R19** 200; tree to 25 m tall; lowland forest; scattered.
- 175.53.2 **Neonauclea lanceolata** (Blume) Merr. ssp. **gracilis** (Vidal) Ridsdale, **R19** 225; tree to 25 m tall; ?lowland forest; once collected in Malaya, ?Ph.
- 175.53.3 **Neonauclea pallida** (Reinw. ex Havil.) Bakh.f. ssp. **malaccensis** (Gand.) Ridsdale, **R19** 199; *Nauclea purpurascens* auct. non Korth., **FMP2** 9; *Neonauclea purpurascens* Ridl., **FMP5** 314 in part; *Neonauclea pallida* (Reinw. ex Havil.) Bakh.f., **TFM4** 383; shrub or small tree to 12 m tall; lowland to montane forest, often rheophytic; widespread.
- 175.53.4 **Neonauclea sp. 1**, **TFM4** 383; tree to 12 m; Pasoh F.R., NS once.
- 175.53.5 **Neonauclea sp. 2**, **TFM4** 383; tree; Sp.

- 175.53.6 **Neonauclea sp. 3**, **TFM4** 383; tree; Jh.
- 175.54.1 **Nertera granadensis** (Mutis ex L.f.) Druce, **B03** 348 '*granadense*'; *Nertera depressa* Banks & Sol. ex Gaertn., **FMP5** 318; densely tufted creeping herb to 5 cm tall; banks on high mountains; Gg Tahan, Ph.
- 175.55.1 **Ochreinauclea maingayi** (Hook.f.) Ridsdale, **R16** 332, **TFM4** 385; *Sarcocephalus maingayi* (Hook.f.) Havil., **FMP2** 7; tree to 25 m tall; Tg, Pn, Pk, Ph, Sl, NS, Ml, Jh, Sp.
- 175.56.1 **Ophiorrhiza communis** Ridl., **FMP2** 39; herb; lowland and hill forest; common and widespread.
- 175.56.2 **Ophiorrhiza costata** Ridl., **FMP2** 37; herb to 40 cm tall; lowland and hill forest; widespread; ?endemic.
- 175.56.3 **Ophiorrhiza discolor** R.Br., **FMP2** 36; herb to 20 cm tall; lowland and hill forest; widespread.
- 175.56.4 **Ophiorrhiza fontinalis** Ridl., **FMP2** 38; herb to 15 cm tall; on rocks in streams; P. Langkawi.
- 175.56.5 **Ophiorrhiza fruticosa** Ridl., **FMP2** 41; much-branched shrublet; on limestone; only known from Bt Takun and Gua Batu, Sl; endemic.
- 175.56.6 **Ophiorrhiza hispidula** Wall. ex G. Don, **FMP2** 40; herb to 20 cm tall; montane forest; Pk, Ph.
- 175.56.7 **Ophiorrhiza kingiana** Ridl., **FMP2** 41; woody-stemmed "herb" to 40 cm tall; near limestone; Pk; ?endemic.
- 175.56.8 **Ophiorrhiza klossii** Ridl., **FMP2** 37; herb to 30 cm tall; forest; Sl; ?endemic.
- 175.56.9 **Ophiorrhiza kunstleri** King, **FMP2** 41; woody-stemmed "herb" to 30 cm tall; on limestone; Ps, P. Langkawi, Kl.
- 175.56.10 **Ophiorrhiza lancifolia** Ridl., **FMP2** 38; subshrub to 20 cm tall; forest; Kl.
- 175.56.11 **Ophiorrhiza longerepens** Ridl.; **R15** 258, **C15** 147; prostrate herb; on limestone; only known from Gua Musang, Kl; endemic.
- 175.56.12 **Ophiorrhiza nervosa** Ridl., **FMP2** 40; herb to 30 cm tall; montane forest; Sl; ?endemic.
- 175.56.13 **Ophiorrhiza pallidula** Ridl., **FMP2** 38; slightly woody-stemmed herb; hill forest; Pk, Ph, Sl; endemic.
- 175.56.14 **Ophiorrhiza remotiflora** Ridl., **FMP2** 37; *Ophiorrhiza major* Ridl., **FMP2** 36; herb; lowland and hill forest; widespread.

- 175.56.15 **Ophiorrhiza rosacea** Ridl., **FMP2** 38; much-branched woody-stemmed 'herb' to 30 cm tall; lowland forest; Pk; ?endemic.
- 175.56.16 **Ophiorrhiza rugosa** Wall., **FMP2** 40; herb to 15 cm tall; lower montane forest; Pk.
- 175.56.17 **Ophiorrhiza scabrella** Ridl., **FMP2** 39; subshrub to 30 cm tall; lowland forest; P. Langkawi.
- 175.56.18 **Ophiorrhiza singaporensis** Ridl., **FMP2** 39; herb to 30 cm tall; lowland forest; south of Malaya.
- 175.56.19 **Ophiorrhiza tenella** King, **FMP2** 40; herb to 30 cm tall; lowland and hill forest; widespread; ?endemic.
- 175.56.20 **Ophiorrhiza tenuis** Ridl., **FMP2** 42; herb to 20 cm tall; lowland and hill forest; scattered; ?endemic.
- 175.56.21 **Ophiorrhiza tomentosa** Jack, **FMP2** 41; herb to 50 cm tall; hill forests; widespread.
- 175.57.1 **Oxyceros curtisii** (King & Gamble) K.M. Wong, **W26** 43; *Randia curtisii* King & Gamble, **FMP2** 74; *Randia incurva* Ridl., **FMP2** 76; spiny liana; lowland and hill forest; Kl, Tg, Pn, Pk, Ph.
- 175.57.2 **Oxyceros fragrantissima** (Ridl.) K.M. Wong, **W26** 43; *Randia fragrantissima* Ridl., **FMP2** 75; spiny liana; Kl, Sl, Ml, Sp; endemic.
- 175.57.3 **Oxyceros horrida** Lour., **W26** 38; *Randia kunstleri* King & Gamble, **FMP2** 74; *Oxyceros kunstleri* (King & Gamble) Tirveng., **T13** 466; *Oxyceros pauciflora* (Ridl.) Tirveng., **T13** 466; liana with curved spines; lowlands; P. Langkawi.
- 175.57.4 **Oxyceros longiflora** (Lam.) T. Yamaz., **W26** 39; *Randia longiflora* Lam., **FMP2** 73; very thorny scrambling shrub; common along rivers and near the sea; P. Langkawi, Pk, Ph, Sl, Ml, Jh, Sp.
- 175.57.5 **Oxyceros penangiana** (King & Gamble) Tirveng., **T13** 466, **W26** 39; *Randia penangiana* King & Gamble, **FMP2** 72; liana with curved spines; lowland and hill forest; Pn, Pk, Ph, Sl, NS, Ml, Jh, Sp; endemic.
- 175.57.6 **Oxyceros pubicalyx** K.M. Wong, **W26** 40; ? climber; hill forest; known only from type, Ml; endemic.
- 175.57.7 **Oxyceros scandens** (Blume) Tirveng., **T13** 466, **W26** 42; *Randia clarkei* King & Gamble, **FMP2** 72; high-climbing liana with recurved spines; lowland forest; Tg, Pk, Sl, NS, Ml, Sp.

- 175.58.1 **Paederia foetida** L., **FMP2** 173, **P26** 210; *Paederia tomentosa* Blume, **FMP2** 174; vine to 7 m long; open disturbed places and secondary forests in the lowlands; Ps, Kd, Kl, Tg, Pn, Pk, Ph, Sl, Ml, Sp.
- 175.58.2 **Paederia verticillata** Blume, **FMP2** 174, **P26** 282; vine to 30 m long; lowland forest; Tg, Pk, Ph, Sl, NS, Ml, Jh, Sp.
- 175.59.1 **Pavetta graciliflora** Wall. ex Ridl., **FMP2** 100, **TFM4** 387; shrub or small tree to 5 m tall; lowland and hill forest to 900 m; widespread.
- 175.59.2 **Pavetta humilis** Hook.f., **FMP2** 101, **TFM4** 388; subshrub to 30 cm tall; lowland and hill forest; Ph, Ml; endemic.
- 175.59.3 **Pavetta kedahica** Bremek., **TFM4** 387; shrub to 3 m tall; islands off Kd; endemic.
- 175.59.4 **Pavetta montana** Reinw. ex Blume, **TFM4** 387; shrub or small tree to 4 m tall; hill and montane forest, 700-1600 m; Tg, Pk, Ml.
- 175.59.5 **Pavetta napieri** (Ridl.) Bremek., **TFM4** 388; *Tarenna napieri* (Ridl.) Ridl., **FMP2** 102; small shrub; lowland forest; mostly in the south.
- 175.59.6 **Pavetta naucleiflora** R.Br. ex G. Don, **FMP2** 101, **TFM4** 388; shrub to 4 m tall; lowland forest, sometimes on limestone; Ps, Kd, Pn, Ph.
- 175.59.7 **Pavetta pauciflora** Ridl., **FMP2** 101, **TFM4** 387; shrub to 3 m tall; on limestone; Ph, Sl; endemic.
- 175.59.8 **Pavetta salicina** (Ridl.) Bremek., **TFM4** 387; *Tarenna salicina* (Ridl.) Ridl., **FMP2** 104; shrub or small tree to 6 m tall; hill and lower montane forest to 1600 m; Main Range; endemic.
- 175.59.9 **Pavetta siamica** Bremek., **TFM4** 388; shrub to 4 m tall; exposed riverbanks; Ps, Kd, Kl, Tg, Ph, Jh.
- 175.59.10 **Pavetta wallichiana** Steud., **TFM4** 388; shrub to 4 m tall; lowland forest; throughout.
- 175.59.11 **Pavetta sp. 1**, **TFM4** 388; shrub or small tree to 6 m tall; lowland forest; Sl, NS; ?endemic.
- 175.59.12 **Pavetta sp. 2**, **TFM4** 388; shrub to 3 m tall; swamp forest; Sg Kayu Ara, Jh; ?endemic.
- 175.59.13 **Pavetta sp. 3**, **TFM4** 388; shrub or small tree to 7 m tall; Kd, Pn; ?endemic.
- 175.59.14 **Pavetta sp. 4**, **TFM4** 388; shrub or small tree to 7 m tall; P. Langkawi; ?endemic.

- 175.60.1 **Perakanthus velutinus** (Ridl.) Robyns, **TFM4** 390; *Canthium velutinum* Ridl., **FMP2** 124; shrub to 4 m tall; lowland to lower montane forest; Kd, Pk, Jh; endemic.
- 175.61.1 **Pertusadina eurhyncha** (Miq.) Ridsdale, **R16** 354, **TFM4** 391; *Adina rubescens* Hemsl., **FMP2** 10; latticed tree to 30 m tall; lowland and hill forest to 400 m; scattered.
- 175.61.2 **Pertusadina malaccensis** Ridsdale, **R16** 356, **TFM4** 391; tree to 30 m tall; lowland and hill forest; localities unclear.
- 175.62.1 **Pleiocarpidia enneandra** (Wight) K. Schum., **B25** 208, **TFM4** 392; *Aulocodiscus premnoides* Hook.f., **FMP2** 64; small tree to 16 m tall; lowland forest including swamps; Pn, Pk, Ph, Sl, Ml, Jh; endemic.
- 175.63.1 **Porterandia anisophyllea** (Jack ex Roxb.) Ridl., **W26** 45, **TFM4** 393; *Randia anisophyllea* (Jack ex Roxb.) Hook.f., **FMP2** 77; *Randia scortechinii* King & Gamble, **FMP2** 78; tree to 12 m tall; lowland and hill forest; Kd, Tg, Pn, Pk, Ph, Sl, NS, Ml, Jh, Sp.
- 175.63.2 **Porterandia sessiliflora** Ridl., **W26** 46, **TFM4** 393; tree to 12 m tall; hill forest; twice from Pk.
- 175.64.1 **Prismatomeris glabra** (Korth.) Valetton, **J12** 54, **TFM4** 395; shrub to 4 m tall; lowland to montane forest; throughout.
- 175.64.2 **Prismatomeris griffithii** Ridl., **J12** 32, **TFM4** 395; shrub; dry deciduous forest and on limestone; Ps.
- 175.64.3 **Prismatomeris tetrandra** (Roxb.) K. Schum. ssp. **malayana** (Ridl.) J.T. Johanss., **J12** 29, **TFM4** 396; *Prismatomeris malayana* Ridl., **FMP2** 116; shrub to 5 m tall; rocky shores, lowland forest, limestone; throughout.
- 175.64.4 **Prismatomeris sp.**, **TFM4** 395; ?*Coffea malayana* Ridl., **FMP2** 111; shrub to 2 m tall; lowland and hill forest, also on limestone; Ps, Pk, Sl, NS, Ml.
- 175.65.1 **Psychotria adenophylla** Wall., **TFM4** 398; *Psychotria siamensis* Ridl., **FMP2** 138; shrub or small tree; lowland forest; Ps, P. Langkawi.
- 175.65.2 **Psychotria albopedunculata** I.M. Turner, **T21** 27; *Cephaelis melanocarpa* Ridl., **FMP2** 144; shrub to 1 m tall; hill forest; Bt Tangga, NS; ?endemic.
- 175.65.3 **Psychotria angulata** Korth., **FMP2** 138, **TFM4** 398; *Psychotria griffithii* Hook.f. var. *angustifolia* Ridl., **FMP2** 137; shrub to 3 m tall; lowland forest, also on limestone; throughout.
- 175.65.4 **Psychotria atroviridis** Ridl., **FMP2** 140; subshrub to 30 cm tall; hill forest; Bt Tangga, NS; ?endemic.

- 175.65.5 **Psychotria birchiana** King & Gamble, **FMP2** 135; shrublet; montane forests; Pk, Sl; ?endemic.
- 175.65.6 **Psychotria brachybotrys** Ridl., **FMP2** 133; slender scandent shrub; montane forest; Ph, Sl; ?endemic.
- 175.65.7 **Psychotria calocarpa** Kurz, **FMP2** 133, **TFM4** 398; shrub; lowland forest; Kd, Kl, Pk, Ph, Sl, NS, Ml, Jh, Sp.
- 175.65.8 **Psychotria cantleyi** Ridl., **FMP2** 130; scandent shrub; lowland and hill forest; widespread; ?endemic.
- 175.65.9 **Psychotria condensa** King & Gamble, **FMP2** 129; epiphytic shrub; montane forest; Kd, Pk, Ph; ?endemic.
- 175.65.10 **Psychotria coriacea** Korth., **FMP2** 136; shrub; forest; Gg Puali, Jh.
- 175.65.11 **Psychotria cuspidella** Miq., **FMP2** 139; shrub; montane forest; Semangkok Pass, Sl; ?endemic.
- 175.65.12 **Psychotria fulva** Buch.-Ham. ex Hook.f., **FMP2** 136, **TFM4** 397; shrub; montane forest; Kl, Pk, Ph.
- 175.65.13 **Psychotria fulvoidea** King & Gamble, **FMP2** 136; small shrub; Pk; ?endemic.
- 175.65.14 **Psychotria griffithii** Hook.f., **FMP2** 137, **TFM4** 399; shrub or small tree; lowland forest; Tg, Pk, Sl, NS, Ml, Jh, Sp; endemic.
- 175.65.15 **Psychotria helferiana** Kurz, **FMP2** 134, **TFM4** 396; shrub; lowland and hill forest; Pn, Pk, Sl, Ml, Jh, Sp.
- 175.65.16 **Psychotria inaequalis** King & Gamble, **FMP2** 141; subshrub; Pk; ?endemic.
- 175.65.17 **Psychotria kunstleri** King & Gamble, **FMP2** 132; epiphyte; Pk.
- 175.65.18 **Psychotria lanceolaria** Ridl., **FMP2** 134; slender shrub; lowland forest; Sl; ?endemic.
- 175.65.19 **Psychotria lasiocephala** Ridl., **TFM4** 398; shrub; on limestone; Ps.
- 175.65.20 **Psychotria laxiflora** Blume, **FMP2** 133; slender climber; Pk.
- 175.65.21 **Psychotria maingayi** Hook.f., **FMP2** 131; slender climber; lowland forest, often near the sea; Sl southward; ?endemic.
- 175.65.22 **Psychotria malaccensis** I.M. Turner, **T21** 27; *Cephaelis griffithii* Hook.f., **FMP2** 144; shrublet; lowland forest; scattered.
- 175.65.23 **Psychotria malayana** Jack, **FMP2** 139, **TFM4** 397; *Psychotria stipulacea* Wall., **FMP2** 140.

- 175.65.24 **Psychotria megacarpa** Ridl., **FMP2** 140; shrub; montane forest; Gg Kerbau, Pk; ?endemic.
- 175.65.25 **Psychotria montana** Blume, **FMP2** 137, **TFM4** 397; *Becheria parviflora* Ridl., **FMP2** 21 in part; shrub; lowland to lower montane forest; Kl, Tg, Pk, Ph, Sl, Ml, Jh.
- 175.65.26 **Psychotria morindiflora** Wall., **FMP2** 131; large woody climber; lowland forest; Pn, Pk; ?endemic.
- 175.65.27 **Psychotria multicapitata** King & Gamble; shrub; Pk; ?endemic.
- 175.65.28 **Psychotria naviculiformis** I.M. Turner, **T21** 27; *Cephaelis ridleyi* King, **FMP2** 144; shrub to 60 cm tall; montane forest; Pk, Sl; ?endemic.
- 175.65.29 **Psychotria obovata** Wall., **FMP2** 129; climbing shrub; lowlands; widespread and common.
- 175.65.30 **Psychotria ophirensis** I.M. Turner, **T21** 26; *Cephaelis angustifolia* Ridl., **FMP2** 145; sparsely-branched shrub to 50 cm tall; montane forest; NS, Ml, Jh; ?endemic.
- 175.65.31 **Psychotria ovoidea** Wall., **FMP2** 130; slender climber; lowland forest, on trees or the ground; Pk southward; ?endemic.
- 175.65.32 **Psychotria pachyphylla** (King & Gamble) Ridl., **FMP2** 129; large climbing shrub; hill forest; Pn.
- 175.65.33 **Psychotria penangiana** Hook.f., **FMP2** 132; shrubby climber; lowland forest; common and widespread; ?endemic.
- 175.65.34 **Psychotria pilulifera** King & Gamble, **FMP2** 130; small tree or climber; hill forest; Pk; ?endemic.
- 175.65.35 **Psychotria polytricha** Miq., **FMP2** 132; slender climber; on tree trunks in lowland forest; Pk.
- 175.65.36 **Psychotria porcata** I.M. Turner, **T21** 27; *Cephaelis elongata* Ridl., **FMP2** 145; montane forest; Semangkok Pass, Sl; ?endemic.
- 175.65.37 **Psychotria rhinocerotis** Reinw. ex Blume, **FMP2** 135, **TFM4** 396; shrub or small tree to 3 m tall; lowland forest; Ps, Kd, Kl, Pk, Ph.
- 175.65.38 **Psychotria ridleyi** King & Gamble, **FMP2** 133; climber; lowland and hill forest; scattered.
- 175.65.39 **Psychotria robusta** Blume, **TFM4** 397; shrub or small tree; lowland and hill forest; Tg, Ph, Jh.
- 175.65.40 **Psychotria rostrata** Blume, **FMP2** 134, **TFM4** 397; shrub or small tree to 3 m tall; lowland and hill forest; Pk, Ph, Sl, NS, Ml, Jh, Sp.

- 175.65.41 **Psychotria rudis** Ridl., **FMP2** 138; small shrub; hill forest; Gg Jerai, Kd; ?endemic.
- 175.65.42 **Psychotria sarmentosa** Blume, **FMP2** 131; climber; lowland forest; widespread.
- 175.65.43 **Psychotria scortechinii** King & Gamble, **FMP2** 130; climber; Pk; ?endemic.
- 175.65.44 **Psychotria setistipula** Ridl., **FMP2** 138; shrub; montane forest; Gg Mengkuang Lebah, Sl; ?endemic.
- 175.65.45 **Psychotria singaporensis** (Ridl.) I.M. Turner, **T21** 27; *Cephaelis singaporensis* Ridl., **FMP2** 144; lowland and hill forest; Jh, Sp; ?endemic.
- 175.65.46 **Psychotria sohmerana** I.M. Turner, **T21** 26; *Psychotria minutiflora* (non Müll.Arg.) Ridl., **FMP2** 141; small shrub; montane forest; Genting Simpah, Sl; ?endemic.
- 175.65.47 **Psychotria subcoriacea** (Ridl.) I.M. Turner, **T21** 27; *Cephaelis subcoriacea* Ridl., **FMP2** 145; subshrub; montane forest; Gg Mengkuang Lebah, Sl; ?endemic.
- 175.65.48 **Psychotria tahanica** I.M. Turner, **T21** 26; *Cephaelis albiflora* Ridl., **FMP2** 146; shrub to 2 m tall; montane forest near streams; Gg Tahan, Ph; ?endemic.
- 175.65.49 **Psychotria triceps** (Ridl.) I.M. Turner, **T21** 27; *Cephaelis triceps* Ridl., **FMP2** 145; shrub to 1 m or more tall; montane forest; Sl; ?endemic.
- 175.65.50 **Psychotria viridiflora** Reinw. ex Blume, **FMP2** 139, **TFM4** 398; shrub or small tree; lowland forest, also on limestone; throughout.
- 175.65.51 **Psychotria vulpina** Ridl., **FMP2** 136; shrub; lowland forest; Kuala Lebir, Kl; ?endemic.
- 175.65.52 **Psychotria wrayi** King & Gamble, **FMP2** 141; shrub; Pk; ?endemic.
- 175.65.53 **Psychotria sp. 1**, **TFM4** 396; shrub to 3 m tall; lowland forest; Kl, Ph; ?endemic.
- 175.65.54 **Psychotria sp. 2**, **TFM4** 397; shrub to 3 m tall; lowland forest; Kl, Tg, Pk, Ph; ?endemic.
- 175.65.55 **Psychotria sp. 3**, **TFM4** 397; shrub to 3 m tall; lowland forest; Pk, Jh; ?endemic.
- 175.65.56 **Psychotria sp. 4**, **TFM4** 397; shrub or small tree to 6 m tall; hill forest; Sl; ?endemic.
- 175.65.57 **Psychotria sp. 5**, **TFM4** 397; shrub; lowland and hill forest; Pn, Sl; ?endemic.
- 175.65.58 **Psychotria sp. 6**, **TFM4** 397; shrub; lowland forest; Tg; ?endemic.

- 175.65.59 **Psychotria sp. 7, TFM4** 398; shrub; lowland swamp forest; Sg Kayu, Jh; ?endemic.
- 175.65.60 **Psychotria sp. 8, TFM4** 398; shrub; lowland forest; Kl, Pk; ?endemic.
- 175.65.61 **Psychotria sp. 9, TFM4** 398; shrub; lowland forest; Sp; ?endemic.
- 175.65.62 **Psychotria sp. 10, TFM4** 399; shrub; montane forest at 1300 m; Gg Padang, Tg; ?endemic.
- 175.65.63 **Psychotria sp. 11, TFM4** 399; small tree; montane forest at 1800 m; Cameron Highlands, Ph; ?endemic.
- 175.65.64 **Psychotria sp. 12, TFM4** 399; shrub; hill forest at 900 m; Gg Tahan, Ph; ?endemic.
- 175.66.1 **Psydrax maingayi** (Hook.f.) Bridson, **TFM4** 402; *Mesoptera maingayi* Hook.f., **FMP2** 127; tree to 18 m tall; lowland to lower montane forest; Tg, Ph, Pk, Sl, NS, Ml, Jh; endemic.
- 175.66.2 **Psydrax nitidum** (Craib) K.M. Wong, **TFM4** 400; *Canthium didymum* sensu Ridl., **FMP2** 126 in part; small tree to 5 m tall; lowland forest including that on limestone; P. langkawi.
- 175.66.3 **Psydrax sp. 1, TFM4** 402; tree to 18 m tall; lowland and hill forest; widespread; ?endemic.
- 175.66.4 **Psydrax sp. 2, TFM4** 403; tree to 12 m tall; hill forest at 800–1100 m; Gg Jerai, Kd; endemic.
- 175.66.5 **Psydrax sp. 3, TFM4** 400; small tree to 6 m tall; montane forest at 1100–1300 m; Main Range; ?endemic.
- 175.66.6 **Psydrax sp. 4, TFM4** 401; small tree to 4 m tall; montane forest; Ph; ?endemic.
- 175.66.7 **Psydrax sp. 5, TFM4** 403; tree to 15 m tall; lowland forest, often near the coast; Pn, Pk, Ph, Jh.
- 175.66.8 **Psydrax sp. 6, TFM4** 400; tree to 9 m tall; montane forest; Ph, Sl; ?endemic.
- 175.66.9 **Psydrax sp. 7, TFM4** 403; tree to 15 m tall; lowland forest including swamps; Pk, Sl, Jh; ?endemic.
- 175.66.10 **Psydrax sp. 8, TFM4** 403; tree to 15 m tall; lowland and hill forest, also on limestone; widespread.
- 175.66.11 **Psydrax sp. 9, TFM4** 404; tree to 16 m tall; montane forest; Cameron Highlands, Ph; ?endemic.
- 175.66.12 **Psydrax sp. 10, TFM4** 404; tree to 23 m tall; lowland forest; widespread.

- 175.66.13 **Psydrax sp. 11**, **TFM4** 402; small tree to 9 m tall; freshwater and mangrove swamps; Ph, Jh, Sp.
- 175.66.14 **Psydrax sp. 12**, **TFM4** 401; small tree; on limestone; P. Langkawi; ?endemic.
- 175.67.1 **Rennellia elliptica** Korth., **J14** 7; *Rennellia speciosa* (Wall. ex Kurz) Hook.f. var. *elongata* King & Gamble, **FMP2** 120; ?*Rennellia speciosa* var. *angustifolia* Ridl., **FMP2** 120; *Rennellia elongata* (King & Gamble) Ridl., **TFM4** 405; *Rennellia paniculata* King & Gamble var. *condensa* K.M. Wong, **TFM4** 405; shrub or tree to 8 m tall; lowland to lower montane forest at 1500 m; widespread.
- 175.67.2 **Rennellia microcephala** (Ridl.) K.M. Wong, **TFM4** 405; *Myrioneuron microcephalum* Ridl., **FMP2** 57; shrub to 4 m tall; lowland and hill forest to 800 m; Kd, Kl, Tg, Ph; endemic.
- 175.67.3 **Rennellia morindiformis** (Korth.) Ridl., **J14** 15; *Rennellia paniculata* King & Gamble, **FMP2** 119, **TFM4** 405; *Rennellia sp.*, **TFM4** 405; shrub or tree to 8 m tall; lowland to lower montane forest; once each from Kl, Pk, Ph.
- 175.67.4 **Rennellia speciosa** (Wall. ex Kurz) Hook.f., **FMP2** 120, **J14** 7, **TFM4** 405; shrub or tree to 7 m tall; lowland and hill forest; south and east of Malaya.
- 175.68.1 **Rothmannia kuchingensis** (J.J. Sm.) K.M. Wong, **W30** 270, **TFM4** 406; tree to 6 m tall; on sandstone plateaux; Ulu Endau, Jh.
- 175.68.2 **Rothmannia macrophylla** (R.Br. ex Hook.f.) Bremek., **W26** 48, **TFM4** 406; *Randia macrophylla* R.Br. ex Hook.f., **FMP2** 78; shrub to 3 m tall; lowland and hill forest; Kd, Kl, Tg, Pn, Pk, Ph, Sl, NS, MI, Jh, Sp.
- 175.68.3 **Rothmannia malayana** K.M. Wong, **W26** 51, **TFM4** 406; tree to 10 m tall; lowland forest; once each from Kl and Ph; endemic.
- 175.68.4 **Rothmannia schoemannii** (Teijsm. & Binn.) Tirveng., **W26** 49, **TFM4** 406; *Randia exaltata* Griff., **FMP2** 78; tree to 30 m tall; lowland and hill forest; P. Langkawi, Kd, Kl, Tg, Pn, Pk, Ph, Sl, NS, MI.
- 175.69.1 **Saprosma glomerulata** King & Gamble, **FMP2** 170, **TFM4** 407; shrub to 3 m tall; lowland to lower montane forest; Tg, Pk, Ph, Sl, NS, MI, Jh, Sp; endemic.
- 175.69.2 **Saprosma indica** *sensu* Ridl., **FMP2** 170, **TFM4** 407; *Amaracarpus saxicola* Ridl., **FMP2** 172, **C15** 141; shrub to 3 m tall; on limestone; Ps, Kd, Kl, Pk, Ph.
- 175.69.3a **Saprosma pubescens** Ridl. var. *hirsuta* Ridl., **FMP2** 171, **TFM4** 408; shrub; lowland and hill forest; Tg, MI; endemic.
- 175.69.3b **Saprosma pubescens** Ridl. var. *pubescens*, **FMP2** 171, **TFM4** 408; shrub to 3 m tall; lowland and hill forest; Ph, NS, MI; endemic.

- 175.69.4 **Saprosma scortechinii** King & Gamble, **FMP2** 170, **TFM4** 407; shrub to 2 m tall; lowland and hill forest to 1000 m; Kd, Tg, Pk, Ph; endemic.
- 175.69.5 **Saprosma ternata** (Wall.) Hook.f., **FMP2** 170, **TFM4** 407, G01 92; shrub to 3 m tall; lowland and hill forest; Pn, Kl, Pk, Ph, Sl, Jh.
- 175.69.6 **Saprosma** sp. 1, **TFM4** 407; shrub; lowlands; Sg Serai, Kl; ?endemic.
- 175.69.7 **Saprosma** sp. 2, **TFM4** 407; shrub; lowland and hill forest; Kl, Pk, Ph, Sl; ?endemic.
- 175.69.8 **Saprosma** sp. 3, **TFM4** 407; shrub; lowland forest; Krau, Ph; ?endemic.
- 175.70.1 **Scyphiphora hydrophyllacea** C.F. Gaertn., **FMP2** 89, **TFM4** 408; tree to 6 m tall, sometimes with stilt roots; sea shores and mangrove swamps; all coasts except Pk.
- 175.71.1 **Spermacoce articularis** L.f., **S27** 363; *Borreria articularis* (L.f.) F.N. Williams, **K09** 152; *Borreria hispida* auct. non (L.) K. Schum., **FMP2** 175; rough wiry herb; sandy waste ground, common near the sea; throughout.
- 175.71.2 **Spermacoce assurgens** Ruiz & Pav., **F16** 118, **B39** 315; *Borreria laevis* auct. non (Lam.) Griseb., **M28** 132, **M44** 496; herb; waste places; widespread; naturalized from tropical America.
- 175.71.3 **Spermacoce exilis** (L.O. Williams) C.D. Adams, **B09** 316; *Borreria setidens* (Miq.) Bold., **FMP2** 177; *Borreria repens* DC., **F19** 133; *Borreria ocymoides* auct. non (Burm.f.) DC., **K09** 152; *Spermacoce mauritiana* Gideon, **V09** 547; herb, often creeping, ascending to 30 cm; waste places, garden weed; throughout.
- 175.71.4 *Borreria laevicaulis* (Miq.) Ridl., **FMP2** 176; wiry herb to 50 cm tall; roadsides, waste places; common throughout.
The correct name in *Spermacoce* for this species remains unknown to me.
- 175.71.5 **Spermacoce latifolia** Aubl., **D21** 1051; *Borreria latifolia* (Aubl.) K. Schum., **FMP2** 175; *Borreria alata* (Aubl.) DC., **M47** 492; herb to 60 cm tall; waste places; widespread; naturalized from tropical America.
- 175.71.6 **Spermacoce parviceps** (Ridl.) I.M. Turner, **T24** 222; *Borreria parviceps* Ridl., **FMP2** 176; slender erect herb; roadsides; Tg, NS, MI, Sp; ?endemic.
- 175.71.7 **Spermacoce pilulifera** (Ridl.) I.M. Turner, **T24** 222; *Borreria pilulifera* Ridl., **FMP2** 176; slender herb about 30 cm tall; roadsides; Klang, Gates, Sl; ?endemic.
- 175.72.1 **Streblosa polyantha** Korth., **B28** 176; *Streblosa pubescens* Ridl., **FMP2** 148; *Streblosa hirta* Ridl., **FMP2** 149; herb to 25 cm tall; Pn, Pk.
- 175.72.2 **Streblosa microcarpa** Ridl., **FMP2** 148, **B28** 164; herb to 60 cm tall; Pn, Pk.

- 175.73.1 **Tarenna adangensis** (Ridl.) Ridl., **FMP2** 107, **TFM4** 412; *Tarenna calcarea* Ridl., **FMP2** 108; shrub to 6 m tall; on limestone; Ps, P, Langkawi, Kl, Pk, Sl.
- 175.73.2 **Tarenna adpressa** (King) Merr., **TFM4** 411; *Tarenna papillosa* Ridl., **FMP2** 103; *Stylocoryna adpressa* King, **FMP2** 110; shrub to 4 m tall; peat swamp forest; Ph, Sl, Jh; endemic.
- 175.73.3 **Tarenna angustifolia** (King) Merr., **TFM4** 412; *Stylocoryna angustifolia* King, **FMP2** 109; shrub to 3 m tall; on limestone; Kl, Pk, Ph, Sl.
- 175.73.4 **Tarenna costata** (Miq.) Merr., **TFM4** 415; *Stylocoryna costata* Miq., **FMP2** 109; shortly buttressed tree to 30 m tall; lowland and hill forest; Ph, Sl, NS, Ml, Jh, Sp.
- 175.73.5 **Tarenna curtisii** (King) F.N. Williams, **FMP2** 107, **TFM4** 412; shrub to 3 m tall; on limestone; P, Langkawi.
- 175.73.6 **Tarenna evansii** Ridl., **FMP2** 103, **TFM4** 410; subshrub to 50 cm tall; montane forest; Gg Senyum, Ph; endemic.
- 175.73.7 **Tarenna fragrans** (Nees) Koord. & Valetton, **TFM4** 411; *Stylocoryna fragrans* (Nees) DC., **FMP2** 108; shrub or small tree to 8 m tall; lowland forest, often on river banks; Kd, Pn, Pk, Ph, Sl, NS, Ml, Jh, Sp.
- 175.73.8 **Tarenna glabra** Ridl., **FMP2** 106, **TFM4** 412; shrub to 4 m tall; lowland and hill forest; Kl, Tg, Pk; endemic.
- 175.73.9 **Tarenna hispidula** Craib, **TFM4** 410; *Tarenna adpressa auct. non* (King) Merr., **C14** 149; shrub; lowland forest; P, Langkawi.
- 175.73.10 **Tarenna insularis** (Ridl.) Ridl., **FMP2** 107, **TFM4** 412; shrub to 2 m tall; lowland forest; Ps, P, Langkawi.
- 175.73.11 **Tarenna lancifolia** Ridl., **FMP5** 316, **TFM4** 411; shrub; hill forest at 600–1000 m; Gg Jerai, Kd, Gg Tahan, Ph; endemic.
- 175.73.12 **Tarenna longifolia** (G. Don) Ridl., **FMP2** 104, **TFM4** 409; shrub to 3 m tall; lowland forest; Pn, Pk; endemic.
- 175.73.13 **Tarenna maingayi** (Hook.f.) Merr., **TFM4** 410; *Stylocoryna maingayi* (Hook.f.) King, **TFM2** 110; shrub to 3 m tall; lowland and hill forest; Sl, NS, Ml, Jh; endemic.
- 175.73.14 **Tarenna mollis** (Wall. ex Hook.f.) B.L. Rob., **TFM4** 416; *Stylocoryna mollis* (Wall. ex Hook.f.) King, **FMP2** 109; shrub or tree to 16 m tall; lowland to lower montane forest; Pn, Tg, Pk, Ph, Sl, NS, Ml, Jh, Sp.
- 175.73.15 **Tarenna mussaendoides** (Craib) K.M. Wong, **TFM4** 411; shrub or small tree; on limestone; Kaki Bukit, Ps.

- 175.73.16 **Tarenna odorata** (Roxb.) B.L. Rob., **FMP2** 105, **TFM4** 410; *Tarenna grandifolia* (Hook.f.) Ridl., **FMP2** 104; shrub or small tree to 6 m tall; lowland forest including swamps; Pn, Pk, Sl, Ml, Jh, Sp; ?endemic.
- 175.73.17 **Tarenna pulchra** (Ridl.) Ridl., **FMP2** 104, **TFM4** 410; shrub to 3 m tall; montane forest above 1200 m; Ph, Sl.
- 175.73.18 **Tarenna ridleyi** (H. Pearson ex King) Ridl., **FMP2** 106 in part, **TFM4** 412; shrub; lowland forest; Ph, Sp; endemic.
- 175.73.19 **Tarenna rudis** Ridl., **FMP2** 103, **TFM4** 409; shrub to 4 m tall; lowland forest; Sl; endemic.
- 175.73.20 **Tarenna stellulata** (Hook.f.) Ridl., **FMP2** 106, **TFM4** 412; shrub to 4 m tall; lowland to montane forest at 1200 m; Kl, Tg, Pk, Ph, Sl, NS, Ml, Jh, Sp.
- 175.73.21 **Tarenna wallichii** (Hook.f.) Ridl., **FMP2** 106, **TFM4** 413; shrub to 3 m tall; lowland forest; Pn, Pk, Ml.
- 175.73.22 **Tarenna wrayi** (King) Ridl., **FMP2** 105, **TFM4** 411; shrub; Pk; endemic.
- 175.73.23 **Tarenna yappii** (King) Ridl., **FMP2** 105, **TFM4** 411; shrub; Pk; endemic.
- 175.73.24 **Tarenna sp. 1**, **TFM4** 409; shrub; Ulu Brang, Tg; ?endemic.
- 175.73.25 **Tarenna sp. 2**, **TFM4** 409; hill forest at 680 m; Gg Tapis, Ph; ?endemic.
- 175.73.26 **Tarenna sp. 3**, **TFM4** 410; shrub; lowland forest; Gg Lang, Kd; ?endemic.
- 175.73.27 **Tarenna sp. 4**, **TFM4** 410; shrub to 2 m tall; lowland forest; Tg, Ph, Jh; ?endemic.
- 175.73.28 **Tarenna sp. 5**, **TFM4** 411; shrub; lowland forest; Bubu F.R., Pk; endemic.
- 175.73.29 **Tarenna sp. 6**, **TFM4** 411; shrub; montane forest; Fraser's Hill, Ph; endemic.
- 175.73.30 **Tarenna sp. 7**, **TFM4** 411; shrub to 2 m tall; lower montane forest; Tg, Ph; endemic.
- 175.73.31 **Tarenna sp. 8**, **TFM4** 412; shrub or small tree to 8 m tall; lowland and hill forest, also limestone; Ps, Kd, Pn, Kl, Pk, Ph, Sl, NS, Jh; endemic.
- 175.73.32 **Tarenna sp. 9**, **TFM4** 412; shrub to 4.5 m tall; on limestone; Lenggong, Pk; endemic.
- 175.73.33 **Tarenna sp. 10**, **TFM4** 413; shrub to 3 m tall; on limestone; Pk; endemic.
- 175.73.34 **Tarenna sp. 11**, **TFM4** 413; shrub to 3 m tall; Pasoh F.R., NS; ?endemic.
- 175.73.35 **Tarenna sp. 12**, **TFM4** 413; shrub to 2 m tall; hill forest; Ulu Langat, Sl; ?endemic.

- 175.73.36 **Tarenna sp. 13, TFM4** 414; shrub to 3 m tall; lowland and hill forest; Ph; ?endemic.
- 175.73.37 **Tarenna sp. 14, TFM4** 415; shrub; montane forest; Gg Tahan, Ph; ?endemic.
- 175.73.38 **Tarenna sp. 15, TFM4** 415; shrub; montane forest at 1200 m; Gg Padang, Tg; ?endemic.
- 175.73.39 **Tarenna sp. 16, TFM4** 412; tree to 8 m tall; on limestone; Batu Caves, Sl; endemic.
- 175.74.1 **Timonius compressicaulis** (Miq.) Boerl., **W27** 514, **TFM4** 417; *Timonius finlaysonianus* Hook.f., **FMP2** 113; shrub or small tree to 7 m tall; sandy and rocky shores; all coasts.
- 175.74.2a **Timonius corneri** K.M. Wong var. **corneri**, **W27** 500, **TFM4** 419; tree to 18 m tall; lowland and hill forest; Kl, Tg.
- 175.74.2b **Timonius corneri** K.M. Wong var. **penangianus** (Ridl.) K.M. Wong, **W27** 502, **TFM4** 419; *Timonius wallichianus* (Korth.) Valetton var. *penangianus* Ridl., **FMP2** 116; tree to 18 m tall; hill and montane forest; Kd, Pn, Pk, Ph.
- 175.74.3 **Timonius diffusus** Ridl., **FMP2** 115, **W27** 503, **TFM4** 417; tree to 10 m tall; montane forest at 1000–1500 m; Ph, Sl; endemic.
- 175.74.4 **Timonius flavescens** (Jack) Baker, **W27** 504, **TFM4** 418; *Timonius peduncularis* Ridl., **FMP2** 113; tree to 12 m tall; on peaty soils in the lowlands and mountains; throughout.
- 175.74.5 **Timonius glabrior** (Valeton) K.M. Wong, **W27** 505, **TFM4** 417; tree to 10 m tall; lowland forest; Pk; endemic.
- 175.74.6 **Timonius laxis** King & Gamble, **FMP2** 115, **W27** 506, **TFM4** 418; tree to 10 m tall; lowland forest; only known from type, Ulu Bubong, Pk; endemic.
- 175.74.7 **Timonius montanus** Ridl., **FMP2** 114, **W27** 506, **TFM4** 418; shrub to 3 m tall; montane forest above 1200 m; Gg Lawit, Tg; Gg Tahan & Gg Tapis, Ph; endemic.
- 175.74.8 **Timonius oreophilus** Ridl., **FMP2** 114, **W27** 506, **TFM4** 418; shrub to 6 m tall; hill and montane forest above 700 m; Ph, Sl; endemic.
- 175.74.9 **Timonius wallichianus** (Korth.) Valetton, **FMP2** 116, **W27** 507, **TFM4** 417; tree to 7 m tall; lowland forests, common in secondary vegetation; Pk, Ph, Sl, NS, MI, Jh, Sp.
- 175.74.10 **Timonius wrayi** King & Gamble, **FMP2** 115, **W27** 512, **TFM4** 419; tree to 15 m tall; lowland and hill forest; Tg, Pk, Ph, Jh; endemic.

- 175.74.11 **Timonius sp. A**, W27 509, TFM4 418; shrub to 3 m tall; lowland forest; NS; ?endemic.
- 175.74.12 **Timonius sp. B**, W27 509, TFM4 418; tree to 10 m tall; Jh; ?endemic.
- 175.74.13 **Timonius sp. C**, W27 512, TFM4 418; ?shrub; hill forest; Larut, Pk; ?endemic.
- 175.74.14 **Timonius sp. D**, W27 512, TFM4 417; ?shrub; Larut, Pk; ?endemic.
- 175.75.1 **Uncaria acida** (W. Hunt.) Roxb., R17 80; *Uncaria ovalifolia* Roxb., FMP2 14; slender liana; damp or swampy lowland forest; south of Malaya.
- 175.75.2 **Uncaria attenuata** Korth., FMP2 16, R17 79; slender liana; lowland forest; scattered.
- 175.75.3 **Uncaria barbata** Merr., R17 80; liana; localities uncertain.
- 175.75.4 **Uncaria borneensis** Havil., R17 79; liana; localities uncertain.
- 175.75.5 **Uncaria callophylla** Blume *ex* Korth., R17 85; *Uncaria wrayi* King & Gamble, FMP2 14; *Uncaria jasminiflora* Hook.f., FMP2 15; liana; lowland forests; widespread.
- 175.75.6 **Uncaria canescens** Korth., FMP2 16, R17 80; slender liana; lowland forest; Pn, Pk.
- 175.75.7a **Uncaria cordata** (Lour.) Merr. var. **cordata**, R17 75; *Uncaria pedicellata* Roxb., FMP2 12; liana; lowland forest; widespread.
- 175.75.7b **Uncaria cordata** (Lour.) Merr. var. **ferruginea** (Blume) Ridsdale, R17 76; *Uncaria sclerophylla* auct. non Roxb., FMP2 12; big liana; common in lowland forest; widespread.
- 175.75.8 **Uncaria elliptica** R.Br. *ex* G. Don, R17 81; *Uncaria dasyoneura* Korth., FMP2 16; liana; lowland forest; Pn, Pk, Ml.
- 175.75.9 **Uncaria gambir** (W. Hunt.) Roxb., FMP2 15, R17 82; liana; established in southern lowlands as relic of former cultivation; naturalized but origins obscure.
- 175.75.10 **Uncaria homomalla** Miq., R17 95; *Uncaria parviflora* (Ridl.) Ridl., FMP2 12; liana; open country; Ps.
- 175.75.11 **Uncaria kunstleri** King, FMP2 14, R17 80; big liana; lowland forest including peat swamps; Pk.
- 175.75.12b **Uncaria lanosa** Wall. var. **ferrea** (Blume) Ridsdale, R17 87; *Uncaria ferrea* (Blume) DC., FMP2 14 incl. var. *tomentosa* King; slender hairy liana; lowland forest margins; widespread.

- 175.75.12b **Uncaria lanosa** Wall. var. **glabrata** (Blume) Ridsdale, **R17** 86; *Uncaria glabrata* Blume, **FMP2** 14; slender liana; lowland forest; south of Malaya.
- 175.75.12c **Uncaria lanosa** Wall. var. **lanosa**, **R17** 86; *Uncaria lanosa* Wall., **FMP2** 12; hairy liana; forest margins; Pn, Pk, Ph, Ml.
- 175.75.13a **Uncaria longiflora** (Poir.) Merr. var. **longiflora**, **R17** 82; *Uncaria trinervis* Havil., **FMP2** 15; slender liana; hill forest; Pn.
- 175.75.13b **Uncaria longiflora** (Poir.) Merr. var. **pteropoda** (Miq.) Ridsdale, **R17** 82; *Uncaria pteropoda* Miq., **FMP2** 15; big liana; lowland forest margins; widespread.
- 175.75.14 **Uncaria roxburghiana** Korth., **FMP2** 11, **R17** 89; slender liana; lowland forest margins; widespread.
- 175.76.1 **Urophyllum blumeanum** (Wight) Hook.f., **TFM4** 421; *Urophyllum glabrum* Wall. var. *blumeanum sensu* Ridl., **FMP2** 69; shrub or small tree to 8 m tall; lowland and hill forest to 900 m; throughout.
- 175.76.2 **Urophyllum corymbosum** (Blume) Korth., **FMP2** 67, **TFM4** 422; *Maschalocorymbus corymbosus* (Blume) Bremek.; **B40** 182, **B03** 307; shrub or small tree to 9 m tall; lowland to lower montane forest at 1300 m; Ps, Ph, Sl, NS, Jh, Sp.
- 175.76.3 **Urophyllum ferrugineum** King & Gamble, **FMP2** 67, **TFM4** 421; shrub to 2 m tall; lowland to lower montane forest at 1300 m; Pk, Jh; endemic.
- 175.76.4 **Urophyllum glabrum** Wall., **FMP2** 68, **TFM4** 423; shrub or small tree to 5 m tall; lowland to lower montane forest at 1400 m; throughout.
- 175.76.5 **Urophyllum griffithianum** (Wight) Hook.f., **FMP2** 69, **TFM4** 423; shrub or small tree to 5 m tall; lowland and hill forest; Pn, Tg, Pk, Ph, Sl, NS, Ml, Jh, Sp.
- 175.76.6 **Urophyllum hirsutum** (Wight) Hook.f., **FMP2** 66, **TFM4** 422; shrub to 3 m tall; lowland and hill forest to 1000 m; throughout.
- 175.76.7 **Urophyllum lasiocarpum** Ridl., **FMP2** 66, **TFM4** 422; shrub to 2 m tall; lowland forest; Pk; endemic.
- 175.76.8 **Urophyllum leucophloeum** Ridl., **TFM4** 423; *Urophyllum coriaceum* Ridl., **FMP2** 68; shrub or small tree to 6 m tall; hill and montane forest to 1500 m; Tg, Pk, Ph, Sl, Ml; endemic.
- 175.76.9 **Urophyllum macrophyllum** Korth., **FMP2** 66, **TFM4** 422; shrub to 4 m tall; lowland to lower montane forest at 1300 m; Kl, Tg, Pk, Ph, Sl, NS.

- 175.76.10 **Urophyllum streptopodium** Wall. *ex* Hook.f., **FMP2** 67, **TFM4** 421; shrub or small tree to 7 m tall; lowland to lower montane forest at 1200 m; Pn, Kl, Tg, Pk, Ph, Sl, NS, Ml, Jh, Sp.
- 175.76.11 **Urophyllum trifurcum** H. Pearson *ex* King & Gamble, **FMP2** 68, **TFM4** 422; shrub or small tree to 15 m tall; lowland to lower montane forest at 1200 m; Pn, Kl, Tg, Pk, Ph, Sl, NS, Jh, Sp; endemic.
- 175.76.12 **Urophyllum umbellulatum** Miq., **FMP2** 68, **TFM4** 421; shrub to 4 m tall; lowland to hill forest; Kd, Pn, Sl, NS.
- 175.76.13 **Urophyllum villosum** Wall., **FMP2** 65, **TFM4** 422; *Maschalocorymbus villosus* (Wall.) Bremek., **B22** 182; shrub or small tree to 6 m tall; lowland and hill forest; Kd, Pn, Tg, Pk, Ph; endemic.
- Bremekamp [**B24** 189] also mentions one specimen (Holttum 10795) of *Leucolophus tobingensis* (Miq.) Bremek. from Gg Belumut, Jh.
- 175.76.14 **Urophyllum sp. 1**, **TFM4** 421; shrub; hill forest; Ulu Temango, Pk; ?endemic.
- 175.76.15 **Urophyllum sp. 2**, **TFM4** 421; shrub to 5 m tall; lowland to lower montane forest at 1300 m; Tg, Ph, Sl, Jh, Sp.
- 175.76.16 **Urophyllum sp. 3**, **TFM4** 421; shrub; hill forest; Ulu Brang, Tg; ?endemic.
- 175.76.17 **Urophyllum sp. 4**, **TFM4** 422; shrub to 3 m tall; lowland forest; Kl, Jh; ?endemic.
- 175.76.18 **Urophyllum sp. 5**, **TFM4** 422; shrub to 3 m tall; lowland forest; Pn, Ph; ?endemic.
- 175.76.19 **Urophyllum sp. 6**, **TFM4** 422; shrub or small tree to 10 m tall; lowland and hill forest; Tg, Ph, Jh; endemic.
- 175.76.20 **Urophyllum sp. 7**, **TFM4** 423; shrub to 2 m tall; montane forest; Tg, Ph; ?endemic.
- 175.76.21 **Urophyllum sp. 8**, **TFM4** 423; shrub to 4 m tall; lowland and hill forest; Kl, Pk.
- 175.76.22 **Urophyllum sp. 9**, **TFM4** 423; shrub to 4 m tall; lowland to lower montane forest at 1300 m; Ph, P. Tioman, Sl; ?endemic.
- 175.76.23 **Urophyllum sp. 10**, **TFM4** 424; shrub or small tree to 9 m tall; lowland and hill forest; Tg, Ph, Jh, Sp; ?endemic.
- 175.76.24 **Urophyllum sp. 11**, **TFM4** 422; shrub to 4 m tall; lowland forest; Tg, Ph; ?endemic.
- 175.76.25 **Urophyllum sp. 12**, **TFM4** 421; *Urophyllum hirsutum* (Wight) Hook.f. var. *longifolium* Ridl., **FMP2** 67; shrub to 2 m tall; lowland to hill forest; Jh.

- 175.76.26 **Urophyllum** sp. 13, **TFM4** 421; shrub to 2 m tall; hill forest; Ulu Brang, Tg; ?endemic.
- 175.77.1 **Wendlandia burkillii** Cowan, **TFM4** 424; *Wendlandia paniculata* sensu Ridl., **FMP2** 19; tree to 25 m tall; montane forest above 1500 m; Main Range.
- 175.77.2 **Wendlandia glabrata** DC., **TFM4** 425; tree to 30 m tall; montane forest above 1500 m; Main Range.
- 175.77.3 **Wendlandia ternifolia** Cowan, **H35** 108, **TFM4** 424; shrub to 5 m tall; rocky coasts; scattered.
- 175.78.1 **Xanthophyllum biceps** Ridl., **FMP5** 316; shrublet to 20 cm tall; Ulu Tahan, Ph.
Excluded from *Xanthophyllum* by **A18**.
- 175.78.2 **Xanthophyllum capitellatum** Ridl., **FMP5** 316, **A18** 483; *Xanthophyllum capitatum* (non Valetton) Ridl., **FMP2** 55; slender woody-stemmed “herb” to 30 cm tall; lowland forest; Kl, Tg; endemic.
- 175.79.1 **Zuccarinia macrophylla** Blume, **TFM4** 425; small tree; lowland forest; P, Aor, Jh.
176. RUTACEAE
- 176.1.1 **Acronychia pedunculata** (L.) Miq., **H19** 549; *Acronychia laurifolia* Blume, **FMP1** 347, **TFM1** 371; tree to 30 m tall; lowland and hill forest; P, Langkawi, Kd, Pn, Pk, Ph, Sl, Jh.
- 176.2.1 **Atalantia monophylla** (L.) DC., **FMP1** 356, **TFM1** 373; spiny shrub to 6 m tall; rocky and sandy coasts, dry open places; commonest in the north.
- 176.2.2 **Atalantia roxburghiana** Hook.f., **FMP1** 357, **TFM1** 373; weakly spiny shrub; open country, also on limestone; Pk, Ph, Ml, NS; ?endemic.
- 176.3.1 **Burkillanthus malaccensis** (Ridl.) Swingle, **TFM1** 373; *Citrus malaccensis* Ridl., **FMP1** 359; sparsely thorny tree to 12 m tall; lowland forest; Ph, Sl, Ml.
- 176.4.1 **Citrus aurantifolia** (Christm.) Swingle, **TFM1** 375; small tree; perhaps wild.
- 176.4.2 **Citrus halimii** B.C. Stone, **S68** 106, **S66** 123; *Citrus* sp. A, **TFM1** 375; tree to 23 m tall; lower montane forest at 600–1200 m, lower on limestone; Kd, Pk, Ph, NS.
- 176.4.3 **Citrus hystrix** DC., **FMP1** 358, **TFM1** 375; small tree; probably wild.
- 176.4.4. **Citrus macroptera** Montrouz., **TFM1** 374; small tree; lowland forest; northern half of the Peninsula.

- 176.5.1 **Clausena excavata** Burm.f., **FMP1** 352, **TFM1** 375; foetid shrub or small tree; lowland forest margins and open places; throughout.
- 176.5.2 **Clausena harmandiana** (Pierre) Pierre, **M53** 124; *Clausena macrophylla* auct. non Hook.f., **TFM1** 376; small tree; rare in N. Malaya.
- 176.6.1 **Fortunella polyandra** (Ridl.) Tanaka, **TFM1** 380; *Atalantia polyandra* Ridl., **FMP5** 295; shrub; lowlands; once each from Pk, Ml and Jh; ?endemic.
- 176.7.1a **Glycosmis chlorosperma** Spreng. var. **angustifolia** Narayanas., **S60** 3; shrub; lowland forest; Pk.
- 176.7.1b **Glycosmis chlorosperma** Spreng. var. **chlorosperma**, **TFM1** 382, **S46** 93; *Glycosmis malayana* Ridl., **FMP1** 350; *Glycosmis monticola* Ridl., **FMP1** 350, **TFM1** 382; shrub; lowland to montane forest; widespread.
- 176.7.1c **Glycosmis chlorosperma** Spreng. var. **lindleyana** (Swingle) B.C. Stone, **S60** 3; *Glycosmis macrophylla* [non (Blume) Miq.] Lindl., **FMP1** 349; *Glycosmis lindleyana* Swingle, **TFM1** 381; shrub; hill forest; Pn, Pk; endemic variety.
- 176.7.1d **Glycosmis chlorosperma** Spreng. var. **macrorachis** (King) B.C. Stone, **S60** 3; shrub; Pn; endemic variety.
- 176.7.1e **Glycosmis chlorosperma** Spreng. var. **paraphyllophora** B.C. Stone, **S60** 3; shrub; Pn.
- 176.7.2 **Glycosmis crassifolia** Ridl., **FMP1** 349, **TFM1** 381, **S63** 124; small tree; once each from Ml and Ph; endemic.
- 176.7.3 **Glycosmis collina** B.C. Stone, **S60** 4, **S66** 124; *Glycosmis macrocarpa* auct. non Wight, **FMP1** 349, **TFM1** 381; small tree; lower montane forest; Gg Batu Puteh, Pk, Fraser's Hill, Ph; endemic.
- 176.7.4 **Glycosmis decipiens** B.C. Stone, **TFM1** 381, **S46** 106, **S66** 125; *Phoenicimon rubiginosus* Ridl., **FMP5** 301; small shrub to 6 m tall; lowland to lower montane forest; Tg, Ph, P. Tioman, NS, Jh.
- 176.7.5 **Glycosmis lanceolata** Spreng., **TFM1** 381; *Glycosmis citrifolia* (Willd.) Lindl., **FMP1** 349 in part; small tree; open country; Kl to Sp.
- 176.7.6 **Glycosmis macrophylla** (Blume) Miq., **S66** 125; *Glycosmis sapindoides* Lindl. ex Wall., **FMP1** 351, **TFM1** 381, **S60** 34; *Glycosmis elata* Ridl., **FMP1** 351, **TFM1** 381; shrub; lowland forest; P. Langkawi, Pn, Kl, Tg, Pk.
- 176.7.7a **Glycosmis mauritiana** (Lam.) Tanaka var. **insularis** (Kurz) Tanaka, **S60** 14; shrub; once from Bt Sebukor, Ml.
- 176.7.7b **Glycosmis mauritiana** (Lam.) Tanaka var. **mauritiana**, **S60** 13, **S66** 124; *Glycosmis rupestris* Ridl., **FMP1** 350, **TFM1** 381; shrub; usually on limestone; Ps, P. Langkawi, Kd, Pn, Kl, Pk.

- 176.7.7c **Glycosmis mauritiana** (Lam.) Tanaka var. **tomentosa** (Ridl.) B.C. Stone, **S60** 14; *Glycosmis rupestris* Ridl. var. *tomentosa* Ridl., **FMP1** 350; shrub; P. Langkawi; endemic variety.
- 176.7.8 **Glycosmis pentaphylla** (Retz.) DC., **TFM1** 382, **S46** 87, **S60** 16, **S66** 125; *Glycosmis citrifolia* auct. non Lindl., **FMP1** 349 in part; small shrub; P. Langkawi, Kd, Kl.
- 176.7.9 **Glycosmis perakensis** Narayanas., **TFM1** 381, **S60** 16, **S66** 125; shrub, possibly rheophytic; Pk, Ph; endemic.
- 176.7.10 **Glycosmis puberula** Lindl., **FMP1** 351, **TFM1** 381, **S66** 124; shrub; forest, including that on limestone; Pn, Pk.
- 176.7.11 **Glycosmis stenura** B.C. Stone, **S60** 19; shrub to 4 m tall; only known from Gg Lang, Kd; endemic.
- 176.7.12 **Glycosmis tomentella** Ridl., **FMP1** 350, **TFM1** 382, **S60** 21, **S66** 126; shrub; montane forest; Gg Menuang Gasing, Sl.
- 176.7.13a **Glycosmis trichanthera** Guillaumin var. **kelantanica** (B.C. Stone) B.C. Stone, **S60** 22, **S66** 125; *Glycosmis calcicola* B.C. Stone var. *kelantanica* B.C. Stone, **TFM1** 381, **C15** 152; shrub to 3 m tall; on limestone; Kl; endemic variety.
- 176.7.13b **Glycosmis trichanthera** Guillaumin var. **trichanthera**, **S60** 21, **S66** 125; *Glycosmis calcicola* B.C. Stone var. *calcicola*, **TFM1** 381, **C15** 152; shrub to 3 m tall; on limestone; P. langkawi, Pk, Sl.
- 176.8.1 **Luvunga crassifolia** Tanaka; *Luvunga eleutherandra* Dalzell, **FMP1** 355; big liana with hooks; swampy lowland forest; Pk, Sp.
- 176.8.2 **Luvunga scandens** Buch.-Ham., **FMP1** 355; liana; lowland and hill forest; widespread.
- 176.9.1 **Maclurodendron magnificum** T.G. Hartley, **H22** 15, **S66** 127; *Acronychia* sp. nov.; **S48** 252; tree to 4.5 m tall; upper montane forest at 1500 m; known only from the summit of Gg Ulu Kali, Ph; endemic.
- 176.9.2 **Maclurodendron porteri** (Hook.f.) T.G. Hartley, **H22** 8; *Acronychia porteri* Hook.f., **FMP1** 348, **TFM1** 371; tree to 25 m tall; lowland to lower montane forest; throughout.
- 176.10.1 **Melicope accedens** (Blume) T.G. Hartley, **H23** 67, **S66** 132; *Euodia pilulifera* King, **FMP1** 344, **TFM1** 377; *Euodia latifolia* auct. non DC., **FMP1** 342 in part, **TFM1** 378 in part; shrub to 5 m tall; montane forest; Kl, Pk, Ph, NS; endemic.
- 176.10.2 **Melicope corneri** T.G. Hartley, **S66** 131; *Euodia latifolia* auct. non DC., **FMP1** 342 in part, **TFM1** 378 in part; shrub to 7.5 m tall; lowland and hill forest to 750 m; Ph, Sl, NS, Jh; endemic.

- 176.10.3 **Melicope glabra** (Blume) T.G. Hartley, **H23** 60, **S66** 130; *Euodia glabra* (Blume) Blume, **FMP1** 342, **TFM1** 377; tree to 25 m tall; lowland forest; widespread.
- 176.10.4 **Melicope hookeri** T.G. Hartley, **H23** 70, **S66** 133; *Euodia robusta* Hook.f., **FMP1** 343, **TFM1** 379; tree to 6 m tall; lowlands and hills; NS, Sp.
- 176.10.5 **Melicope latifolia** (DC.) T.G. Hartley, **H23** 72; tree to 20 m tall; lowland to lower montane forest; widespread.
- 176.10.6 **Melicope lunu-ankenda** (Gaertn.) T.G. Hartley, **H23** 61, **S66** 131; *Euodia malayana* Ridl., **FMP1** 342; *Euodia roxburghiana* (Cham.) Benth., **TFM1** 379; tree to 20 m tall; lowland forest; throughout.
- 176.10.7 **Melicope macrocarpa** (King) T.G. Hartley, **S66** 133; *Euodia macrocarpa* King, **FMP1** 344, **TFM1** 378; *Euodia euneura* auct. non (Miq.) Miq., **TFM1** 377; tree to 20 m tall; mostly in the lowlands; Pn, Pk, Ph, Sl.
- 176.10.8 **Melicope pachyphylla** (Blume) T.G. Hartley, **S66** 134; *Euodia pachyphylla* King, **FMP1** 344, **TFM1** 376; shrub to 4 m tall; upper montane forest; Pk, Ph; endemic.
- 176.10.9 **Melicope pahangensis** T.G. Hartley, **S66** 135; *Euodia simplicifolia* Ridl., **FMP1** 345, **TFM1** 376; shrub to 2 m tall; upper montane forest; summit of Gg Tahan and Gg Brinchang, Ph; endemic.
- 176.10.10 **Melicope suberosa** B.C. Stone, **S57** 94, **S66** 129; small tree to 10 m tall; upper montane forest at 1550 m; only known from the summit of Gg Ulu Kali, Ph; endemic.
- 176.11.1 **Merope angulata** (Willd.) Swingle, **TFM1** 382; *Merope longispina* Hook.f., **FMP1** 356; spiny shrub or small tree; mangrove swamps; Pk, NS, Ml, Sp.
- 176.12.1 **Merrillia caloxylon** (Ridl.) Swingle, **FMP1** 354, **TFM1** 383; small tree; lowland forest, often on riverbanks; Kd, Pk, Ph, Sl.
- 176.13.1 **Micromelum hirsutum** Oliv., **FMP1** 352, **TFM1** 383; shrub to 2 m tall; open country; Ml and Ph northward.
- 176.13.2 **Micromelum minutum** (G. Forst.) Wight & Arn., **TFM1** 383; *Micromelum pubescens* Blume, **FMP1** 352; shrub or small tree; hills, sometimes on limestone; P. Langkawi, Kd, Pk, Ph, Sl.
- 176.14.1 **Murraya paniculata** (L.) Jack, **TFM1** 384, **C15** 152; *Murraya exotica* L., **FMP1** 353; shrub or small tree to 5 m tall; wild on limestone hills, also widely cultivated; Kl, Pk.
- 176.15.1 **Paramignya cuspidata** (Ridl.) Swingle, **TFM1** 384; *Atalantia cuspidata* Ridl., **FMP1** 357; prickly shrub; lowland and hill forest; Pk, Ml; endemic.

- 176.15.2 **Paramignya lobata** Burkill, **TFM1** 384; *Atalantia hispida* auct. non Guillaumin, **FMP1** 357; scandent shrub; lowlands; widespread; endemic.
- 176.15.3 **Paramignya scandens** (Griff.) Craib var. **ridleyi** (Burkill) Swingle, **TFM1** 384; *Paramignya griffithii* Hook.f., **FMP1** 356; woody climber; lowlands; Ml, Sp; endemic variety.
- 176.16.1 **Tetractomia majus** Hook.f., **FMP1** 346, **TFM1** 385, **H20** 145; tree to 15 m tall; lowland peat swamp forest; Ml, Jh; endemic.
- 176.16.2 **Tetractomia tetrandum** (Roxb.) Merr., **TFM1** 385, **H20** 132; *Tetractomia roxburghii* Hook.f., nom. illeg., **FMP1** 346; *Terminthodia viridiflora* Ridl., **FMP1** 345, **TFM1** 385; *Tetractomia holttumi* Ridl., **FMP5** 295; shrub or tree to 35 m tall; lowlands and mountains; Kd, Pn, Kl, Tg, Pk, Ph, Sl, Jh, ?Sp.
- 176.17.1 **Tetradium glabrifolium** (Champ. ex Benth.) T.G. Hartley, **H21** 109, **S66** 139; *Euodia meliifolia* (Hance ex Walp.) Benth., **TFM1** 379; tree to 20 m tall; lowland forest; Bt Enggang F.R. and Gg Jerai, Kd.
- 176.17.2 **Tetradium sambucinum** (Blume) T.G. Hartley, **H21** 100, **S66** 139; tree; montane forest; once from Gg Mandi Angin, Tg.
- 176.18.1 **Zanthoxylum acanthopodium** DC., **H18** 209, **S41** 31, **TFM1** 386; prickly scandent shrub; montane forest margins; Cameron Highlands, Ph.
- 176.18.2 **Zanthoxylum myriacanthum** Wall. ex Hook.f., **FMP1** 347, **H18** 185, **TFM1** 386; prickly-trunked tree to 25 m tall; hill forest to 1000 m; Pn, Pk, Ph, Sl, NS, Ml.
- 176.18.3 **Zanthoxylum nitidum** (Roxb.) DC., **H18** 180, **TFM1** 386; *Zanthoxylum hirtellum* Ridl., **FMP1** 347; prickly climbing shrub; Pk, Ph, Sl, NS, Sp.
- 176.18.4 **Zanthoxylum rhetsa** (Roxb.) DC., **TFM2** 386; *Zanthoxylum limonella* (Dennst.) Alston, **H18** 197; prickly tree to 35 m tall; lowland forest; Kl.
177. **SABIACEAE**
- 177.1.1 **Sabia erratica** van de Water, **FMI10** 684; ?liana; lowland forest; only known from type; Bt Timah, Sp (dubiously localized); endemic.
- 177.1.2 **Sabia limoniacea** Wall. ex Hook.f., **FMP1** 513, **FMI10** 685; liana to 10 m long; hill forest; Pn, Pk.
- 177.1.3 **Sabia sumatrana** Blume, **FMP1** 513, **FMI10** 689; liana; lowland and hill forest; Pk.

178. SALICACEAE

- 178.1.1 **Salix tetrasperma** Roxb., **FMP1** 393, **TFM4** 433; narrow-leaved tree to 25 m tall; along rivers (male trees only); dubiously native in Pk, Ph, Sl.

179. SANTALACEAE

- 179.1 **Dendromyza reinwardtiana** (Blume) Danser, **S36** 59, **TFM2** 342; *Henslowia reinwardtiana* Blume, **FMP3** 169; twining hemiparasite; lowland forest; once from Pk.
- 179.2.1a **Dendrotrophe buxifolia** (Blume) Miq. var. **buxifolia**, **S36** 54, **TFM2** 342; *Henslowia buxifolia* Blume, **FMP3** 170; yellowish hemiparasitic shrubby twiner; dry open forest often near the sea; P. Langkawi, Pn, Jh, Sp.
- 179.2.1b **Dendrotrophe buxifolia** (Blume) Miq. var. **minor** (Ridl.) Stauffer, **S36** 58; *Henslowia minor* Ridl., **FMP3** 167; slender twining hemiparasite; Kd, Tg, Ph.
- 179.2.1c **Dendrotrophe buxifolia** (Blume) Miq. var. **multinervis** Stauffer, **S36** 59; twining hemiparasite; montane forest; Tg, Pk, Ph, Sl, Ml.
- 179.2.2 **Dendrotrophe umbellata** (Blume) Miq., **TFM2** 342; *Henslowia umbellata* Blume, **FMP3** 167; *Henslowia monticola* Gamble, **FMP3** 169; twining hemiparasite; forest; widespread.
- 179.2.3 **Dendrotrophe varians** (Blume) Miq., **TFM2** 342; *Henslowia ridleyi* Gamble, **FMP3** 167; *Henslowia philippinensis* A. DC., **FMP3** 168; *Henslowia wrayi* Gamble, **FMP3** 168; *Henslowia lobbiana* A. DC., **FMP3** 169; *Henslowia varians* Blume, **FMP3** 170; hemiparasitic twiner; widespread.
- 179.3.1 **Dufrenoyia euryphylla** (Danser) Stauffer, **S36** 67; hemiparasitic shrub; once from Ph.
- 179.3.2 **Dufrenoyia oresitropha** (Danser) Stauffer, **S36** 66; hemiparasitic shrub; Ph.
- 179.3.3 **Dufrenoyia papillosa** Stauffer, **S36** 66; hemiparasitic shrub; montane forest at 1200 m; Cameron Highlands, Ph; endemic.
- 179.4.1 **Phacellaria malayana** Ridl., **FMP3** 170; small leafless hyperparasitic epiphytic shrub; on mistletoes in montane forest; Ph, Sl.
- 179.5.1 **Scleropyrum pentandrum** (Dennst.) Mabb., **M02** 533; *Scleropyrum maingayi* Hook.f., **FMP3** 171; *Scleropyrum ridleyi* Gamble, **FMP3** 171; *Scleropyrum wallichianum* (Wight & Arn.) Arn., **TFM2** 343; spiny tree to 21 m tall; lowland forest; scattered throughout.

180. SAPINDACEAE

- 180.1.1 **Allophylus cobbe** (L.) Raeusch., **TFM4** 436 incl. vars. *glaber* Corner, *limosus* Corner, *marinus* Corner, *velutinus* Corner and *villosus* Corner, **FMI11** 459; *Allophylus fulvinervis* (Blume) Blume, **FMP1** 489; *Allophylus glaber* Roxb., *nom. illeg.*, **FMP1** 489; *Allophylus ternatus* Lour., **FMP1** 489; *Allophylus villosus* (Roxb.) Blume, **FMP1** 490; *Allophylus scandens* Ridl., **FMP1** 490; shrub or small tree to 15 m tall; lowland forests, often coastal; throughout.
- 180.2.1 **Amesiodendron chinense** (Merr.) Hu, **TFM4** 437, **FMI11** 467; tree to 30 m tall; hill forest at 300–400 m; Kd, Pk, Ph, Sl, NS.
- 180.3.1 **Arytera littoralis** Blume, **FMP1** 507, **TFM4** 438, **FMI11** 473; tree to 30 m tall; lowland forest; Kd, Pk, Ph, Sl, Ml.
- 180.4.1 **Cardiospermum halicacabum** L., **FMP1** 488, **TFM4** 434, **FMI11** 484; trailing or climbing vine; cultivated ground, waste places near the sea; widespread.
- 180.5.1 **Dimocarpus fumatus** (Blume) Leenh., **TFM4** 439, **FMI11** 515; tree to 20 m tall; lowland forest; once each from Baling, Kd, and Ulu Trengganu, Tg.
- 180.5.2a **Dimocarpus longan** Lour. ssp. **longan**, **TFM4** 439, **FMI11** 518; *Nephelium longana* Camb., **FMP1** 499; tree; lowland forest (longan of cultivation); twice from Pk.
- 180.5.2b **Dimocarpus longan** Lour. ssp. **malesianus** Leenh., **TFM4** 439, **FMI11** 519; *Nephelium malaiense* Griff., **FMP1** 503; *Nephelium echinulatum* (Radlk.) Ridl., **FMP1** 503; tree to 20 m tall; lowland forest (mata kuching of cultivation); Tg, Pk, Jh.
- 180.6.1 **Dodonaea viscosa** Jacq., **FMP1** 510, **TFM4** 440, **FMI11** 526; shrub or small tree to 6 m tall; sandy shores; mostly East Coast.
- 180.7.1 **Ganophyllum falcatum** Blume, **TFM4** 440, **FMI11** 538; tree to 24 m tall; coastal forest; once from Tg Penawar, Jh.
- 180.8.1 **Glenniea penangensis** (Ridl.) Leenh., **TFM4** 440, **FMI11** 542; *Tristira penangensis* Ridl., **FMP1** 496; tree to 30 m tall; lowland and hill forest to 1000 m; widespread; endemic.
- 180.9.1 **Guioa bijuga** (Hiern) Radlk., **TFM4** 441, **FMI11** 567; *Guioa pleuropteris* (Blume) Radlk. var. *bijuga* (Hiern) Ridl., **FMP1** 505; tree to 10 m tall; lowland forest; common throughout.
- 180.9.2 **Guioa diplopetala** (Hassk.) Radlk., **FMI11** 570; *Guioa fuscidula* (Kurz) Radlk., **FMP1** 506, **TFM4** 442; *Guioa squamosa* Radlk., **FMP1** 506, **TFM4** 442; *Guioa microphylla* Radlk., **FMP1** 506; *Guioa* sp. 1, **TFM4** 443; *Guioa* sp. 2, **TFM4** 443; ?*Guioa* sp. 3, **TFM4** 443; tree to 18 m tall; lowland and hill forest; northern half of the Peninsula.

- 180.9.3 **Guioa pleuropteris** (Blume) Radlk., **FMP1** 505, **TFM4** 442, **FMI11** 584; tree to 10 m tall; coastal and riverine forest; widespread.
- 180.9.4 **Guioa pubescens** (Zoll. & Moritzi) Radlk., **FMP1** 506, **TFM4** 442, **FMI11** 591; tree to 15 m tall; secondary forest; NS southward.
- 180.10.1 **Harpullia arborea** (Blanco) Radlk., **TFM4** 444, **FMI11** 601; tree to 20 m tall; lowland forest; Pk, Ph.
- 180.10.2 **Harpullia cupanioides** Roxb., **TFM4** 444, **FMI11** 606; *Harpullia confusa* Blume, **FMP1** 510; *Walsura villosa* auct. non Wall., **FMP1** 412; tree to 16 m tall; lowland forest; Kl, Pk, Ph, Sl, NS.
- 180.11.1 **Lepisanthes alata** (Blume) Leenh., **TFM4** 445, **FMI11** 646; small tree; once from Jh (possibly merely in cultivation).
- 180.11.2 **Lepisanthes amoena** (Hassk.) Leenh., **TFM4** 445, **FMI11** 636; *Otophora imbricata* Blume, **FMP1** 495; shrub to 3 m tall; Ph, Sl.
- 180.11.3 **Lepisanthes ferruginea** (Radlk.) Leenh., **TFM4** 445, **FMI11** 634; tree to 15 m tall; hill forest; Gg Bubu, Pk; P. Tioman.
- 180.11.4 **Lepisanthes fruticosa** (Roxb.) Leenh., **TFM4** 446, **FMI11** 643; *Otophora resecta* Radlk., **FMP1** 495; *Otophora sessilis* King, **FMP1** 495; *Otophora erythrocalyx* Hiern, **FMP1** 496; tree to 6 m tall; lowland forest, usually on slopes; Kd, Pn, Kl, Pk, Ph, Sl, Ml.
- 180.11.5 **Lepisanthes rubiginosa** (Roxb.) Leenh., **TFM4** 446, **FMI11** 648; *Erioglossum edule* (Blume) Blume, **FMP1** 492; *Lepisanthes hirta* Ridl., **FMP1** 494; tree to 10 m tall; coastal forest, widely cultivated; widespread.
- 180.11.6 **Lepisanthes senegalensis** (Poir.) Leenh., **TFM4** 446, **FMI11** 651; *Aphania paucijuga* (Hiern) Radlk., **FMP1** 492; tree to 20 m tall; lowland and hill forest to 1000 m; widespread.
- 180.11.7 **Lepisanthes tetraphylla** (Vahl) Radlk., **TFM4** 447, **FMP5** 301, **FMI11** 630; *Lepisanthes cuneata* Hiern, **FMP1** 493; *Lepisanthes kunstleri* King, *nom. illeg.*, **FMP1** 493; *Lepisanthes scortechinii* King, **FMP1** 493 incl. var. *hirta* Radlk.; *Lepisanthes longifolia* (Hiern) Radlk., **FMP1** 494; shrub or small tree to 8 m tall; lowland forest; widespread.
- 180.12.1 **Litchi chinensis** Sonn., **TFM4** 447, **FMI11** 654; tree to 30 m tall; hill forest; Kd, Tg, Pk, Sl, NS.
- 180.13.1 **Mischocarpus pentapetalus** (Roxb.) Radlk., **TFM4** 449, **FMI11** 662; *Mischocarpus sumatranus* Blume, **FMP1** 508; tree to 20 m tall; lowland and hill forest to 1500 m; scattered.

- 180.13.2 **Mischocarpus sundaicus** Blume, **TFM4** 449, **FMi11** 667; *Mischocarpus lessertianus* Ridl., **FMP1** 508; tree to 6 m tall; sandy or swampy coastal forest; widespread.
- 180.14.1 **Nephelium costatum** Hiern, **FMP1** 501, **TFM4** 451, **FMi11** 673; tree to 18 m tall; lowland forest; Pk, Ph, Sl, NS, Ml; endemic.
- 180.14.2a **Nephelium cuspidatum** Blume var. **cuspidatum**, **TFM4** 451, **FMi11** 676; tree to 20 m tall; lowland forest; Tg, Sl, NS, Jh.
- 180.14.2b **Nephelium cuspidatum** Blume var. **eriopetalum** (Miq.) Leenh., **TFM4** 451, **FMi11** 676; *Nephelium eriopetalum* Miq., **FMP1** 502; tree to 22 m tall; lowland forest; Kl, Ph, Sl, NS, Jh.
- 180.14.2c **Nephelium cuspidatum** Blume var. **ophioides** (Radlk.) Leenh., **TFM4** 451, **FMi11** 677; *Nephelium ophioides* Radlk., **FMP1** 502; tree to 23 m tall; lowland and hill forest; Ph, NS, Jh.
- 180.14.3 **Nephelium hamulatum** Radlk., **FMP1** 501, **TFM4** 452, **FMi11** 678; *Nephelium herveyi* Ridl., **FMP1** 500 in part; tree to 27 m tall; lowland forest; Kd, Pk, Ph, Sl, NS, Ml, Jh; endemic.
- 180.14.4 **Nephelium juglandifolium** Blume, **TFM4** 452, **FMi11** 679; *Nephelium tuberculatum* Radlk., **TFM4** 452; tree to 30 m tall; lowland forest; scattered.
- 180.14.5a **Nephelium lappaceum** L. var. **lappaceum**, **FMP1** 499, **TFM4** 453, **FMi11** 682; *Nephelium glabrum* Noronha var. *sufferugineum* (Radlk.) Ridl., **FMP1** 499; tree to 30 m tall; lowland and hill forest to 600 m (ubiquitously cultivated); scattered in the wild.
- 180.14.5b **Nephelium lappaceum** L. var. **pallens** (Hiern) Leenh., **TFM4** 453, **FMi11** 683; tree to 25 m tall; swampy lowland forest to 400 m; scattered widely.
- 180.14.6 **Nephelium laurinum** Blume, **TFM4** 453, **FMi11** 684; *Nephelium herveyi* Ridl., **FMP1** 500 in part, not including type; *Nephelium caudifolium* Ridl., **FMP1** 500; *Nephelium rubescens* Hiern, **FMP1** 500; tree to 20 m tall; wet lowland forest, often near streams; widespread.
- 180.14.7 **Nephelium maingayi** Hiern, **TFM4** 454, **FMi11** 685; *Nephelium glabrum* auct. non Noronha, **FMP1** 499; tree to 35 m tall; swampy lowland forest; Kl and Pk to Jh.
- 180.14.8 **Nephelium melliferum** Gagnep., **TFM4** 454, **FMi11** 688; tree to 30 m tall; sandstone ridge (350 m); Gg Kerbat, Tg, and one other collection.
- 180.14.9 **Nephelium ramboutan-ake** (Labill.) Leenh., **TFM4** 454, **FMi11** 679; *Nephelium mutabile* Blume, **FMP1** 501; tree to 35 m tall; lowland forest, riverbanks; Pn, Kl, Tg, Pk, Ph, Sl, Ml, Sp.

- 180.14.10 **Nephelium subfalcatum** Radlk., **TFM4** 455, **FMi11** 692; tree to 38 m tall; lowland forest, hillslopes; Pk, Ph, Jh.
- 180.14.11 **Nephelium uncinatum** Radlk. ex Leenh., **TFM4** 455, **FMi11** 692; tree to 20 m tall; lowland forest; Ulu Gombak, Sl.
- 180.14.12 **Nephelium** sp. 1, **TFM4** 455, **FMi11** 693; tree to 45 m tall; hill forest; Tapah Hills, Pk; endemic.
- 180.15.1 **Paranephelium macrophyllum** King, **FMP1** 509, **TFM4** 456, **FMi11** 696; tree to 10 m tall; lowland forest; Ps, Kd, Pk, Sp.
- 180.15.2 **Paranephelium spirei** Lecomte, **TFM4** 456, **FMi11** 696; tree to 15 m tall; lowland forest; Ps, Pk, Ph.
- 180.15.3 **Paranephelium xestophyllum** Miq., **TFM4** 457, **FMi11** 696; *Paranephelium nitidum* King, **FMP1** 509; tree to 35 m tall; lowland forest, sometimes on limestone; Kl, Pk, Ph, Sl, NS.
- 180.16.1 **Pometia pinnata** J.R. Forst. & G. Forst., **FMP1** 504, **TFM4** 457, **FMi11** 701; *Pometia macrocarpa* Kurz, **FMP1** 503; *Pometia alnifolia* (Blume) King, **FMP1** 504; tree to 40 m tall; damp forest in the lowlands and hills; throughout.
- 180.16.2 **Pometia ridleyi** King ex Radlk., **TFM4** 458, **FMi11** 703; tree to 50 m tall; lowland and hill forest to 750 m; Pk, Ph, Sl, NS.
- 180.17.1 **Trigonachras acuta** (Hiern) Radlk., **FMP1** 507, **TFM4** 459, **FMi11** 735; tree to 18 m tall; swampy lowland forest, often near the sea; Kl, Ph, Sl, Ml, Jh.
- 180.17.2 **Trigonachras** sp. 1, **TFM4** 459; tree; lowland forest; once from Jenangau F.R., Tg; endemic.
- 180.18.1 **Xerospermum laevigatum** Radlk., **FMP1** 497, **TFM4** 461, **FMi11** 748; *Xerospermum unijugum* Radlk., **FMP1** 497; tree to 30 m tall; lowland and hill forest to 700 m; throughout.
- 180.18.2 **Xerospermum noronhianum** (Blume) Blume, **TFM4** 461, **FMi11** 750; *Xerospermum echinulatum* Radlk., **FMP1** 497; *Xerospermum intermedium* Radlk., **FMP1** 497; *Xerospermum wallichii* King, **FMP1** 498; tree to 25 m tall; lowland forest to 500 m; widespread.
181. **SAPOTACEAE**
- 181.1.1 **Chrysopyllum roxburghii** G. Don, **FMP2** 257; *Chrysopyllum lanceolatum* [non Casar.] (Blume) A. DC., **TFM1** 396, **P15** 221; tree to 30 m tall; lowland forest; Kd, Ph, Sl, NS, Ml, Jh, Sp.

- 181.2.1 **Diploknema sebifera** Pierre, **TFM1** 396, **P15** 164; big tree to 40 m tall; lowland forest; Kl, Pk.
- 181.3.1a **Isonandra perakensis** King & Gamble var. **kelantanensis** Ng, **FMP1** 400; tree to 10 m tall; summits of limestone hills; Kl, Ph; endemic.
- 181.3.1b **Isonandra perakensis** King & Gamble var. **perakensis**, **FMP1** 261, **TFM1** 400, **P15** 154; small tree to 10 m tall; summits of limestone hills; three limestone outcrops in the Kinta Valley, Pk; endemic.
- 181.4.1 **Madhuca aristulata** (King & Gamble) H.J. Lam, **TFM1** 404, **P15** 156; *Bassia aristulata* King & Gamble, **FMP2** 266; tree to 10 m tall; once each from Gg Bintang, Kd and Gopeng, Pk; endemic.
- 181.4.2 **Madhuca calcicola** P. Royen, **TFM1** 405; small tree; on limestone; P. Langkawi; endemic.
- 181.4.3 **Madhuca cuprea** (King & Gamble) H.J. Lam, **TFM1** 405; *Bassia cuprea* King & Gamble, **FMP2** 270; tree to 20 m tall; once collected but type lost, Pk; endemic but doubtful species.
- 181.4.4 **Madhuca curtisii** (King & Gamble) Ridl., **FMP5** 319, **P15** 157; *Bassia curtisii* King & Gamble, **FMP2** 268; *Bassia perakensis* (King & Gamble) H.J. Lam, **FMP2** 269; *Madhuca chrysocarpa* (Pierre ex Dubard) Ridl., **FMP5** 342; *Ganua curtisii* (King & Gamble) H.J. Lam, **TFM1** 397; tree to 25 m tall; hill forest; Pn, Tg, Pk, Ph.
- 181.4.5 **Madhuca decipiens** J. Sinclair, **TFM1** 405, **P15** 157; *Payena grandiflora* Ridl., **FMP2** 262 in part; tree to 20 m tall; lowland forest; Jh, Sp.
- 181.4.6 **Madhuca erythrophylla** (King & Gamble) H.J. Lam, **TFM1** 405, **P15** 157; *Bassia erythrophylla* King & Gamble, **FMP2** 272; tree to 35 m tall; lowland forest; Pn, Ph, Jh (once each).
- 181.4.7 **Madhuca hirtiflora** (Ridl.) H.J. Lam, **FMP5** 319; *Bassia hirtiflora* Ridl., **FMP2** 266; *Ganua hirtiflora* (Ridl.) P. Royen, **TFM1** 398; tree to 12 m tall; lowland forest; Pk, Jh.
- 181.4.8 **Madhuca kingiana** (Brace ex King & Gamble) H.J. Lam, **FMP5** 319, **P15** 157; *Bassia kingiana* Brace ex King & Gamble, **FMP2** 267; *Ganua kingiana* (Brace ex King & Gamble) Van den Assem, **TFM1** 399; tree to 27 m tall; lowland and hill forest; Tg, Pk, Ph, Sl, Jh, Sp.
- 181.4.9 **Madhuca korthalsii** (Pierre ex Burck) H.J. Lam, **TFM1** 406, **P15** 157; *Bassia braceana* King & Gamble, **FMP2** 270; tree to 20 m tall; lowland forest; ?Kl, Pk, Ph, Sl.

- 181.4.10 **Madhuca kunstleri** (Brace ex King & Gamble) H.J. Lam, **TFM1** 406, **P15** 157; *Bassia kunstleri* Brace ex King & Gamble, **FMP2** 267; tree to 18 m tall; lowland and hill forest; Kd, Pk.
- 181.4.11 **Madhuca laurifolia** (King & Gamble) H.J. Lam, **TFM1** 406, **P15** 157; *Bassia laurifolia* King & Gamble, **FMP1** 269 incl. vars. *typica* Ridl. and *obtusifolia* Ridl.; *Bassia rupicola* (King & Gamble) H.J. Lam, **FMP2** 269; tree to 30 m tall; lowland and hill forest; Kd, Pn, Tg, Pk, Ph, NS, Jh.
- 181.4.12 **Madhuca longistyla** (King & Gamble) H.J. Lam, **TFM1** 407; *Bassia longistyla* King & Gamble, **FMP2** 270; tree to 30 m tall; lowlands and freshwater swamps; Pk; endemic.
- 181.4.13 **Madhuca malaccensis** (C.B. Clarke) H.J. Lam, **TFM1** 407, **P15** 158; *Bassia malaccensis* (C.B. Clarke) King & Gamble, **FMP2** 268; *Bassia elongata* auct. non Miq., **FMP2** 272; tree to 20 m tall; lowland forest; Kl, Tg, Pk, Ph, Sl, NS, Ml, Jh, Sp.
- 181.4.14 **Madhuca motleyana** (de Vriese) J.F. Macbr., **P15** 158; *Bassia motleyana* (de Vriese) C.B. Clarke, **FMP2** 271; *Ganua motleyana* (de Vriese) Pierre ex Dubard, **TFM1** 399; tree to 35 m tall; lowland forest and swamps; widespread.
- 181.4.15 **Madhuca obtusifolia** (King & Gamble) P. Royen, **TFM1** 408; *Payena obtusifolia* King & Gamble, **FMP2** 264; tree; only known from type, Pk; endemic.
- 181.4.16 **Madhuca penangiana** (King & Gamble) H.J. Lam, **TFM1** 408; *Bassia laurifolia* King & Gamble var. *parvifolia* King & Gamble, **FMP2** 269; *Bassia penangiana* King & Gamble, **FMP2** 269; tree to 25 m tall; hill and montane forest; Kd, Pn, Pk; endemic.
- 181.4.17 **Madhuca penicillata** (King & Gamble) H.J. Lam, **TFM1** 408; *Bassia penicillata* King & Gamble, **FMP2** 268; tree to 30 m tall; lowland forest; Kl, Tg, Pk, Sl, NS; endemic.
- 181.4.18 **Madhuca ridleyi** H.J. Lam, **TFM1** 409; tree to 15 m tall; usually on limestone hills; Ps, Kd, Kl, Pk, Ph; endemic.
- 181.4.19 **Madhuca rufa** (King & Gamble) P. Royen, **TFM1** 409; *Isonandra rufa* King & Gamble, **FMP2** 261; tree to 10 m tall; lowland forest; thrice from Pk; endemic.
- 181.4.20 **Madhuca selangorica** (King & Gamble) J. Sinclair, **TFM1** 410, **P15** 158; *Payena selangorica* King & Gamble, **FMP2** 264; tree to 15 m tall; lowland forest; Ph, Sl, NS; endemic.
- 181.4.21a **Madhuca sericea** (Miq.) H.J. Lam var. *ridleyi* (Gand.) Ng, **TFM1** 410; tree to 30 m tall; lowland forest; Tg, Jh, Sp.

- 181.4.21b **Madhuca sericea** (Miq.) H.J. Lam var. **sericea**, **TFM1** 410, **P15** 159; *Bassia argentea* auct. non de Vriese, **FMP2** 270; tree to 30 m tall; lowland forest; Pk, Ph, NS, Sp.
- 181.4.22 **Madhuca sessiliflora** P. Royen, **TFM1** 410; tree to 5 m tall; swampy lowland forest; Jh; endemic.
- 181.4.23 **Madhuca sessilis** (King & Gamble) Baehni, **B05** 36; *Ganua sessilis* (King & Gamble) H.J. Lam, **TFM1** 399; *Payena sessilis* King & Gamble, **FMP2** 265; tree; once from Singapore.
- 181.4.24 **Madhuca tomentosa** H.J. Lam, **FMP5** 342, **TFM1** 411; tree to 10 m tall; swampy lowland forest; Ph, Jh; endemic.
- 181.4.25 **Madhuca tubulosa** H.J. Lam, **TFM1** 411, **P15** 159; tree to 20 m tall; lowland forest; Tg, Jh; endemic.
- 181.4.26 **Madhuca utilis** (Ridl.) H.J. Lam, **TFM1** 411, **P15** 159; *Payena utilis* Ridl., **FMP2** 265; *Madhuca stenophylla* H.J. Lam, **FMP5** 342; tree to 40 m tall; lowland forest; Tg, Pk, Ph, Sl, Jh.
- 181.4.27 **Madhuca sp. A**, **TFM1** 412; tree to 30 m tall; lowland forest; Jh; ?endemic.
- 181.4.28 **Madhuca sp. B**, **TFM1** 412; tree to 30 m tall; lowland forest; Jh; ?endemic.
- 181.4.29 **Madhuca sp. C**, **TFM1** 412; tree to 15 m tall; lowland forest; once from Labis F.R., Jh; ?endemic.
- 181.5.1 **Manilkara kauki** (L.) Dubard, **TFM1** 414, **P15** 133; *Mimusops kauki* L., **FMP2** 278; tree to 23 m tall; rocky shores; Ph, Jh.
- 181.6.1 **Mimusops elengi** L., **FMP2** 278, **TFM1** 414, **P15** 123; tree to 15 m tall; rocky headlands; Ps, P. Langkawi, Kd.
- 181.7.1 **Palaquium burckii** H.J. Lam, **TFM1** 419, **P15** 150; tree to 27 m tall; peat swamp forest; Pontian, Jh.
- 181.7.2 **Palaquium clarkeanum** King & Gamble, **FMP2** 274 in part, **TFM1** 419; tree to 45 m tall; lowland forest; Kd, Kl, Tg, Pk, Ph, Sl, NS, Jh.
- 181.7.3 **Palaquium confertum** H.J. Lam, **TFM1** 419; tree to 27 m tall; once from swamp forest in Jh.
- 181.7.4 **Palaquium gutta** (Hook.f.) Baill., **FMP2** 274, **TFM1** 420, **P15** 150; tree to 25 m tall; lowland and hill forest; Pn, Kl, Pk, Ph, Sl, NS, Ml, Jh, Sp.
- 181.7.5 **Palaquium herveyi** King & Gamble, **FMP2** 276, **TFM1** 420; tree to 50 m tall; lowland forest; Kd, Pn, Kl, Pk, Ph, Sl, NS, Ml.

- 181.7.6 ***Palaquium hexandrum*** (Griff.) Baill., **FMP2** 277, **TFM1** 421, **P15** 151; tree to 50 m tall; mostly lowland forest, a few records from much higher; Kd, Pn, Kl, Pk, Ph, Sl, NS, MI, Jh, Sp.
- 181.7.7 ***Palaquium hispidum*** H.J. Lam, **FMP2** 421; tree to 45 m tall; lowland forest; Kd, Kl, Tg, Pk, Ph, Sl, NS, MI, Sp.
- 181.7.8 ***Palaquium impressinervium*** Ng, **TFM1** 422; tree to 45 m tall; lowland forest; Kd, Kl, Pk, Ph, NS.
- 181.7.9 ***Palaquium leiocarpum*** Boerl., **TFM2** 422, **P15** 151; tree to 35 m tall; lowland freshwater swamp forest; Kl, Tg.
- 181.7.10 ***Palaquium macrocarpum*** Burck, **TFM2** 422; tree to 25 m tall; lowland forest; Sl, Jh.
- 181.7.11 ***Palaquium maingayi*** (C.B. Clarke) King & Gamble, **FMP2** 273, **TFM1** 423, **P15** 151; tree to 30 m tall; lowland anmd hill forest; Kd, Kl, Pk, Ph, Sl, NS, MI, Jh; endemic.
- 181.7.12 ***Palaquium microphyllum*** King & Gamble, **FMP2** 276, **TFM1** 423, **P15** 151; tree to 30 m tall; lowland forest; Kd, Pk, Ph, Sl, NS, Jh, Sp.
- 181.7.13 ***Palaquium obovatum*** (Griff.) Engl., **FMP2** 273, **TFM1** 423, **P15** 151; tree to 30 m tall; lowland forest; Kd, Pn, Kl, Tg, Ph, Sl, NS, MI, Jh, Sp.
- 181.7.14 ***Palaquium ottolanderi*** Koord. & Valetton, **TFM1** 424, **P15** 151; tree to 45 m tall; lowland forest; Kd, Pk, Ph.
- 181.7.15 ***Palaquium oxleyanum*** Pierre, **FMP2** 275, **TFM1** 424; tree to 25 m tall; lowland and hill forest; Pk, Ph, Sl, Sp; endemic.
- 181.7.16 ***Palaquium regina-montium*** Ng, **TFM1** 425, **P15** 151; tree to 25 m tall; montane forest; Pk, Ph, Sl; endemic.
- 181.7.17 ***Palaquium ridleyi*** King & Gamble, **FMP2** 276, **TFM1** 426; tree to 40 m tall; lowland swamp forest; Pk, Ph, Sl, Jh, Sp.
- 181.7.18 ***Palaquium rostratum*** (Miq.) Burck, **TFM1** 426, **P15** 152; *Bassia cuneata* auct. non Blume, **FMP2** 272; *Palaquium bancanum* Burck, **FMP2** 275; *Palaquium calophylloides* Ridl., **FMP2** 276; tree to 50 m tall; lowland to montane forest; Kd, Pn, Kl, Tg, Pk, Ph, Sl, NS, MI, Jh, Sp.
- 181.7.19 ***Palaquium semaram*** H.J. Lam, **TFM1** 427; tree to 45 m tall; lowland forest; Kl, Tg, Ph, Jh.
- 181.7.20 ***Palaquium stellatum*** King & Gamble, **FMP2** 277, **TFM1** 427, **P15** 152; tree to 50 m tall; lowland forest; Kd, Kl, Pk, Ph, Sl, NS, MI, Jh.

- 181.7.21 **Palaquium sukoei** C.E.C. Fisch., **TFM1** 427; tree to 35 m tall; lowland and hill forest; Tg, Pk, Jh.
- 181.7.22 **Palaquium xanthochymum** (de Vriese) Pierre ex Burck, **FMP2** 275, **TFM1** 428; tree to 40 m tall; swampy lowland forest; Tg, Pk, Ph, Sl, Jh, Sp.
- 181.8.1 **Payena acuminata** (Blume) Pierre, **TFM1** 429, **P15** 160; tree to 15 m tall; lowland and hill forest; Tg, Ph.
- 181.8.2 **Payena dasyphylla** (Miq.) Pierre, **FMP2** 264, **TFM1** 430, **P15** 160; *Bassia caudata* Ridl., **FMP2** 267; tree to 27 m tall; lowland to montane forest; Kl, Pk, Ph, NS.
- 181.8.3 **Payena lanceolata** Ridl., **FMP2** 264, **TFM1** 430, **P15** 160; tree to 40 m tall; lowland and hill forest; Ps, Kd, Kl.
- 181.8.4 **Payena leerii** (Teijsm. & Binn.) Kurz, **FMP2** 263, **TFM1** 432; tree to 40 m tall; lowland forest; Pk, ?Sp.
- 181.8.5 **Payena longipedicellata** Brace ex King & Gamble, **FMP2** 262, **TFM1** 432; tree to 35 m tall; lowland forest; once from Pk (type).
- 181.8.6 **Payena lowiana** Pierre, **TFM1** 432; tree to 35 m tall; once from Bt Berapit, Pk.
- 181.8.7 **Payena lucida** (G. Don) A. DC., **FMP2** 263, **TFM1** 433, **P15** 160; *Payena dasyphylla* (Miq.) Pierre var. *glabrata* King & Gamble, **FMP2** 265; tree to 20 m tall; lowland to montane forest; Kd, Pn, Kl, Tg, Pk, Ph, Sl, NS, Ml, Jh, Sp.
- 181.8.8 **Payena maingayi** C.B. Clarke, **FMP2** 262, **TFM1** 433, **P15** 160; *Payena grandiflora* Ridl., **FMP2** 262 in part; tree to 45 m tall; lowland forest; Kd, Pn, Tg, Pk, Ph, Sl, NS, Ml, Jh, Sp; endemic.
- 181.8.9 **Payena obscura** Burck, **TFM1** 433; *Payena havilandii* King & Gamble, **FMP2** 263; tree to 35 m tall; lowland to lower montane forest; Kd, Pn, Pk, Ph, Sl, Jh, Sp.
- 181.8.10 **Payena sp. A**, **TFM1** 434; tree to 27 m tall; lowland forest; twice from Bt Bauk, Tg.
- 181.9.1 **Pouteria firma** (Miq.) Baehni, **P15** 198; *Sideroxylon firmum* (Miq.) Pierre ex Burck, **FMP2** 260; *Planchonella firma* (Miq.) Dubard, **TFM1** 435; tree to 25 m tall; montane forests, once on rocky coast; Kd, Pn, Ph, Jh.
- 181.9.2 **Pouteria glabra** (Ridl.) I.M. Turner, **T24** 223; *Planchonella glabra* (Ridl.) H.J. Lam, **TFM1** 435; *Sideroxylon glabrum* Ridl., **FMP2** 259; tree to 27 m tall; montane forest; known only from Fraser's Hill, Ph.

- 181.9.3 **Pouteria linggensis** (Burck) Baehni, **P15** 199; *Chrysophyllum curtisii* King & Gamble, **FMP2** 257; *Sideroxylon littorale* Ridl., **FMP2** 259; *Planchonella linggensis* (Burck) Pierre, **FMP2** 436; tree to 20 m tall; rocky coasts and hill forest; Pn, Ph, Jh, Sp.
- 181.9.4 **Pouteria maingayi** (C.B. Clarke) Baehni, **P15** 199; *Sideroxylon maingayi* C.B. Clarke, **FMP2** 258; *Planchonella maingayi* (C.B. Clarke) P. Royen, **TFM1** 436; tree to 35 m tall; lowland and hill forest; throughout.
- 181.9.5 **Pouteria malaccensis** (C.B. Clarke) Baehni, **TFM1** 438, **P15** 199; *Sideroxylon malaccense* C.B. Clarke, **FMP2** 258; tree to 35 m tall; lowland to lower montane forest; throughout.
- 181.9.6 **Pouteria obovata** (R.Br.) Baehni, **P15** 199; *Sideroxylon ferrugineum* Hook. & Arn., **FMP2** 259; *Planchonella obovata* (R.Br.) Pierre, **TFM2** 437; tree to 25 m tall; rocky and sandy shores, also on limestone; all coasts.
- 181.9.7 **Pouteria paucinervia** Erlee, **TFM1** 438; tree to 27 m tall; swampy lowland forest; Tg, Jh.
- 181.10.1 **Sarcosperma paniculatum** (King) Stapf & King, **FMP2** 260, **TFM1** 440, **P15** 180; tree to 35 m tall; lowland and hill forest; Pk, Ph, Sl, Ml, Jh, Sp.
- 181.10.2 **Sarcosperma uittienii** H.J. Lam, **TFM1** 441; tree to 15 m tall; hill forest; Ulu Gombak and Ulu Langat, Sl.

182. SCHISANDRACEAE

- 182.1.1 **Kadsura lanceolata** King, **FMP1** 21, **S28** 203; slender liana; hill forest; Taiping Hills, Pk; Fraser's Hill, Ph.
- 182.1.2 **Kadsura scandens** Blume, **FMP1** 20, **S28** 199; *Kadsura cauliflora* Blume, **FMP1** 20; slender liana; lowland forest; widespread.

183. SCROPHULARIACEAE

- 183.1.1 **Adnosma caerulea** R.Br., **FMP2** 474, **Y05** 26, **Y06** 147; aromatic herb to 60 cm tall; grassy places; widespread.
- 183.1.2 **Adenosma hirsuta** (Miq.) Kurz, **FMP2** 475, **Y06** 148 'hirsutum'; robust herb to 1 m tall; sandy places; P. Langkawi, Pn.
- 183.1.3 **Adenosma indiana** (Lour.) Merr., **Y05** 29, **Y06** 150 'indianum'; *Adenosma capitata* (Benth.) Benth. ex Hance, **FMP2** 474; herb to 60 cm tall; sandy waste ground; widespread.

- 183.1.4 **Adenosma inopinata** Prain, **FMP2** 474; herb to 60 cm tall; damp grassy places; mostly in the south.
- 183.1.5 **Adenosma javanica** (Blume) Koord., **Y05** 35, **Y06** 152; *Adenosma ovata* (Benth.) Benth., **FMP2** 474 'ovatum'; low creeping herb; on shaded banks; widespread.
- 183.2.1 **Aeginetia pedunculata** Wall., **FMP2** 488; parasitic herb to 15 cm tall; hill forest; Pk.
- 183.3.1 **Artanema longifolium** (L.) Vatke, **Y05** 76, **Y06** 176, **M47** 514; *Artanema angustifolium* Benth., **FMP2** 484; herb to 1 m tall; marshy places; Ps, Pn, Kl, Pk, Ph, Sl, Jh, ?Sp.
- 183.4.1 **Bacopa floribunda** (R.Br.) Wettst., **Y05** 24, **Y06** 146; *Herpestis floribunda* R.Br., **H31** 57; herb to 50 cm tall; waste ground.
- 183.4.2 **Bacopa monnieri** (L.) Wettst., **Y05** 21, **Y06** 145; *Herpestis monnieri* (L.) Kunth, **FMP2** 475; prostrate succulent herb to 15 cm tall; damp places; widespread.
- 183.5.1 **Centranthera hispida** R. Br., **C15** 157; herb; once from Selat Panchur, P. Langkawi.
- 183.5.2 **Centranthera tranquebarica** (Spreng.) Merr., **Y05** 177, **Y06** 226; *Centranthera humifusa* Wall. ex Benth., **FMP2** 487; herb to 15 cm tall; short grass; P. Langkawi, Ml, Sp.
- 183.6.1 **Christisonia scortechinii** Prain, **FMP2** 489; fleshy white parasitic herb; hill forest; Pk, Sl.
- 183.7.1 **Cyrtandromoea grandis** Ridl., **FMP2** 543, **B43** 85, **Y06** 154; shrub to 2 m tall; lowland and hill forest; Kl, Tg, Pk, Sl, NS, Jh.
- 183.7.2 **Cyrtandromoea megaphylla** Hemsl., **FMP2** 543, **B43** 84; spreading shrub to 3 m tall; hill forest; Pk, Ph; endemic.
- 183.7.3 **Cyrtandromoea subsessilis** (Miq.) B.L. Burtt, **B43** 86, **Y06** 155; *Cyrtandromoea acuminata* C.B. Clarke, **FMP2** 542; shrub to 1 m tall; lowland and hill forest; Kd, Pn, Kl, Tg, Pk, Ph, Sl, NS.
- 183.8.1a **Limnophila chinensis** (Osbeck) Merr. ssp. **aromatica** (Lam.) T. Yamazaki, **Y04** 600; *Limnophila gratissima* Blume, **FMP2** 478; *Limnophila aromatica* (Lam.) Merr., **P18** 145; herb to 50 cm tall; pools in lowland forest; Pk, Ml, Sp.
- 183.8.1b **Limnophila chinensis** (Osbeck) Merr. ssp. **chinensis**, **P18** 151, **Y04** 598; *Limnophila hirsuta* (Heyne ex Benth.) Benth., **FMP2** 477; herb to 40 cm tall; damp places; Pk, Ml (once each).

- 183.8.2 ***Limnophila erecta*** Benth., **FMP2** 477, **P18** 157, **Y04** 593, **M47** 526; herb to 30 cm tall; streams and pools; Kl, Tg, Pk, Sl, Ml, Jh.
- 183.8.3 ***Limnophila glabra*** (Benj.) Kerr, **P18** 121, **Y04** 582, **Y06** 163; *Limnophila griffithii* Hook.f., **FMP2** 479; small tufted aquatic herb to 10 cm long; muddy pools; Ml.
- 183.8.4 ***Limnophila heterophylla*** (Roxb.) Benth., **FMP2** 479, **P18** 124, **Y04** 580, **Y06** 162; slender aquatic herb to 50 cm long; pools, rice-fields; Ps, P. Langkawi, Ml.
- 183.8.5 ***Limnophila hippuridoides*** Philcox, **P18** 150; aquatic herb to 60 cm long; pools; Pk, Ml; endemic.
- 183.8.6 ***Limnophila indica*** (L.) Druce, **P18** 115, **Y04** 581, **Y06** 163; amphibious herb to 15 cm tall; ditches; once from Kd.
- 183.8.7 ***Limnophila laxa*** Benth., **FMP2** 478, **P18** 161, **Y04** 589, **Y06** 168; slender flaccid herb to 25 cm tall; damp open places; Ps, P. Langkawi, Pn, Tg, Pk, NS, Ml, Sp.
- 183.8.8 ***Limnophila micrantha*** (Benth.) Benth., **FMP2** 476, **P18** 144, **Y04** 585, **Y06** 166; slender herb to 10 cm tall; rice-fields; Kd, Ph.
- 183.8.9 ***Limnophila repens*** (Benth.) Benth., **P18** 154, **Y04** 589, **Y06** 169; herb to 40 cm tall; Pn.
- 183.8.10 ***Limnophila rugosa*** (Roth) Merr., **P18** 135, **Y04** 584; *Limnophila roxburghii* auct. non G. Don, **FMP2** 476; stout herb to 60 cm tall; muddy places; P. Langkawi, Pk.
- 183.8.11 ***Limnophila sessiliflora*** (Vahl) Blume, **FMP2** 478, **P18** 112, **Y04** 579; aquatic herb to 40 cm tall; rice-fields, ditches, pools; P. Langkawi, Sp.
- 183.8.12 ***Limnophila villifera*** Miq., **FMP2** 477, **P18** 140; herb to 70 cm tall; once from Pk.
- 183.8.13 ***Limnophila villosa*** Blume, **FMP2** 477, **P18** 141, **M47** 528; aromatic herb to 40 cm tall; ditches and damp spots; common and widespread.
- 183.9.1 ***Lindernia anagallis*** (Burm.f.) Pennell, **P17** 45, **Y06** 192, **M47** 530; *Vandellia pedunculata* Benth., **FMP2** 481; herb to 50 cm tall; marshy ground; Kd, Tg, Pk, Ph, Sl, Ml, Jh, Sp.
- 183.9.2 ***Lindernia antipoda*** (L.) Alston, **P17** 57, **Y06** 199, **M47** 532; *Bonnaya veronicifolia* (Retz.) Spreng., **FMP2** 486 incl. vars. *grandiflora* (Retz.) Hook.f. and *verbenifolia* (Colsm.) Hook.f.; herb to 30 cm tall; damp grassy places; P. Langkawi, Kd, Pn, Kl, Tg, Pk, Sl, Ml, Sp.

- 183.9.3 **Lindernia caespitosa** (Blume) Panigrahi, **P02** 320; *Vandellia scabra* Benth., **FMP2** 480; *Lindernia pusilla* (Willd.) Bold., **P17** 41; herb to 10 cm tall; open sandy places; Pn, Kl, Tg, NS, Sp.
- 183.9.4 **Lindernia ciliata** (Colsm.) Pennell, **P17** 51, **Y06** 200, **M47** 534; *Bonnaya brachiata* Link & Otto, **FMP2** 485; herb to 20 cm tall; damp spots by streams; Kl, Tg, Pk, Ph, Ml, Sp.
- 183.9.5 **Lindernia crustacea** (L.) F. Muell., **P17** 17, **Y06** 193, **M47** 536; *Vandellia crustacea* (L.) Benth., **FMP2** 479; herb to 20 cm tall; sandy waste ground, paths and drains; throughout.
- 183.9.6 **Lindernia elata** (Benth.) Wettst., **Y03** 20, **Y06** 187; *Vandellia elata* Benth., **FMP2** 481 in part; *Lindernia urticifolia* (Hance) Bonati, **P17** 31; herb to 25 cm tall; paddy-fields; once from near Besut, Tg.
- 183.9.7 **Lindernia mollis** (Benth.) Wettst., **Y05** 91, **Y06** 186; *Vandellia mollis* Benth., **FMP2** 480; *Lindernia montana* [non Hiern] (Blume) Koord., **P17** 44; herb to 20 cm tall; pathways; Pk.
- 183.9.8 **Lindernia multiflora** (Roxb.) Mukerjee, **P17** 36; *Vandellia multiflora* (Roxb.) G. Don, **FMP2** 480; herb to 15 cm tall; damp sandy places; once from near Kangar, Ps.
- 183.9.9 **Lindernia nummulariifolia** (D. Don) Wettst., **S30** 80; *Lindernia sessiliflora* (Benth.) Wettst., **P17** 10; herb to 10 cm tall; short grass; Ml, Sp; ?naturalized.
- 183.9.10 **Lindernia procumbens** (Krock.) Borbás, **P17** 29, **Y05** 82, **Y06** 181, **M47** 540; herb to 25 cm tall; once from Pn.
- 183.9.11 **Lindernia ruellioides** (Colsm.) Pennell, **P17** 54, **Y06** 201; *Bonnaya reptans* (Roxb.) Spreng, **FMP2** 485; herb to 20 cm tall; wet spots in the lowlands and hills; Kl, Pk, Ph, Sl, Ml, Jh, Sp.
- 183.9.12 **Lindernia tenuifolia** (Colsm.) Alston, **P17** 62; herb to 15 cm tall; marshy ground; Tg.
- 183.9.13 **Lindernia viscosa** (Hornem.) Bold., **P17** 38, **Y05** 90, **Y06** 184; *Vandellia hirsuta* Benth., **FMP2** 480; herb to 15 cm tall; open sandy places; Kl, Tg, Pk, Ph, Sp.
- 183.10.1 **Mazus pumilus** (Burm.f.) Steenis, **Y05** 45, **Y06** 159; *Mazus rugosus* Lour., **FMP2** 473; stoloniferous herb; weed of cultivation; Sp.
- 183.11.1 **Microcarpaea minima** (J. König ex Retz.) Merr., **Y05** 156, **Y06** 215, **M47** 542 'Mitracarpaea'; *Microcarpaea muscosa* R.Br., **FMP2** 486; small tufted herb to 10 cm tall; pond margins, damp places; Pk, Sp.

- 183.12.1 **Picria fel-terrae** Lour., **Y05** 37, **Y06** 153 ; *Curanga amara* Juss., **FMP2** 484, **C15** 157; herb to 30 cm tall; lowland forest, also on limestone; Kl, Pk, Ph, Sl.
- 183.13.1 **Scoparia dulcis** L., **FMP2** 488, **Y06** 218, **M47** 544; herb to 60 cm tall; waste ground; common throughout; naturalized from tropical America.
- 183.14.1 **Stemodia verticillata** (Mill.) Bold., **Y05** 72; herb to 30 cm tall; roadsides, waste places; Sp.
- 183.15.1 **Striga asiatica** (L.) Kuntze, **Y06** 232, **M47** 546; *Striga hirsuta* Benth., **FMP2** 487; slender hemi-parasitic herb to 15 cm tall; short sward; widespread.
- 183.16.1 **Torenia atropurpurea** Ridl., **FMP2** 483; *Schizotorenia atropurpurea* (Ridl.) T. Yamaz., **Y06** 206; creeping herb; banks in montane forest; Kd, Pk, Ph, Sl.
- 183.16.2 **Torenia bimaculata** Ridl., **FMP2** 482; herb to 30 cm tall; river banks; Sg Chaning, Kl.
- 183.16.3 **Torenia caelestis** Ridl., **FMP2** 483; slender creeping herb; grassy paths; Kota Tinggi, Jh.
- 183.16.4 **Torenia ciliata** Sm., **FMP2** 482; herb to 30 cm tall; waysides; Ps, Kd, Pn, Kl, Pk.
- 183.16.5 **Torenia flava** Buch.-Ham. ex Benth., **FMP2** 483, **Y04** 606, **Y06** 207; herb to 30 cm tall; pathsides; Pk.
- 183.16.6 **Torenia polygonoides** Benth., **FMP2** 484; *Legazpia polygonoides* (Benth.) T. Yamaz., **Y05** 154, **Y06** 214; slender prostrate herb; damp grassy places; common throughout.
- 183.16.7 **Torenia violacea** (Azaola ex Blanco) Pennell, **Y04** 620, **Y06** 212, **M47** 548; *Torenia peduncularis* Benth. ex Hook.f., **FMP2** 482; herb to 30 cm tall; by forest streams; Kd, Pn, Kl, Pk, NS, Ml.
- 183.17.1 **Wightia borneensis** Hook.f., **FMP2** 472; climbing arborescent epiphyte; hill forest; Pk, Ph, Ml.
184. **SIMAROUBACEAE**
- 184.1.1 **Ailanthus integrifolia** Lam., **FMi6** 218, **TFM2** 346; tree to 24 m tall; lowland forest; once from Seletar Reservoir, Sp.
- 184.1.2 **Ailanthus triphysa** (Dennst.) Alston, **FMi6** 219, **TFM2** 346; tree to 18 m tall; lowland forest; Ps, Kd, Pk.

- 184.2.1 **Brucea javanica** (L.) Merr., **FMi6** 211, **TFM2** 348; *Brucea sumatrana* Roxb., **FMP1** 361; shrub or small tree to 10 m tall; open country; throughout but commoner in the north.
- 184.3.1 **Eurycoma apiculata** Benn., **FMP1** 363, **FMi6** 206, **TFM2** 349; treelet to 5 m tall; usually in the mountains, about 1200 m; widespread.
- 184.3.2 **Eurycoma longifolia** Jack, **FMP1** 362, **FMi6** 205, **TFM2** 349; treelet to 5 m tall; lowlands and hills; throughout.
- 184.4.1 **Harrisonia perforata** (Blanco) Merr., **FMi6** 208, **TFM2** 350; *Harrisonia bennettii* Benn., **FMP1** 360; ?*Harrisonia brownii* auct. non A. Juss., **FMP1** 360; scandent prickly shrub; open country; Ps, ?Kd, ?Pk.
- 184.5 **Picrasma javanica** Blume, **FMP1** 361, **FMi6** 214, **TFM2** 351; tree to 24 m tall; lowland forest to 750 m; Pk, Sl, NS, Ml.
- 184.6.1 **Quassia indica** (Gaertn.) Noot., **FMi6** 199, **TFM2** 352; *Samadera indica* Gaertn., **FMP1** 363; tree to 20 m tall; tidal swamps; Jh, Sp.
185. SOLANACEAE
- 185.1.1 **Browallia americana** L., **S53** 144, **T19** 126; herb; weed of cultivation; hill stations; Cameron Highlands and Genting Highlands, Ph; naturalized from tropical America.
- 185.2.1 **Lycianthes biflora** (Lour.) Bitter, **B03** 476; *Solanum biflorum* Lour., **FMP2** 467, **C15** 158; *Solanum decemdentatum* Roxb., **FMP2** 466, **C15** 158; shrub; mostly limestone; Kl, Ph, Sl.
- 185.2.2 **Lycianthes laevis** (Dunal) Bitter, **S53** 144; *Solanum blumei* Nees, **FMP2** 466; shrub to 2 m tall; hill and montane forest; widespread.
- 185.2.3 **Lycianthes parasitica** (Blume) Bitter, **B03** 476; *Solanum parasiticum* Blume, **FMP2** 466; epiphytic shrub to 1 m tall; lowland forest; Pk, Jh.
- 185.3.1 **Physalis minima** L., **FMP2** 470; herb to 45 cm tall; waste ground, sea shores; widespread. .
- 185.4.1 **Solanum capsicoides** All., **H38** 374; *Solanum aculeatissimum* auct. non Jacq., **FMP2** 468; prickly herb to 30 cm tall; sandy sea shores; widespread; naturalized from tropical America.
- 185.4.2 **Solanum coagulans** Forssk., **FMP2** 468; prickly shrub; waste ground; Kl, Sp.
- 185.4.3 **Solanum erianthum** D. Don, **H38** 369; *Solanum verbascifolium* auct. non L., **FMP2** 466; shrub to 3 m tall; open ground; Kd, Pn, Kl, Ph, Sl.

- 185.4.4 **Solanum indicum** L., **FMP2** 468; shrub to 2 m tall; waste ground; Kl, Ph, Sl, Ml.
- 185.4.5 **Solanum involucratum** Blume, **FMP2** 467; prickly shrub; open places; Ps, Pk.
- 185.4.6 **Solanum lasiocarpum** Dunal, **H38** 371; *Solanum ferox sensu auctt., non* L., **FMP2** 467; prickly shrub to 1 m tall; waste ground; widespread.
- 185.4.7 **Solanum mammosum** L., **FMP2** 467; shrub to 1 m tall; roadsides, waste ground; naturalized from tropical America.
- 185.4.8 **Solanum nigrum** L., **FMP2** 465; herb to 1 m tall; waste ground; common throughout.
- 185.4.9 **Solanum sarmentosum** Nees, **FMP2** 469; procumbent prickly shrub; garden weed, waste ground; Ph, Ml, Sp.
- 185.4.10 **Solanum torvum** Sw., **FMP2** 468, **H38** 376; shrub to 2 m tall; waste ground, sometimes cultivated; widespread.
- 185.4.11 **Solanum trilobatum** L., **FMP2** 469, **H38** 380; slender thorny climber; waste ground; Pn, Sl, Ml; naturalized from continental Asia.

186. STAPHYLEACEAE

- 186.1.1 **Turpinia ovalifolia** Elmer, **FM16** 58, **TFM1** 448; *Turpinia trifoliata* Ridl., **FMP1** 511; shrub or tree to 8 m tall; lowland and hill forest, sometimes on limestone; P. Langkawi, Kl, Pk, Sl, NS.
- 186.1.2 **Turpinia sphaerocarpa** Hassk., **FM16** 57, **TFM1** 448; *Turpinia latifolia* Wall. ex Ridl., **FMP1** 512; *Turpinia laxiflora* Ridl., **FMP1** 512; tree to 20 m tall; lowland and hill forest; Kd, Pk, Ph, Sl, Ml, Jh, Sp.

There is also one doubtful record of *Turpinia pomifera* (Roxb.) DC. [**FM16** 58, **TFM1** 448] from montane forest in Pk.

187. STERCULIACEAE

- 187.1.1 **Abroma augusta** (L.) Willd., **FMP1** 286, **FMP2** 355; shrub to 2 m tall; open places; Pk, Ph, Sl.
- 187.2.1 **Byttneria brevipes** Ridl., **FMP1** 287; slender liana; forest margins; Pk; ?endemic.
- 187.2.2 **Byttneria curtisii** Oliv., **FMP1** 287; slender liana; lowland and hill forest; scattered.

- 187.2.3 **Byttneria elegans** Ridl., **FMP1** 288; slender liana; river banks; Pk, Ph.
- 187.2.4 **Byttneria elliptica** Mast., **FMP1** 288; climbing shrub; Ml.
- 187.2.5 **Byttneria jackiana** Wall., **FMP1** 287; liana; lowland and hill forest; widespread.
- 187.2.6 **Byttneria maingayi** Mast., **FMP1** 286; liana; lowland forest margins; widespread.
- 187.3.1 **Commersonia bartramia** (L.) Merr., **TFM2** 357; *Commersonia platyphylla* Andr., **FMP1** 288; tree to 12 m tall; lowland disturbed sites; widespread.
- 187.4.1 **Firmiana malayana** Kosterm., **TFM2** 357; *Erythropsis fulgens* (Wall. ex Mast.) Ridl., **FMP1** 277; deciduous tree to 24 m tall; lowland and hill forest to 1200 m; NS northward.
- 187.5.1 **Helicteres angustifolia** L., **FMP1** 282, **C14** 160; *Helicteres lanceolata* DC.; **H33** 411; shrub to 1 m tall; sandy and rocky places, limestone; widely scattered.
- 187.5.2 **Helicteres hirsuta** Lour., **FMP1** 281; shrub to 3 m tall; open country including limestone; widespread.
- 187.5.3 **Helicteres isora** L., **FMP1** 281; shrub; open country; Pn, Pk, Ph.
- 187.5.4 **Helicteres viscida** Blume, **FMP1** 281; shrub to 2 m tall; open country; Kl, Ph.
- 187.6.1 **Heritiera borneensis** (Merr.) Kosterm., **TFM2** 360; *Tarrietia unifoliolata* Ridl., **FMP1** 279; tree to 45 m tall; lowland forest; Tg, Ph, NS, Jh.
- 187.6.2 **Heritiera elata** Ridl., **FMP1** 280, **TFM2** 361; coppery-crowned tree to 33 m tall; lowland forest; Tg, Ph, Jh, Sp.
- 187.6.3 **Heritiera javanica** (Blume) Kosterm., **TFM2** 361; tree to 42 m tall; lowland forest to 600 m; Kd, Kl, Tg, Pk, Ph, Sl, NS, Jh.
- 187.6.4 **Heritiera kunstleri** (King) Kosterm., **TFM2** 361; *Tarrietia kunstleri* King, **FMP1** 279; tree to 30 m tall; hill forest; once from Gg Bubu, Pk.
- 187.6.5 **Heritiera littoralis** Dryand., **FMP1** 279, **TFM2** 361; small bushy tree to 15 m tall; sea shores, mangrove swamps; all coasts.
- 187.6.6 **Heritiera pterospermoides** Kosterm., **TFM2** 363, **C15** 160; tree to 18 m tall; on limestone hills; Kd, Pk.
- 187.6.7 **Heritiera simplicifolia** (Mast.) Kosterm., **TFM2** 363; *Tarrietia simplicifolia* Mast., **FMP1** 278; tree to 45 m tall; lowland forest; Kl, Tg, Pk, Ph, Sl, NS, Ml, Jh, Sp.

- 187.6.8 **Heritiera sumatrana** (Miq.) Kosterm., **TFM2** 364; *Tarrietia perakensis* King, **FMP1** 278; *Tarrietia curtisii* King, **FMP1** 278; tree to 30 m tall; lowland forest; Kd, Pn, Tg, Pk, Ph, Sl, Jh.
- 187.6.9 **Heritiera sp. A**, **TFM2** 364; tree to 30 m tall; lowland forest; once from Ulu Endau, Jh; ?endemic.
- 187.7.1 **Kleinhovia hospita** L., **FMP1** 280, **TFM2** 364; tree to 20 m tall; lowland forest; Kd, Pk.
- 187.8.1 **Leptonychia caudata** (Wall. ex G. Don) Burret, **V33** 451; *Leptonychia glabra* Turcz., **FMP1** 289 incl. var. *mastersiana* King, **TFM2** 365; shrub or small tree to 12 m tall; lowlands to lower montane forest; Ps, Kd, Pn, Tg, Pk, Ph, Sl, Ml, Jh, Sp.
- 187.8.2 **Leptonychia parviflora** (Ridl.) Veldkamp & Flippi, **V33** 455; *Leptonychiopsis parviflora* Ridl., **FMP1** 290, **TFM2** 355; small tree; disturbed sites in lowland forest; Gg Panti and Gg Pulau, Jh; endemic.
- 187.9.1 **Melochia corchorifolia** L., **FMP1** 284, **G11** 304, **TFM2** 366, **M47** 554; subshrub to 60 cm tall; waste ground, open grassy places; throughout.
- 187.9.2 **Melochia umbellata** (Houtt.) Stapf, **TFM2** 366, **G11** 220; *Melochia velutina* Wall. ex Bedd., **FMP1** 285; tree to 10 m tall; often near rivers, disturbed sites; Ml northward.
- 187.10.1 **Pentapetes phoenicea** L., **FMP1** 284; herb to 120 cm tall; open places; Ps.
- 187.11.1 **Pterocymbium javanicum** R.Br., **FMP1** 276, **TFM2** 366; tree; alluvial flats of river floodplains; NS northward.
- 187.11.2 **Pterocymbium tubulatum** (Mast.) Pierre, **FMP1** 277, **TFM2** 367; tree; lowland forest; Kl, Ml, Jh, Sp.
- 187.12.1 **Pterospermum acerifolium** (L.) Willd., **TFM2** 368; tree to 30 m tall; lowlands and hills, also on limestone; Ps, Kl, Ph, Sl.
- 187.12.2 **Pterospermum diversifolium** Blume, **FMP1** 282, **TFM2** 368; tree to 20 m tall; lowland forest; scattered.
- 187.12.3 **Pterospermum jacksonum** Wall. ex Mast., **FMP1** 283, **TFM2** 369; tree to 15 m tall; lowlands, sometimes on limestone; P. Langkawi, Pn, Kl.
- 187.12.4 **Pterospermum javanicum** Jungh., **TFM2** 369; *Pterospermum blumeianum* Korth., **FMP1** 283; tree to 42 m tall; lowland and hill forest to 1000 m; Kd, Pn, Tg, Pk, Ph, Sl, Ml, Jh, Sp.
- 187.12.5 **Pterospermum lancifolium** Roxb., **TFM2** 369; tree to 15 m tall; open country and on limestone; Ps, P. Langkawi, Kd, Pk.

- 187.12.6 **Pterospermum pectiniforme** Kosterm., **TFM2** 369; tree to 23 m tall; on limestone; Ps, P. Langkawi.
- 187.13.1 **Pterygota alata** (Roxb.) R. Br., **TFM2** 371; tree to 50 m tall; lowland forest near rivers; NS and Ph northward.
- 187.14.1 **Scaphium linearicarpum** (Mast.) Pierre, **FMP1** 275, **TFM2** 374; tree to 36 m tall; lowland forest to 720 m; Kd, Kl, Tg, Pk, Ph, Sl, Jh, Sp.
- 187.14.2 **Scaphium longiflorum** Ridl., **FMP1** 276, **TFM2** 374; tree to 36 m tall; swampy lowland forest; Kd, Pn, Pk, Sl, Jh; endemic.
- 187.14.3 **Scaphium macropodum** (Miq.) Beumée ex Heyne, **TFM2** 374; *Scaphium affine* (Mast.) Pierre, **FMP1** 275; tree to 45 m tall; lowland and hill forest to 1200 m; Kd, Pn, Kl, Tg, Pk, Ph, Sl, NS, Ml, Jh, Sp.
- 187.14.4 **Scaphium scaphigerum** (G. Don) Guibourt & Planch., **TFM2** 376; tree to 36 m tall; lowland forest; Ps, Kd, Kl, Pk.
- 187.15.1 **Sterculia balanghas** L., **T06** 140; shrub, shale beach; once from P. Langkawi.
- 187.15.2 **Sterculia coccinea** Jack, **TFM2** 377, **T06** 129; *Sterculia laevis* Wall., **FMP1** 269; *Sterculia elongata* Ridl., **FMP1** 270, **TFM2** 377; *Sterculia neriifolia* Ridl., **FMP5** 292; shrub to 3 m tall; lowland forest ; common throughout.
- 187.15.3 **Sterculia cordata** Blume, **TFM2** 378, **T06** 63; *Sterculia javanica* R. Br., **FMP1** 274; tree to 30 m tall; lowland forest; Kd, Pn, Pk, Sl, Ml, Jh.
- 187.15.4 **Sterculia cuspidata** R.Br., **T06** 126; *Sterculia hyposticta* auct. non Miq., **FMP1** 269, **TFM2** 377; *Sterculia microphylla* Ridl., **TFM2** 377; *Sterculia sp. D*, **TFM2** 377; small tree to 10 m tall; lowland and hill forest; Kd, Pn, Tg, Pk, Ph, NS, Ml, Jh.
- 187.15.5 **Sterculia foetida** L., **FMP1** 268, **TFM2** 378, **T06** 44; tree to 30 m tall; rocky and sandy coasts; north and east of Malaya.
- 187.15.6 **Sterculia gilva** Miq., **T06** 106; *Sterculia bicolor* Mast., **FMP1** 274, **TFM2** 378; tree to 40 m tall; mostly swamp forest; Tg, Pk, Ph, Ml, Jh.
- 187.15.7 **Sterculia hypochra** Pierre, **T06** 53; tree to 30 m tall; on limestone; P. Langkawi.
- 187.15.8 **Sterculia lancaviensis** Ridl., **FMP1** 270, **TFM2** 377, **T06** 145, **C15** 161; small tree; limestone; P. Langkawi, Kl.
- 187.15.9 **Sterculia macrophylla** Vent., **FMP1** 268, **TFM2** 382, **T06** 68; tree to 36 m tall; lowland forest to 450 m; Kd, Kl, Pk, Sl, Ml, Jh, Sp.
- 187.15.10 **Sterculia megistophylla** Ridl., **T06** 93; *Sterculia sp. B*, **TFM2** 378; tree to 20 m tall; Sg Lembing, Ph, and Sg Kayu Ara, Jh.

- 187.15.11 ***Sterculia oblongata*** R.Br., **T06** 150; *Sterculia kunstleri* King, **FMP1** 270, **TFM2** 382; *Sterculia sp. A*, **TFM2** 377 in part; tree to 30 m tall; lowland forest; Kd, Pk, Ph, Sl, Ml.
- 187.15.12 ***Sterculia parviflora*** Roxb., **FMP1** 271, **TFM2** 382, **T06** 50; *Sterculia holtumii* Ridl., **R14** 471; briefly deciduous tree to 30 m tall; lowland forest; P. Langkawi, Kl, Tg, Ph, Sl, NS, Jh, Sp.
- 187.15.13 ***Sterculia parvifolia*** Wall. ex R.Br., **FMP1** 270, **TFM2** 377, **T06** 128; small tree to 10 m tall; hill forest; Pn, Pk, Sl.
- 187.15.14a ***Sterculia rubiginosa*** Vent. var. ***ensifolia*** (Mast.) Ridl., **FMP1** 273, **TFM2** 378, **T06** 84; *Sterculia angustifolia* auct. non Roxb., **FMP1** 274, **TFM2** 378, **C14** 161; tree to 12 m tall; lowland and hill forest, also on limestone; widespread.
- 187.15.14b ***Sterculia rubiginosa*** Vent. var. ***rubiginosa***, **FMP1** 271, **TFM2** 378, **T06** 80; *Sterculia brachycarpa* Ridl., **FMP1** 273, **TFM2** 378; *Sterculia rostrata* Ridl., **FMP1** 273, **TFM2** 378; *Sterculia sp. C*, **TFM2** 378; tree to 10 m tall; lowland to montane forest; throughout.
- 187.15.14c ***Sterculia rubiginosa*** Vent. var. ***setistipula*** (Merr.) Tantra, **T06** 86; *Sterculia hispidissima* Ridl., **FMP1** 273; small tree; hill forest; Sl.
- 187.15.15 ***Sterculia scortechinii*** King, **FMP1** 271, **TFM2** 377, **T06** 51; tree to 20 m tall; lowland forest; Pk, Jh.
- 187.15.16 ***Sterculia stipulata*** Korth., **T06** 88; tree to 15 m tall; lowland forest; once from Kuala Trengganu, Tg.
- 187.16.1 ***Waltheria arenaria*** Ridl., **FMP1** 285; wiry creeper; sandy places near the sea; Kuala Kelantan, Kl; ?endemic.
- 187.16.2 ***Waltheria indica*** L., **FMP1** 285; shrub to 1 m tall; sea shores; Ml, Sp.

188. STYLIDIACEAE

- 188.1.1 ***Stylidium tenellum*** Sw., **FMP2** 197, **FM14** 530; slender herb to 20 cm tall; wet grassy places, rice-fields; north of Malaya.

189. STYRACACEAE

- 189.1.1a ***Styrax benzoin*** Dryand. var. ***benzoin***, **FMP2** 297, **FM14** 52, **TFM3** 263; tree to 30 m tall; lowland and hill forest to 800 m; Pn, Kl, Tg, Pk, Ph, Sl, NS, Ml, Jh, Sp.

- 189.1.1b ***Styrax benzoin*** Dryand. var. ***hiliferum*** Steenis, **FMi4** 52, **TFM3** 263; tree to 30 m tall; lowland forest; Ph.
- 189.1.2a ***Styrax crotonoides*** C.B. Clarke ssp. ***crotonoides***, **FMP2** 298, **FMi4** 53, **TFM3** 263; tree to 30 m tall; lowland forest; Pn, Pk, Jh, Sp.
- 189.1.2b ***Styrax crotonoides*** C.B. Clarke ssp. ***fraserensis*** (F.E. Putz & Ng) Steenis, **FMi9** 568; *Styrax fraserensis* F.E. Putz & Ng, **TFM3** 263; small tree; montane forest at 1300 m; Fraser's Hill, Ph; endemic.
- 189.1.3 ***Styrax paralleloneurus*** Perkins, **FMi4** 53, **TFM3** 264; tree to 27 m tall; montane forest at 800–1700 m; Kd, Pk, Ph, Sl.
- 189.1.4 ***Styrax ridleyanus*** Perkins, **FMi9** 569 '*ridleyanum*'; tree to 30 m tall; lowland forest; Tg, ?Ph.
- 189.1.5 ***Styrax serrulatus*** Roxb. var. ***rugosus*** Steenis, **FMP2** 296, **FMi4** 55, **TFM3** 264 '*serrulatum* var. *rugosum*'; tree to 17 m tall; lowland forest; Ps, Pn, Ph, MI.
190. SYMPLOCACEAE
- 190.1.1 ***Symplocos adenophylla*** Wall. ex G. Don, **FMP2** 303 incl. vars. *montana* Ridl. and *virgata* Wall. ex Brand, **FMi8** 239, **TFM3** 268; *Symplocos fulvosa* King & Gamble, **FMP2** 300; *Symplocos pruniflora* Ridl., **FMP2** 304; shrub or tree to 15 m tall; sea coasts to montane forest at 1500 m; widespread.
- 190.1.2 ***Symplocos anomala*** Brand, **FMi8** 239, **TFM3** 268; *Symplocos concolor* Brand, **FMP2** 304; shrub or tree to 12 m tall; lower montane forest at 1000 m; Pn, Pk.
- 190.1.3 ***Symplocos barringtoniifolia*** Brand, **FMi8** 242, **TFM3** 268; *Symplocos rigida* (non G. Don) C.B. Clarke, **FMP2** 306; tree to 24 m tall; lowland and hill forest to 750 m; Tg, Pk, Ph, Sl, MI, Jh.
- 190.1.4 ***Symplocos calycodactylos*** Brand, **FMP2** 305, **FMi8** 244, **TFM3** 268; shrub to 3 m tall; hill forest at 900–1000 m; once each from Kd and Pk; endemic.
- 190.1.5 ***Symplocos celastrifolia*** Griff. ex C.B. Clarke, **FMP2** 302, **FMi8** 244, **TFM3** 269; tree to 30 m tall; lowland to montane forest; Pn, Kl, Tg, Ph, Sl, MI, Jh, Sp.
- 190.1.6 ***Symplocos cerasifolia*** Wall. ex DC., **FMP2** 306, **FMi8** 245, **TFM3** 269; tree to 24 m tall; lowland to montane forest at 1200 m; Pn, Kl, Tg, Pk, Ph, NS, MI.

- 190.1.7a **Symplocos cochinchinensis** (Lour.) S. Moore ssp. **cochinchinensis**, **FMi8** 246, **TFM3** 269; *Symplocos ferruginea* Roxb., **FMP2** 302; tree to 18 m tall; lowland to montane forest; Pn, Kl, Tg, Ph, NS, MI.
- 190.1.7b **Symplocos cochinchinensis** (Lour.) S. Moore ssp. **laurina** (Retz.) Noot., **FMi8** 248, **TFM3** 269; *Symplocos spicata* Roxb., **FMP2** 301; tree to 18 m tall; lowland and hills to 1500 m; P. Langkawi, Kl, Tg, Pk, Ph, MI.
- 190.1.8a **Symplocos crassipes** C.B. Clarke var. **brandiana** (King & Gamble) Noot., **FMi8** 257, **TFM3** 270; *Symplocos brandiana* King & Gamble, **FMP2** 304; tree to 8 m tall; lowland to montane forest; Pk, Sl, Jh; endemic variety.
- 190.1.8b **Symplocos crassipes** C.B. Clarke var. **crassipes**, **FMP2** 305, **FMi8** 257, **TFM3** 270; shrub; only known from type, Jh; endemic variety.
- 190.1.8c **Symplocos crassipes** C.B. Clarke var. **curtisii** (Oliv.) Noot., **FMi8** 257, **TFM3** 270; *Symplocos monticola* King & Gamble, **FMP2** 301; *Symplocos curtisii* Oliv., **FMP2** 305; shrub to 5 m tall; lowland to montane forest, 300–1200 m; Tg, Pk, Ph, Sl.
- 190.1.8d **Symplocos crassipes** C.B. Clarke var. **ernae** (Brand) Noot., **FMi8** 258, **TFM3** 270; small tree; lower montane forest; once from near Taiping, Pk.
- 190.1.8e **Symplocos crassipes** C.B. Clarke var. **penangiana** (King & Gamble) Noot., **FMi8** 258, **TFM3** 270; *Symplocos penangiana* King & Gamble, **FMP2** 306; tree to 10 m tall; lowland forest; Pn, Kl, Tg, Pk, Ph, Sl, NS, Jh.
- 190.1.9 **Symplocos fasciculata** Zoll., **FMP2** 301, **FMi8** 259, **TFM3** 270; small tree to 15 m tall; lowland forest, common in secondary stands; Pk, Ph, Sl, NS, MI, Jh.
- 190.1.10 **Symplocos glomerata** King ex C.B. Clarke, **FMi8** 260, **TFM3** 270; small tree to 6 m tall; montane forest at 1500 m; summit of Gg Lawit, Tg.
- 190.1.11a **Symplocos henschelii** (Moritzi) Benth. ex C.B. Clarke var. **henschelii**, **FMi8** 214, **TFM3** 270; *Cordyloblaste scortechinii* Ridl., **FMP2** 309; tree to 30 m tall; montane forest; Kd, Ph, Jh.
- 190.1.11b **Symplocos henschelii** (Moritzi) Benth. ex C.B. Clarke var. **maingayi** (Benth. ex C.B. Clarke) Noot., **FMi8** 214, **TFM3** 272; *Cordyloblaste maingayi* (Benth. ex C.B. Clarke) Ridl., **FMP2** 309; tree to 21 m tall; lowland forest; Pk, MI, Jh.
- 190.1.12 **Symplocos laeteviridis** Stapf, **FMi8** 261, **TFM3** 272; small tree; lower montane forest at 1000 m; once from Maxwell's Hill, Pk.
- 190.1.13 **Symplocos lucida** (Thunb.) Siebold & Zucc., **FMi8** 264; *Symplocos ridleyi* King & Gamble, **FMP2** 302; shrub or tree to 20 m tall; lowland forest; Sp.

- 190.1.14 **Symplocos nivea** Brand, **FMP2** 300, **FMi8** 265, **TFM3** 272; tree to 18 m tall; lowland forest; once each from Pn and Jh; endemic.
- 190.1.15 **Symplocos odoratissima** (Blume) Choisy & Zoll., **FMP2** 299, **FMi8** 266, **TFM3** 272; *Symplocos pulverulenta* King & Gamble, **FMP2** 300; tree to 30 m tall; lowland forest; Pk, Ph, Jh.
- 190.1.16a **Symplocos ophirensis** C.B. Clarke ssp. **ophirensis** var. **densireticulata** Noot., **FMi8** 268, **TFM3** 272; shrub 2–4 m tall; montane forest at 1500 m; twice from Cameron Highlands, Ph.
- 190.1.16b **Symplocos ophirensis** C.B. Clarke ssp. **ophirensis** var. **ophirensis**, **FMP2** 305, **FMi8** 267, **TFM3** 272; shrub or small tree; montane forest above 1200 m; Pk, Sl, Jh; endemic variety.
- 190.1.16c **Symplocos ophirensis** C.B. Clarke ssp. **perakensis** (King & Gamble) Noot., **FMi8** 268, **TFM3** 273; *Symplocos caudata* auct. non Wall. ex G. Don, **FMP2** 300; *Symplocos perakensis* King & Gamble, **FMP2** 304; tree to 18 m tall; lowland forest; Pk, Ph, Sl, NS.
- 190.1.17a **Symplocos pendula** Wight var. **hirtistylis** (C.B. Clarke) Noot., **FMi8** 215, **TFM3** 273; *Cordylablaste confusa* (Brand) Ridl., **FMP2** 307; *Cordylablaste obovata* Ridl., **FMP2** 308; *Cordylablaste crenulata* Ridl., **FMP2** 309; shrub or tree; montane forest above 1200 m; Ph, Jh.
- 190.1.17b **Symplocos pendula** Wight var. **pendula**, **FMi8** 214, **TFM3** 273; *Cordylablaste pulcherrima* (Ridl.) Ridl., **FMP2** 308; shrub or tree; montane forest above 1200 m; Tg, Pk, Ph, Sl, Jh.
- 190.1.18 **Symplocos pyriflora** Ridl., **FMP2** 307, **FMi8** 270, **TFM3** 273; small tree; montane forest at 1450 m; once each from Gg Tapis and Gg Tahan, Ph; endemic.
- 190.1.19 **Symplocos rubiginosa** Wall. ex DC., **FMP2** 306, **FMi8** 271, **TFM3** 273; tree to 18 m tall; lowland to montane forest; Kd, Pn, Tg, Pk, Ph, Sl, NS, Ml, Jh, Sp.
- 190.1.20 **Symplocos sumuntia** Buch.-Ham. ex D. Don, **FMi8** 271, **TFM3** 274; shrub or small tree; montane forest at 1800 m; once each from Cameron Highlands and Gg Tahan, Ph.
- 190.1.21 **Symplocos tricoccata** Noot., **FMi8** 272, **TFM3** 274; shrub to 4 m tall; twice from Pk.
- 190.1.22 **Symplocos wikstroemiifolia** Hayata, **FMi8** 263; *Symplocos microtricha* Hand.-Mazz., **TFM3** 272; shrub or tree to 20 m tall; hill and montane forest; Ph.

191. TETRAMERISTACEAE

- 191.1.1 **Tetramerista glabra** Miq., **FMP1** 367, **TFM4** 470; tree to 35 m tall; lowland freshwater and peat swamp forests; Kd, Tg, Pk, Ph, Sl, Ml, Jh, Sp.

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- 192.1.1 **Adinandra acuminata** Korth., **FMP1** 194, **TFM3** 277; tree to 20 m tall; lowland to lower montane forest at 1200 m; Kd to Sp.
- 192.1.2 **Adinandra angulata** Ridl., **FMP1** 195, **TFM3** 278; tree to 16 m tall; montane forest at 1700–1800 m; Gg Tahan, Ph; endemic.
- 192.1.3 **Adinandra corneriana** Kobuski, **TFM3** 278; tree to 10 m tall; lowland forest; Tg, Ph, Jh; endemic.
- 192.1.4 **Adinandra dumosa** Jack, **FMP1** 194, **TFM3** 278; tree to 20 m tall; secondary forest; throughout, commoner in the south.
- 192.1.5 **Adinandra integerrima** T. Anderson *ex* Dyer, **FMP1** 196, **TFM3** 279; *Adinandra hullettii* King, **FMP1** 196; tree; lowland forest below 750 m; Kd, Pn, Pk, Ph, Jh, Sp; endemic.
- 192.1.6 **Adinandra maculosa** T. Anderson *ex* Dyer, **FMP1** 195, **TFM3** 279; tree to 25 m tall; hill and montane forest below 1500 m; Pn, Kl, Tg, Pk, Sl, Ph, Jh; endemic.
- 192.1.7 **Adinandra parvifolia** Ridl., **FMP1** 195, **TFM3** 279; tree to 15 m tall; montane forest at 1500–2000 m; Kd, Pk, Ph; ?endemic.
- 192.1.8 **Adinandra phlebophylla** Hance, **TFM3** 279; tree to 25 m tall; lowland forest; P. Langkawi, Kd.
- 192.1.9 **Adinandra sarosanthera** Miq., **TFM3** 280; *Adinandra macrantha* Teijsm. & Binn., **FMP1** 195; tree to 30 m tall; lowland to montane forest at 1500 m; Pn, Kl, Tg, Pk, Ph, Sl, Jh.
- 192.1.10 **Adinandra villosa** Choisy, **FMP1** 196, **TFM3** 280; tree to 15 m tall; lowland to montane forest at 1800 m; Pn, Tg, Pk, Ph, Sl.
- 192.2.1 **Anneslea fragrans** Wall. var. **crassipes** (Hook.f. *ex* Choisy) Pierre, **TFM3** 280; *Anneslea crassipes* Hook.f. *ex* Choisy, **FMP1** 193; tree to 25 m tall; montane forest at 800–2000 m; Kl, Pk, Ph, Sl, Ml, Jh.
- 192.3.1 **Eurya acuminata** DC., **FMP1** 199, **TFM3** 282; *Eurya monticola* (Ridl.) Ridl., **FMP1** 199; *Eurya wrayi* King, **FMP1** 199; shrub or tree to 15 m tall; lowlands to mountains tops; throughout.

- 192.3.2 **Eurya nitida** Korth., **TFM3** 282; shrub or tree to 10 m tall; montane forest above 900 m; Kd, Tg, Pk, Ph.
- 192.3.3 **Eurya trichocarpa** Korth., **FMP1** 200, **TFM3** 284; shrub or small tree; montane forest at 1000–1300 m; P. Langkawi, Pk, Ph.
- 192.4.1 **Gordonia concentricatrix** Burkill, **FMP1** 203, **TFM3** 285; tree to 33 m tall; lowland forest; Pk, Ph, Sl, NS, MI, Jh; endemic.
- 192.4.2 **Gordonia hirtella** Ridl., **FMP1** 204, **TFM3** 285; tree; hill forest; Bt Kutu, Sl; endemic.
- 192.4.3 **Gordonia imbricata** King, **FMP1** 203, **TFM3** 285; tree to 15 m tall; hill and montane forest above 600 m; Kl, Tg, Pk, Ph, Jh; endemic.
- 192.4.4 **Gordonia maingayi** Dyer, **FMP1** 204, **TFM3** 285; tree to 18 m tall; lowland to montane forest at 1600 m; Kl, Tg, Pk, Ph, Sl, NS, MI; endemic.
- 192.4.5 **Gordonia multinervis** King, **FMP1** 203, **TFM3** 286; tree to 30 m tall; lowland forest below 800 m; Pn, Kl, Tg, Pk, Ph, MI, Jh, Sp; endemic.
- 192.4.6 **Gordonia penangensis** Ridl., **FMP1** 203, **TFM3** 286; tree to 13 m tall; lowland forest; Pn, Pk, Ph, Sp; endemic.
- 192.4.7 **Gordonia scortechinii** King, **FMP1** 204, **TFM3** 286; tree; lowland forest; Pk, Ph; endemic.
- 192.4.8 **Gordonia singaporiana** Wall. ex Ridl., **FMP1** 202, **TFM3** 286; tree to 40 m tall; lowland forest; Pn, Pk, Ph, NS, MI, Jh, Sp; endemic.
- 192.4.9 **Gordonia taipingensis** Burkill, **FMP1** 204, **TFM3** 288; tree to 20 m tall; lowland and hill forest to 1400 m; Pk; endemic.
- 192.5.1 **Pyrenaria acuminata** Planch., **FMP1** 200, **TFM3** 290; tree to 10 m tall; lowland forest; Pn, Kl, Tg, Pk, Ph, Sl, NS, MI, Jh, Sp.
- 192.5.2 **Pyrenaria garrettiana** Craib, **TFM3** 290; tree to 10 m tall; montane forest at 1500 m; Ph.
- 192.5.3 **Pyrenaria kunstleri** King, **FMP1** 201, **TFM3** 291; tree to 15 m tall; lowland forest; Kd, Pn, Pk, Ph, Sl.
- 192.5.4 **Pyrenaria pahangensis** H. Keng, **TFM3** 291; shrub to 4 m tall; lowland forest along streams; Ph; endemic.
- 192.5.5 **Pyrenaria sp. A**, **TFM3** 291; tree ; lowland forest; Jh; ?endemic.
- 192.6.1 **Schima monticola** Kurz, **K10** 83; *Schima noronhae* Reinw. ex Blume var. *rigida* Ridl., **FMP1** 201; tree to 35 m tall; montane forest above 1400 m; Tg, Ph, Sl.

- 192.6.2 **Schima wallichii** (DC.) Korth., **TFM3** 291, **K10** 85; *Schima noronhae* Reinw. ex Blume, **FMP1** 201; shrub or tree to 45 m tall; lowlands to mountain tops; widespread.
- 192.7.1 **Ternstroemia bancana** Miq., **FMP1** 197, **TFM3** 293; tree to 20 m tall; lowland forest to 500 m; Pk, Ph, Sl, Ml, Jh.
- 192.7.2 **Ternstroemia corneri** H. Keng, **TFM3** 293; tree to 20 m tall; freshwater swamp forest; S.E. Jh; endemic.
- 192.7.3 **Ternstroemia evenia** (King) A.C. Sm., **TFM3** 295; *Illicium evenium* King, **FMP1** 19; *Ternstroemia scortechinii* King, **FMP1** 198; tree to 10 m tall; lowlands to mountain tops; Kl, Pk, Ph, Sl; endemic.
- 192.7.4 **Ternstroemia maclellandiana** Ridl., **FMP1** 198, **TFM3** 295; tree to 10 m tall; montane forest above 1000 m; Kl, Tg, Pk, Ph, Sl.
- 192.7.5 **Ternstroemia montana** Ridl., **FMP1** 198; shrub; montane forest about 1500 m; Kd, Pk, Ph; endemic.
- 192.7.6 **Ternstroemia penangiana** Choisy, **FMP1** 197, **TFM3** 295; tree to 20 m tall; lowland and hill forest to 1000 m; Kd, Pn, Kl, Pk, Ph, Sl, Ml, Jh, Sp.
- 192.7.7 **Ternstroemia wallichiana** (Griff.) Engl., **FMP1** 198, **TFM3** 295; tree to 20 m tall; lowland forest; Ps, Kd, Pn, Tg, Ph, Jh, Sp.
193. **THYMELAEACEAE**
- 193.1.1 **Aquilaria beccariana** Tiegh., **FMi6** 13, **TFM2** 385; tree to 20 m tall; swampy lowland forest; S.E. Jh.
- 193.1.2 **Aquilaria hirta** Ridl., **FMP3** 148, **FMi6** 12, **TFM2** 385; tree to 15 m tall; lowland forest; Tg, Ph, Jh, Sp.
- 193.1.3 **Aquilaria malaccensis** Lam., **FMP3** 147, **FMi6** 9, **TFM2** 385; tree to 36 m tall; lowland and hill forest to 750 m; Kd, Pn, Kl, Tg, Pk, Ph, Sl, NS, Ml, Jh, Sp.
- 193.1.4 **Aquilaria microcarpa** Baill., **FMi6** 9, **TFM2** 385; tree to 36 m tall; lowland forest; Sp.
- 193.1.5 **Aquilaria rostrata** Ridl., **FMP3** 148, **FMi6** 13, **TFM2** 385; tree; montane forest; dubious species known only from type collections, Gg Tahan, Ph; endemic.
- 193.2.1 **Daphne composita** (L.f.) Gilg, **FMi6** 37, **TFM2** 384; *Daphne pendula* Sm. *nom. illeg.*, **FMP3** 144; shrub to 5 m tall; montane forest; Pk, Ph, Sl, Ml.

- 193.3.1 **Enkleia malaccensis** Griff., **FMP3** 147, **FMi6** 25, **TFM2** 384; liana reaching 30 m long; lowland forest; MI, Sp.
- 193.4.1 **Gonystylus acuminatus** Airy Shaw, **FMi4** 356, **TFM2** 388; tree to 25 m tall; one doubtful specimen from Kokmoi F.R., Kd.
- 193.4.2 **Gonystylus affinis** Radlk., **FMi4** 357, **TFM2** 388; tree to 33 m tall; lowland forest to 330 m; widespread.
- 193.4.3 **Gonystylus bancanus** (Miq.) Kurz, **FMi4** 361, **TFM2** 388; tree to 27 m tall (sometimes even bigger); lowland peat swamp forest; Pk, SI, Jh.
- 193.4.4 **Gonystylus brunnescens** Airy Shaw, **FMi4** 356, **TFM2** 388; tree to 36 m tall; lowland forest, often near the sea; Pn, Tg, Pk, Ph.
- 193.4.5 **Gonystylus confusus** Airy Shaw, **FMi4** 357, **TFM2** 391; tree to 30 m tall; lowland forest to 600 m; Kd, Pn, Kl, Tg, Pk, Ph, SI, NS, Jh, Sp.
- 193.4.6 **Gonystylus macrophyllus** (Miq.) Airy Shaw, **FMi4** 354, **TFM2** 388; tree to 45 m tall; lowland forest; once each from Kuantan, Ph, and Mawai, Jh.
- 193.4.7 **Gonystylus maingayi** Hook.f., **FMP1** 322, **FMi4** 359, **TFM2** 391; tree to 40 m tall; lowland forest; Kl, Pk, Ph, SI, NS, Jh.
- 193.5.1 **Linostoma pauciflorum** Griff., **FMP3** 146, **FMi6** 27, **TFM2** 384; liana to 30 m long; lowland forest margins, often near the sea; Ps, Kd, Pn, Pk, Ph, MI, Sp.
- 193.6.1 **Phaleria capitata** Jack, **FMi6** 20, **TFM2** 384, **C31** 221; shrub or small tree to 9 m tall; freshwater swamp forest; Jh.
- 193.7.1 **Wikstroemia androsaemifolia** Decne., **FMi6** 33, **TFM2** 384, **C15** 161; shrub to 2.5 m tall; on limestone hills; Kl, Ph, SI.
- 193.7.2 **Wikstroemia indica** (L.) C.A. Mey., **FMi6** 34, **C15** 162; *Wikstroemia viridiflora* Meisn., **FMP3** 145; shrub to 3 m tall; lowland and hill forest including limestone; widespread.
- 193.7.3 **Wikstroemia polyantha** Merr., **FMi6** 32; *Wikstroemia candolleana* auct. non Meisn., **FMP3** 145; shrub or small tree to 7 m tall; lowland to montane forest; Kd, Kl, Pk, Ph, SI, Jh.
- 193.6.4 **Wikstroemia ridleyi** Gamble, **FMP3** 146, **FMi6** 34; shrub to 2 m tall; open sandy places, forest margins; Kl, Tg, Ph, (Sp introduced).

194. TILIACEAE

- 194.1.1 **Berrya cordifolia** (Willd.) Burret, **TFM2** 393, **P16** 69; *Berrya ammonilla* Roxb., **FMP1** 299; small crooked tree; lowlands including on limestone; P. Langkawi, Kd.
- 194.2.1 **Brownlowia argentata** Kurz, **TFM2** 394; *Brownlowia riedelii* Hemsl., **FMP1** 292; shrub or small tree to 18 m tall; mangroves, tidal channels; widespread.
- 194.2.2 **Brownlowia helferiana** Pierre, **TFM2** 395; *Brownlowia scortechinii* King, **FMP1** 292; tree to 24 m tall; lowland forest; Tg, Pk, Sl, NS.
- 194.2.3 **Brownlowia kleinhovioidea** King, **FMP1** 292, **TFM2** 395; tree; lowland forest; only known from type, Pk; endemic.
- 194.2.4 **Brownlowia macrophylla** King, **FMP1** 292, **TFM2** 395; small tree to 15 m tall; lowland forest; Pk.
- 194.2.5 **Brownlowia tersa** (L.) Kosterm., **TFM2** 394; *Brownlowia lanceolata* Benth., **FMP1** 291; shrub to 5 m tall; mangrove; widespread.
- 194.2.6 **Brownlowia velutina** Kosterm., **TFM2** 395; small tree; known only from type, Tg; endemic.
- 194.3.1 **Colona javanica** (Blume) Burret, **TFM2** 395, **P16** 61; *Colombia integrifolia* Ridl., **FMP1** 306; small tree; on limestone; once from Lenggong, Pk.
- 194.3.2 **Colona merguensis** (Planch. ex Mast.) Burret, **TFM2** 395; *Columbia curtisii* Ridl., **FMP1** 307; *Columbia diptera* Ridl., **FMP1** 307; *Colona diptera* (Ridl.) Craib, **P16** 65; small tree to 12 m tall; mostly on limestone; Ps, P. langkawi.
- 194.3.3 **Colona serratifolia** Cav., **TFM2** 396; *Columbia serratifolia* (Cav.) DC., **FMP1** 306; small tree to 15 m tall; near the sea; Ph, Jh.
- 194.4.1 **Corchorus aestuans** L.; **P16** 30; *Corchorus acutangulus* Lam., **FMP1** 306; herb or subshrub; waste ground; widespread.
- 194.4.2 **Corchorus capsularis** L., **FMP1** 305, **P16** 32; shrub to 1 m tall; waste ground; Ps, Pk.
- 194.4.3 **Corchorus olitorius** L., **FMP1** 305, **P16** 28; *Corchorus tridens* L., **FMP1** 305; shrub to 60 cm tall; open dry places; Pn, Sl, Jh.
- 194.5.1 **Diplodiscus hookerianus** (King) Kosterm., **TFM2** 396; *Pentace hookeriana* King, **FMP1** 294; tree; lowland forest; only known from type, Kinta River, Pk; endemic.
- 194.5.2 **Diplodiscus scortechinii** (King) P.S. Ashton ex Kochummen, **TFM2** 396; *Pentace scortechinii* King, **FMP1** 297; tree; twice from Pk; endemic.

- 194.6.1 **Grewia laevigata** Vahl, **P16** 26; *Grewia acuminata* Juss., **TFM2** 397; *Grewia umbellata* Roxb. ex DC., **FMP1** 300; liana; lowland forest margins; common and widespread.
- 194.6.2 **Grewia viminea** Wall. ex Burret, **TFM2** 397; *Grewia polygama* Roxb. var. *curtisii* Ridl., **FMP5** 294; shrub; limestone hills; Ps, P. Langkawi, Kd.
- 194.6.3 **Grewia** sp. nov.; *Grewia sclerophylla* auct. non Roxb. ex G. Don, **FMP5** 293, **TFM2** 397; shrub; twice from Grik area, Pk.
- 194.7.1 **Microcos antidesmifolia** (King) Burret, **B40** 780; *Grewia antidesmifolia* King, **FMP1** 302 incl. var. *hirsuta* King, **TFM2** 399; tree to 24 m tall; lowland forest, often near rivers; Kl, Tg, Pk, Ph, Sl, Jh.
- 194.7.2 **Microcos blattifolia** (Corner) R.S. Rao; *Grewia latifolia* (non Muell. ex Benth.) Mast., **FMP1** 300; *Microcos latifolia* (Mast.) Burret, **B40** 781; *Grewia blattifolia* Corner, **TFM2** 399; small tree sometimes to 24 m tall; lowland and hill forest to 1000 m; widespread.
- 194.7.3 **Microcos erythrocarpa** (Ridl.) Airy Shaw; *Grewia erythrocarpa* Ridl., **FMP1** 301; small tree to 5 m tall; lowland forest to 600 m; widespread; endemic.
- 194.7.4 **Microcos fibrocarpa** (Mast.) Burret, **B40** 782, **P16** 38; *Grewia fibrocarpa* Mast., **FMP1** 301, **TFM2** 397; small tree; lowland forest; scattered widely.
- 194.7.5 **Microcos globulifera** (Mast.) Burret, **B40** 782; *Grewia globulifera* Mast., **FMP1** 302, **TFM2** 397; small tree; lowland forest; Pk to Jh; endemic.
- 194.7.6 **Microcos hirsuta** (Korth.) Burret, **B40** 782; *Grewia omphacarpa* Miq., **FMP1** 301; *Grewia hirsuta* [non Vahl] (Korth.) Kochummen, **TFM2** 397; small tree; lowland forest; widespread.
- 194.7.7 **Microcos lanceolata** (Miq.) Burret, **B40** 778; *Grewia miqueliana* Kurz, **FMP1** 302, **TFM2** 397; shrub or small tree; lowland forest; mostly west coast states.
- 194.7.8 **Microcos latistipulata** (Ridl.) Burret, **B40** 795; *Grewia latistipulata* Ridl., **FMP5** 293; tree; once from Klang, Sl.
- 194.7.9 **Microcos laurifolia** (Hook. ex Mast.) Burret, **B40** 771, **P16** 39; *Grewia florida* auct. non Miq., **FMP1** 303; *Grewia laurifolia* Hook. ex Mast., **TFM2** 399; tree to 30 m tall; lowland and hill forest to 1000 m; Kd, Pn, Kl, Tg, Pk, Ph, Sl, Ml, Jh.
- 194.7.10 **Microcos tomentosa** Sm., **B40** 776, **P16** 37; *Grewia paniculata* Roxb. ex DC., **FMP1** 300, **TFM2** 397; small bushy tree; open places; common and widespread.
- 194.8.1 **Muntingia calabura** L., **K09** 88, **P16** 43; shrub or small tree; waste ground, around towns and villages; throughout; naturalized from tropical America.

- 194.9.1 **Pentace acuta** Ridl., **FMP1** 297, **TFM2** 401; shrub or small tree; lowland forest; Tg, Pk; endemic.
- 194.9.2 **Pentace adenophora** Kosterm., **TFM2** 401; tree to 30 m tall; swampy lowland forest; Tg, Jh.
- 194.9.3 **Pentace corneri** Kosterm., **TFM2** 401; tree to 50 m tall; lowland forest; once from S.E. Jh.
- 194.9.4 **Pentace curtisii** King, **FMP1** 296, **TFM2** 401; tree to 40 m tall; hill forest; Ps, Kd, Pn, Kl, Tg, Pk, Ph, Sl.
- 194.9.5 **Pentace excelsa** Kochummen, **TFM2** 404; tree to 60 m tall; lowland and hill forest; Gg Mandi Angin, Tg, Gg Tapis, Ph; endemic.
- 194.9.6 **Pentace eximia** King, **FMP1** 295, **TFM2** 404; tree to 30 m tall; coastal hills; Pn, Pk, Ph; endemic.
- 194.9.7 **Pentace floribunda** King, **FMP1** 295, **TFM2** 404; tree to 27 m tall; hill forest; Kl, Pk, Ph, Sl.
- 194.9.8 **Pentace grandiflora** Kochummen, **TFM2** 406; tree to 27 m tall; ridge-top forest; Tg; endemic.
- 194.9.9 **Pentace hirtula** Ridl., **FMP1** 295, **TFM2** 406; tree to 23 m tall; hill forest; Pn, Pk.
- 194.9.10 **Pentace macrophylla** King, **FMP1** 297, **TFM2** 406; tree to 40 m tall; lowland and hill forest; Tg, Pk, Sl, Jh.
- 194.9.11 **Pentace microlepidota** Kosterm., **TFM2** 407; tree to 60 m tall; lowland and hill forest; Kl, Pk, Ph, Sl; endemic.
- 194.9.12 **Pentace perakensis** King, **FMP1** 295, **TFM2** 401; *Pentace kunstleri* King, **FMP2** 296; small tree; lowland forest; Pk; endemic.
- 194.9.13 **Pentace strychnoidea** King, **FMP1** 296, **TFM2** 407; tree to 30 m tall; lowland and hill forest; Kd, Kl, Tg, Pk, Ph, Sl, NS; endemic.
- 194.9.14 **Pentace triptera** Mast., **FMP1** 293, **TFM2** 407; tree to 45 m tall; lowland forest; Kd, Pn, Kl, Tg, Pk, Ph, Sl, NS, Ml, Jh, Sp.
- 194.9.15 **Pentace sp. A**, **TFM2** 407; tree to 36 m tall; once each from Tg and Sl; ?endemic.
- 194.9.16 **Pentace sp. B**, **TFM2** 408; tree to 24 m tall; lowland forest; once from Rompin, Ph; ?endemic.
- 194.10.1a **Schoutenia accrescens** (Mast.) C.H. Curtis ssp. **accrescens**, **TFM2** 409; *Scoutenia mastersii* King, **FMP1** 298; tree to 33 m tall; lowland to montane forest; common and widespread.

- 194.10.1b **Schoutenia accrescens** (Mast.) C.H. Curtis ssp. **borneensis** Roekm., **TFM2** 410; tree; lowland forest; Ulu Endau, Jh.
- 194.10.2 **Schoutenia corneri** Roekm., **TFM2** 410; tree to 15 m tall; lowlands near streams; Ps, Jh; endemic.
- 194.10.3 **Schoutenia furfuracea** Kochummen, **TFM2** 410; tree to 10 m tall; lowland forest; only known from type, Ulu Sg Anak Endau, Jh; endemic.
- 194.10.4 **Schoutenia glomerata** King, **FMP1** 298, **TFM2** 410; tree to 15 m tall; along lowland streams; Kl, Tg, Ph.
- 194.10.5 **Schoutenia kunstleri** King, **FMP1** 298, **TFM2** 410; tree to 15 m tall; lowland forest; Pn, Tg, Pk, Ph, Jh; endemic.
- 194.10.6 **Schoutenia leprosula** L.G. Saw, **W30** 272; tree to 6 m tall; river banks in lowland forest; Endau Rompin area of Ph and Jh; endemic.
- 194.11.1 **Trichospermum javanicum** Blume, **TFM2** 412, **P16** 49; *Trichospermum kurzii* King, **FMP1** 307; *Trichospermum cymbiforme* Sprague *ex* Ridl., **FMP1** 308; tree to 30 m tall; lowland and hill forest, often in clearings; Pn, Kl, Pk, Ph, Sl, Jh.
- 194.12.1 **Triumfetta grandidens** Hance, **FMP1** 304, **P16** 40; prostrate shrublet; sandy shores; East Coast.
- 194.12.2 **Triumfetta pilosa** Roth, **FMP1** 304, **P16** 46; herb to 1.5 m tall; open sandy places; Pk, Ph.
- 194.12.3 **Triumfetta repens** (Blume) Merr. & Rolfe, **P16** 48; *Triumfetta subpalmata* Sol. *ex* Hemsl., **FMP1** 304; prostrate shrub; sandy shores; East Coast.
- 194.12.4 **Triumfetta rhomboidea** Jacq., **FMP1** 303, **L25** 174; *Triumfetta bartramia* L., *nom. illeg.*, **P16** 49; shrubby herb; common weed of waste ground; widespread.
- 194.12.5 **Triumfetta tomentosa** Bojer, **L25** 175; *Triumfetta pseudocana* Sprague & Craib, **FMP1** 304; shrub to 1 m tall; waste ground; widely scattered.
195. TRIGONIACEAE
- 195.1.1 **Trigonistrum hypoleucum** Miq., **FMP1** 142, **FM14** 59, **TFM1** 449; tree to 30 m tall; lowland forest; Kd, Pn, Kl, Tg, Pk, Ph, Sl, NS, MI, Jh, Sp.

196. TURNERACEAE

- 196.1.1 **Turnera subulata** Sm., **FMi4** 236; *Turnera trioniflora* Sims, **FMP1** 838; herb to 80 cm tall; damp waste ground; widespread; naturalized from tropical America.
- 196.1.2 **Turnera ulmifolia** L., **FMP1** 838, **FMi4** 237; herb to 1.5 m tall; open sandy places; widespread; naturalized from tropical America.

197. ULMACEAE

- 197.1.1 **Celtis philippensis** Blanco, **TFM2** 416, **FMi8** 62; *Celtis collinsae* Craib, **FMP3** 322; shrub or small tree to 10 m tall; on limestone; Ps, P, Langkawi, Kd, Kl, Ph.
- 197.1.2 **Celtis rigescens** (Miq.) Planch., **TFM2** 416, **FMi8** 58; tree to 40 m tall; lowland and hill forest; Pk, Ph, Sl.
- 197.2.1 **Gironniera hirta** Ridl., **FMP3** 321, **TFM2** 417, **FMi8** 74; tree to 20 m tall; lowland forest; Kl, Ph, Jh, Sp.
- 197.2.2 **Gironniera nervosa** Planch., **FMP3** 320, **TFM2** 419, **FMi8** 74; tree to 35 m tall, usually smaller; lowland forest below 500 m; Kd, Pn, Kl, Tg, Pk, Ph, Sl, NS, MI, Jh, Sp.
- 197.2.3 **Gironniera parvifolia** Planch., **FMP3** 321, **TFM2** 419, **FMi8** 75; tree to 20 m tall; lowland and hill forest to 900 m; Kd, Pn, Kl, Tg, Pk, Ph, Sl, NS, MI, Jh, Sp.
- 197.2.4 **Gironniera subaequalis** Planch., **FMP3** 320, **TFM2** 419, **FMi8** 75; tree to 38 m tall; lowland and hill forest to 1100 m; Kd, Pn, Kl, Tg, Pk, Ph, Sl, NS, MI, Jh, Sp.
- 197.3.1 **Trema angustifolia** (Planch.) Blume, **FMP3** 319, **TFM2** 421, **FMi8** 54; small shrubby tree; roadsides and forest margins to 1200 m; Kd, Pn, Pk, Ph, Sl, NS, MI.
- 197.3.2 **Trema cannabina** Lour., **TFM2** 421, **FMi8** 50; *Trema virgata* Blume, **FMP3** 319; shrub or small tree to 10 m tall; secondary forest to 1000 m; throughout.
- 197.3.3 **Trema orientalis** (L.) Blume, **TFM2** 421, **FMi8** 51; tree to 27 m tall; lowlands and hills; Main Range and near Kuala Lumpur.
- 197.3.4 **Trema tomentosa** (Roxb.) Hara, **TFM2** 423, **FMi8** 53; *Trema amboinensis* Blume, **FMP3** 319; shrub or tree to 15 m tall; lowland forest margins, waste places; Pn, Kl, Tg, Pk, Ph, Sl, NS, MI, Jh, Sp.

198. UMBELLIFERAE.

- 198.1.1 **Centella asiatica** (L.) Urb., **FMi4** 117, **M47** 48; *Hydrocotyle asiatica* L., **FMP1** 869; low slender, long-creeping herb; damp grassy places; throughout.
- 198.2.1 **Eryngium foetidum** L., **FMP1** 870, **FMi4** 126; spiny foetid herb to about 60 cm tall; sandy waste ground, roadsides; widespread; naturalized from tropical America.
- 198.3.1 **Hydrocotyle javanica** Thunb., **FMP1** 869, **FMi4** 115; creeping herb ascending to 50 cm; damp clearings in lowland to montane forest; Pk, Ph.
- 198.3.2 **Hydrocotyle sibthorpioides** Lam., **FMi4** 115, **M47** 50; *Hydrocotyle rotundifolia* DC., **FMP1** 870; slender creeping herb; weed of short grass; Sp.
- 198.4.1 **Oenanthe javanica** (Blume) DC., **FMi4** 136; *Oenanthe stolonifera* (Roxb.) DC., **FMP1** 871; herb to 1 m tall; pool margins, swamps; Pk.
- 198.5.1 **Sanicula europea** L., **FMP1** 871, **FMi4** 125; herb to 75 cm tall; montane forest; Cameron Highlands, Ph.

199. URTICACEAE

- 199.1.1 **Boehmeria clidemioides** Miq., **Y01** 8; *Boehmeria sidifolia* Wedd., **FMP3** 365; shrub to 1.5 m tall; montane forest; Ph.
- 199.1.2 **Boehmeria glomerulifera** Miq., **Y01** 6; shrub to 1 m tall; once on P.Tioman, Ph.
- 199.1.3 **Boehmeria lanceolata** Ridl., **FMP3** 365; shrub; sandy places; Temengoh, Pk; ?endemic.
- 199.1.4 **Boehmeria malabarica** Wedd., **Y01** 5; shrub to 4 m tall; forest near streams.
- 199.1.5 **Boehmeria nivea** (L.) Gaudich., **C15** 165, **K09** 67; shrub; quite common on limestone, waste ground elsewhere; ramie of commerce; naturalized.
- 199.2.1 **Debregeasia longifolia** (Burm.f.) Wedd., **TFM4** 474; small tree to 7 m; mountains above 1300 m; Ph; possibly recent escape.
- 199.2.2 **Debregeasia squamata** King ex Hook.f., **FMP3** 368, **C15** 165, **TFM4** 474; shrub to 4 m; lowlands to 500 m, mostly on limestone; Kl, Pk, Sl.
- 199.3.1 **Dendrocide sinuata** (Blume) Chew, **C07** 36, **C15** 165, **TFM4** 475; *Laportea pustulosa* Ridl., **FMP3** 360; stinging tree to 10 m tall; on limestone; Pk.
- 199.3.2 **Dendrocide stimulans** (L.f.) Chew, **C07** 11, **TFM4** 475; *Laportea stimulans* (L.f.) Miq., **FMP3** 359; small tree to 7 m, with irritant hairs; Pn, Sl.

- 199.4.1 **Elatostema acuminatum** (Poir.) Brongn., **FMP3** 364, **Y02** 492; herb to 30 cm; near mountain streams.
- 199.4.2 **Elatostema curtisii** (Ridl.) H. Schröt., **S12** 35; *Pellionia curtisii* Ridl., **FMP3** 362; shrubby herb to 30 cm tall; on rocks near mountain streams; Pk, Sl; endemic.
- 199.4.3 **Elatostema garrettii** Yahara, **Y02** 496; herb to 50 cm; forest on limestone; Pk, Ph.
- 199.4.4 **Elatostema inaequilobum** Ridl., **FMP3** 364; succulent creeping herb to 30 cm tall; montane forest; Sl.
- 199.4.5a **Elatostema latifolium** (Blume) H. Schröt. var. **acaule** (Hook.f.) H. Schröt. 'acaulis', **S12** 20; *Pellionia javanica* (Wedd.) Wedd. var. *acaulis* (Hook.f.) Ridl., **FMP3** 362; small herb; Pn, Pk.
- 199.4.5b **Elatostema latifolium** (Blume) H. Schröt. var. **latifolium**, **S12** 17; *Procris latifolia* Blume, **FMP3** 365; *Pellionia javanica* (Wedd.) Wedd., **FMP3** 362; *Pellionia helferiana* Wedd., **FMP3** 361; *Pellionia latifolia* (Blume) Boerl., **Y02** 484; herb; hill forest; Pn, Kl, Pk, Ph, Sl, Jh.
- 199.4.6 **Elatostema molle** Wedd., **FMP3** 364, **Y02** 494; herb to 50 cm tall; on rocks in unshaded streams; Pn, Pk, Ph.
- 199.4.7 **Elatostema platyphyllum** Wedd., **FMP3** 363; herb to 30 cm tall; lowlands; Pn, Kl, Sl.
- 199.4.8 **Elatostema repens** (Lour.) Hallier f. var. **pulchrum** (N.E. Br.) H. Schröt., **S12** 25; *Pellionia repens* (Lour.) Merr., **Y02** 485; *Pellionia daveauana* N.E. Br., **FMP3** 362 incl. var. *viridis* N.E.Br.; creeping herb; lowland forest; Kd, Kl, Pk, Ph, Sl, NS.
- 199.4.9 **Elatostema sessile** J.R. Forst. & G. Forst., **FMP3** 363; herb to 30 cm tall; on rocks in streams; widespread.
- 199.4.10 **Elatostema subscabrum** H. Schröt., **S12** 85, **K49** 33; herb to 20 cm tall; on limestone; Ph; endemic.
- 199.5.1 **Laportea interrupta** (L.) Chew, **C08** 145, **TFM4** 473; *Fleurya interrupta* (L.) Wight, **FMP3** 359; herbaceous weed to 2 m tall; waste ground; widespread.
- 199.6.1 **Nothocnide mollissima** (Blume) Chew, **C09** 365, **TFM4** 473; *Pipturus mollissimus* (Blume) Wedd., **FMP3** 367; scrambling shrub; lowland and hill forest; Kd, Pn, Pk, Sl, Jh.
- 199.7.1 **Oreocnide rubescens** (Blume) Miq., **G21** 132; *Villebrunea sylvatica* Blume, **FMP3** 367; *Villebrunea rubescens* (Blume) Blume, **TFM4** 478; tree to 15 m; hill forests to 900 m; Pk, Ph, Sl, NS, Ml.

- 199.8.1 **Pilea fruticosa** Hook.f., **FMP3** 360, **C15** 166; *Pilea calcarea* Ridl., **FMP3** 361; herb to 1 m tall; shady places on limestone; north of Malaya; endemic.
- 199.8.2 **Pilea microphylla** (L.) Liebm., **K09** 67; *Pilea muscosa* Lindl., **FMP3** 361; herb to 20 cm; weed in damp shady places; naturalized from South America.
- 199.9.1 **Pipturus argenteus** (G. Forst.) Wedd., **TFM4** 476; shrub or small tree to 10 m; lowlands; Kd, Pn, Ph, Jh, Sp.
- 199.10.1 **Pouzolzia hirta** (Blume) Hassk., **C12** 88, **G21** 130; *Pouzolzia bennettiana* Wight, **FMP3** 367; *Gonostegia hirta* (Blume) Miq., **TFM4** 472; erect herb; Ph.
- 199.10.2 **Pouzolzia sanguinea** (Blume) Merr., **B03** 47, **G21** 128; *Pouzolzia viminea* Wedd., **FMP3** 366; shrubby herb to 1.5 m tall; lowland and hill forest; widespread.
- 199.10.3 **Pouzolzia zeylanica** (L.) Benn., **G21** 130; *Pouzolzia indica* (L.) Gaudich., **FMP3** 366; herb to 40 cm tall; damp waste ground; widespread.
- 199.11.1 **Procris frutescens** Blume, **S11** 272; shrub to 3 m tall; lowland and hill forest including limestone; Kl, Pk, Ph, Sl.
- 199.11.2 **Procris pedunculata** (J.R. Forst. & G. Forst.) Wedd., **S11** 259; *Procris laevigata* Blume, **FMP3** 364; shrub to 2 m tall; lowland and hill forest; Kd, Pn, Ph, Sl.
200. VERBENACEAE
- 200.1.1 **Callicarpa angustifolia** King & Gamble, **FMP2** 616, **TFM3** 301, **C15** 168; shrub to 2 m tall; dry craggy limestone; Pk, Sl.
- 200.1.2 **Callicarpa candicans** (Burm.f.) Hochr., **TFM3** 301; *Callicarpa cana* L., **FMP2** 616; shrub; open country, forest margins; widespread.
- 200.1.3 **Callicarpa furfuracea** Ridl., **FMP2** 615, **TFM3** 301; shrub; Gg Senyum, Ph; endemic.
- 200.1.4 **Callicarpa longifolia** Lam., **FMP2** 616, **TFM3** 301; straggling shrub to 5 m tall; open country; widespread.
- 200.1.5 **Callicarpa maingayi** King & Gamble, **FMP2** 615, **TFM3** 302; tree to 18 m tall; lowland and hill forest to 1000 m; widespread; endemic.
- 200.1.6 **Callicarpa pentandra** Roxb.; *Geunsia pentandra* (Roxb.) Merr., **TFM3** 305; *Geunsia farinosa* Blume, **FMP2** 614; tree to 18 m tall; open country and forest margins; widespread.

- 200.1.7 **Callicarpa rubella** Lindl., **TFM3** 302; shrub 2 m tall; mountains at 1400 m; Cameron Highlands, Ph.
- 200.1.8 **Callicarpa tomentosa** (L.) Murr., **M51** 299; *Callicarpa arborea* Roxb., **FMP2** 614, **TFM3** 301; tree to 18 m tall; lowland forest; mostly in the north.
- 200.2.1 **Clerodendrum breviflorum** Ridl., **FMP2** 628, **TFM3** 305; small ant-inhabited shrub; swampy lowland forest; Pk, Sl, Jh; endemic.
- 200.2.2 **Clerodendrum deflexum** Wall., **FMP2** 624 incl. var. *bracteatum* Ridl., **TFM3** 304; shrub about 1 m tall; lowland to lower montane forest at 1300 m; throughout.
- 200.2.3 **Clerodendrum hendersonii** Moldenke, **K31** 259; shrub to 4 m tall; montane forest above 1200 m; Cameron Highlands and Gg Ulu Kali, Ph; endemic.
- 200.2.4 **Clerodendrum hispidum** M.R. Hend., **H35** 118, **TFM3** 304; shrub to 1.5 m tall; Tg, Ph; endemic.
- 200.2.5 **Clerodendrum indicum** (L.) Kuntze, **TFM3** 304; *Clerodendrum siphonanthus* R. Br., **FMP2** 628; shrub to 1 m tall; damp grassy places, waste ground; Kd, Pk, Ph.
- 200.2.6 **Clerodendrum inerme** (L.) Gaertn., **FMP2** 624, **TFM3** 304; scandent shrub; sandy and muddy shores; common on all coasts.
- 200.2.7 **Clerodendrum laevifolium** Blume, **TFM3** 305; *Clerodendrum dispariifolium* Blume, **FMP2** 625; spindly shrub or small tree; lowland forests and forest margins; common throughout.
- 200.2.8 **Clerodendrum langkawiense** King & Gamble, **FMP2** 625, **TFM3** 304; shrub under 1 m tall; lowlands; P. Langkawi.
- 200.2.9 **Clerodendrum nutans** Jack, **TFM3** 304; *Clerodendrum penduliflorum* Wall., **FMP2** 626; small shrub; lowland forest, sometimes on limestone; Kd, Pn, Pk, Sl.
- 200.2.10 **Clerodendrum oblongifolium** Kochummen, **TFM3** 305; shrub to 1 m tall; lowland forest; once from near Kota Tinggi, Jh; endemic.
- 200.2.11 **Clerodendron paniculatum** L., **FMP2** 628, **TFM3** 304; shrub to 3 m tall; forests, waste ground, often planted; Kd, Pn, Pk, Ph, Sl, NS.
- 200.2.12 **Clerodendrum phyllomega** Steud. var. *myrmecophilum* (Ridl.) Moldenke, **TFM3** 304; *Clerodendrum myrmecophilum* Ridl., **FMP2** 627; little ant-inhabited shrub; wet lowland forest; Tg, Pk, Sl, Jh, Sp.
- 200.2.13 **Clerodendrum ridleyi** King & Gamble, **FMP2** 629, **TFM3** 305; shrub about 2 m tall; lowland forest; Pk, Sl; endemic.

- 200.2.14 **Clerodendrum serratum** (L.) Moon, **FMP2** 626, **TFM3** 304; bushy shrub; forest, open country; north of Malaya.
- 200.2.15 **Clerodendrum umbratile** King & Gamble, **FMP2** 626; small shrub; montane forest; Pk, Sl, Ml.
- 200.2.16 **Clerodendrum villosum** Blume, **FMP2** 627, **TFM3** 304; shrub to 2 m tall; waste ground, disturbed areas; common throughout.
- 200.3.1 **Congea forbesii** King & Gamble var. **ridleyana** Munir, **M60** 292; *Congea vestita* Griff., **FMP2** 640; large liana; lowland forest; Kd, Pn.
- 200.3.2 **Congea griffithiana** Munir, **M60** 285; scandent shrub; lowland forest, also cultivated; Kd.
- 200.4.1 **Glossocarya mollis** Wall., **C15** 168; scandent shrub; on limestone; once from P. Rabana, Ps.
- 200.4.2 **Glossocarya premnoides** Ridl., **FMP2** 636; shrub; open country; Besih Hangat, Ps; ?endemic.
- 200.5.1 **Gmelina asiatica** L., **FMP2** 622, **TFM3** 306; small spiny tree or shrub; waste ground; dubiously native.
- 200.5.2 **Gmelina elliptica** Sm., **TFM3** 306; *Gmelina villosa* Roxb., **FMP2** 623; thorny scrambling shrub to 8 m tall; open country near the sea; widespread.
- 200.6.1 **Lantana camara** L., **K09** 194; *Lantana aculeata* L., **FMP2** 612; shrub; waste places; widespread; naturalized from tropical America.
- 200.6.2 **Lantana indica** Roxb., **FMP2** 612; small shrub; waste ground; widespread; naturalized from India.
- 200.7.1 **Peronema canescens** Jack, **FMP2** 636, **TFM3** 306; tree to 18 m tall; open country, secondary forests; common throughout.
- 200.8.1 **Petraeovitex bambusetorum** King & Gamble, **FMP2** 637, **M58** 232; large woody climber; bamboo forest; once from Ulu Kerling, Pk.
- 200.8.2 **Petraeovitex membranacea** Merr. var. **malesiana** Munir, **M58** 231; slender liana; lowland forest; Sl, Ph.
- 200.8.3 **Petraeovitex scortechinii** King & Gamble, **FMP2** 637, **M58** 228; liana; lowland and hill forest; Pk, Sl, NS, ?Ml; ?endemic.
- 200.8.4 **Petraeovitex wolfei** J. Sinclair, **S25** 19, **M58** 229; liana; lowland forest; Kd, Kl, Tg; endemic.
- 200.9.1 **Phyla nodiflora** (L.) Greene, **TFM3** 298, **M47** 556; *Lippia nodiflora* (L.) Michx., **FMP2** 612; creeping herb; sandy places near the sea, waste ground; widespread.

- 200.10.1 ***Premna cordifolia*** Roxb., **FMP2** 621, **TFM3** 307; small shrub; lowlands; MI northward; endemic.
- 200.10.2 ***Premna derryana*** King & Gamble, **FMP2** 618, **TFM3** 307; climber; hill forest; Taiping Hills, Pk; endemic.
- 200.10.3 ***Premna divaricata*** Wall. ex Schau., **FMP2** 619, **TFM3** 307; climbing shrub; thickets in open country; widespread.
- 200.10.4 ***Premna foetida*** Reinw. ex Blume, **FMP2** 619, **TFM3** 307; large shrub; damp lowland forest; Ps, Kd, Pk, MI, Jh, Sp.
- 200.10.5 ***Premna kunstleri*** King & Gamble, **FMP2** 622, **TFM3** 307; large shrub or small tree; lowland forest; Pk.
- 200.10.6 ***Premna parasitica*** Blume, **TFM3** 307; *Premna trichostoma* Miq., **FMP2** 620; large climbing shrub; lowland forest; P. Langkawi, Pk, Ph, MI, Jh, Sp.
- 200.10.7 ***Premna perakensis*** King & Gamble, **FMP2** 620, **TFM3** 307; climbing shrub; Pk; endemic.
- 200.10.8 ***Premna punctulata*** C.B. Clarke, **FMP2** 620, **TFM3** 307; scandent shrub; lowland forest; MI, Sp; endemic.
- 200.10.9 ***Premna pyramidata*** Wall., **FMP2** 622, **C15** 169; tree to 15 m tall; lowland forest; P. Langkawi, Pk, Ph, SI.
- 200.10.10 ***Premna ridleyi*** King & Gamble, **FMP2** 621, **TFM3** 307; climbing shrub; lowland forest; Pk, Sp; endemic.
- 200.10.11 ***Premna rubens*** (C.B. Clarke) Ridl., **FMP2** 618, **TFM3** 307; climber; lowland forest; Air Panas, MI; endemic.
- 200.10.12 ***Premna serratifolia*** L., **N11** 262; *Premna littoralis* King & Gamble, **FMP2** 618; *Premna angustior* (C.B. Clarke) Ridl., **FMP2** 619; *Premna integrifolia* L. *nom. illeg.*, **FMP2** 619 incl. var. *minor* Ridl.; *Premna corymbosa* Rottl. & Willd., **TFM3** 308; sea shore creeper or small shrub; common on all coasts.
- 200.10.13 ***Premna sterculifolia*** King & Gamble, **FMP2** 621, **TFM3** 307; shrubby climber; lowland forest; near Taiping, Pk; endemic.
- 200.10.14 ***Premna tomentosa*** Willd., **TFM3** 307; tree to 18 m tall; open country; NS northward.
- 200.10.15 ***Premna wrayi*** King & Gamble, **FMP2** 621, **TFM3** 307; large climber; lowland forest; Tapah, Pk; endemic.
- 200.11.1a ***Sphenodesme pentandra*** Jack var. ***pentandra***, **FMP2** 639, **M59** 357; climbing shrub; lowland forest margins; P. Langkawi, Pn, Tg, Pk, Ph, SI, NS, MI, Jh, Sp.

- 200.11.1b **Sphenodesme pentandra** Jack var. **wallichiana** (Schauer) Munir, **M59** 360; climber; Ph.
- 200.11.2 **Sphenodesme racemosa** (Presl) Moldenke, **M59** 349; *Sphenodesme barbata* Schauer, **FMP2** 638; climbing shrub; lowland forest; Pn, Kl, Tg, Ph, NS, MI, Jh.
- 200.11.3 **Sphenodesme triflora** Wight, **FMP2** 638, **M59** 367; climbing shrub; lowland and hill forest; Pn, Tg, Pk, Ph, Sl, NS, MI, Jh.
- 200.12.1 **Stachytarpheta cayennensis** (Rich.) Vahl, **S23** 34; herb; waste ground; Sp; naturalized from Tropical America.
- 200.12.2 **Stachytarpheta indica** (L.) Vahl, **FMP2** 613, **M47** 558; herb to 1 m tall; sandy places near the sea; widespread; naturalized from tropical America.
- 200.12.3 **Stachytarpheta jamaicensis** (L.) Vahl, **FMP2** 613, **M47** 560; shrub to 1 m tall; waste places; widespread; naturalized from tropical America.
- 200.12.4 **Stachytarpheta mutabilis** (Jacq.) Vahl, **FMP2** 613; lax shrub; hill resorts; naturalized from tropical America.
- 200.13.1 **Teijsmanniodendron coriaceum** (C.B. Clarke) Kosterm., **TFM3** 308; *Vitex coriacea* C.B. Clarke, **FMP2** 632; tree to 27 m tall; lowland and hill forest to 700 m; Kd, Kl, Tg, Pk, Ph, Sl, Jh, Sp.
- 200.13.2 **Teijsmanniodendron hollrungii** (Warb.) Kosterm., **TFM3** 309; *Vitex clarkeana* King & Gamble, **FMP2** 632; small tree; lowland forest near streams; Pn, Pk, Ph, Jh.
- 200.13.3 **Teijsmanniodendron holophyllum** (Baker) Kosterm., **TFM3** 308; *Vitex holophylla* Baker, **FMP2** 631; tree to 28 m tall; lowland forest; Tg, Jh.
- 200.13.4 **Teijsmanniodendron pteropodum** (Miq.) Bakh., **TFM3** 309; *Vitex pteropoda* Miq., **FMP2** 633; *Vitex peralata* King, **FMP2** 634; tree to 24 m tall; lowland swamps; Kd, Pn, Tg, Pk, Ph, Jh, Sp.
- 200.13.5 **Teijsmanniodendron simplicifolium** Merr., **TFM3** 309; tree to 18 m tall; lowland forest; Tg, Pk, Ph.
- 200.13.6 **Teijsmanniodendron sinclairii** Kosterm., **TFM3** 309; tree to 5 m tall; lowland forest; once from Tg.
- 200.14.1 **Verbena bonariensis** L., **S53** 150, **Y08** 105, **T19** 126; herb; roadsides; Cameron Highlands & Genting Highlands, Ph; naturalized from South America.
- 200.15.1 **Vitex gamosepala** Griff., **FMP2** 635, **TFM3** 310; tree to 18 m tall; lowland and hill forest to 1200 m; throughout.

- 200.15.2 **Vitex glabrata** R.Br., **FMP2** 634, **TFM3** 310; large tree; Pn, Kd.
- 200.15.3 **Vitex longisepala** King & Gamble, **FMP2** 634, **TFM3** 311; tree; mainly montane forest; Pn to Ml; endemic.
- 200.15.4 **Vitex negundo** L., **FMP2** 631, **TFM3** 311; shrub; usually near the coast, also cultivated; widespread.
- 200.15.5 **Vitex pinnata** L., **TFM3** 311; *Vitex pubescens* Vahl, *nom. illeg.*, **FMP2** 632; tree to 24 m tall; disturbed forest; throughout.
- 200.15.6 **Vitex quinata** (Lour.) F.N. Williams, **TFM3** 311; *Vitex heterophylla* Roxb., **FMP2** 633; tree to 36 m tall; lowland forest; middle Malaya.
- 200.15.7 **Vitex siamica** F.N. Williams, **FMP2** 632, **TFM3** 311, **C15** 169; tree to 10 m tall; craggy limestone hill summits; P. Langkawi, Pk, Sl.
- 200.15.8 **Vitex trifolia** L., **FMP2** 630, **TFM3** 311; shrub to 2.5 m tall; sandy shores, widely cultivated; widespread.
- 200.15.9 **Vitex urceolata** C.B. Clarke, **FMP2** 633, **TFM3** 313; tree to 18 m tall; lowland forest; Pk, NS, Ml; endemic.
- 200.15.10 **Vitex vestita** Wall. ex Schau., **FMP2** 635, **TFM3** 313; small tree; lowland forest; widespread.

201. VIOLACEAE

- 201.1.1 **Rinorea anguifera** (Lour.) Kuntze, **FMi7** 183, **TFM3** 315; *Alsodeia capillata* King, **FMP1** 133; *Alsodeia comosa* King, **FMP1** 133; *Alsodeia echinocarpa* Korth., **FMP1** 315; tree to 10 m tall; lowland and hill forest to 600 m; throughout.
- 201.1.2 **Rinorea bengalensis** (Wall.) Kuntze, **FMi7** 184, **TFM3** 317; *Alsodeia wallichiana* Hook.f., **FMP1** 128; *Alsodeia lankawiense* Ridl., **FMP1** 129; shrub to 3 m tall; lowland and hill forest to 600 m, common on limestone; Ps, Kd, Pn, Kl, Pk, Ph, Sl, NS, Ml, Jh, Sp.
- 201.1.3 **Rinorea horneri** (Korth.) Kuntze, **FMi7** 185, **TFM3** 317; *Alsodeia hirtella* Ridl., **FMP1** 128; *Alsodeia kunstleriana* King, **FMP1** 128; shrub to 3 m tall; lowland forest; widespread.
- 201.1.4a **Rinorea javanica** (Blume) Kuntze var. **javanica**, **FMi7** 188, **TFM3** 317; *Alsodeia hookeriana* King, **FMP1** 130; tree to 10 m tall; lowland forest to 300 m; widespread.
- 201.1.4b **Rinorea javanica** (Blume) Kuntze var. **wrayi** (King) Ng, **TFM3** 318; *Alsodeia wrayi* King, **FMP1** 129; tree to 10 m tall; lowland forest; Pk, Jh; endemic variety.

- 201.1.5a **Rinorea lanceolata** (Wall.) Kuntze var. **floribunda** (King) Ng, **TFM3** 318; *Alsodeia floribunda* King, **FMP1** 132; tree to 23 m tall; lowland forest; Kd, Pk; endemic variety.
- 201.1.5b **Rinorea lanceolata** (Wall.) Kuntze var. **lanceolata**, **FMi7** 187, **TFM3** 318; *Alsodeia maingayi* Hook.f. & Thomson, **FMP1** 130; *Alsodeia lanceolata* (Wall.) Oudem., **FMP1** 131; *Alsodeia grandiflora* Ridl., **FMP1** 132; shrub to 3 m tall; lowland forest below 750 m; widespread, mostly in the south.
- 201.1.6 **Rinorea longiracemosa** (Kurz) Craib, **FMi7** 189, **TFM3** 318; *Alsodeia cinerea* King, **FMP1** 130 incl. var. *hirsutiflora* King; shrub to 5 m tall; lowland forest; Tg, Pk, Jh.
- 201.1.7 **Rinorea macrophylla** (Decne.) Kuntze, **FMi7** 190, **TFM3** 318; *Alsodeia dasycaula* Miq., **FMP1** 129; shrub to 5 m tall; lowland forest; Ps, Pk, Ph.
- 201.1.8 **Rinorea sclerocarpa** (Burgersd.) M. Jacobs, **FMi7** 186, **TFM3** 319; *Alsodeia pachycarpa* King, **FMP1** 131; *Alsodeia scortechinii* King, **FMP1** 131; *Alsodeia condensa* King, **FMP1** 132; tree to 13 m tall; lowland and hill forest; widespread.
- 201.1.9 **Rinorea virgata** (Thwaites) Kuntze, **FMi7** 190, **TFM3** 319; *Alsodeia minutiflora* Ridl., **FMP1** 131; shrub to 4 m tall; once from Ps.
- 201.2.1 **Viola curvistylis** Boissieu & Capit., **FMi7** 210, **TFM3** 321; *Viola serpens auct. non* Wall., **FMP1** 126 in part; creeping herb; openings in montane forest, 1000–1700 m; Cameron Highlands, Ph.
- 201.2.2 **Viola hederacea** Labill., **FMi7** 211, **TFM3** 321; creeping rhizomatous herb; clearings of montane forest; Cameron Highlands, Ph; possibly naturalized from Australasia.
- 201.2.3 **Viola inconspicua** Blume, **FMi7** 203, **TFM3** 321; herb; open grassy place at 750 m; once from Penang Hill.
- 201.2.4 **Viola sumatrana** Miq., **FMi7** 209, **TFM3** 321; *Viola serpens auct. non* Wall., **FMP1** 126 in part; stoloniferous herb; clearings in montane forest at 700–2000 m; Kl, Pk, Ph.
202. VISCACEAE
- 202.1.1 **Korthalsella dacrydii** (Ridl.) Danser, **D04** 124; *Arceuthobium dacrydii* Ridl., **FMP3** 163, **D03** 455; tiny leafless mistletoe to 10 cm tall; upper montane forest, only on *Dacrydium* in the Peninsula; Gg Tahan, Ph.
- 202.1.2 **Korthalsella japonica** (Thunb.) Engl., **FMP3** 163; *Korthalsella opuntia* (Thunb.) Merr., *nom. illeg.*, **D03** 453; tiny leafless mistletoe about 10 cm tall; mountain tops; Kd, Ml.

- 202.2.1 **Notothixos malayanus** Oliv., **FMP3** 165, **D03** 457, **B10** 10; delicate mistletoe; Pn.
- 202.3.1 **Viscum articulatum** Burm.f., **FMP3** 165, **D03** 460, **D05** 280, **R05** 126; *Viscum dichotomum* (non Gilibert) D.Don, **FMP3** 164; *Viscum flexuosum* Gamble, **FMP3** 165; *Viscum nepalense* Spreng., **D05** 283; bushy 'leafless' mistletoe parasitic on other mistletoe species; lowlands; Kd, Tg, Pn, Pk, Ph, NS, Ml, Jh, Sp.
- 202.3.2 **Viscum ovalifolium** Wall. ex DC., **D05** 296; *Viscum orientale* auctt. plur., non Willd., **FMP3** 164, **D03** 466; bushy mistletoe; common; Kd, Pn, Pk, Ph, Sl, Ml, Sp.
- 202.3.3 **Viscum wrayi** Gamble, **FMP3** 164, **D03** 470, **D05** 297; bushy mistletoe; Kd, Pk, Jh.

203. VITACEAE

- 203.1.1 **Ampelocissus arachnoidea** (Hassk.) Planch., **L08** 86; *Vitis harmandi* sensu Ridl., **FMP1** 471; climber; once collected from Terutau Island.
- 203.1.2 **Ampelocissus ascendiflora** Latiff, **L08** 87; scandent shrub; forest margins; Ml; endemic.
- 203.1.3 **Ampelocissus cinnamomea** (Wall.) Planch., **L08** 88; *Vitis cinnamomea* Wall., **FMP1** 472; slender climber; lowland forest; widespread.
- 203.1.4 **Ampelocissus compositifolia** (Wall. ex Lawson) Planch., **L08** 89; *Vitis compositifolia* Wall. ex Lawson, **FMP1** 473; slender climber; lowland forest; Pn, Pk, Ml.
- 203.1.5 **Ampelocissus elegans** (Kurz) Gagnep., **L08** 89; *Vitis elegans* Kurz, **FMP1** 473; slender climber; forest understorey and edges; lowlands, including limestone, to mountains; widespread.
- 203.1.6 **Ampelocissus floccosa** (Ridl.) Galet, **L08** 87; *Vitis floccosa* Ridl., **FMP1** 472; climber; hill forest; once from Gg Pulau, Jh; ?endemic.
- 203.1.7 **Ampelocissus gracilis** (Wall.) Planch., **L08** 86; *Vitis gracilis* Wall., **FMP1** 472; slender climber; forest fringes; widespread.
- 203.1.8 **Ampelocissus martini** Planch., **L08** 85; *Vitis martini* (Planch.) Hort. ex Ridl., **FMP1** 471; scandent vine; on limestone hills; Ps, Kd.
- 203.1.9 **Ampelocissus nitida** (Lawson) Planch., **L08** 91; *Vitis polystachya* auct. non Wall., **FMP1** 473 in part; climber; known only from Penang Hill; ?endemic.
- 203.1.10 **Ampelocissus polystachya** (Wall.) Planch., **L08** 91; *Vitis polystachya* Wall., **FMP1** 473 in part; climber; lowland forest; widespread.

- 203.1.11 **Ampelocissus thyrsoiflora** (Blume) Planch., **L08** 90; *Vitis polystachya auct. non* Wall., **FMP1** 473 in part; slender climber; lowland and hill forests; widespread.
- 203.2.1 **Ampelopsis cantoniensis** (Hook. & Arn.) Planch., **L08** 83; *Vitis cantoniensis* (Hook. & Arn.) Seem., **FMP1** 476; climber; roadsides and waste ground; widespread.
- 203.3.1 **Cayratia japonica** (Thunb.) Gagnep., **L06** 136; *Vitis japonica* Thunb., **FMP1** 478; vine; lowland and hill forest margins, including on limestone.
- 203.3.2 **Cayratia mollissima** (Wall.) Gagnep., **L06** 136; *Vitis mollissima* Wall., **FMP1** 478; slender climber; lowland and hill forest.
- 203.3.3 **Cayratia novemfolia** (Wall. ex Lawson) Burkill ex A.W. Hill, **L06** 138; *Vitis novemfolia* Wall. ex Lawson, **FMP1** 479; wide-ranging forest climber.
- 203.3.4 **Cayratia trifolia** (L.) Domin, **L06** 135; *Vitis trifolia* L., **FMP1** 478; vine; forest fringes and wasteland.
- 203.3.5 **Cayratia wrayi** (King) Gagnep., **L06** 137; *Vitis wrayi* King, **FMP1** 475 in part; climber; hill and lower montane forest margins.
- 203.4.1 **Cissus adnata** Roxb., **L10** 205; vine; Ps and P. Tioman.
- 203.4.2 **Cissus aristolochioides** Planch., **L12** 31; climber; forest margins; Jeli, Kl.
- 203.4.3 **Cissus javana** DC., **L12** 34; *Cissus discolor* Blume, **L10** 205; *Vitis discolor* (Blume) Dalzell, **FMP1** 477; on limestone; Ps, P. Langkawi and Batu Caves, Sl.
- 203.4.4 **Cissus hastata** Miq., **L10** 202; *Vitis hastata* (Miq.) Miq., **FMP1** 477; slender climber; damp forest edges; widespread.
- 203.4.5 **Cissus nodosa** Blume, **L12** 33; *Cissus glaberrima* (Wall.) Planch., **L10** 202; *Vitis glaberrima* Wall., **FMP1** 477; climber, lowland forest, widespread but not common.
- 203.4.6 **Cissus repens** Lam., **L10** 203, **L12** 34; *Vitis repens* (Lam.) Wight & Arn., **FMP1** 477; *Cissus diffusa* (Miq.) Burkill ex A.W. Hill, **L10** 203; *Vitis diffusa* Miq., **FMP1** 477; slender climber; forest fringes.
- 203.4.7 **Cissus rostrata** (Miq.) Planch., **L10** 204; *Vitis rostrata* Miq., **FMP1** 476; vine; lowland and hill forest.
- 203.4.8 **Cissus simplex** Blanco, **L10** 206; *Vitis pyrrhodasys* (Miq.) Ridl., **FMP1** 477; vine; forest interior including swamps and limestone.