

Family 180. DILLENiaceae

Revision:

Hoogland, RD. 1951. Dilleniaceae. Flora Malesiana series 1, 4: 141-174.

1. *Dillenia* Linnaeus

Revision:

Hoogland, RD. 1952. *A revision of the genus Dillenia*. Blumea 7: 1-145.

Dillenia bolsteri Merr., PJS 7 c (1912) Bot. 305; EPFP 3 (1923) 59; --Hoogl., Blumea 7 (1952) 54, Fig. 6; Fl. Males. ser. 1, 4 (1951) 165. --Type: Bolster 311 (holo PNH, probably lost). --Neotype: BS 34784 Ramos & Pascasio (L*, neo, designated by Hoogland; isoneo A, BM, BO, K, P, US*). Mindanao: Surigao del Norte prov.

SAMAR, LEYTE, MINDANAO: Surigao. Lowland forests, 100-150m.

Dillenia cauliflora Merr., PJS 9 c (1914) Bot. 517; EPFP 3 (1923) 60. --Type: BS 1695 Ramos (holo PNH, probably lost; isolecto: BM, K, US*).

Dillenia diantha Hoogl., Blumea 7 (1952) 57, Fig. 7; Fl. Males. ser. 1, 4 (1951) 165. --Type: Whitford 1320 (holo NY; iso G, K, P, US*). Luzon: Bataan prov., Mt Mariveles, Lamao River.

LUZON: Ilocos Norte (Bangui), Cagayan (Claveria), Bataan (type locality, 2 collections), Rizal (Montalban, Mt Paningtingan; Balacbac); Quezon (Kinatakutan).

Dillenia excelsa (Jack) Gilg in Engl. & Prantl, Nat. Pflanzenfam. 3, 6 (1893) 123; --Merr., EPFP 3 (1923) 60; --Hoogl., Fl. Males. ser. 1, 4 (1951) 165. --Type: Sumatra, Peninsular Malaysia, Banka, W Java (E to Nusa Kambangan), Borneo, SW Philippines.

BALABAC.

Dillenia fischeri Merr., PJS 9 c (1914) Bot. 518; EPFP 3 (1923) 60; --Hoogl., Blumea 7 (1952) 27; Fl. Males. ser. 1, 4 (1951) 161. --Type: FB 20534 Miranda (P, lecto; isolecto: BM, K, US*). Mindanao: Agusan del Norte prov., near Butuan, 3 Sept. 1913.

MINDANAO: Agusan del Norte. Known only from two collections from the type locality. Semi-open forests, altitude c. 20m.

Dillenia luzoniensis (Vidal) Martelli ex Durand & Jackson, Index Kew. Suppl. 1 (1902) 136; --Merr., EPFP 3 (1923) 60; --Hoogl., Blumea 7 (1952) 93, Fig. 10a-d; Fl. Males. ser. 1, 4 (1951) 168; --*Wormia luzoniensis* Vidal, Rev. Pl. Vasc. Filip. (1886) 36. --Type: Comisión de la Flora Forestal de Filipinas 3 (PNH, holo, lost; lecto L*, designated by Hoogland; isolecto FI, K). Luzon: Zambales prov.

LUZON: Aurora (Baler, Cemento), Zambales (type locality), Bataan (Bagac); PALAWAN (St Paul's Bay National Park; Mt Bloomfield; Sta. Cruz; Thumb Peak; Mt Beaufort; Irawan; Iwahig; Aborlan, Malasgao River; Victoria Mtns; Narra, Trident Mines; Rio Tuba, Balanjao Range), BALABAC (Cape Melville). Low altitude forests along riverbanks.

Dillenia marsupialis Hoogl., Blumea 7 (1952) 66, Fig. 8 c; Fl. Males. ser. 1, 4 (1951) 162. --Type: BS 75247 Ramos & Edaña (NY*, holo; isotypes in CAL, SING, P, UC). Catanduanes: Mt Abucay. *Dillenia ochreatea* (*non* Martelli) Merr., EPFP 3 (1923) 61. --Type:

LUZON: Ilocos Norte (Mt Palimlim), Cagayan, Nueva Vizcaya (Caraballo Mtns), Rizal (Montalban), Quezon (Mt Banahaw; Lucban), Camarines Norte, Camarines Sur, CATANDUANES, PANAY: Aklan (Libacao). In forests, up to 1200m.

Dillenia megalantha Merr., PJS 9 c (1914) Bot. 519; EPFP 3 (1923) 60; --Hoogl., Fl. Males. ser. 1, 4 (1951) 163; --Hoogl., Blumea 7 (1952) 61; Fl. Males. ser. 1, 4 (1951) 163. --Type: BS 17581 Ramos (holo PNH, probably lost; isolecto: BM, BO, CAL, E, G, K, US*). Mindanao: Davao del Norte (Mabuhay, Mt Mariveles), Davao del Sur (Mabuhay, Mt Mariveles), Davao Oriental (Mabuhay, Mt Mariveles), Zamboanga del Norte (Mabuhay, Mt Mariveles), Zamboanga del Sur (Mabuhay, Mt Mariveles). Luzon: Quezon (Umiray: Mt Tulaog near Infanta; Lucban & Kinatakutan), Albay,

Sorsogon (Mt Bulusan), SAMAR (Catubig River; Concord), MINDANAO: Zamboanga peninsula (Mt Tubuan & Malangas), Davao del Sur (Mt Apo), Agusan del Norte (Mt Urdaneta), Surigao del Norte (Mt Kabatuan), DINAGAT. In primary forests, up to 1000m, often on riverbanks.

Dillenia monantha Merr., PJS 9 c (1914) Bot. 321; EPFP 3 (1923) 60; --Hoogl., Blumea 7 (1952) 102; Fl. Males. ser. 1, 4 (1951) 170. --Type: Merrill 9237 (PNH, holo, lost; lecto L, designated by Hoogland, 1952; isolecotype L).
BUSUANGA, CULION, DUMARAN, PALAWAN (Taytay; Lake Manguao; Binohan Mtn near Puerto Princesa). Dry secondary forests and open grasslands at low altitudes.

Dillenia papyracea Merr., PJS 9 c (1914) Bot. 520; EPFP 3 (1923) 61; --Hoogl., Fl. Males. ser. 1, 4 (1951) 158. --Type: BS 33034 Ramos (iso in A, K, P, US*). Luzon: Ilocos Norte prov., Bangui to Claveria.

Dillenia pteropoda sensu Hoogl., Blumea 7 (1952) 28 and Fl. Males. ser. 1, 4 (1951) 143, *pro parte* (*typ. excl.*).
LUZON: Ilocos Norte, BASILAN, MINDANAO (Zamboanga, Lanao). In lowland primary forests.

Dillenia philippinensis Rolfe, J. Linn. Soc. Bot. 21 (1884) 307; --Merr., Fl. Manila (1912) 331; EPFP 3 (1923) 61; --Hoogl., Blumea 7 (1952) 62; Fl. Males. ser. 1, 4 (1951) 164. --Type: Vidal 4 (holo K; iso FI, L). Panay: Iloilo prov.

Dillenia catmon Elmer, LPB 7 (1915) 2610; --Merr., EPFP 3 (1923) 59. --Type: Elmer 13564 (iso A, BM, BO, C, CAL, E, FI, G, GH, K, L*, MO, NY-2 sheets*, P, U, US*). Mindanao: Agusan del Norte prov., Mt Urdaneta.

var. philippinensis

Endemic to the Philippines (excepting Palawan & Calamianes Isls). CAMIGUIN DE BABUYANES, LUZON: Ilocos Norte (Burgos), La Union, Apayao, Benguet (Sablan; Baguio), Pangasinan (Mt San Isidro Labrador), Cagayan, Isabela (Palanan), Aurora (Casiguran; Baler), Nueva Ecija, Zambales (Botolan; Anuling; Mt Pinatubo), Bataan (Mt Mariveles), Rizal (Montalban, Antipolo), Laguna (Mt Makiling; Cavinti), Batangas, Quezon (Mauban; Pagbilao; Atimonan; Lagumanoc), Camarines Norte (Paracale), Camarines Sur (Mt Isarog; Pasacao), Albay, Sorsogon (Mt Bulusan), POLILLO, MINDORO (Baco; Pola; Bongabong), PANAY: Capiz (Mt Timbaban; Agraman River), Iloilo prov. (type locality), GUIMARAS, CEBU, LEYTE (Palo), TAWI-TAWI, BASILAN, MINDANAO: Zamboanga (San Ramon, Sax River), Zamboanga del Norte (Dapitan; Sindangan Bay), Lanao (near Malabang), Bukidnon (Mahiluot River; Mt Kitanglad), Davao (Mt Apo area; **Catalnan**), Davao del Sur (Sta Cruz), Agusan del Norte (Mt Urdaneta), Surigao del Norte (Lake Mainit). Common in lowland and medium altitude forests, exceptionally ascending to 1800 and 2000m. Also commonly cultivated as shade tree and for its edible fruits.

var. pubifolia Merr., EPFP 3 (1923) 61; --Hoogl., Blumea 7 (1952) 65. None of the specimens cited by Merrill in the original protologue seen by Hoogland and are all probably lost. --Neotype: FB 30393 Siriban (neo NY, designated by Hoogland, 1952; isoneo BM, K, UC, US*. Luzon: Isabela prov., San Mariano.

LUZON: Cagayan, Isabela (San Mariano; Palanan), MINDANAO: Zamboanga del Sur (Malangas), Surigao.

Dillenia reifferscheidia Fern.-Villar, Nov. App. (1880) 3; Naves *in* Blanco, Fl. Filip. ed. 3 (1877-83) t. 344; --Merr., EPFP 3 (1923) 61; --Hoogl., Blumea 7 (1952) 68; Fl. Males. ser. 1, 4 (1951) 162. --Type (Based on *Reifferscheidia speciosa* C Presl, Rel. Haenk. 2 (1836) 74, t. 62): Haenke, *sn.* (PR, not seen by Hoogland).

Dillenia reifferscheidia var. *rosea* Elmer, LPB 8 (1919) 3079; --Merr., EPFP 3 (1923) 61. --Type: Elmer 18025 (iso A, C, CAL, Makiling).

LUZON: Cagayan, Isabela (Palanan), Rizal, Laguna (Mt Makiling; San Antonio),

Quezon (Mt Tulaog), Albay, Sorsogon (Mt Bulusan), CATANDUANES (Mt Pagmasuso), NEGROS: Negros Occidental (Mt Canlaon), PANAY: Iloilo (Leon), Capiz (Agsabay; Pilar; Mt Upao), MINDANAO: Davao Oriental (Mt Mayo), Surigao del Norte (Tubud; Placer). In primary and secondary forests, particularly in more humid regions, up to 1000m altitude.

Dillenia sibuyanensis (Elmer) Merr., EPFP 3 (1923) 62; --Hoogl., Blumea 7 (1952) 99; Fl. Males. ser. 1, 4 (1951) 170. --Type: Elmer 12087 (PNH, holo, lost; lecto L, designated by Hoogland, 1952; isoleccto A, BM, BO, CAL, E, FI, G, GH, K, MO, NA*, NY*, P, US*). Sibuyan: Mt Giting-giting. SIBUYAN (Mt Giting-giting). Scattered along forested riverbanks, from about sea-level to 300m. Known only from the type.

Cultivated in the Philippines:

Dillenia indica L., Sp. Pl. (1753) 535; --Hoogl., Blumea 7 (1952) 108; Fl. Males. ser. 1, 4 (1951) 171. --Type: Illustration from India, Burma, S China (Yunnan), Thailand, Indochina, Sumatra, Peninsular Malaysia, Java and Borneo. Naturalized in the Philippines where it is cultivated as an ornamental tree. Cultivated in Australia, Hawaii, and tropical America.

Dillenia suffruticosa (Griff.) Martelli in Becc., Malesia 3 (1886) 163; --Hoogl., Blumea 7 (1952) 70; Fl. Males. ser. 1, 4 (1951) 171. Peninsular Malaysia (Malacca). Widespread in Malesia from Sumatra to the Philippines. But indigenous only from Sumatra to Borneo. Naturalized in the Philippines and Java where it is cultivated as an ornamental treelet.

2. Tetracera Linnaeus

Revision:

Hoogland, RD. 1953. *The genus Tetracera in the Eastern World*. Reinwardtia 2: 185-225.

Tetracera akara (Burm.f.) Merr., PJS 19 (1921) 366; --Hoogl., Fl. Males. ser. 1, 4 (1951) 146. S India, Sri Lanka, Sumatra, Peninsular Malaysia, W Java, Borneo, Sulawesi and SW Philippines. BASILAN. Lowland forests.

Tetracera fagifolia Blume, Bijdr. 1 (1825) 4; --Hoogl., Fl. Males. ser. 1, 4 (1951) 148, Fig. 2.

var. fagifolia

Tetracera philippinensis Merr., PJS 9 c (1914) Bot. 375; EPFP 3 (1923) 58. --Type: Sumatra (incl. Simalur and Mentawai), Peninsular Malaysia (Johore), W Java, Borneo, Philippines.

Tetracera korthalsii Miq., Ann. Mus. Bot. Lugd.-Bat. 4 (1868) 75

var. subrotunda (Elmer) Hoogl., Fl. Males. ser. 1, 4 (1951) 147.

Tetracera subrotunda ('subrotundata') Elmer, LPB 5 (1913) 1771; --Merr., EPFP 3 (1923) 59. --Type: Borneo (Sabah, Tawao), Philippines. PALAWAN. Climber in lowland primary forest.

Tetracera scandens (L.) Merr., Interpret. Herb. Amb. (1917) 365; EPFP 3 (1923) 59; --Hoogl., Fl. Males. ser. 1, 4 (1951) 143, excluding synonyms *Delima sarmentosa* L. & *Tetracera sarmentosa* (L.) Vahl.

Andaman Isls, Burma, S China (Yunnan), S Thailand, S Indochina, throughout W Malesia, not E of the Philippines, Sulawesi, and the Lesser Sunda Isls.

