

NOTES ON MAGNOLIACEAE IV

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SUMMARY

A new system of Magnolioideae (Magnoliaceae) is given, based on the latest available data on DNA and morphology. New combinations and name changes in Malesian *Magnolia* are given as well as some corrections in previously published names.

Key words: Magnoliaceae, *Elmerrillia*, *Kmeria*, *Magnolia*, *Manglietia*, *Michelia*, *Pachylarnax*, new combinations.

INTRODUCTION

Based on DNA work by Kim et al. (2001) and Azuma et al. (1999, 2000, 2001), morphological considerations by Figlar (2000, 2003a, b) and Nootboom (1985, 1998, 2000), and later observations on morphology, subfam. Magnolioideae of Magnoliaceae is considered to contain only one genus, *Magnolia*. To account for the variability that resulted in the recognition of several to many genera in the past, *Magnolia* is subdivided into three subgenera: 1) *Magnolia* with 8 sections and 7 subsections; 2) *Yulania* with 2 sections and 6 subsections; and 3) *Gynopodium* with 2 sections. In the descriptions is also referred to the stomata types of Baranova & Jeffrey (2000). Further, new combinations are given for Malesia and for some SE Asian taxa the authors are familiar with. Also, some previously published names that were invalid are corrected.

The names in former genus *Michelia* are an update to Figlar (2000). All combinations under *Elmerrillia*, *Kmeria*, *Manglietia*, *Michelia*, and *Pachylarnax* for the Malesian area (and some outside), and used in Flora Malesiana, are renamed under *Magnolia*, or, when made before, listed under the latter genus.

Magnolia sect. *Blumiana* Blume is reduced to *Magnolia* sect. *Gwillimia* DC. subsect. *Blumiana* (Blume) Figlar & Noot.

Magnolia sect. *Buergeria* (Siebold & Zucc.) Dandy is reduced to *Magnolia* subg. *Yulania* Spach (Rchb.) subsect. *Yulania*.

Magnolia sect. *Gynopodium* Dandy is raised to *Magnolia* subg. *Gynopodium* Figlar & Noot. (sect. *Gynopodium*).

Magnolia sect. *Macrophylla* Figlar & Noot. and *Magnolia* sect. *Auriculata* Figlar & Noot. are newly described.

Magnolia sect. *Maingola* Dandy is reduced to *Magnolia* L. subg. *Yulania* Spach sect. *Michelia* (L.) Baill. subsect. *Maingola* Figlar & Noot.

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- Magnolia* sect. *Oyama* Nakai is reduced to *Magnolia* sect. *Rytidospermum* Spach subsect. *Oyama* (Nakai) Figlar & Noot.
- Magnolia* sect. *Splendentes* Dandy ex A. Vazquez is reduced to *Magnolia* sect. *Talauma* subsect. *Splendentes* (Dandy ex A. Vazquez) Figlar & Noot.
- Magnolia* sect. *Theorhodon* Spach is reduced to *Magnolia* sect. *Magnolia*.
- Magnolia* sect. *Tulipastrum* (Spach) Dandy is reduced to *Magnolia* subg. *Yulania* Spach (Rchb.) subsect. *Tulipastrum* (Spach) Figlar & Noot.
- Aromadendron* Blume (*Magnolia* sect. *Aromadendron* (Blume) Noot.) is reduced to *Magnolia* L. subg. *Yulania* Spach sect. *Michelia* (L.) Baill. subsect. *Aromadendron* Figlar & Noot.
- Dugandiodendron* Lozano is reduced to *Magnolia* sect. *Talauma* Baill. subsect. *Dugandiodendron* (Lozano) Figlar & Noot.
- Elmerrillia* Dandy is reduced to *Magnolia* L. subg. *Yulania* Spach sect. *Michelia* (L.) Baill. subsect. *Elmerrillia* (Dandy) Figlar & Noot.
- Kmeria* (Pierre) Dandy is reduced to *Magnolia* sect. *Kmeria* (Pierre) Figlar & Noot.
- Michelia* L. is reduced to *Magnolia* L. subg. *Yulania* Spach sect. *Michelia* (L.) Baill. subsect. *Michelia* (L.) Figlar & Noot.
- Pachylarnax* Dandy and *Manglietiastrum* Y.W. Law are reduced to *Magnolia* subg. *Gynopodium* Figlar & Noot. sect. *Manglietiastrum* (Y.W. Law) Noot.

SUBDIVISION AND SPECIES

MAGNOLIA

- Magnolia* L. (1753) 535. — Type: *Magnolia virginiana* L. (eastern USA).
- Michelia* L. (1753) 536. — Type: *Michelia champaca* L.
- Talauma* Juss. (1789) 281. — *Magnolia* sect. *Talauma* Baill. (1866) 66. — *Magnolia* subg. *Talauma* Pierre (1880) sub t. 1. — Type: *Talauma plumierii* (Schwartz) DC. (*Magnolia plumierii* Schwartz).
- Aromadendron* Blume (1825) 10. — *Talauma* sect. *Aromadendron* Miq. (1868) 70. — Type: *Aromadendron elegans* Blume = *Magnolia elegans* (Blume) H. Keng.
- Blumia* Nees. (1825) 152, nom. rejic., non *Blumea* DC., nom. cons. — *Magnolia* sect. *Blumia* (Nees) Baill. (1866) 2. — Type: *Talauma candollii* Blume = *Magnolia candollii* (Blume) H. Keng.
- Liriopsis* Spach (1839) 462. — Type: *Liriopsis fuscata* (Andr.) Spach.
- Yulania* Spach (1839) 462. — Type: *Yulania conspicua* Spach = *Magnolia liliiflora* Desr. in Lam. (1792).
- Tulipastrum* Spach (1839) 481. — Type: *Magnolia acuminata* L.
- Lirianthe* Spach (1839) 485. — Type: *Lirianthe grandiflora* Spach = *Magnolia pterocarpa* Roxb.
- Buergeria* Siebold & Zucc. (1846) 186. — Type: *Buergeria stellata* Siebold & Zucc. = *Magnolia stellata* (Siebold & Zucc.) Maxim.
- Alcimandra* Dandy (1927) 260. — Type: *Alcimandra cathcartii* (Hook.f. & Thomson) Dandy = *Magnolia cathcartii* (Hook.f. & Thomson) Noot.
- Pachylarnax* Dandy (1927) 260. — Type: *Pachylarnax praecalva* Dandy.
- Elmerrillia* Dandy (1927) 261. — Type: *Elmerrillia papuana* (Schltr.) Dandy.
- Svenhedinia* Urb. (1927) 3. — Type: *Svenhedinia minor* (Urb.) Urb. (*Talauma minor* Urb.).
- Paramichelia* Hu (1940) 1442. — Type: *Paramichelia baillonii* (Pierre) Hu.
- Parakmeria* Hu & W.Y. Cheng (1951a) 255. — Type: *Parakmeria omeiensis* Hu & W.Y. Cheng = *Magnolia omeiensis* (Hu & W.Y. Cheng) Dandy.
- Micheliopsis* H. Keng (1955) 207, t. 345. — Type: *Micheliopsis kachirachirai* (Kaneh. & Yamam.) H. Keng = *Magnolia kachirachirai* (Kaneh. & Yamam.) Dandy.

Tsoongiodendron Chun (1963) 281. — Type: *Tsoongiodendron odorum* Chun.

Dugandiodendron Lozano (1975) 33. — Type: *Dugandiodendron mahechae* Lozano.

Manglietiastrum Y.W. Law (1979) 72. — Type: *Manglietiastrum sinicum* Y.W. Law = *Magnolia sinica* (Y.W. Law) Noot.

Subgenus **Magnolia**

Branches produced by syllepsis (except in subsect. *Oyama*). Leaves conduplicate in prefoliation (Fig. 1a). Flowers terminal. Introrse anther dehiscence. Gynoecium sessile. Fruit more or less ovoid or ellipsoid with fused or connivent carpels until dehiscence. Mid-late season flowering in non-tropical species. Pollen large, diameter > 50 μm . Stamens caducous during the male phase (except in subsect. *Oyama*).

Distribution — America and Asia (c. 132 spp.).

Notes — Syllepsis means that the branches arise from axillary buds produced on current year's shoots. Prolepsis means that branches arise from dormant axillary buds produced on the previous year's shoots (see Figlar, 2000).

Caducous stamens = stamens detach from the androphore during the male phase when shedding the pollen and fall into the base of the flower.

Section **Magnolia** — *Magnolia* sect. *Magnoliastrum* DC. (1824) 80. — Type: *Magnolia virginiana* L., the type of the genus.

Magnolia sect. *Theorhodon* Spach (1839) 470; Dandy (1950) 70. — Type: *Magnolia grandiflora* L.

Leaves evergreen to sometimes late or partially deciduous, leaf undersides glaucous or not. Stipules adnate to most of petiole in one species, *M. virginiana*, or adnate to the base of the petiole, thus appearing to be free. Two ovules per carpel. Stomata group of Baranova 5.

Distribution — Southeast North America south through Central America (16 spp.).

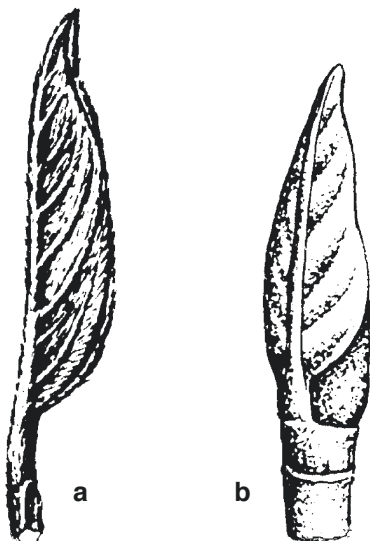


Fig. 1. a. Conduplicate prefoliation; b. open prefoliation (after Flora of China).

Section **Gwillimia** DC. (1817) 455, 548; Dandy (1950) 68; (1978) 29. — Type: *Magnolia coco* DC.

Magnolia sect. *Lirianthe* (Spach) Dandy (1950) 68. — *Lirianthe* Spach (1839) 485. — Type: *Lirianthe grandiflora* Spach = *Magnolia pterocarpa* Roxb.

Leaves evergreen. Stipules adnate to petiole. Two ovules per carpel. Stomata group of Baranova 9.

Distribution — SE continental Asia and Malesia (c. 16 spp.).

Subsection **Gwillimia** — *Lirianthe* Spach.

Adnate stipules with scar mostly along the entire length of the petiole. Carpels longitudinally dehiscent. Styler beaks occasionally flattened, short (2–3 mm) to very long (15 mm).

Distribution — SE continental Asia and Malesia (8 spp.).

Subsection **Blumiana** (Blume) Figlar & Noot., *stat. nov.* — *Magnolia* sect. *Blumiana* Blume, Verh. Batav. Genootsch. Kunsten 9 (1829) 32 (7 spp.). — Type: *Talauma candollii* Blume.

Adnate stipules with the scars ranging from about half the length of the petiole to nearly the entire length of it. Carpels dehiscent circumscissile.

Distribution — Tropical and subtropical SE Asia from Central Himalayas to Indochina and through Malesia to New Guinea (c. 8 spp.).

Section **Talauma** Baill. (1866) 3, 66, p.p. — *Talauma* Juss. (1789) 281, p.p. — *Talauma* sect. *Richardsianae* Blume (1829) 32. — Subg. *Talauma* (Juss.) Pierre (1880) sub t. 1, p.p.

Leaves evergreen. Connective appendage long (and embedded in gynoeceium) except in subsect. *Talauma*. Carpels dehiscent circumscissile except in subsect. *Splendentes*. Two ovules per carpel. Stomata group of Baranova 5, 3, and 2.

Distribution — Mostly South America, but also West Indies, and one species in Mexico (c. 55 spp.).

Subsection **Talauma** — *Talauma* Juss.

Stipules adnate to petiole. Carpels dehiscent circumscissile. Stomata group of Baranova 5.

Distribution — Central and South America, and 2 spp. in West Indies (c. 31 spp.).

Subsection **Dugandiodendron** (Lozano) Figlar & Noot., *stat. nov.* — *Dugandiodendron* Lozano, Caldasia 11 (1975) 33. — Type: *Dugandiodendron mahechae* Lozano.

Stipules free from petiole (or appearing so). Long connective appendage embedded in gynoeceium except in *D. calophyllum* and *D. magnifolium* (Lozano-Contreras, 1983) and *D. calimaense* (Lozano-Contreras, 1994). Carpels dehiscent circumscissile. Stomata group of Baranova 2 (and 3).

Distribution — South America (c. 14 spp.).

Subsection **Splendentes** (Dandy ex A. Vazquez) Figlar & Noot., *stat. nov.* — *Magnolia* sect. *Splendentes* Dandy ex A. Vazquez, *Brittonia* 46 (1994) 4. — Type: *Magnolia splendens* Urb.

Stipules free from petiole (or appearing so). Long connective appendage embedded in gynoecium. Carpels longitudinally dehiscent. Stomata group of Baranova 2.

Distribution — West Indies (c. 10 spp.).

Section **Manglietia** (Blume) Baill. (1866) 66. — *Manglietia* Blume (1823) 149. — Type: *Manglietia glauca* Blume = *Magnolia blumei* Prantl.

Paramanglietia Hu & W.Y. Cheng (1951b) 255. — Type: *Paramanglietia aromatica* (Dandy) Hu & W.Y. Cheng.

Leaves evergreen (except 1 sp.). Stipules adnate to petiole. Usually 4 or more ovules per carpel. Stomata group of Baranova 8.

Distribution — China, SE Asia (c. 29 spp.).

Section **Kmeria** (Pierre) Figlar & Noot., *stat. nov.* — *Magnolia* subg. *Kmeria* Pierre, *Fl. For. Cochinch.* 1 (1880) sub t. 1. — *Kmeria* (Pierre) Dandy (1927) 262. — Type: *Magnolia duperreana* Pierre.

Leaves evergreen. Stipules attached to > 50% of petiole. Flowers unisexual. Two ovules per carpel. Stomata group of Baranova 11

Distribution — China, Indochina, Thailand (3 spp.).

Section **Rytidospermum** Spach (1839) 474, p.p. — Type: *Magnolia tripetala* L.

Branches produced by syllepsis or prolepsis. Leaves deciduous, in false whorls or not. Two ovules per carpel. Stomata group of Baranova 7.

Distribution — Temperate northern East America and temperate E and SE Asia (8 spp.).

Subsection **Rytidospermum**

Branches produced mostly by syllepsis. Leaves arranged in prominent false whorls (flushing). Stamens caducous during male phase.

Distribution — Temperate eastern North America and temperate E and SE Asia (4 spp.).

Subsection **Oyama** (Nakai) Figlar & Noot., *stat. nov.* — *Magnolia* sect. *Oyama* Nakai, *Fl. Sylv. Koreana* 20 (1933) 117. — *Magnolia* sect. *Gophantera* Dandy (1936) sub t. 9467. — Type: *Magnolia sieboldii* K. Koch.

Branches produced mostly by prolepsis. Leaves arranged normally (no flushing). Stamens persistent during male phase.

Distribution — Temperate E and SE Asia (4 spp.).

Note — Persistent stamens = stamens spread, but do not detach from the androphore, during the male phase, and remain persistent usually for several days after shedding the pollen.

Section **Auriculata** Figlar & Noot., *sect. nov.* — Type: *Magnolia fraseri* Walter.

Folia decidua glabra pseudoverticillata basi auriculata.

Leaves deciduous, with auriculate base, glabrous, not glaucous, arranged in prominent false whorls (flushing). Flowers sometimes semi-precocious. Tepals without purple spot on base of adaxial surface. Two ovules in each carpel. Stomata group of Baranova 6.

Distribution — SE North America (2 spp.).

Note — *Auriculata* commemorates William Bartram who actually discovered the type species first, and named it *M. auriculata* in 1791. Unfortunately, Walter (of British Museum) and John Fraser were first to validly describe the plant and named it *M. fraseri*.

Section **Macrophylla** Figlar & Noot., *sect. nov.* — Type: *Magnolia macrophylla* Michx.

Folia decidua pubescentes pseudoverticillata basi auriculata vel cordata.

Leaves deciduous, arranged in false whorls, with cordate to auriculate base, pubescent and glaucous beneath. Tepals with purple spot on base of adaxial surface. Flowers do not close at night. Two ovules in each carpel. Stomata group of Baranova 4.

Distribution — SE North America, SE Mexico (3 spp.).

Subgenus **Yulania** (Spach) Rchb. (1841) 192. — *Yulania* Spach (1839) 462 (c. 85 spp.).
— Type: *Yulania conspiciua* Spach = *Magnolia denudata* Desr. in Lam. (1792).

Leaves conduplicate in prefoliation. Precocious flowering and proleptic branching (less pronounced in tropical species). Fruit more or less cylindrical with longitudinally dehiscent carpels, but when carpels connate ± ellipsoidal and apical parts of carpels falling, often in irregular masses. Pollen small, diameter < 50 μm. Mostly two ovules in each carpel (but 2–6 (or more?) in sect. *Michelia*). Stamens persistent for up to several days after shedding pollen during male phase.

Distribution — (E) Asia and North America (79 spp.).

Section **Yulania**

Leaves deciduous. Flowers terminal or occasionally on proleptic brachyblasts. Latrorse anther dehiscence. Ovules 2 in each carpel. Fruits always cylindrical. Stomata group of Baranova 13.

Distribution — Temperate E Asia and eastern North America (13 spp.).

Subsection **Yulania** — *Buergeria* Siebold & Zucc.

Tepals white, pink, or purple. Pronounced precocious flowering.

Distribution — Asia (12 spp.).

Subsection **Tulipastrum** (Spach) Figlar & Noot., *stat. nov.* — *Tulipastrum* Spach, Hist. Natur. Veget. 7 (1839) 481. — *Magnolia* sect. *Tulipastrum* (Spach) Dandy (1950) 74. — Type: *Magnolia acuminata* L.

Precocious flowering less pronounced. Tepals green to yellow.

Distribution — North America (1 sp.).

Section **Michelia** (L.) Baill. (1866) 66. — *Michelia* L. (1737) 119; (1753) 536; (1754) 240; Noot. (1985) 108. — *Champaca* Adans. (1763) 365, 537. — *Sampacca* Kuntze (1891) 6 (excl. *S. cathcartii* and *S. evonymodes*). — *Magnolia* subg. *Michelia* (L.) Figlar (2000) 20. — Type: *Michelia champaca* L. (= *Magnolia champaca* (L.) Baill. ex Pierre).

Leaves evergreen. Ovules 2–6 (to many) in each carpel.

Distribution — SE Asia from India and Sri Lanka to Japan and Malesia (c. 65 spp.).

Subsection **Michelia** (L.) Figlar & Noot., *stat. nov.* — *Michelia* L., Sp. Pl. (1753) 536. — *Champaca* Adans. (1763) 365, 537. — *Sampacca* Kuntze (1891) 6. — Type: *Michelia champaca* L.

Liriopsis Spach (non Reichenbach, 1828) (1839) 460. — Type: *Liriopsis fuscata* (Andrews) Spach (= *Magnolia figo* (Lour.) DC.).

Talauma sect. *Spongocarpum* King (1891) 205 ('*Spongocarpon*'). — Type: *Talauma spongocarpa* King (= *Magnolia baillonii* Pierre).

Paramichelia Hu (1940) 142. — *Michelia* sect. *Paramichelia* (Hu) B.L. Chen & Noot. (1993) 1087. — Type: *Paramichelia baillonii* (Pierre) Hu (= *Magnolia baillonii* Pierre).

Tsoongiodendron W.Y. Chun (1963) 281. — *Michelia* sect. *Tsoongiodendron* (W.Y. Chun) B.L. Chen & Noot. (1993) 1086. — Type: *Tsoongiodendron odorum* W.Y. Chun (= *Magnolia odora* (W.Y. Chun) Figlar).

Flowers mostly on proleptic brachyblasts. Gynoecium stipitate. Latrorse anther dehiscence. Fruits cylindrical, apocarpous or sometimes ellipsoidal, syncarpous. Ovules 2–6 (to many) in each carpel. Stomata group of Baranova 12

Distribution — As the section, warm temperate to tropical (c. 50 spp.).

Subsection **Elmerrillia** (Dandy) Figlar & Noot., *stat. nov.* — *Elmerrillia* Dandy, Bull. Misc. Inform. Kew (1927) 261. — Type: *Elmerrillia papuana* (Schltr.) Dandy = *Elmerrillia tsiampacca* (L.) Dandy.

Elmerrillia sect. *Pseudoaromadendron* Dandy (1974) 5. — Type: *Elmerrillia ovalis* (Miq.) Dandy (= *Magnolia vrieseana* (Miq.) Baill. ex Pierre).

Flowers mostly on proleptic brachyblasts. Gynoecium sessile. Introrse anther dehiscence. Fruits cylindrical, carpels becoming free at dehiscence; or sometimes ellipsoidal, syncarpous, carpels breaking away in irregular masses; ovules 2–6 in each carpel. Stomata group of Baranova 12.

Distribution — Malesia (4 spp.).

Subsection **Maingola** Figlar & Noot., *stat. nov.* — *Magnolia* sect. *Maingola* Dandy, Curtis's Bot. Mag. 165 (1948b) sub t. 16; S. Kim et al. (2002) 319. — Type: *Magnolia maingayi* King.

Alcimandra Dandy (1927) 260. — *Magnolia* sect. *Alcimandra* Noot. (1985) 88.
— Type: *Michelia cathcartii* Hook.f. & Thomson (= *Magnolia cathcartii* (Hook.f. & Thomson) Noot.).

Flowers terminal or rarely on proleptic brachyblasts. Gynoecium variably stipitate. Introrse anther dehiscence. Fruits cylindrical with carpels becoming free at dehiscence. Ovules 2 in each carpel. Stomata group of Baranova 12 and 14.

Distribution — SE Asia (7 spp.).

Subsection **Aromadendron** Figlar & Noot., *stat. nov.* — *Aromadendron* Blume, Bijdr. (1825) 10. — *Talauma* sect. *Aromadendron* Miq. (1868) 70. — *Magnolia* sect. *Aromadendron* (Blume) Noot. (1985) 89. — Type: *Magnolia elegans* (Blume) H. Keng.

Flowers terminal or rarely on proleptic brachyblasts. Introrse anther dehiscence, anthers with long connective appendage except in *M. ashtonii*. Gynophore present except in *M. bintuluensis*. Ovules 2 in each carpel. Fruits with connate carpels, ovoid or ellipsoid, the apical parts of the carpels falling away in irregular masses. Stomata group of Baranova 14.

Distribution — Malesia (5 spp.).

Subgenus **Gynopodium** Figlar & Noot., *comb. & stat. nov.* — *Magnolia* sect. *Gynopodium* Dandy, Curtis's Bot. Mag. 165 (1948b) t. 16; Noot. (1985) 87. — Type: *Magnolia nitida* W.W. Sm.

Plants entirely glabrous. Leaves evergreen, not conduplicate in prefoliation (Fig. 1b). Stipules completely free. Semi-precocious flowering. Flowers bisexual or tree androdioecious. Introrse anther dehiscence. Ovules 2–8 in each carpel. Carpels dehiscing longitudinally. Gynoecium shortly stipitate but sessile in *Pachylarnax praecalva* and *P. pleiocarpa*. Fruit more or less ovoid or ellipsoid.

Distribution — Continental SE Asia and Malesia (8 spp.).

Section **Gynopodium**

Parakmeria Hu & W.Y. Cheng (1951a) 1, 2. — Type: *Parakmeria omeiensis* Hu & W.Y. Cheng.

Micheliopsis H. Keng (1955) 207, t. 345. — Type: *Micheliopsis kachirachirai* (Kaneh. & Yamam.) H. Keng.

Tree androdioecious. Gynoecium shortly stipitate. Carpels dehiscing mostly along the dorsal suture. Ovules 2 in each carpel (4 in *M. kachirachirai*). Stomata group of Baranova 11.

Distribution — Continental SE Asia, Taiwan (5 spp.).

Section **Manglietiastrum** (Y.W. Law) Noot. (1985) 91. — *Manglietiastrum* Y.W. Law (1979) 72, t. 2 (3 spp.). — Type: *Manglietiastrum sinicum* Y.W. Law.
Pachylarnax Dandy (1927) 260. — Type: *Pachylarnax praecalva* Dandy.

Flowers bisexual. Gynoecium sessile but shortly stipitate in *Magnolia sinica*. Carpels dehiscent mostly along ventral suture especially at apex of fruiting body. Ovules 3–8 in each carpel. Stomata group of Baranova 10.

Distribution — Continental SE Asia and Malesia (3 spp.).

NEW COMBINATIONS AND NAME CHANGES OF SPECIES

TREATED IN FLORA MALESIANA

(For detailed synonymy see Nootboom, 1985)

Magnolia L. subg. **Magnolia** sect. **Manglietia** (Blume) Baill. — *Manglietia* Blume.

Magnolia calophylloides Figlar & Noot., *nom. nov.* — *Manglietia calophylla* Dandy, Bull. Misc. Inform. Kew (1928b) 46; Noot. (1985) 94, non *Magnolia calophylla* (Lozano) Govaerts in Frodin & Govaerts, 1996: *Dugandiodendron calophyllum* Lozano (1978) 283. — Type: *Robinson & Kloss 200* (BM; iso SING), Sumatra, Korinchi Peak.

Magnolia dolichogyna (Dandy ex Noot.) Figlar & Noot., *comb. nov.* — *Manglietia dolichogyna* Dandy ex Noot. *Blumea* 31 (1985) 95. — Type: *SAN 41051* (L; iso SAN), Ranau, Hot Spring, 15 Oct. 1964.

Magnolia blumei Prantl (1888) 16. — *Manglietia glauca* Blume (1823) 150, non *Magnolia glauca* L. (1759) = *Magnolia virginiana* L. — Type: *Blume s.n.* (n.v.), Salak.

Magnolia blumei Prantl var. **sumatrana** (Miq.) Figlar & Noot., *comb. nov.* — *Manglietia sumatrana* Miq., *Fl. Ind. Bat., Suppl.* (1861) 367. — *Manglietia glauca* Blume var. *sumatrana* (Miq.) Dandy (1928a) 188; Noot. (1985) 93. — Type: *Teijsmann 468* (holo L; iso BO), Bukit Sulit.

Magnolia lanuginosoides Figlar & Noot., *nom. nov.* — *Manglietia glauca* Blume var. *lanuginosa* Dandy, Bull. Misc. Inform. Kew (1928a) 187. — *Manglietia lanuginosa* (Dandy) Noot. (1985) 94, non *Magnolia lanuginosa* (Wall.) Figlar & Noot.: *Michelia lanuginosa* Wall.

Magnolia sabahensis (Dandy ex Noot.) Figlar & Noot., *comb. nov.* — *Manglietia sabahensis* Dandy ex Noot. (1985) 95. — Type: *Clemens 34192* (holo L; iso A, BO).

Magnolia subg. **Gynopodium** Figlar & Noot. sect. **Manglietiastrum** (Y.W. Law) Noot. (1985) 91. — *Pachylarnax* Dandy (1927) 260. — *Manglietiastrum* Y.W. Law (1979) 72.

Magnolia praecalva (Dandy) Figlar & Noot., *comb. nov.* — *Pachylarnax praecalva* Dandy, Bull. Misc. Inform. Kew (1927) 260, excl. plantae ex Annam; Noot. (1985) 97. — Type: *Haniff 4067* (holo K; iso SING), Penang.

Magnolia pleiocarpa (Dandy) Figlar & Noot., *comb. nov.* — *Pachylarnax pleiocarpa* Dandy, *J. Bot.* 71 (1933) 313; Noot. (1985) 98. — Type: *Beat Officer 48427* (holo BM), Lakhimpur Dist., Jaipur Reserve.

- Magnolia** L. sect. **Kmeria** (Pierre) Figlar & Noot., *stat. nov.* — *Kmeria* (Pierre) Dandy, Bull. Misc. Inform. Kew (1927) 262. — *Magnolia* subg. *Kmeria* Pierre (1880) sub t. 1.
- Magnolia duperreana** Pierre (1880) sub t. 1. — *Kmeria duperreana* (Pierre) Dandy (1927) 262.
- Magnolia kwangsiensis** Figlar & Noot., *nom. nov.* — *Kmeria septentrionalis* Dandy, J. Bot. 69 (1931) 233. — *Woonyoungia septentrionalis* (Dandy) Y.W. Law (1997) 356, non *Magnolia septentrionalis* B.H. Tiffney (1978).
- Magnolia thailandica** Noot. & Chalermglin (2002) 541.
- Magnolia** L. subg. **Yulania** Spach sect. **Michelia** (L.) Baill. subsect. **Michelia** (L.) Figlar & Noot., *comb. & stat. nov.* — *Michelia* L. (1753) 536.
- Magnolia** × **alba** (DC.) Figlar & Noot., *comb. nov.* — *Michelia* × *alba* DC., Syst. 1 (1817) 449; Noot. (1985) 119. — Type: *Blume s.n.* (holo L).
- Magnolia banghamii** (Noot.) Figlar & Noot., *comb. nov.* — *Michelia banghamii* Noot., Blumea 38 (1994) 334. — Type: *Bangham 930* (holo A; iso NY), Malesia, Sumatra, Takeugeum (sic!), 3600 ft, 15 Jan. 1932.
- Magnolia champaca** (L.) Baill. ex Pierre (1880) t. 3. — *Michelia champaca* L. (1753) 536; Noot. (1985) 113. — *Michelia rheedei* Wight (1840) 14, t. 5. — *Michelia sua-veolens* Pers. (1806) 94, p.p. — Type: *Hermann, Fl. Zeyl. 144* (holo BM).
- Magnolia champaca** (L.) Baill. ex Pierre var. **pubinervia** (Blume) Figlar & Noot., *comb. nov.* — *Michelia pubinervia* Blume, Fl. Javae Magnol. (1829) 14, t. 4. — *Michelia champaca* L. var. *pubinervia* (Blume) Miq. (1868) 72; Noot. (1985) 115. — Type: *Blume 670* (holo L; iso B, K), Malesia, Java.
- Magnolia figo** (Lour.) DC. (1817) 460. — *Liriodendron figo* Lour. (1790) 347. — *Michelia figo* (Lour.) Spreng. (1825) 643; Noot. (1985) 120. — Type: *Loureiro* (n.v.).
- Magnolia figo** DC. var. **crassipes** (Y.W. Law) Figlar & Noot., *comb. nov.* — *Michelia crassipes* Y.W. Law [Sylva Sinica 1 (1983) 488, t. 155, nom. nud.] Bull. Bot. Res. North-East. Forest. Inst. 5 (1985) 121, t. 1. — *Michelia figo* var. *crassipes* (Y.W. Law) B.L. Chen & Noot. (1993) 1085. — Type: *S.H. Chun 3115* (holo IBSC), Guangdong, Lechang, 1000 m.
- Magnolia koordersiana** (Noot.) Figlar (2000) 22. — *Michelia koordersiana* Noot. (1985) 111. — Type: *Van der Zwaan voor Thorenaar E 997* (holo L; iso BM, BO, K), Sumatra, Palembang, Lematang Ilir.
- Magnolia lanuginosa** (Wall.) Figlar & Noot., *nom. nov.* — *Michelia lanuginosa* Wall., Tent. Fl. Nepal. (1824) 8, t. 5. — *Sampacca lanuginosa* (Wall.) Kuntze (1891) 6. — Type: *Wallich 6493* (holo K; iso A, BM).

Michelia velutina DC. (1825) 79. — *Magnolia velutina* (DC.) Figlar (2000) 23, nom. illeg. (non P. Parm., 1896). — Type: *Wallich s.n.* (holo K; iso L 908.126-1627), Nepal, 1821.

Magnolia montana (Blume) Figlar & Noot., *comb. nov.* (*Magnolia montana* (Blume) McLaughlin (1933) 36, in syn., nom. inval.). — *Michelia montana* Blume, Verh. Batav. Genootsch. Kunsten 9 (1823) 153; Noot. (1985) 116. — *Sampacca montana* (Blume) Kuntze (1891) 6. — Type: *Blume 575* (lecto L; iso NY), Malesia, Java.

Magnolia odora (Chun) Figlar & Noot., *comb. nov.* — *Tsoongiodendron odorum* Chun, Acta Phytotax. Sin. 8 (1963) 283, 9 t. 35, 36. — *Michelia odora* (Chun) B.L. Chen & Noot. (1993) 1086. — [*Magnolia odora* (Chun) Figlar (2000) 23, nom. inval.]. — Type: *S.P. Ko 51928* (holo IBSC; iso BM), China, Kwangtung, Tatumg, Nov. 1956.

Michelia gravis Dandy ex Gagnep. (1938) 50, nom. nud. [fide B.L. Chen & Noot. (1993) 1087].

Magnolia philippinensis P. Parm. (1896) 206, 270. — *Michelia philippinensis* (P. Parm.) Dandy (1927) 263; Noot. (1985) 118. — Type: *Cuming 783* (holo MEL; iso A, BM, K, L, NY).

Magnolia scortechinii (King) Figlar & Noot., *comb. nov.* — *Manglietia scortechinii* King, J. Asiat. Soc. Bengal 58 (1889) 370 ('*scortechini*'). — [*Magnolia scortechinii* (King) King (1891) 213, in syn., nom. inval.]. — *Michelia scortechinii* (King) Dandy (1927) 262. — *Paramichelia scortechinii* (King) Dandy (1974) 5. — Type: *Scortechini 764* (holo BM; iso K, SING), Malay Peninsula, Perak.

Magnolia sumatrae (Dandy) Figlar & Noot., *comb. nov.* — *Michelia sumatrae* Dandy, Bull. Misc. Inform. Kew (1928a) 188. — *Michelia salicifolia* A. Agostini (1926) 23, non *Magnolia salicifolia* Maxim. (1872). — [*Magnolia sumatrae* (Dandy) Figlar (2000) 23, nom. inval.] — Type: *Beccari 118* (holo K; iso BM, L), Malesia, Sumatra, Mt Singalang, 1878.

Magnolia L. subg. ***Yulania*** Spach sect. ***Michelia*** (L.) Baill. subsect. ***Elmerrillia*** (Dandy) Figlar & Noot., *comb. & stat. nov.* — *Elmerrillia* Dandy, Bull. Misc. Inform. Kew (1927) 261.

Magnolia vrieseana (Miq.) Baill. ex Pierre (1880) t. 2. — *Talauma vrieseana* Miq. (1868) 70. — *Elmerrillia vrieseana* (Miq.) Dandy (1927) 262. — Type: *De Vriese & Teijsmann s.n.* (holo L 908.126-1803), Malesia, Celebes near Tondano.

Talauma ovalis Miq. (1868) 69. — [*Magnolia ovalis* (Miq.) Figlar (2000) 24, nom. inval.] — *Elmerrillia ovalis* (Miq.) Dandy (1927) 261; Noot. (1985) 101. — Type: *Forsten s.n.* (holo L 908.127-0013; iso BO), Malesia, Celebes near Tondano, June 1840.

Magnolia platyphylla (Merr.) Figlar & Noot., *comb. nov.* — *Michelia platyphylla* Merr., Philipp. J. Sci., Bot. 3 (1918) 11. — *Elmerrillia platyphylla* (Merr.) Noot. (1985) 102. — [*Magnolia platyphylla* (Merr.) Figlar (2000) 24, nom. inval.] — Type:

Tomeldan, For. Bur. 26866 (holo K), Philippines, Leyte, Burauen, Cagangon, 21 May 1917.

Magnolia pubescens (Merr.) Figlar & Noot., *comb. nov.* — *Talauma pubescens* Merr., Philipp. J. Sci., Bot. 3 (1908) 133. — *Elmerrillia pubescens* (Merr.) Dandy (1927) 261. — [*Magnolia pubescens* (Merr.) Figlar (2000) 24, nom. inval.] — Type: *Clemens 686* (BO), Mindanao, Lake Lanao, Camp Keithly, Sept.–Oct. 1906. [Note: *Clemens 686* consists of three elements.]

Magnolia tsiampacca (L.) Figlar & Noot., *comb. nov.* — *Michelia tsiampacca* L., Mant. Pl. 1 (1767) 78. — *Elmerrillia tsiampacca* (L.) Dandy (1974) 5; Noot. (1985) 103. — [*Magnolia tsiampacca* (L.) Figlar (2000) 22, nom. inval.] — Type: *Sampacca sylvestris* Rumph., Herb. Amb. 2 (1741) 202, t. 68.

Magnolia tsiampacca (L.) Figlar & Noot. subsp. ***tsiampacca*** var. ***glaberrima*** (Dandy) Figlar & Noot., *comb. nov.* — *Elmerrillia papuana* var. *glaberrima* Dandy, Bull. Misc. Inform. Kew (1928a) 185. — *Elmerrillia tsiampacca* subsp. *tsiampacca* var. *glaberrima* (Dandy) Noot. (1985) 107. — Type: *Ledermann 9509* (holo K), Malesia, New Guinea, Kaiser Wilhelm Land, Sepik Region, Etappenberg, 850 m.

Magnolia tsiampacca (L.) Figlar & Noot. subsp. ***mollis*** (Dandy) Figlar & Noot., *comb. nov.* — *Elmerrillia mollis* Dandy, Bull. Misc. Inform. Kew (1928a) 184. — *Michelia mollis* (Dandy) McLaughlin (1933) 36. — *Elmerrillia tsiampacca* subsp. *mollis* (Dandy) Noot. (1985) 108. — Type: *Endert 5252* (holo K; iso BO, L), Malesia, Borneo, Kutei, 24 Nov. 1925.

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