ADDITIONAL MATERIALS TOWARD A MONOGRAPH OF THE GENUS *CALLICARPA*. XXIX

Harold N. Moldenke

CALLICARPA L.

Additional & emended bibliography: Reichenb., Deutsch. Bot. [Repert. Herb. Nom.] 108. 1841; Walp., Repert. Bot. Syst. 4: 72, 122, & 125--131. 1845; Lindl., Treas. Bot., ed. 2, 1: 195 (1870) and ed. 3, 1: 195. 1876; Bailey & Tenison-Woods, Proc. Linn. Soc. N. S. Wales 174: 1880; Lindl., Treas. Bot., ed. 4, 1: 195. 1884; Collwtt & Hemsl., Journ. Linn. Soc. Lond. Bot. 28: 109. 1890; Koord., Meded. Lands Plant.-tuin. Buitenz. [Kebun Raya Bogor] 19: 558--559 & 561. 1898; F. M. Bailey, Queensl. Fl. 4: 1165 & 1173--1175. 1901; E. D. Merr., Philip. Journ. Sci. Bot. 3: 430--431. 1908; Ridl., Journ. Roy. Asiat. Soc. Straits 57: 83 (1910) and 59: 155. 1912; Ekman, Erkiv Bot. Stockh. 22A: 108--109. 1929; Beer & Lam, Blumea 2: [221]--222. 1936; Morrison, Natl. Hort. Mag. 15: 218 & 221, fig. 743. 1936; Kanjilal, Das, Kanjilal, & De, Fl. Assam 3: 458, 459, 462--466, & 545. 1939; Corner, Wayside Trees, ed. 1, pl. 212 (1940) and ed. 2, 696--698. 1952; Dalla Torre & Harms, Gen. Siphonog., imp. 2, 432. 1958; DeWitt, Pls. World 2: 186. 1968; Morley, Wild Fls. World pl. 104a. 1970; Chippendale, Proc. Linn. Soc. N. S. Wales 96: 256. 1971; F. Perry, Flow. World 304. 1972; Crockett, Flow. Shrubs 31 & 98. 1972; Gault, Color Dict. Shrubs pl. 29. 1976; Allen, Pruning Graft. 109. 1978; Hsiao, Fl. Taiwan 4: 410--418, pl. 1056. 1978; Benson, Pl. Classif., ed. 2, 276. 1979; Horst in Westcott, Pl. Disease Handb., ed. 4, 491. 1979; Hsiao, Fl. Taiwan 6: 120--121. 1980; J. T. & R. Kartesz, Syn. Checklist Vasc. Fl. 2: 466. 1980; Lauener, Notes Roy. Bot. Gard. Edinb. 38: 481--483 & 485. 1980; Hickey & King, 100 Fam. Flow. Pl. 346--348. 1981; Mold., Phytologia 49: 470-482, 506, 507, 510, & 512. 1981; Munz & Slauson, Ind. Illust. Living Things Outside N. Am. 35 & 326. 1981; Sharma, Shetty, Vibekan., & Rathakr., Journ. Bomb. Nat. Hist. Soc. 75: 33. 1981; Mold., Phytologia 50: 144, 146, 147, 150, 151, 216--218, 220, 222, 224, 226, 234, 236, 240, 254, 255, 257, 258, 268, 292, 293, 295, 361--365, 368--371, 375, 378, & 435. 1982.

Horst (1979) lists the black mildew, *Meliola cookeana*, as attacking certain members of this genus in Florida and Louisiana, the leaf-spot, *Cercospora callicarpae*, from South Carolina to Texas, and the burrowing nematode, *Radopholus similis*, in Florida.

The *Ewan 22334*, distributed as *Callicarpa* sp., is not verbenaceous.

CALLICARPA ACUMINATA H.B.K.

Additional & emended bibliography: Walp., Repert. Bot. Syst. 4: 126 & 128. 1845; Bocq. in Baill., Rec. Obs. Bot. 3: 192. 1863; Kanjilal, Das, Kanjilal, & De, Fl. Assam 3: 463 & 465--466. 1939;

Mold., Phytologia 49: 475--476 (1981) and 50: 240. 1982.

Additional citations: MEXICO: Tamaulipas: *Hitchcock & Stanford 6868* (It).

CALLICARPA ACUMINATA var. *ARGUTEDENTATA* Mold.

Additional bibliography: Mold., Phytologia 49: 475 (1981) and 50: 240. 1982.

The Taylors found this plant growing on forested stabilized sand dunes.

Additional citations: MEXICO: Veracruz: *Taylor & Taylor 7324* (W--2914870). GUATEMALA: El Petén: *Ortíz 1319* (W--2925226).

CALLICARPA AMERICANA L.

Additional bibliography: Bocq. in Baill., Rec. Obs. Bot. 3: 192. 1863; J. T. & R. Kartesz, Syn. Checklist Vasc. Fl. 2: 466. 1980; Mold., Phytologia 49: 476--480 (1981) and 50: 234, 236, & 257. 1982.

The corollas are said to have been "magenta" on *Coile & al. 1351* and the fruit "purple" on *Hill 10605*.

Additional citations: NORTH CAROLINA: Jones Co.: *Evarts 263* (N); *Krochmal & Krochmal s.n.* (N). GEORGIA: Early Co.: *Abbott s.n.* [July 14, 1954] (It). Elbert Co.: *Coile, Bruce, Jones, & Kirkman 1351* (N). McIntosh Co.: *Stuckey s.n.* [August 20, 1933] (It). Oglethorpe Co.: *Blake & Montgomery 217* (Ba--387562). FLORIDA: Collier Co.: *Muenscher & Muenscher 14211* (It). Dade Co.: *Collins s.n.* [11 Dec. 1917] (It); *Perkins 1634* (It). Duval Co.: *R. Hitchcock s.n.* [September 1915] (It). Pinellas Co.: *Thorne 1291* (It). Sarasota Co.: *J. M. Hall 1635* (It). Largo Key: *Muenscher & Muenscher 14172* (It). ALABAMA: Elmore Co.: *Justice 451* (It). Montgomery Co.: *Justice & Whitehead 48* (It). LOUISIANA: Bossier Par.: *Muenscher & Winne 15611* (It). Washington Par.: *A. G. Watkins 1933* (It). TEXAS: Jasper Co.: *Mohler 74* [voucher 164] (Ba). Refugio Co.: *S. R. Hill 10590* (N), *10605* (N). Tyler Co.: *Crockett S.1258* (It). LOCALITY OF COLLECTION UNDETERMINED: *Collector undetermined 284* (Ld).

CALLICARPA AMERICANA f. *LACTEA* (F. J. Muller) Rehd.

Additional bibliography: J. T. & R. Kartesz, Syn. Checklist Vasc. Fl. 2: 466. 1980; Mold., Phytologia 49: 477 & 480 (1981) and 50: 234 & 236. 1982.

CALLICARPA AMPLA Schau.

Additional bibliography: J. T. & R. Kartesz, Syn. Checklist Vasc. Fl. 2: 466. 1980; Mold., Phytologia 49: 480--481. 1981.

CALLICARPA ANGUSTA Schau.

Additional bibliography: Mold., Phytologia 49: 481 (1981) and 50: 375. 1982.

CALLICARPA ANGUSTIFOLIA King & Gamble

Additional bibliography: Ridl., Journ. Roy. Asiat. Soc. Straits 59: 155. 1911; Mold., Phytologia 49: 481. 1981.

Ridley (1911) cites *Ridley 8330* from Langkawi and says that the species is found on and among limestone rocks also in Perak.

CALLICARPA ARBOREA Roxb., Hort. Beng., imp. 1, [10], hyponym. 1814; Fl. Ind., ed. 1, 1: 405--406. 1820 [not *C. arborea* L., 1966, nor Merr., 1923, nor Miq., 1885, nor Wall., 1829].

Additional bibliography: Walp., Repert. Bot. Syst. 4: 125. 1845; Bocq. in Baill., Rec. Obs. Bot. 3: 192. 1863; Mold., Phytologia 49: 481--482 (1981) and 50: 218, 224, 293, 295, 370, & 371. 1982.

Additional citations: BANGLADESH: *Keojochai 837* (It).

CALLICARPA ARBOREA var. *PSILOCALYX* (H. J. Lam) Mold.

Emended synonymy: *Callicarpa arborea* Merr., Enum. Philip. Flow. Pl. 3: 386, in syn. 1923 [not *C. arborea* L., 1966., nor Miq., 1885, nor Roxb., 1814, nor Wall., 1829].

Additional & emended bibliography: Bocq. in Baill., Rec. Obs. Bot. 3: 192. 1863; Mold., Phytologia 49: 482 (1981) and 50: 293, 363, & 365. 1982.

Merrill (1923) cites *Cuming 1266, Elmer 8193, 9125, & 17575, Mabesa s.n.* [Herb. Philip. Forest. Bur. 33804], *Merrill 395, Ramos s.n.* [Herb. Philip. Bur. Sci. 15038], *Ramos & Edaño s.n.* [Herb. Philip. Bur. Sci. 38748], and *Williams 1003* from Luzon, Palawan, and Mindanao. He avers that the plant grows "Chiefly in secondary forests at low and medium altitudes" and is endemic to the Philippines.

CALLICARPA AREOLATA Urb.

Additional bibliography: Mold., Phytologia 49: 482. 1981.

Recent collectors have encountered this plant in dry thickets.

Additional citations: CUBA: Oriente: *León & Marie-Victorin 17158* (W--2289593).

CALLICARPA BASILANENSIS Merr.

Additional bibliography: Fedde & Schust., Justs Bot. Jahresber. 53 (1): 1070. 1932; Mold., Phytologia 40: 431. 1978; Mold., Phytol. Mem. 2: 305 & 525. 1980; Mold., Phytologia 50: 52 & 64 (1981) and 50: 369 & 371. 1982.

Merrill (1923) rightly comments that "This [species] is remote from *Callicarpa pentandra* Roxb., where Bakhuizen has erroneously placed it as a synony.....*Callicarpa cumingiana* Schauer, also reduced by Bakhuizen, is remote from *C. basilanensis* Merr." He records the vernacular name, "linagop".

CALLICARPA BICOLOR A. L. Juss.

Additional & emended bibliography: Walp., Repert. Bot. Syst. 4: 128--129. 1845; Bocq. in Baill., Rec. Obs. Bot. 3: 192. 1863; Fern.-Villar in Blanco, Fl. Filip., ed. 3, 4: Nov. App. 158. 1880; Vidal y Soler, Sin. Fam. Gen. Pl. Leñ. Filip. [Introd. Fl. For. Filip.] 1: 301 (1883) and 2 [Atlas]: 35, pl. 74, fig. C. 1883; Mold., Phytologia 40: 431. 1978; Mold., Phytol. Mem. 2: 305, 311,

320, 321, & 525. 1980.

Merrill (1923) comments that this species "is erroneously credited to the Philippines in the reduction of *C. paucinervia* Merr. as a synonym; the type of the latter was from the Marianne Islands." *C. bicolor,* however, does occur in the Philippines and I have cited numerous specimens from there in previous installments of these notes. Koorders (1898) cites for it the common names, "goro-goro-oetan", "katoempang", and "toma".

Rogerson describes the species as a shrub or small tree, 6--10 feet tall, with "lilac"-colored corollas and encountered it in rocky areas among rock paddies, flowering and fruiting in August.

Additional citations: PHILIPPINE ISLANDS: Luzon: *C. T. Rogerson 1016* (It). Panay: *G. Edaño s.n.* [Herb. Philip. Bur. Sci. 42492] (It).

CALLICARPA BICOLOR var. *BERMEJOSI* Mold.

Additional bibliography: Mold., Phytologia 33: 393. 1976; Mold., Phytol. Mem. 2: 305 & 525. 1980.

CALLICARPA BICOLOR var. *SUBINTEGRIFOLIA* Mold.

Additional bibliography: Mold., Phytologia 33: 393. 1976; Mold., Phytol. Mem. 2: 305 & 525. 1980.

CALLICARPA BODINIERI Léveillé

Additional synonymy: *Callicaepa bodinieri* Rehd. ex Mold., Phytol. Mem. 2: 377, sphalm. 1980.

Additional & emended bibliography: Fedde & Schust., Justs Bot. Jahresber. 39 (2): 319 (1913) and 40 (2): 334. 1915; H. N. & A. L. Mold., Pl. Life 2: 50, 58, 61, & 79. 1948; L. H. & E. Z. Bailey, Hortus Third 201. 1976; Mold., Phytologia 40: 431 & 435. 1978; D. E. Clark, Sunset New West. Gard. Book, ed. 4, imp. 2, 213. 1979; Hu, Journ. Arnold Arb. 61: 87. 1980; Lauener, Notes Roy. Bot. Gard. Edinb. 38: 481. 1980; Mold., Phytol. Mem. 2: 256, 275, 280, 300, 345, 377, & 525. 1980; Diaconescu, Act. Bot. Hort. Bucur. 1979/1980: 113. 1981; Mold., Phytologia 50: 255 & 257. 1982.

CALLICARPA BODINIERI var. *GIRALDII* (Hesse) Rehd.

Additional synonymy: *Callicaepa bodinieri* var. *giraldii* (Hesse ex Rehd.) Rehd. ex Mold., Phytol. Mem. 2: 377, sphalm. 1980. *Callicarpa bodinieri* var. *giraldii* (Hesse ex Rehd.) Rehd. ex Lauener, Notes Roy. Bot. Gard. Edinb. 38: 481. 1980.

Additional bibliography: Wangerin, Justs Bot. Jahresber. 40 (1): 519. 1913; L. H. & E. Z. Bailey, Hortus Third 201. 1976; Mold., Phytologia 40: 431 & 435. 1978; D. E. Clark, Sunset New West. Gard. Book, ed. 4, imp. 2, 213. 1979; Hu, Journ. Arnold Arb. 61: 87. 1980; Lauener, Notes Roy. Bot. Gard. Edinb. 38: 481. 1980; Mold., Phytol. Mem. 2: 256, 275, 280, 300, 345, 377, & 525. 1980; Diaconescu, Act. Bot. Hort. Bucur. 1979/1980: 113. 1981; Mold., Phytologia 50: 255 & 257. 1982.

Diaconescu (1981) records this plant from cultivation in Romania.

Additional citations: CULTIVATED: California: *Hutchison s.n.* [Herb. Univ. Calif. Acc. No. 38.533.Si] (N).

CALLICARPA BODINIERI var. *LYI* (Léveillé) Rehd.
Additional bibliography: Fedde & Schust., Justs Bot. Jahresber. 40 (2): 334. 1915; H. N. & A. L. Mold., Pl. Life 2: 70. 1948; Mold., Phytologia 33: 395. 1976; Lauener, Notes Roy. Bot. Gard. Edinb. 38: 481. 1980; Mold., Phytol. Mem. 2: 275, 377, & 525. 1980.

CALLICARPA BODINIERI var. *ROSTHORNII* (Diels) Rehd.
Additional bibliography: H. N. & A. L. Mold. Pl. Life 2: 79. 1948; Mold., Phytologia 33: 395. 1976; Mold., Phytol. Mem. 2: 275 & 525. 1980.

CALLICARPA BORNEËNSIS Mold.
Additional bibliography: Mold., Phytologia 33: 395. 1976; Mold., Phytol. Mem. 2: 311 & 525. 1980.

CALLICARPA BRACTEATA Dop
Additional bibliography: Mold., Phytologia 33: 395. 1976; Mold., Phytol. Mem. 2: 291 & 525. 1980.

CALLICARPA BREVIPES (Benth.) Hance
Additional & emended bibliography: Forbes & Hemsl., Journ. Linn. Soc. Lond. Bot. 26: [Ind. Fl. Sin.] 252. 1890; Mold., Phytologia 40: 431. 1978; Mold., Phytol. Mem. 2: 275, 280, 282, 288, 291, 345, & 525. 1980.

CALLICARPA BREVIPES f. *ANNAMENSIS* Mold.
Additional bibliography: Mold., Phytologia 33: 396. 1976; Mold., Phytol. Mem. 2: 291 & 525. 1980.

CALLICARPA BREVIPES var. *DENTOSA* Chang
Additional bibliography: Mold., Phytologia 33: 396. 1976; Mold., Phytol. Mem. 2: 275 & 525. 1980.

CALLICARPA BREVIPES var. *OBOVATA* Chang
Additional bibliography: Mold., Phytologia 33: 396. 1976; Mold., Phytol. Mem. 2: 280 & 525. 1980.

CALLICARPA BREVIPES f. *SERRULATA* P'ei
Additional bibliography: Mold., Phytologia 33: 395 & 396. 1976; Mold., Phytol. Mem. 2: 275, 280, 282, & 525. 1980.

CALLICARPA BREVIPETIOLATA Merr.
Additional bibliography: Mold., Phytologia 40: 432. 1978; Mold., Phytol. Mem. 2: 311 & 525. 1980.

CALLICARPA BUCHERI Mold.
Additional & ememded bibliography: Alain in Leon & Alain, Fl. Cuba, imp. 1, 4: 304 & 305. 1957; Mold., Phytologia 33: 396.

1976; Mold., Phytol. Mem. 2: 87 & 525. 1980.

Clemente found this plant growing in coastal thickets and at the foot of coastal cliffs, in flower in August.

Additional citations: CUBA: Oriente: *Clemente 6392* (W--2288915), *6602* (W--2288945).

CALLICARPA CANDICANS (Burm. f.) Hochr.

Additional & emended bibliography: Poir. in Lam., Tabl. Encycl. Méth. Bot. [Illustr. Gen.] 1: 292. 1792; Roxb., Hort. Beng., imp. 1, [10]. 1814; Blume, Bijdr. Fl. Ned. Ind. 14: 817--819. 1826; G. Don in Sweet, Hort. Brit., ed. 3, 550. 1839; Bocq. in Baill., Rec. Obs. Bot. 3: 192. 1863; Firminger, Man. Gard. India, ed. 3, 531 & 608. 1874; Fern.-Villar in Blanco, Fl. Filip., ed. 3, 4: Nov. App. 158. 1880; Vidal y Soler, Phan. Cuming. Philip. 44 & 134. 1885; F. Muell., Sec. Census Austr. Pl. 1: 173. 1889; F. M. Bailey, Cat. Indig. Nat. Pl. Queensl. 35. 1890; Warb., Engl. Bot. Jahrb. 13: [Pl. Pap.] 426. 1890; Baill., Hist. Pl. 11: 95. 1891; Burkill, Proc. Cambr. Phil. Soc. 9: 96. 1896; K. Schum., Notizbl. Bot. Gart. Berl. 2: [Fl. Neu-Pomm.] 144. 1898; Ridl., Journ. Roy. Asiat. Soc. Straits 57: 83 (1910) and 59: 155. 1911; Koord., Excursionsfl. 3: 134 & 382. 1912; Sydow, Justs Bot. Jahresber. 40 (1): 402. 1913; Firmingee, Man. Gard. India, ed. 6, 2: 388. 1918; E. D. Merr., Bibl. Enum. Born. Pl. 512. 1921; Heyne, Nutt. Plant. Ned. Ind., ed. 2, 1: 23 (1927), ed. 2, 2: 1311 (1927), and ed. 2, 3: 1646. 1927; Bakh., Journ. Arnold Arb. 10: [69]. 1929; White, Journ. Arnold Arb. 10: 263. 1929; C. A. Gardn., Enum. Pl. Austral. Occid. 3: 112. 1931; Kirtikar & Basu, Indian Med. Pl., ed. 2, imp. 1, 3: 1920 & 1922. 1935; Fletcher, Kew Bull. Misc. Inf. 1938: 404, 407, 408, & 412--414. 1938; Corner, Wayside Trees, ed. 2, 697 & 698. 1952; Beard, Descrip. Cat. West Austr. Pl., ed. 1, 91 & 113 (1965) and ed. 2, 91 & 113. 1970; Chippendale, Proc. Linn. Soc. N. S. Wales 96: 256. 1971; Kirtikar & Basu, Indian Med. Pl., ed. 2, imp. 2, 3: 1920 & 1922. 1975; Bennett, Fl. Howrah 303. 1976; Mold., Phytologia 40: 432. 1978; Fosbert & Sachet, Phytologia 41: 363 & 365. 1979; Fosberg, Sachet, & Oliver, Micronesica 15: 232--233. 1979; Fosberg, Otobed, Sachet, Oliver, Powell, & Canfield, Vasc. Pl. Palau 38. 1980; Fosberg & Sachet, Smithson. Contrib. Bot. 45: 25 & 37. 1980; Mold., Phytol. Mem. 2: 252, 254, 258, 270, 276, 280, 284, 289, 291, 295, 305, 311, 320, 325, 329, 334, 345, 377, 422, & 525. 1980; Roxb., Hort. Beng., imp. 2, [10]. 1980; Mold., Phytologia 50: 252, 257, & 258. 1982.

Recent collectors have encountered this plant in scrub jungles, along roadsides, and spontaneous in temple grounds, at 5--300 m. altitude.

The recently proposed *C. candicans* vars. *integrifolia, paucinervia,* and *ponapensis* seem better placed as varieties of *C. erioclona* Schau., which see.

Sydow (1912) reports the fungus, *Meliola callicarpae* Sydow, from the leaves of *Callicarpa candicans* in the Philippines.

Schumann & Lauterbach (1900) cite unnumbered collections of Dahl and of Hügel from Uatom and New Britain islands in the Bismark Archipelago, commenting that the species "Ist in Südasien

verbreitet bis zu den Philippinen und Australien. -- Burkill vermuthet, dass *C. euchlora* Schauer mit ihr zusammenfällt." The latter statement is quite true.

Fletcher (1938) notes that the type of *C. cana* L. came from Java; he lists the species also from India, Indochina, Malaya, Hainan, and northern Australia. From Thailand he cites *Collins 1252 & 2400, Kerr 1226, 4287, & 15712, Ladell 274, Marcan 630, Put 2645 & 4201, Rabil 236,* and *Schmidt 5.*

Beard (1970) describes the plant as a shrub with "felty" stems. Ridley (1910) reports it "common in wasteground" and (1911) cites his *no. 14945* from Perlis, giving the species' overall distribution as "Malay peninsula and islands, Australia". Craib (1911) cites *Kerr 1226* and *Schmidt 5* from scrub jungle at 300 m. altitude in Thailand, giving the distribution as "Hainan, Malaya, Philippines, Indies". Corner (1952) calls it the "Purple-berried Malayan Lilac", describing the plant as "A shrub like *C. longifolia* but: -- Twigs, inflorescences and undersides of the leaves thickly white or greyish white downy. Inflorescences smaller and generally further below the leaf-stalk. Berries ripening purple to blackish. Malaysia: frequent from Malacca northward." Bennett (1976) cites *Gammie s.n.* from West Bengal.

The *Chow & al. 78204,* distributed as typical *C. candicans,* actually is var. *sumatrana* (Miq.) Mold., while *G. Edaño s.n.* [Herb. Philip. Bur. Sci. 42492] and *Rogerson 1016* are *C. bicolor* A. L. Juss.

CALLICARPA CANDICANS f. *LACINIATA* Mold.

Additional bibliography: Mold., Phytologia 33: 398. 1976; Mold., Phytol. Mem. 2: 320 & 525. 1980.

CALLICARPA CANDICANS var. *PERRYANA* (Dop) Mold.

Additional bibliography: Mold., Phytologia 33: 399. 1976; Mold., Phytol. Mem. 2: 291 & 525. 1980.

CALLICARPA CANDICANS var. *SUMATRANA* (Miq.) Mold.

Emended synonymy: *Callicarpa chinensis* Hort. ex C. K. Schneid., Illustr. Handb. Laubholzk. 2: 594, nom. nud. 1912.

Additional bibliography: Miq., Fl. Ind. Bat. Suppl. 1: 243 & 569. 1860; H. J. Lam in H. Hallier, Meded. Rijks Herb. Leid. 37: 32. 1918; Mold., Phytologia 40: 432. 1978; Mold., Phytol. Mem. 2: 258, 276, 280, 284, 289, 291, 295, 311, 345, & 525. 1980.

Recent collectors have found this plant growing along roadsides on hills, at 90 m. altitude.

Additional citations: CHINESE COASTAL ISLANDS: Hainan: *Chow & al. 78204* (N).

CALLICARPA CATHAYANA Chang

Additional bibliography: Mold., Phytologia 40: 432. 1978; Mold., Phytol. Mem. 2: 276 & 525. 1980.

CALLICARPA CAUDATA Maxim.

Additional bibliography: Mold., Phytologia 40: 432--433. 1978;

Mold., Phytol. Mem. 2: 276, 305, 311, 320, 321, 325, 329, & 525. 1980; Mold., Phytologia 50: 255 & 363. 1982.

Recent collectors describe this plant as a lax shrub, 6--10 feet tall, with long and drooping branches, the leaves dull medium-green above, grayish-green beneath, and the fruit globose and violet, 3 mm. long and wide. They have encountered it at the edges of dried-up lakes, at 1524 m. altitude, in flower in June and August, and in fruit in August. The corollas are said to have been "lilac" in color on *Sinclair 9644* and "pinkish-lavender" on *Nagata L.70.179*. The Nagata collection was made from plants cultivated in Hawaii, originally from New Guinea as *U. S. Dept. Agr. Pl. Introd. 349561* and is said to be the "same as *KMN. 942*".

Merrill (1923) correctly notes that "This [species] is certainly distinct from *Callicarpa cuspidata* Roxb., where Bakhuizen has erroneously placed it as a synonym."

Material has been misidentified and distributed in some herbaria as *C. formosana* Rolfe.

Additional citations: PHILIPPINE ISLANDS: Luzon: *Sinclair 9644* (W--2946381). CULTIVATED: Hawaiian Islands: *Nagata L.70.179* (W--29]0603).

CALLICARPA CAULIFLORA Merr.

Additional bibliography: Fedde & Schust., Justs Bot. Jahresber. 40 (2): 334 (1915) and 53 (1): 1070. 1932; Mold., Phytologia 40: 433 (1978) and 43: 222. 1979; Mold., Phytol. Mem. 2: 305 & 525. 1980; Mold., Phytologia 50: 293 & 369. 1982.

Merrill (1923) cites *Philip. Forest. Bur. 9321* from forested ravines at low altitudes on Mindanao, where, he says, the species is endemic. He adds that "This [species] is remote from *Callicarpa pentandra* Roxb. forma *hexandra* Bakh., where Bakhuizen has erroneously placed it as a synonym."

CALLICARPA CHENAULTI Fairchild

Additional bibliography: Mold., Phytologia 33: 399. 1976; Mold., Phytol. Mem. 2: 345 & 525. 1980.

CALLICARPA CLEMENSORUM Mold.

Additional bibliography: Mold., Phytologia 33: 399--400. 1976; Mold., Phytol. Mem. 2: 312 & 525. 1980.

CALLICARPA COLLINA Diels

Additional bibliography: Mold., Phytologia 33: 400. 1978; Mold., Phytol. Mem. 2: 276 & 525. 1980.

CALLICARPA CRASSINERVIS Urb., Symb. Antill. 7: 357. 1912.

Additional & ememded bibliography: Urb., Symb. Antill. 7: 357. 1912; Fedde & Schust., Justs Bot. Jahresber. 40 (2): 334. 1915; Alain in León & Alain, Fl. Cuba, imp. 1, 4: 305 & 309. 1957; Mold., Phytologia 33: 400. 1976; Mold., Phytol. Mem. 2: 87 & 525. 1980.

Urban (1912) notes "Ab hac specie *C. fulva* A. Rich. praesertim

foliorum forma recedit."

CALLICARPA CUBENSIS Urb.

Additional & emended synonymy: *Callicarpa cubensis* var. *cubensis* [Urb.] apud Alain in León & Alain, Fl. Cuba, imp. 1, 4: 305. 1957. *Callicarpa cubensis* var. *cubensis* Alain apud Mold., Phytologia 14: 149, in syn. 1966.

Additional & emended bibliography: C. Muell. in Walp., Ann. Bot. Syst. 5: 709. 1860; Ekman, Arkiv Bot. Stockh. 22A: 109. 1929; Alain in Leon & Alain, Fl. Cuba, imp. 1, 4: 304 & 305. 1957; Mold., Phytologia 33: 400 (1976) and 40: 474. 1978; Mold., Phytol. Mem. 2: 87, 91, 93, 345, 377, & 526. 1980.

Recent collectors describe this plant as a common shrub, 1.5 m. tall, and have found it growing in coastal thickets, in thickets near brooks, and on limestone cliffs, flowering in June and July and fruiting in July. The corollas are described as having been "pink" on *Webster 3709* and "lilac" on *Ekman 12875* & *16840*.

The *Ekman 17316*, distributed as typical *C. cubensis*, appears to me better regarded as representing *C. shaferi* Britton & P. Wils.

Additional citations: CUBA: Havana: *León 7218* (W--2288994); *Webster 3709* (W--2284005). Las Villas: *Ekman 16840* (W--2113563). Pinar del Río: *Ekman 12875* (W--2113562).

CALLICARPA CUBENSIS var. *PARVIFLORA* Mold.

Additional & emended bibliography: Alain in León & Alain, Fl. Cuba, imp. 1, 4: 304 & 305. 1957; Mold., Phytologia 33: 400. 1976; Mold., Phytol. Mem. 2: 87 & 526. 1980.

Recent collectors have encountered this plant in lateritic soil and among limestone rocks.

Additional citations: CUBA: Pinar del Rio: *Alain 6144* (W--2284484); *Alain & Acuña 1209* (W--2288079).

CALLICARPA CUNEIFOLIA Britton & P. Wils.

Additional & emended bibliography: Alain in León & Alain, Fl. Cuba, imp. 1, 4: 305 & 307. 1957; Mold., Phytologia 33: 400. 1976; Mold., Phytol. Mem. 2: 87 & 526. 1980.

Recent collectors have found this plant growing in pinewoods on limonite and in carrascales.

Additional citations: CUBA: Oriente: *Ekman 3497a* (W--2113561); *Marie-Victorin & Clémente 21730* (W--1784462).

CALLICARPA DENTICULATA Merr.

Additional bibliography: Mold., Phytologia 33: 400. 1976; Mold., Phytol. Mem. 2: 305 & 526. 1980.

Some authors [e.g., Bakhuizen (1921), Merrill (1923), and Hatusima (1966)] date the original publication of this species as "1908", but both the "Index Kewensis" and Lam (1919) date is as published in 1909.

CALLICARPA DICHOTOMA (Lour.) K. Koch

Additional synonymy: *Callicarpa koreana* Hort. Vilm.-Andr. ex L. H. & E. Z. Bailey, Hortus Third 201, in syn. 1976.

Additional & emended bibliography: G. Don in Sweet, Hort. Brit., ed. 3, 550. 1839; Walp., Ann. Bot. Syst. 1: 543--544. 1849; Bocq. in Baill., Rec. Obs. Bot. 3: 192 & 263, pl. 8, fig. 8--22. 1863; Firminger, Man. Gard. India, ed. 3, 531 & 608. 1874; Forbes & Hemsl., Journ. Linn. Soc. Lond. Bot. 26: [Ind. Fl. Sin.] 252 & 254. 1890; C. K. Schneid., Illustr. Handb. Laubholzk. 2: 587 & 592--594, fig. 385 m. 1911; Firminger, Man. Gard. India, ed. 6, 2: 388. 1918; Morrison, Nat. Hort. Mag. 15: 218 & 221, fig. 743. 1936; Hatusima & Yoshinaga, Bull. Fac. Agr. Kagosh. Univ. 2: 91 & 107, pl. 13, fig. 2. 1970; L. H. & E. Z. Bailey, Hortus Third 201, fig. 1150 B. 1976; Hsiao, Fl. Taiwan 4: 413. 1978; Mold., Phytologia 40: 433. 1978; Lauener, Notes Roy. Bot. Gard. Edinb. 38: 481--482. 1980; Hsiao, Fl. Taiwan 6: 120. 1980; J. T. & R. Kartesz, Syn. Checklist Vasc. Fl. 2: 466. 1980; Mold., Phytol. Mem. 2: 13, 14, 16, 258, 276, 280, 291, 298--300, 302, 303, 305, 345, 377, & 526. 1980; Diaconescu, Act. Bot. Hort. Bucur. 1979/1980: 113--114. 1981; Mold., Phytologia 50: 255. 1982.

Additional & emended illustrations: Bocq. in Baill., Rec. Obs. Bot. 3: pl. 8, fig. 8--22. 1863; C. K. Schneid., Illustr. Handb. Laubholzk. 2: 593, fig. 385 m. 1911; Morrison, Nat. Hort. Mag. 15: 221, fig. 743 (in color). 1936; Hatusima & Yoshinaga, Bull. Fac. Agr. Kagosh. Univ. 2: 107, pl. 13, fig. 2. 1970; L. H. & E. Z. Bailey, Hortus Third fig. 1150 B. 1976.

Gillis reports the corollas "pink" on his *no. 14956* and the ripe fruit "pink-lavender" and found the plant in flower and fruit in September. The Baileys (1976) note that the species is "sparingly naturalized" in the eastern United States, Life Zone 5.

Morrison (1936) comments that "Although this plant is both old and well known in many quarters it is not met with often enough, perhaps for the reason that its spring stages do not suggest the beauty of the plant in its fruiting. Its slender, more or less fountain-like growth makes a fair-sized bush of rounded outline filled with fine twigs and clothed with essentially yellow-green leaves that look far softer than they are. The corymbs of pinkish flowers that line the axils of the leaves make no show at all but they change quickly to the berries....that are remarkable for their pinkish-lilac color. These show quite well before the leaves have fallen and even more clearly after frost has taken off the yellowing foliage. Various suggestions have been made.....as to the usefulness of cut sprays of this plant in combinations with chrysanthemums and in the Daffodil Yearbook, Miss Averett has pointed out that its late-leafing habits make it possible to plant bulbs under it with the assurance that they will have a full quota of sunshine before the foliage develops too heavily. No records have been kept as to how long the berries will keep if dried, but the chief difficulty will come from brittleness and shattering rather than shrivelling....In any case the berries should be gathered before serious frosts have turned them brown." Actually, of course, the fruit are drupes, not berries.

Hsiao (1978) cites only *Henry 435* from Taiwan and asserts that

the species occurs there only on the northern part of the island. Diaconescu (1981) records the species in cultivation in Romania.

Lauener (1980) states "I have seen the holotype of *C. taquetii* in Edinburgh and consider it to be closer to *C. dichotoma* than to *C. japonica*."

The *Chiao 18896*, distributed as *C. dichotoma*, seems actually to be *C. japonica* Thunb.

Additional citations: CULTIVATED: Michigan: Gillis 14956 (Ba--378118). Ohio: E. G. Hutchinson s.n. [Sept. 22, 1934] (Ba). MOUNTED ILLUSTRATIONS: Morrison, Nat. Hort. Mag. 15: 218 & 221. 1936 (Ba--380842; fig. 743 (Ba).

CALLICARPA DICHOTOMA f. *ALBIFRUCTA* Mold.

Additional bibliography: Mold., Phytologia 33: 402. 1976; Mold., Phytol. Mem. 2: 291 & 526. 1980.

CALLICARPA DICHOTOMA var. *SINUATO-DENTATA* Dop

Additional bibliography: Mold., Phytologia 33: 402. 1976; Mold., Phytol. Mem. 2: 291 & 526. 1980.

CALLICARPA DOLICHOPHYLLA Merr.

Additional bibliography: Fedde & Schust., Justs Bot. Jahresber. 40 (2): 334. 1915; Mold., Phytologia 40: 433. 1978; Mold., Phytolog. Mem. 2: 305 & 526. 1980.

CALLICARPA ELEGANS Hayek

Additional bibliography: Mold., Phytologia 40: 433. 1978; Fosberg, Sachet, & Oliver, Micronesica 15: 233. 1979; Fosberg, Otobed, Sachet, Oliver, Powell, & Canfield, Vasc. Fl. Palau 38. 1980; Fosberg & Sachet, Smithson. Contrib. Bot. 45: 24, 26, & 37. 1980; Mold., Phytol. Mem. 2: 305, 310, 323, & 526. 1980.

Canfield refers to this plant as a "common shrub in open woods on dessicated limestone and sand" and as occasional on roadsides at the base of cliffs on volcanic clay, at 2--4 m. altitude, growing in association with *Buchanania, Flacourtia, Allophylus, Macaranga, Campnosperma, Horsfieldia, Osmoxylon, Maesa* and *Glochidion,* in flower in October, and in fruit in December. The corollas are said to be "light-purple" or "lavender and the fruit "purple". It has also been found growing in association with *Cocos* and *Morinda* and in volcanic clay soil with *Timonius* and *Gleichenia* in the shade of *Symplocos* trees.

Fosberg & Sachet (1980) reduce *C. elegans*(1906) to synonymy under *C. lammii* (1934), but the reason for this is unclear since if the taxa are to be considered conspecific the reduction should be in the reverse order.

Merrill (1923) cites *Cuming 1460, Elmer 12144, Williams 340, Ramos s.n.* [Herb. Philip. Búr. Sci. 4815, 7054, 13893, 22310, 27662, & 33146], *Otanes s.n.* [Herb. Philip. Bur. Sci. 17851], and *Ramos & Edaño s.n.* [Herb. Philip. Bur. Sci. 29137] from Luzon, Mindoro, Panay, and Siburon, asserting that it grows "Chiefly in forests along streams at low altitudes", and also in the Palau Islands. He comments that "This [species] is specifically dis-

tinct from *Callicarpa japonica* Thunb. and *C. dichotoma* (Lour.) Raeusch.; Bakhuizen reduces it to *C. japonica* Thunb. var. *dichotoma* (Lour.) Bakh."

Additional citations: PALAU ISLANDS: Babeldaob: *Canfield 600* (W--2878789). Koror: *Canfield 570* (W--2835887, W--2835888). Ngelobel: *Canfield 659* (N, W--2878740).

CALLICARPA ERIOCLONA Schau.

Additional & emended bibliography: F. Muell., Descr. Notes Papuan Pl., imp. 1, 6: 91 & 110. 1875; Fern.-Villar in Blanco, Fl. Filip., ed. 3, 4: Nov. App. 158. 1880; Vidal y Soler, Phan. Cuming. Philip. 26 & 134. 1885; E. D. Merr., Enum. Philip. Flow. Pl. 3: 384. 1923; Mold., Phytologia 40: 433--434. 1978; Fosberg & Sachet, Phytologia 41: 363--365. 1979; Fosberg, Sachet, & Oliver, Micronesica 15: 232--233. 1979; F. Muell., Descr. Notes Papuan Pl., imp. 2, 1: 91 & 110. 1979; Rogerson, Becker, Long, & Prince, Bull. Torrey Bot. Club 106: 245. 1979; Mold., Phytol. Mem. 2: 247, 284, 288, 291, 305, 310, 312, 323, 325, 328, 329, 377, 378, & 526. 1980; Mold., Phytologia 50: 254, 257, 258, & 268. 1982.

Recent collectors describe this species as a tree, to 29 feet tall, the trunk 6 inches in diameter at breast height, the bark white-spotted, and the fruit green in August, and have encountered it in primary forests in brown sandy soil on hillsides, at 700 feet altitude.

Schumann & Lauterbach (1900) cite *Lauterbach 1022* and *Warburg s.n.* from New Guinea and *Dahl s.n.* from New Britain, noting that the plant flowers there in August and November. Fosberg & Sachet (1979) cite *Adduru 150, Borden 1595, Elmer 6647, 15082, 15124, & 17598, Foxworthy s.n., Galutera 33358, Loher 4449, McGregor 22910, Merrill 2536, Ramos 1039, 1901, 8176, & 23798, Ramos & Edaño 26417, Steiner 418,* and *Whitford 487 & 19757* from Luzon in the Philippine Islands. They also cite as belonging here in "sens. la.", *Ramos 42770* from Bohol with "leaf pubescence thinner, margins subentire in both [specimens], cymes larger and looser in Geneva sheet", and *Wenzel 1479* with "leaves less dentate than usual, pubescence thinner and closer" from Leyte.

Warburg (1891), speaking of his *C. cana* var. *repanda,* says: "Die Art ist in Malesien bis nach Australien und den Philippinen hin verbreitet; auch von Timor-laut durch die Challengerexpedition bekannt. Unsere Varietät zeichnet sich aus durch ungewöhnlich grosse Blätter (über 20 cm), durch die undeutliche stumpfe Zähnung der Blattränder, die besonders starke, reinweisse Behaarung der Unterseite, durch die Unsichtbarkeit eventueller drüsige Punkte der Unterseite und durch die nicht so gedrängt stehenden Inflorescenzen; übrigens finde ich im Herbarium ein von Lesson in holl. Neu-Guinea gesammelte Exemplar derselben Varietät."

Merrill (1923) gives the species' distribution as follows: "Luzon (Cagayan to Sorsogon), Mindoro, Leyte, Negros, Mindanao. In primary and secondary forests at low altitudes, often rather common, incl. *Elmer 15124* as *C. candida* Elm., Borneo, Celebes, New Guinea, New Britain and New Ireland."

Additional citations: GREATER SUNDA ISLANDS: Banggi: *Ampuria*

SAN.40794 (Sn--40605).

CALLICARPA ERIOCLONA f. *GLABRESCENS* Mold.

Synonymy: *Callicarpa cana* var. *integrifolia* f. *glabriuscula* "H. J. Lam...pro parte" apud Fosberg & Sachet, Smithson. Contrib. Bot. 45: 25, in syn. 1980. *Callicarpa candicans* var. *integrifolia* f. *glabriuscula* (H. J. Lam) Fosberg in Fosberg & Sachet, Smithson. Contrib. Bot. 45: 25. 1980.

Additional bibliography: Mold., Phytologia 33: 403. 1976; Fosberg, Sachet, & Oliver, Micronesica 15: 232--233. 1979; Fosberg & Sachet, Smithson. Contrib. Bot. 45: 25 & 37. 1980; Mold., Phytol. Mem. 2: 310, 323, 345, 526, & 627. 1980; Mold., Phytologia 50: 257. 1982.

CALLICARPA ERIOCLONA var. *PAUCINERVIA* (Merr.) Mold.

Additional synonymy: *Callicarpa candicans* var. *paucinervia* (Merr.) Fosberg in Fosberg & Sachet, Smithson. Contrib. Bot. 45: 25. 1980.

Additional bibliography: Fedde & Schust., Justs Bot. Jahresber. 42: 252. 1920; Mold., Phytologia 40: 434. 1978; Fosberg & Sachet, Phytologia 41: 363. 1979; Fosberg, Sachet, & Oliver, Micronesica 15: 233. 1979; Fosberg & Sachet, Smithson. Contrib. Bot. 45: 24, 25, & 37. 1980; Mold., Phytol. Mem. 2: 310, 324, 329, 526, & 627. 1980; Mold., Phytologia 50: 257. 1982.

Recent collectors refer to this plant as occasional small shrubs in mixed shrub-*Casuarina* forests and as "common in exposed cliff areas, toleration salt spray", at 12--15 m. altitude, in both flower and fruit in July.

Additional citations: MARIANA ISLANDS: Pagan: *Falanruw 3319* (W--2881123); *Raulerson 1064* (W--2925430). PALAU ISLANDS: Babeldaob: *Salsedo 130* (N).

CALLICARPA ERIOCLONA var. *PONAPENSIS* (Fosberg) Mold., Phytologia 50: 254, 258, & 268, hyponym. 1982; comb. nov.

Synonymy: *Callicarpa candicans* var. *ponapensis* Fosberg in Fosberg, Sachet, & Oliver, Micronesica 15: 233, nom. nud. 1979.

Bibliography: Fosberg, Sachet, & Oliver, Micronesica 15: 233. 1979; Mold., Phytologia 50: 254, 258, & 268. 1982.

CALLICARPA ERYTHROSTICTA Merr. & Chun

Additional bibliography: Mold., Phytologia 33: 404. 1976; Mold., Phytol. Mem. 2: 280 & 526. 1980.

CALLICARPA FASCICULIFLORA Merr.

Additional bibliography: Mold., Phytologia 33: 404. 1976; Mold., Phytol. Mem. 2: 305 & 526. 1980.

Merrill (1923) cites only the original collection and comments that the species grows in "open forests at low altitudes" and is endemic to Bucas Grande island in the Philippines.

CALLICARPA FERRUGINEA Sw.

Additional & emended bibliography: Durand & Jacks., Ind. Kew. Suppl. 1, imp. 1, 182. 1902; Urb., Symb. Antill. 7: 356. 1912;

Alain in León & Alain, Fl. Cuba, imp. 1, 4: 304 & 306. 1957; Mold., Phytologia 40: 434. 1978; Mold., Phytol. Mem. 2: 87, 93, 345, 377, & 526. 1980.

Webster describes this species as "a low shrub common in rather disturbed places on rocky riverbanks covered with moist hardwoods" and "in dense windswept cloudforests". Other collectors describe it as a shrub, 1.5 m. tall, or a small tree, and have encountered it along streams. It has been collected at 150--1800 m. altitude, fruiting in January, July, August, and October, the fruit described as "purple", "purplish", or "rose-red".

Additional citations: CUBA: Oriente: *Morton 9243* (W--2285319); *Morton & Acuña 3442* (W--1783123), *3691* (W--1782306); *Seifriz 1034* (W--1781832); *Webster 4115* (W--2284144), JAMAICA: *Webster 5608* (W--2227798).

CALLICARPA FLOCCOSA Urb.

Additional & emended bibliography: Alain in León & Alain, Fl. Cuba, imp. 1, 4: 305 & 309. 1957; Mold., Phytologia 33: 404--405. 1976; Mold., Phytol. Mem. 2: 87 & 526. 1980.

CALLICARPA FORMOSANA Rolfe

Additional bibliography: Walp., Repert. Bot. Syst. 4: 129. 1845; Fedde & Schust., Justs Bot. Jahresber. 41: 387. 1918; E. D. Merr., Sp. Blanc. 330. 1918; Stapf, Ind. Lond. 6: 539. 1931; Takahashi, Rep. Dep. Agr. Govt. Res. Inst. Formosa 59: 20. 1932; Hsiao, Fl. Taiwan 4: 413--415, pl. 1056. 1978; Mold., Phytologia 40: 434 & 436. 1978; Mound & Halsey, Whitefly World 7. 1978; Hsiao, Fl. Taiwan 6: 120. 1980; Mold., Phytol. Mem. 2: 276, 280, 282, 283, 302, 303, 305, 345, 377, & 526. 1980.

Additional illustrations: Hsiao, Fl. Taiwan 4: 415, pl. 1056. 1978.

Jativa describes this plant as a shrub, "10 feet tall, 7 feet wide", the branches ascending-spreading, the young stems rusty, the leaves yellow-green and velvety, and the corollas lavender. He found it in bloom in August. Takahashi (1932) and Mound & Halsey (1978) report this species infested by the whitefly, *Acanthaleurodes callicarpae* Takahashi.

Hsiao (1978) states that this is a "very variable species" and that it is very common in thickets at low altitudes on Taiwan, with a general distribution of southeastern and southern China to the Philippines. He cites from Taiwan *Faurie 395, Henry 78 & 741, Kanehira 21154, Price 237, Tanaka 10397,* and *Wilson 9934 & 10235.* He does not recognize var. *longifolia* Suzuki nor f. *albiflora* Yamamoto.

Merrill (1923) says of *C. formosana:* "Throughout the Philippines in thickets and secondary forests at low and medium altitudes; common. Represented by more than 100 collections. I fail to distinguish *C. blancoi* Rolfe from *C. formosana* Rolfe. Formosa....I fail to see how this can be reduced to *Callicarpa pedunculata* R. Br., as Bakhuizen disposes of it." Actually, the two taxa are very similar.

Additional citations: CHINA: Province undetermined: *Ting & Shih 1563* (Ac). TAIWAN: *Koyama & Kao 14240* (Ac). CULTIVATED: California:

Jativa 2989 [LASCA Acc. 67-S-1448] (Ba--376705). MOUNTED ILLUSTRATIONS: Hsiao, Fl. Taiwan 4: pl. 415. 1978 (Z).

CALLICARPA FORMOSANA f. *ALBIFLORA* Yamamoto

Additional bibliography: Mold., Phytologia 33: 405. 1976; Hsiao, Fl. Taiwan 4: 414 (1978) and 6: 120. 1980; Mold., Phytol. Mem. 2: 276, 303, & 625. 1980.

CALLICARPA FORMOSANA f. *ANGUSTATA* Mold.

Additional bibliography: Mold., Phytologia 40: 434. 1978; Mold., Phytol. Mem. 2: 303, 305, & 526. 1980.

CALLICARPA FORMOSANA var. *CHINENSIS* P'ei

Additional bibliography: Mold., Phytologia 33: 405. 1976; Mold., Phytol. Mem. 2: 276 & 526. 1980.

CALLICARPA FORMOSANA var. *GLABRESCENS* Mold.

Additional bibliography: Mold., Phytologia 33: 406. 1976; Mold., Phytol. Mem. 2: 305 & 526. 1980.

CALLICARPA FORMOSANA var. *LONGIFOLIA* Suzuki

Additional bibliography: Mold., Phytologia 33: 406. 1976; Hsiao, Fl. Taiwan 4: 414 (1978) and 6: 120. 1980; Mold., Phytol. Mem. 2: 303 & 526. 1980.

CALLICARPA FORMOSANA f. *PARVIFOLIA* Mold.

Additional bibliography: Mold., Phytologia 33: 406. 1976; Mold., Phytol. Mem. 2: 305 & 526. 1980.

CALLICARPA FULVA A. Rich.

Additional synonymy: *Callicarpa fulva* var. *fulva* [A. Rich.] ex Alain in León & Alain, Fl. Cuba, imp. 1, 4: 307. 1957. *Callicarpa fulva* var. *fulva* Alain apud Mold., Phytologia 14: 231, in syn. 1967.

Additional & emended bibliography: Fedde & Schust., Justs Bot. Jahresber. 40 (2): 334. 1915; Alain in León & Alain, Fl. Cuba, imp. 1, 4: 307. 1957; Mold., Phytologia 33: 405 & 406. 1976; Mold., Phytol. Mem. 2: 87, 88, 377, & 526. 1980.

Howard refers to this plant as a shrub, 4 feet tall, the corollas "pink", and encountered it on wet hillsides, in anthesis in July.

The *Leon 10019,* distributed as typical *C. fulva,* seems better placed as var. *glabrescens* Mold.

Additional citations: CUBA: Oriente: *R. A. Howard 6053* (W--1959085).

CALLICARPA FULVA var. *GLABRESCENS* Mold.

Additional & emended bibliography: Alain in León & Alain, Fl. Cuba, imp. 1, 4: 307. 1957; Mold., Phytologia 33: 405 & 406. 1976; Mold., Phytol. Mem. 2: 88 & 526. 1980.

León found this plant growing in woods, at 1000 m. altitude, in flower in July.

Additional citations: CUBA: Oriente: *León 10019* (W--2289236).

CALLICARPA FULVOHIRSUTA Merr.

Additional bibliography: Mold., Phytologia 33: 399 & 406. 1976; Mold., Phytol. Mem. 2: 312 & 526. 1980.

Recent collectors describe this remarkable species as a small, shrubby tree, 10--15 feet tall, the trunk girth to 6 inches, the bark smooth and gray or brownish-gray, the inner bark pale-yellow or pale-greenish, the sapwood white, and the fruit light-green to greenish-red, reddish when ripe, and have found it growing in primary forests on riverbanks and also in secondary forests, at 150--500 feet altitude, flowering in August and November, and in fruit also in those months. The corollas are said to have been "white" on *Clemens & Clemens 21784, Gobot SAN.91258,* and *Karim SAN.80305.*

The Clemens collection, cited below, was previously erroneously cited as the very closely related *C. havilandii* (King & Gamble) H. J. Lam.

Additional citations: GREATER SUNDA ISLANDS: Sabah: *Dewol & Karim SAN.77848* (Sn--47597); *Gobot SAN.91258* (Z); *Karim SAN.80305* (Sn--50442). Sarawak: *Clemens & Clemens 21784* [field no. 6161] (Bz--17609, N).

CALLICARPA FURFURACEA Ridl.

Additional bibliography: Mold., Phytologia 40: 434--435. 1978; Mold., Phytol. Mem. 2: 295 & 526. 1980.

CALLICARPA GLABRA Koidz.

Additional bibliography: Hatusima & Yoshinaga, Bull. Fac. Agr. Kagosh. Univ. 2: 91 & 107, pl. 13, fig. 3. 1970; Mold., Phytologia 40: 435. 1978; Woolliams, Notes Waimea Arboret. 6: 11. 1979; Mold., Phytol. Mem. 2: 302, 309, 310, & 526. 1980.

Woolliams (1979) comments concerning this species: "we understand [that it] is not very common", noting that it prefers to grow in a little shade and will respond well to pruning if planted for ornament, rooting readily from cuttings.

Material of *C. glabra* has often been misidentified and distributed in herbaria as *C. subpubescens* Hook. & Arn.

Additional citations: BONIN ISLANDS: Ogasawara-mura: *Fujita & Shimizu 120* (Ac).

CALLICARPA GLANDULOSA Fletcher

Additional bibliography: Mold., Phytologia 33: 481. 1976; Mold., Phytol. Mem. 2: 284 & 526. 1980.

Fletcher (1938) cites only the type collection, *Kerr 11469,* from Thailand.

CALLICARPA GRACILIPES Rehd.

Additional bibliography: Mold., Phytologia 33: 481. 1976; Mold., Phytol. Mem. 2: 276 & 526. 1980.

CALLICARPA GRISEBACHII Urb.

Additional & emended bibliography: Fedde & Schust., Justs Bot. Jahresber. 40 (2): 334. 1915; Alain in León & Alain, Fl. Cuba, imp. 1, 4: 305 & 309. 1957; Mold., Phytologia 33: 481. 1976; Mold., Phytol. Mem. 2: 88 & 526. 1980.

Ekman refers to this plant as a shrub and found it in anthesis in November.

Additional citations: CUBA: Oriente: *Ekman 15633* (W--2113566).

CALLICARPA HAVILANDII (King & Gamble) H. J. Lam

Additional bibliography: Briq. in Engl. & Prantl, Nat. Pflanzenfam., ed. 1, 4 (3a): 165. 1895; Durand & Jacks., Ind. Kew. Suppl. 1, imp. 1, 182. 1902; Gamble in King & Gamble, Journ. Asiat. Soc. Beng. 74 (2 extra): 801--802. 1908; Prain, Ind. Kew. Suppl. 4, imp. 1, 97. 1913; H. Hallier, Meded. Rijks Herb. Leid. 37: 23. 1918; Durand & Jacks., Ind. Kew. Suppl. 1, imp. 2, 182. 1941; Prain, Ind. Kew. Suppl. 4, imp. 2, 97. 1958; Durand & Jacks., Ind. Kew. Suppl. 1, imp. 3, 182. 1959; Stafleu, Tax. Lit. 148. 1967; Mold., Phytologia 33: 481--482 (1976) and 43: 222. 1979; Mold., Phytol. Mem. 2: 312 & 526. 1980; Mold., Phytologia 50: 52--54, 59, & 60. 1981.

It is perhaps worth noting here that Durand & Jackson (1902) date the Briquet reference in Engler & Prantl's "Die Natürlichen Pflanzenfamilien" as "1894" -- the date printed on the dust cover of the part -- but Stafleu (1967) asserts that it was actually not published until February 26, 1895.

The *Clemens & Clemens 21784,* previously cited as typical *C. havilandii,* seems on closer examination to be the very closely related *C. fulvohirsuta* Merr.

CALLICARPA HAVILANDII var. *HISPIDA* Mold., Phytologia 43: 222. 1979.

Bibliography: Mold., Phytologia 43: 222. 1979; Mold., Phytol. Mem. 2: 312 & 526. 1980.

Collectors describe this plant as a shrub, 10 feet tall, a treelet, or a tree, 30 feet tall, the trunk 12 inches in girth, the crown 15 feet wide, the outer bark smooth, yellowish, the inner bark pale light-gray, the sapwood pale-brown, the cambium yellow, the leaves hairy, and the fruit red. They have found it growing in primary forests in stony ultrabasic soil, in mossy forests on ridges, in primary forests on hillsides, and in dark red-brown soil, at altitudes of 600--2800 feet, flowering in June and September, fruiting in June and October. The corollas are said to have been "white" on *Chai SAN.25573* and "light yellow-gray" on *Sinanggul SAN.57280.*

Material of this taxon has been misidentified and distributed in some herbaria as typical *C. havilandii* (King & Gamble) H. J. Lam.

Citations: GREATER SUNDA ISLANDS: Sabah: *Chai SAN.25573* (Z); *Kokawa & Hotta 1245* (Sn--1000090--type); *Meijer SAN.22728* (Ld); *Sinanggul SAN.57280* (Z); *Talip SAN.52788* (Sn--40608).

CALLICARPA HETEROTRICHA Merr.

Additional bibliography: Mold., Phytologia 33: 482. 1976; Mold., Phytol. Mem. 2: 291 & 526. 1980.

CALLICARPA HYPOLEUCOPHYLLA Lin & Wang

Additional bibliography: Mold., Phytologia 33: 482. 1976; Hsiao, Fl. Taiwan 4: 413 & 414 (1978) and 6: 120. 1980; Mold., Phytol. Mem. 2: 303 & 526. 1980.

Hsiao (1978) asserts that this species is endemic in the southern part of Taiwan and cites from that island only *Wang 5403*.

CALLICARPA INAEQUALIS Teijsm. & Binn.

Additional bibliography: Mold., Phytologia 40: 435. 1978; Mold., Phytol. Mem. 2: 312 & 526. 1980.

CALLICARPA INTEGERRIMA Champ.

Emended synonymy: *Callicarpa integrifolia* Champ. ex Forbes & Hemsl., Journ. Linn. Soc. Lond. Bot. 26: [Ind. Fl. Sin.] 253. 1890 [not *C. integrifolia* Jacq., 1780].

Additional & emended bibliography: Forbes & Hemsl., Journ. Linn. Soc. Lond. Bot. 26: [Ind. Fl. Sin.] 253. 1890; Mold., Phytologia 40: 435. 1978; Mold., Phytol. Mem. 2: 276, 282, 346, & 526. 1980.

CALLICARPA INTEGERRIMA var. *SERRULATA* Li

Additional bibliography: Mold., Phytologia 33: 482. 1976; Mold., Phytol. Mem. 2: 276, 282, & 526. 1980.

CALLICARPA INVOLUCRATA Merr.

Additional bibliography: Mold., Phytologia 40: 435. 1978; Mold., Phytol. Mem. 2: 312 & 526. 1980; Mold., Phytologia 50: 60. 1981.

Recent collectors describe this plant as a shrub or cauliflorous treelet or tree to 10 m. tall, the stems to 30 cm. in girth, the bole to almost 2 m. high, the bark greenish or grayish-brown, the inner bark pale, the sapwood yellowish or pale-yellowish, the flowers attached along the trunk, at first pale, white when open, the fruit pale-green or greenish at first but reddish when ripe, and have found it growing along streamsides and in logged-over areas, at 50--500 feet altitude, in flower in January, July, and November, in fruit in July and from September to November.

Material has been misidentified and distributed in some herbaria as *Saurauia* sp. in the *Saurauiaceae*.

Additional citations: GREATER SUNDA ISLANDS: Sabah: *Aban & Free SAN.79699* (Ld); *Aban & Petrus SAN.90676* (Z); *Madani & Saigol SAN.90993* (Ld); *Talip & Terimiji SAN.68364* (Ld). Sarawak: *Nielsen 38* (Ac).

CALLICARPA JAPONICA Thunb.

Additional synonymy: *Callicarpa japonica japonica* [Thunb.] ex Hsiao, Fl. Taiwan 4: 413 & 414. 1978.

Additional & emended bibliography: C. K. Schneid., Illustr. Handb. Laubholzk. 2: 591--594, fig. 384 c--e & 385 h--l. 1911; E. D. Merr., Bibl. Enum. Born. Pl. 512. 1921; Morrison, Nat. Hort. Mag. 15: 218 & 221, fig. 743. 1936; Metcalf & Chalk, Anat. Dicot. 2: [1034], fig. 247 G. 1950; Takahashi, Kontyu 23: 4. 1955; Takahashi, Mushi 29: 15. 1955; Cohic, Cah. Off. Rech. Sci. Tech. Outre-Mer Biol. 6: 92. 1968; Hatusima & Yoshinaga, Bull. Fac. Agr. Kagosh. Univ. 2: 91--92 & 107, pl. 13, fig. 4. 1970; Asher, Guide Bot. Period. 1: 605. 1975; L. H. & E. Z. Bailey, Hortus Third 201. 1976; Nishikawa & Nishizawa, Bull. Gov. For. Exp. Sta. Tokyo 289: 1--42. 1977; Hsiao, Fl. Taiwan 4: 413 & 414. 1978; "J.S.J.", Biol. Abstr. 66: 4474. 1978; Mold., Phytologia 40: 434--436. 1978; Mound & Halsey, Whitefly World 34, 117, & 183. 1978; Hatusima & Yoshinaga, Bull. Fac. Agr. Kagosh. Univ. 2: 92. 1970; Hsiao, Fl. Taiwan 6: 120. 1980; Lauener, Notes Roy. Bot. Gard. Edinb. 38: 481--482. 1980; Mold., Phytol. Mem. 2: 16, 276, 281, 282, 291, 298-300, 302, 303, 305, 309, 311, 312, 324, 346, 377, 378, & 526--527. 1980; Mold., Phytologia 50: 255. 1982.

Additional & emended illustrations: C. K. Schneid., Illustr. Handb. Laubholzk. 2: 592, fig. 384 c--e & 593 h--l. 1911; Metcalfe & Chalk, Anat. Dicot. 2: [1034], fig. 247 G. 1950; Hatusima & Yoshinaga, Bull. Fac. Agr. Kagosh. Univ. 2: 107, pl. 13, fig. 4. 1970.

Recent collectors report finding this plant growing in mixed deciduous forests. Cohic (1968) says that it sometimes is host to the whitefly, *Aleurolobus juillieni* Cohic, while Takahashi (1955) and Mound & Halsey (1978) report it as host to *Bemisia shinanoensis* Kuwana and *Pealius rubi* Takahashi.

Hsiao (1978) cites *Yamamoto, Onuma, & Outi 161* & *163* from Keelung island and *Hsu 7215* from Kweishan island, Taiwan.

The *Bissett 150-3-2-1182,* distributed as *Callicarpa japonica* actually is *Ligustrum obtusifolium* Sieb. & Zucc., *Oleaceae.*

Additional citations: CHINA: Chekiang: *Chiao 18896* (It). JAPAN: Honshu: *Okamoto s.n.* [Jul. 8, 1932] (Ba--387710); *Yamauchi 353* (N).

CALLICARPA JAPONICA f. *ALBIBACCA* Hara

Additional bibliography: Hatusima & Yoshinaga, Bull. Fac. Agr. Kagosh. Univ. 2: 92. 1970; L. H. & E. Z. Bailey, Hortus Third 201. 1976; Mold., Phytologia 40: 436. 1978; Mold., Phytol. Mem. 2: 300, 346, 377, & 526. 1980; Diaconescu, Act. Bot. Hort. Bucur. 1979/1980: 114. 1981.

Additional citations: CULTIVATED: England: *Herb. Hillier Arboret. 408* (Ba).

CALLICARPA JAPONICA f. *ALBIFLORA* Mold.

Additional bibliography: Mold., Phytologia 33: 485. 1976; Mold., Phytol. Mem. 2: 276, 298, 302, & 526. 1980.

CALLICARPA JAPONICA f. *ALBIFRUCTA* Hara

Additional bibliography: Mold., Phytologia 33: 486. 1976; Mold., Phytol. Mem. 2: 300, 302, 309, & 526. 1980.

CALLICARPA JAPONICA var. *ANGUSTATA* Rehd.

Additional bibliography: L. H. & E. Z. Bailey, Hortus Third 201. 1976; Mold., Phytologia 40: 436. 1978; Mold., Phytol. Mem. 2: 276, 281, 282, 298, 300, 346, 377, 378, & 526. 1980.

Recent collectors have found this plant growing on slopes at 1300 m. altitude.

Additional citations: CHINA: Hupeh: *Chow 76059* (Z).

CALLICARPA JAPONICA var. *ERYTHROCARPA* Sieb.

Additional bibliography: Mold., Phytologia 33: 486. 1976; Mold., Phytol. Mem. 2: 300 & 526. 1980.

CALLICARPA JAPONICA var. *GLABRA* Nakai

Additional bibliography: Mold., Phytologia 33: 487. 1976; Mold., Phytol. Mem. 2: 298 & 526. 1980.

CALLICARPA JAPONICA f. *GROSSIDENTATA* Nakai

Additional bibliography: Mold., Phytologia 33: 487. 1976; Mold., Phytol. Mem. 2: 298, 299, & 526. 1980.

CALLICARPA JAPONICA f. *KIIRUNINSULARIS* Masam.

Additional bibliography: Mold., Phytologia 33: 487. 1976; Mold., Phytol. Mem. 2: 303 & 526. 1980.

CALLICARPA JAPONICA var. *LUXURIANS* Rehd.

Additional bibliography: Fedde & Schust., Justs Bot. Jahresber. 39 (2): 319 (1913) and 42: 252. 1920; Hatusima & Yoshinaga, Bull. Fac. Agr. Kagosh. Univ. 2: 92. 1970; Asher, Guide Bot. Period. 1: 605. 1975; Hsiao, Fl. Taiwan 4: 413--415. 1978; Mold., Phytologia 40: 434 & 436. 1978; Hsiao, Fl. Taiwan 6: 120. 1980; Mold., Phytol. Mem. 2: 299, 300, 302, 303, 305, 309, 346, & 526. 1980.

Hsiao (1978) asserts that in Taiwan this variety is found only on Lanyu island. He cites *Chuang & Hsu 2336, Miyabe s.n.* and *Takano s.n.* from there.

CALLICARPA JAPONICA f. *MAJOR* Nakai

Additional bibliography: Mold., Phytologia 33: 487. 1976; Mold., Phytol. Mem. 2: 299 & 526. 1980.

CALLICARPA JAPONICA var. *MICROCARPA* Nakai

Additional bibliography: Mold., Phytologia 33: 487--488. 1976; Mold., Phytol. Mem. 2: 300 & 526. 1980.

CALLICARPA JAPONICA var. *RHOMBIFOLIA* H. J. Lam

Additional bibliography: E. D. Merr., Bibl. Enum. Born. Pl. 512. 1921; Mold., Phytologia 40: 436. 1978; Mold., Phytol. Mem. 2: 276, 299, 300, 302, 312, 346, & 526. 1980.

CALLICARPA JAPONICA var. *TAQUETII* (Léveillé) Nakai

Additional bibliography: Fedde & Schust., Just Bot. Jahresber. 41: 387. 1918; H. N. & A. L. Mold., Pl. Life 2: 85. 1948;

Mold., Phytologia 33: 488.1976; Lauener, Notes Roy. Bot. Gard. Edinb. 38: 481 & 482. 1980; Mold., Phytol. Mem. 2: 299, 377, & 527. 1980.

Lauener (1980), after having examined the type specimen of Leveille's species, avers that it "seems closer to" *C. dichotoma* (Lour.) K. Koch than it does to *C. japonica* Thunb.

CALLICARPA KINABALUENSIS Bakh. & Heine

Additional bibliography: Mold., Phytologia 40: 436 (1978) and 43: 222. 1979; Mold., Phytol. Mem. 2: 312 & 527. 1980.

CALLICARPA KINABALUENSIS var. *ENDERTI* Mold.

Additional bibliography: Mold., Phytologia 33: 488. 1976; Mold., Phytol. Mem. 2: 312 & 527. 1980.

CALLICARPA KINABALUENSIS var. *GIBOTII* Mold., Phytologia 43: 222. 1979.

Bibliography: Mold., Phytologia 43: 222. 1979; Mold., Phytol. Mem. 2: 312 & 527. 1980.

Citations: GREATER SUNDA ISLANDS: Sabah: *Gibot SAN.55432* (Sn--40660--type).

CALLICARPA KINABALUENSIS var. *TONSA* Mold.

Additional bibliography: Mold., Phytologia 33: 488. 1976; Mold., Phytol. Mem. 2: 312 & 527. 1980.

CALLICARPA KOCHIANA Mak.

Additional & emended bibliography: Walp., Repert. Bot. Syst. 4: 127--128. 1845; Bocq. in Baill., Rec. Obs. Bot. 3: 192. 1863; Forbes & Hemsl., Journ. Linn. Soc. Lond. Bot. 26: [Ind. Fl. Sin.] 255. 1890; Fedde & Schust., Justs Bot. Jahresber. 42: 252. 1920; H. N. & A. L. Mold., Pl. Life 2: 67, 70, & 79. 1948; Hatusima & Yoshinaga, Bull. Fac. Agr. Kagosh. Univ. 2: 91 & 106, pl. 12, fig. 6. 1970; L. H. & E. Z. Bailey, Hortus Third 201. 1976; Hsiao, Fl. Taiwan 4: 411, 412, & 416. 1978; Mold., Phytologia 40: 436 & 468. 1978; Hocking, Excerpt. Bot. A.33: 88 & 90. 1979; Hsiao, Fl. Taiwan 6: 120. 1980; Mold., Phytol. Mem. 2: 270, 276, 281--283, 291, 300, 303, 346, & 527. 1980; Mold., Phytologia 50: 55. 1981.

Additional illustrations: Hatusima & Yoshinaga, Bull. Fac. Agr. Kogosh. Univ. 2: 106, pl. 12, fig. 6. 1970.

Hsiao (1978) asserts that this species is found in Indochina, southern China, and southern Japan, and that on Taiwan it is common in thickets and secondary forests at low and medium altitudes in the northern and central parts only. He cites *Owatari s.n.*, *Simizu 2898*, and *Wilson 10114* & *10850* from Taiwan.

CALLICARPA KOCHIANA f. *VILLOSULA* Mold.

Additional bibliography: Mold., Phytologia 40: 468. 1978; Hocking, Excerpt. Bot. A.33: 88 & 90. 1979; Mold., Phytol. Mem. 2: 276 & 527. 1980.

CALLICARPA KWANGTUNGENSIS Chun

Additional bibliography: Hu & Chún, Icon. Pl. Sin. 5: 50, pl. 250. 1937; Mold., Phytologia 33: 489. 1976; Mold., Phytol. Mem. 2: 276 & 527. 1980.

Illustrations: Hu & Chun, Icon. Pl. Sin. pl. 250. 1937.

Hu & Chin (1937) report that the flowers of this plant are mildly fragrant with a delicate lilac-like odor. The species is known only from the North River region of Kwangtung.

Citations: MOUNTED ILLUSTRATIONS: Hun & Chun, Icon. Pl. Sin. 5: pl. 250. 1939 (Z).

CALLICARPA LACINIATA H. J. Lam

Additional bibliography: Mold., Phytologia 33: 489. 1976; Mold., Phytol. Mem. 2: 320 & 527. 1980.

CALLICARPA LAMMII Hosokawa

Additional bibliography: Mold., Phytologia 33: 489--490 (1976) and 34: 266. 1976; Fosberg, Sachet, & Oliver, Micronesica 15: 233 & 234. 1979; Fosberg & Sachet, Smithson. Contrib. Bot. 45: 26 & 37. 1980; Mold., Phytol. Mem. 2: 310 & 527. 1980.

CALLICARPA LANCIFOLIA Millsp.

Additional bibliography: Fedde & Schust., Justs Bot. Jahresber. 41: 387. 1918; Alain in León & Alain, Fl. Cuba, imp. 1, 4: 305 & 308. 1957; Mold., Phytologia 40: 468 (1978) and 43: 277. 1979; Byrne, Atoll Res. Bull. 240: 65, 123, & 191. 1980; Mold., Phytol. Mem. 2: 85, 88, 377, & 527. 1980.

Recent collectors refer to this plant as a common low shrub, growing on serpentine and in carrascales, at 400--750 m. altitude, in flower in July and both in flower and fruit in October. Morton & Acuña describe the "flowers" [corollas?] "and fruit" yellow, while Ekman reports the corollas as "pale-lilac" in color.

Additional citations: CUBA: Oriente: *Ekman 2529* (W--2113568), *9750* (W--2113567); *Morton & Acuña 2933*(W--1782845), *2970* (W--1782000).

CALLICARPA LEONIS Mold.

Additional & emended bibliography: Alain in León & Alain, Fl. Cuba, imp. 1, 4: 305 & 307. 1957; Mold., Phytologia 33: 490. 1976; Mold., Phytol. Mem. 2: 88 & 527. 1980.

Alain found this plant growing in woods and pinelands, at 900 m. altitude, in fruit in July.

Additional citations: CUBA: Oriente: *Alain 3077* (W--2288521), *3377* (W--2288218).

CALLICARPA LINGII Merr.

Additional bibliography: Mold., Phytologia 33: 491. 1976; Mold., Phytol. Mem. 2: 276 & 527. 1980.

CALLICARPA LOBO-APICULATA Metc.

Additional bibliography: Mold., Phytologia 33: 491 & 500. 1976; Mold., Phytol. Mem. 2: 276, 281, 282, & 527. 1980.

CALLICARPA LONGIBRACTEATA Chang

Additional bibliography: Mold., Phytologia 33: 491. 1976; Mold., Phytol. Mem. 2: 282 & 527. 1980.

CALLICARPA LONGIFOLIA Lam.

Additional synonymy: *Callicarpa longifolia* var. *foliis longiter acuminatis, serraturis distinctioribus, cymis laxis petiolo longioribus* Blume, Bijdr. Fl. Ned. Ind. 14: 818. 1826. *Callicarpa longifolia* var. *foliis minute serrulatis glabriusculis* Blume, Bijdr. Fl. Ned. Ind. 14: 818. 1826.

Additional & emended bibliography: G. Don in Sweet, Hort. Brit., ed. 3, 550. 1839; Walp., Repert. Bot. Syst. 4: 128 & 129. 1845; Miq., Fl. Ind. Bat. Suppl. 1: 243 & 569. 1860; Hassk., Neuen Schlüs. 84. 1866; Kurz, Forest Fl. Brit. Burma 2: 274, 275, & 589. 1877; Fern.-Villar in Blanco, Fl. Filip., ed. 3, 4: Nov. App. 158. 1880; Vidal y Soler, Phan. Cuming. Philip. 46 & 134. 1885; F. Muell., Second Syst. Cens. Austral. Pl. 1: 173. 1889; K. Scum. & Hollr., Fl. Kais. Wilhelmsl. 119. 1889; F. M. Bailey, Cat. Indig. Nat. Pl. Queensl. 35. 1890; Forbes & Hemsl., Journ. Linn. Soc. Lond. Bot. 26: [Ind. Fl. Sin.] 252--254. 1890; K. Schum. & Lauterb., Fl. Deutsch. Südsee 522. 1900; F. M. Bailey, Queensl. Fl. 4: 1174--1175. 1901; Ridl., Journ. Roy. Asiat. Soc. Straits 59: 155. 1911; C. K. Schneid., Illustr. Handb. Laubholzk. 2: 594. 1911; Koord., Exkursionsfl. 3: 134, 381, & 382. 1912; W. & J. Leeuwen-Reijnvaan, Marcellia 11: 49--55. 1912; Dalla Torre, Justs Bot. Jahresber. 40 (1): 777. 1917; E. D. Merr., Interpret. Rumph. Herb. Amboin. 449. 1917; H. Hällier, Meded. Rijks Herb. Leid. 37: 23. 1918; E. D. Merr., Enum. Born. Pl. 512. 1921; Heyen, Nutt. Plant. Ned. Ind., ed. 2, 1: 23 (1927), ed. 2, 2: 1311--1312 (1927), and ed. 2, 3: 1646. 1927; Bakh., Journ. Arnold Arb. 10: 70. 1929; E. D. Merr., Univ. Calif. Publ. Bot. 15: 262. 1929; White, Journ. Arnold Arb. 10: 263. 1929; Ewart, Fl. Vict. 973. 1930; Beer & Lam, Blumea 2: [221]--222. 1936; Fletcher, Kew Bull. Misc. Inf. 1938: 404, 406, 412, & 414--415. 1938; Worsdell, Ind. Lond. Suppl. 1: 160. 1941; H. N. & A. L. Mold., Pl. Life 2: 50 & 79. 1948; Corner, Wayside Trees, ed. 2, 697 & 698. 1952; Asher, Guide Bot. Period. 1: 605. 1975; L. H. & E. Z. Bailey, Hortus Third 201. 1976; Hsiao, Fl. Taiwan 4: 416. 1978; Mold., Phytologia 40: 469--470. 1978; Fosberg, Sachet, & Oliver, Micronesica 15: 234. 1979; Mold., Phytol. Mem. 2: 132, 258, 270, 271, 274--276, 281, 284, 288, 289, 291, 295, 298, 304, 305, 312, 320, 321, 323, 32-, 328, 329, 334, 340, 346, 377, 378, & 527. 1980; Roxb., Hort. Beng., imp. 2, [10]. 1980; Mold., Phytologia 50: 52 & 53 (1981) and 50: 146, 224, & 252. 1982.

The *Mamanira alba* Rumpf, previously regarded by me as a synonym of *Callicarpa longifolia*, is, according to Merrill (1917) better regarded as a synonym of *C. pedunculata* R. Br.

The Baileys (1976) assert that the corollas of *C. longifolia* are "rose or purple" and the fruit "white or dark-pink". Recent collectors describe the plant as a small shrubby tree, the leaves dull dark-green above, medium-green beneath, the midrib yellowish-green beneath, the fruits white, and have encountered it along

streamsides, in roadside forests, in disturbed rainforests, on hillsides, and "in scrub near the sea", from near sealevel to 290 m. altitude, in flower in August, and in fruit in September. The corollas on *Hoogland & Craven 10272* were "white" and on *Larsen & al. 3410* are said to have been "pinkish" when fresh.

Leeuwen-Reijnvaan (1912) reports finding *Acrocecidium* galls on the leaves of this host plant.

Schumann & Hollrung (1889) cite *Hollrung 817* from New Guinea, giving the species' overall distribution as "Von den Nicobaren und der Halbinsel Malacca bis nach Australiens Ostküste in Queensland zu verfolgen". Schumann & Lauterbach (1900) cite only the selfsame collection. Fletcher (1938) notes that the type is from Malacca and goes on to list the species from Indochina, Malaya, and northern Australia. From Thailand he cites *Annandale s.n., Bourke s.n., Curtis 2134, Hill 470, Keith s.n., Kerr 15123, Lakshnakara 326, Schmidt 861,* and *Vanpruk 712.*

Koorders (1898) records the vernacular names, "kajoe-im-beris" and "katoempang" from Java. Merrill (1923) cites *Elmer 13536, Fénix s.n.* [Herb. Philip. Bur. Sci. 28048], *Lete 212, Merrill 1214* & *8057, Ramos s.n.* [Herb. Philip. Bur. Sci. 30328], *Ramos & Edaño s.n.* [Herb. Philip. Bur. Sci. 28513 & 29116], *Whitford 828,* and *Williams 2116* from Luzon, Mindoro, Polillo, Catanduanes, and Mindanao, Philippine Islands, where, he says, it grows "in thickets and forests at low and medium altitudes", giving its overall distribution as "India through Malaya to New Guinea and New Ireland". He lists also the additional vernacular name, "papalsin".

Corner (1952) describes the plant as "A straggling shrub up to 15 ft. high: young parts brownish or brownish white scurfy-felted. Leaf-blade 3--7 x 1 1/2 -- 3 1/2", elliptic, pointed, the underside green and thinly scurfy or nearly glabrous: stalk 1/2 -- 1" long. Flowers pink or pale lilac: calyx thinly hairy or nearly glabrous. Berries .1" wide, ripening white. Malaysia, Australia: common in villages and open country." He calls it the "White-berried Malayan Lilac". Ridley (1911) gives its distribution as "Nicobars to Malaya and Australia".

Krispinus describes his *SAN.89900* as having been taken from a 13-foot tree, "the fruit greenish, turning reddish when ripe" in August. Possibly there is a pink or red-fruited variety or form of this species, as yet undescribed.

The *Maxwell 78-346* and *Sinclair 4930* & *6697*, distributed as the typical form of this species, actually represent f. *floccosa* Schau.

Additional citations: CHINESE COASTAL ISLANDS: Hainan: *Chow & al. 78317* (N). THAILAND: *Larsen, Santisuk, & Warncke 3410* (Ld). MALAYSIA: Trengganu: *Sinclair 8716* (W--2912704). GREATER SUNDA ISLANDS: Sabah: *Kruspinus SAN.89900* (Ld). NEW GUINEA: Territory of New Guinea: *Hoogland & Craven 10272* (W--2893957).

CALLICARPA LONGIFOLIA f. *FLOCCOSA* Schau.

Additional & emended bibliography: Roxb., Hort. Beng., imp. 1, [10]. 1814; G. Don in Sweet, Hort. Brit., ed. 3, 550. 1839; Walp., Repert. Bot. Syst. 4: 128 & 129. 1845; Brandis, Forest Fl. N-W.

Cent. India 3: 369. 1874; Firminger, Man. Gard. India, ed. 3, 531 & 608. 1874; Fern.-Villar in Blanco, Fl. Filip., ed. 3, 4: Nov. App. 158. 1880; Firminger, Man. Gard. India, ed. 6, 2: 388. 1918; Heyne, Nutt. Plant. Ned. Ind., ed. 2, 2: 1311--1312 (1927) and ed. 2, 3: 1646. 1927; Fletcher, Kew Bull. Misc. Inf. 1938: 412 & 414--415. 1938; Anon., Kew Bull. Gen. Index 1929-1956: 59. 1959; Mold., Phytologia 40: 469--470. 1978; Mold., Phytol. Mem. 2: 258, 281, 284, 291, 295, 298, 305, 312, 320, 321, 323, 325, 346, 377, 378, & 527. 1980; Mold., Phytologia 50: 52. 1981.

Maxwell describes this plant as a shrub, 2 m. tall, the inflorescence-axis and calyx green, the corollas "pink-violet", and the leaf-blades "thin" in texture. He found it growing in sandy thickets in open areas behind beaches, flowering in July. Other recent collectors describe it as a shrub. 1--4 m. tall, or a tree, 10--18 feet tall, the trunk 2--5 inches in diameter at breast height, the outer bark smooth, grayish or greenish, the inner bark and cambium light-yellow, the wood very soft, the sapwood pale-yellow, the leaves dull mid-green above, paler beneath, the buds. pale-green or pale greenish-brown, the filaments dark, the anthers yellow or deep-yellow, the fruit 5 mm. in diameter, white, edible, with a sweet taste, and have found it growing in grayish or black soil in primary or secondary forests and forest margins both in lowlands and on hillsides, as well as in disturbed lower montane rainforests, and "with some natural vegetation at the edges of *Hevea* plantations", from sealevel to 1200 m. altitude, flowering and fruiting in January, March, May, June, and November and also in fruit in August.

The corollas are said to have been "grayish-white" on *Madani SAN.35063,* "pinkish" on *Keng & al. K.6114,* "mauve-white" on *Schodde & Craven 4274,* "lilac" on *Sinclair 6697*. "violet" on *Congdon 85,* and "light-violet" on *Stone 11865. Stone 11965* was collected at sealevel and the fruits are described as having been "red to purple" -- probably this represents a distinct color form, since the mature fruits are usually described as being pure white in this species.

Fletcher (1938) cites *Kerr 12114, Marcan 1250, Put 924, Vanpruk 962* & *5568,* and *Winit 1465* from Thailand. Sinclair avers that in Malaysia the species is "native, but rare" and "widely distributed".

Material of this form has been misidentified and distributed in some herbaria as *C. maingayi* King & Gamble.

Additional citations: THAILAND: *Congdon 85* (Ac). MALAYA: Johore: *Maxwell 78-346* (Ac, N). Penang: *Sinclair 6697* (W--2912705). Singapore: *Sinclair 4930* (W--2912703). MALAYAN ISLANDS: Langkawi: *Keng & al. K.6114* [field no. 48] (Ac). Tioman: *B. C. Stone 11865* (Ld). GREATER SUNDA ISLANDS: Sabah: *Madani 35063* (Ac, Ld); *Talip 47617* (Ld). Sumatra: *Wilde & Wilde-Duyfjes 12623* (W--2923973). NEW GUINEA: Territory of New Guinea:*Craven & Schodde 1414* (W--2896178), *4274* (W--2894062).

CALLICARPA LONGIFOLIA var. *HORSFIELDII* (Turcz.) Mold.

Additional & emended bibliography: Koord., Exkursionsfl. 3: 134

& 382. 1912; Mold., Phytologia 33: 494. 1976; Mold., Phytol. Mem. 2: 312 & 527. 1980.

CALLICARPA LONGIPES Dunn

Additional bibliography: Fedde & Schust., Justs Bot. Jahresber. 39 (2): 319. 1913; Mold., Phytologia 33: 494. 1976; Lauener, Notes Roy. Bot. Gard. Edinb. 38: 482. 1980; Mold., Phytol. Mem. 2: 276 & 527. 1980.

Lauener (1980) asserts that "*C. panduriformis* consists of two syntypes -- *Chaffanjon in herb. Bodinier 2341* and *Laborde in herb. Bodinier 2507*. Moldenke considers that *Chaffanjon 2341* is *C. longipes* but he does not make any direct reference to the other syntype, which is *C. rubella* var. *hemsleyana*."

CALLICARPA LONGIPES var. *LAUI* Mold.

Additional bibliography: Mold., Phytologia 33: 494. 1976; Mold., Phytol. Mem. 2: 276 & 527. 1980.

CALLICARPA LONGIPETIOLATA Merr.

Additional bibliography: Mold., Phytologia 40: 470. 1978; Mold., Phytol. Mem. 2: 305 & 527. 1980.

Merrill (1923) cites *Clemens 9185, Elmer 6266 & 14280, Merrill 873, Santos s.n.* [Herb. Philip. Bur. Sci. 31935], and *Vanoverbergh 1376* and asserts that the species grows "In thickets bordering pine forests, altitude 1,600 to 2,000 m." and is apparently endemic to Luzon. I regard *Vanoverbergh 1376* as the type collection of var. *glabrescens* Mold.

CALLICARPA LONGIPETIOLATA var. *GLABRESCENS* Mold.

Additional bibliography: Mold., Phytologia 40: 470. 1978; Mold., Phytol. Mem. 2: 305 & 527. 1980.

CALLICARPA LONGISSIMA (Hemsl.) Merr.

Additional bibliography: Forbes & Hemsl., Journ. Linn. Soc. Lond. Bot. 26: [Ind. Fl. Sin.] 253--254. 1890; Hatusima & Yoshinaga, Bull. Fac. Agr. Kagosh. Univ. 2: 91 & 106, pl. 12, fig. 5. 1970; Hsiao, Fl. Taiwan 4: 413 & 416--417. 1978; Mold., Phytologia 40: 470. 1978; Hsiao, Fl. Taiwan 6: 120. 1980; Mold., Phytol. Mem. 2: 276, 281, 299, 304, 378, & 527. 1980; Hu, Enum. Chin. Mat. Med. 12 & 218. 1981.

Additional illustrations: Hatusima & Yoshinaga, Bull. Fac. Agr. Kagosh. Univ. 2: 106, pl. 12, fig. 5. 1970.

Recent collectors describe this plant as a small or tall tree, 16--20 feet tall, with a 5--15-foot clear bole, the trunk girth 10--24 inches, the bark brown, flaky, in slash the outer bark brown, 1/16th inch thick, the inner bark pink, the cambium white, and the fruit greenish, "gray-yellow", or white. They have found it growing in primary forests, at stream- and river-sides, and on hillsides, in brown soil, at 50--2400 feet altitude, in flower in July, August, and December, and in fruit in the same months.

The corollas are said to have been "greenish" on *Wing 19010* and "yellow" on *Chai 25975*.

Hsiao (1978) asserts that this species occurs only in southern China and Taiwan and on the latter island only in primary forests in the northern and central part, at altitudes of 500--1600 m. He cites *Bartlett 6082, Sasaki s.n.*,and *Wilson 10108*. Hu (1981) records the vernacular names, "chien-wei-fêng" and "long-leaved callicarpa", and asserts that the species is listed in Chinese pharmacopeias as "Folium Callicarpae Longissimae".

Additional citations: CHINA: Province undetermined: *Ting & Shih 1535* (Ac). CHINESE COASTAL ISLANDS: Hainan: *Chow & al. 78348* (N).

CALLICARPA LUTEOPUNCTATA Chang

Additional bibliography: Mold., Phytologia 33: 495. 1976; Mold., Phytol. Mem. 2: 276 & 527. 1980.

CALLICARPA MACROPHYLLA Vahl

Additional & emended bibliography: Roxb., Hort. Beng., imp. 1, [10]. 1814; G. Don in Sweet, Hort. Brit., ed. 3, 550. 1839; Walp., Repert. Bot. Syst. 4: 126--128. 1845; Bocq. in Baill., Rec. Obs. Bot. 3: 192. 1863; K. Schum., Engl. Bot. Jahrb. 9: 220. 1887; Forbes & Hemsl., Journ. Linn. Soc. Lond. Bot. 26: [Ind. Fl. Sin.] 254 & 255. 1890; Briq. in Engl. & Prantl, Nat. Pflanzenfam., ed. 1, 4 (3a): 166. 1895; Fedde & Schust., Justs Bot. Jahresber. 39 (2): 319. 1913; Haines, Bot. Bihar Orissa, ed. 1, 4: 709--710. 1922; Kirtikar & Basu, Indian Med. Pl., ed. 2, imp. 1, 3: 1920 & 1922, pl. 734. 1935; Fletcher, Kew Bull. Misc. Inf. 1938: 404, 412, & 414. 1938; H. N. & A. L. Mold., Pl. Life 2: 57, 62, & 79. 1948; Haines, Bot. Bihar Orissa, ed. 2, 2: 744. 1961; Neal, In Gard. Hawaii, ed. 2, 726. 1965; Serbanescu-Jitariu & Mitroiu, Act. Bot. Hort. Bucur. 1972-73: 107. 1973; Asher, Guide Bot. Period. 1: 605. 1975; Kirtikar & Basu, Indian Med. Pl., ed. 2, imp. 2, 3: 1920 & 1922, pl. 734. 1975; Srivastava, Fl. Gorak. 253. 1976; Babu, Herb. Fl. Dehra Dun 16, 395, & 396. 1977; Mold., Phytologia 40: 470--471. 1978; Hsiao, Fl. Taiwan 6: 120. 1980; Lauener, Notes Roy. Bot. Gard. Edinb. 38: 482. 1980; Roxb., Hort. Beng., imp. 2, [10]. 1980; Mold., Phytol. Mem. 2: 252, 255, 257, 258. 270, 271, 276, 282, 284, 325, 346, 378, & 527. 1980; Hu, Enum. Chin. Mat. Med. 117 & 218. 1981; Mold., Phytologia 50: 144 & 255. 1982.

Additional illustrations: Kirtikar & Basu, Indian Med. Pl., ed. 2, imp. 1, pl. 734 (1935) and ed. 2, imp. 2, pl. 734. 1975.

Srivastava (1976) asserts that the corollas of this species are "pink" and the fruit "white" and that the plant is "Frequently planted as [a] hedge plant but also seen as [an] escape" in waste places, flowering from August to November and fruiting in October and November. He cites *Srivastava 337* & *444*. Babu (1977) reports the species "on few-treed slopes of sal forest" and "common in shaded localities of ravines and scrub jungles", flowering from August to October, fruiting in November and December, citing *Babu 33410* from India.

The corollas on *Fosberg & Nasir 56982* are said to have been "lavender-pink", while on *Biegel 5136* they were "light-mauve" and the fruit "milky-white".

Serbanescu-Jitariu & Mitroiu (1973), on the basis of *Herb. Univ. Cluj 92624,* describe the pollen of this species as follows: "subprolat; 3-colporat; văzut apical 28,6--44,2 mu în diam., din profil înalt 36,4--39 mu, lat 28,6--31,2 mu. Scuturat din antere şi vâzut cu ochiul liber, polenul este galben portocaliu, în apă, la microscop portocaliu-brun, iar in chloralhidrat galben-verzui. Caracteristicile sporodermei (epistructură, structură şi grosime) sînt aceleaşi ca la *C. americana.*"

Schumann & Hollrung (1889) cite *Hollrung 210* from New Guinea, commenting that the species is "Verbreitet von Vorder-Indien bis China, bereits von Engler und F. v. Mueller in New Guinea nachgewiesen". Schumann & Lauterbach (1900) cite *Hollrung 210* and *Lauterbach 2449* from New Guinea and *Lauterbach 207* from New Britain in the Bismark Archipelago, noting its overall distribution as "Von Vorderindien bis Papuasien verbreiter, auch in Britisch New-Guinea beobachtet."

Fletcher (1938) notes that the type of this species is from northern India, lists it also from China, "British Indo-china", Annam, Tonkin, New Guinea, the Mascarene Islands, and Reunion. He cites from Thailand only *Winit 1152* where he says it grows gregariously in waste places about villages, at 460 m. altitude.

Hu (1981) records the vernacular names, "ta-yeh-tzu-chu" and "large-leaved callicarpa" and asserts that the species occurs in Chinese pharmacopeas as "Radix et Folium Callicarpa Macrophyllae".

Additional citations: CULTIVATED: Pakistan: *Fosberg & Nasir 56982* (Ld). Zimbabwe: *Biegel 5136* (Ba--374143); *J. Scott s.n.* [South. Rhodes. Govt. Herb. 263460] (N).

CALLICARPA MACROPHYLLA var. *GRIFFITHII* C. B. Clarke

Additional bibliography: H. N. & A. L. Mold., Pl. Life 2: 62. 1948; Mold., Phytologia 40: 471. 1978; Mold., Phytol. Mem. 2: 258, 284, & 527. 1980.

CALLICARPA MADAGASCARIENSIS Mold.

Additional bibliography: Mold., Phytologia 33: 497. 1976; Mold., Phytol. Mem. 2: 248 & 527. 1980.

CALLICARPA MAGNIFOLIA Merr.

Additional bibliography: Mold., Phytologia 33: 497. 1976; Mold., Phytol. Mem. 2: 305 & 527. 1980.

CALLICARPA MAINGAYI King & Gamble

Additional & emended bibliography: Fletcher, Kew Bull. Misc. Inf. 1938: 401, 411, & 413. 1938; Corner, Wayside Trees, ed. 2, 698. 1952; Mold., Phytologia 40: 471. 1978; Mold., Phytol. Mem. 2: 284, 295, 378, & 527. 1980; Mold., Phytologia 50: 252. 1982.

Recent collectors have encountered this species in forests near the seashore, in evergreen forests on limestone hills, and by streams in valleys, at 50--100 m. altitude, in anthesis in November and both in flower and fruit in July. They describe the species as a tree, 15--20 feet tall, the leaves dark glossy-green above, silvery-white or whitish-green beneath with scurf,

the lower midrib and secondary veins pale-brown or brownish, the young twigs densely scurfy and brownish, the anthers dark-yellow, and the ripe fruit purple. *Sinclair 7628* is said to be the first record of the species fron Trengganu.

Fletcher (1938) notes that the type collection is from Malacca, lists the species also from Sumatra and the Philippine Islands, and cites from Thailand *Kerr 13363, 15191,* & *17438* and *Rabil 208.*

The corollas are said to have been "lavender" on *Mahmud & Stone F. S. C. 8* and "pale-lilac" on *Sinclair 7628.*

The *B. C. Stone s.n.* [28.2.1970], distributed as *C. maingayi,* actually is *C. arborea* Roxb., while *Keng & al. 6114* [field no. 48] is *C. longifolia* f. *floccosa* Schau.

Additional citations: MALAYSIA: Malacca: *Sinclair 8379* (W--2912702). Selangor: *Mahmud & Stone F.S.C.8* (Ne--33490). Trengganu: *Sinclair 7628* (W--2912670).

CALLICARPA MEGALANTHA Merr.

Additional bibliography: Fedde & Schust., Justs Bot. Jahresber. 53 (1): 1070. 1932; Mold., Phytologia 40: 471. 1978; Mold., Phytol. Mem. 2: 305 & 527. 1980; Mold., Phytologia 50: 293 & 369. 1982.

Merrill (1923) cites *McGregor B.S.19687* and *Ramos & Edaño B.S. 37718* from Luzon, where, he says, the species grows in mossy forests at or above 1500 m. altitude and is endemic. He comments, with very good justification: "Reduced by Bakhuizen....to *Callicarpa pentandra* where it apparently does not belong."

CALLICARPA MEMBRANACEA Chang

Additional bibliography: Mold., Phytologia 33: 498. 1976; Mold., Phytol. Mem. 2: 276 & 527. 1980.

CALLICARPA MERRILLII Mold.

Additional bibliography: Mold., Phytologia 40: 471. 1978; Mold., Phytol. Mem. 2: 306 & 527. 1980.

Merrill (1923) cites *Clark F.B.2534, Fénix B.S.15802, Manuel F.B.23489, Merrill 5556, 8115,* & *8188, Ramos B.S.11078* & *39816, Ramos & Edano B.S.37388, Ramos & Pascasio B.S.34767* & *34775, Wenzel 1863,* and *Williams 2307* from Luzon, Mindoro, Ticao, Cebu, Mindanao, & Basilan in the Philippines, averring that it grows there "In forests at low and medium altitudes, ascending to 1,000 m. Endemic." He comments that "This [species] is sufficiently distinct from *Callicarpa cuspidata* Roxb., where Bakhuizen places it as a synonym."

CALLICARPA MICRANTHA Vidal

Additional & emended bibliography: Vidal y Soler, Phan. Cuming. Philip. 38, 134, & 187--188. 1885; Mold., Phytologia 33: 498. 1976; Mold., Phytol. Mem. 2: 306 & 527. 1980.

Merrill (1923) cites *Cuming 1165* and *Merritt & Darling F.B. 13833* from Luzon, where, he says, the species is endemic and occupies thickets at low altitudes. He rightly comments that "This [species] has nothing in common with *Callicarpa cuspidata*

Roxb., where Bakhuizen has erroneously placed it as a synonym."

CALLICARPA MOLLIS Sieb. & Zucc.

Additional & emended bibliography: Walp., Ann. Bot. Syst. 1: 544. 1849; Forbes & Hemsl., Journ. Linn. Soc. Lond. Bot. 26: [Ind. Fl. Sin.] 254--255. 1890; C. K. Schneid., Illustr. Handb. Laubholzk. 2: 587, 591, & 593, fig. 382 g--i & 385 b--g. 1911; Hara, Distrib. Maps Flow. Pl. Jap. 6 & map 51. 1958; Hatusima & Yoshinaga, Bull. Fac. Agr. Kagosh. Univ. 2: 92 & 108, pl. 14, fig. 2. 1970; L. H. & E. Z. Bailey, Hortus Third 201. 1976; Mold., Phytologia 40: 471--472. 1978; Hsiao, Fl. Taiwan 6: 121. 1980; Mold., Phytol. Mem. 2: 299, 300, 302, 346, 378, & 527. 1980; Diaconescu, Act. Bot. Hort. Bucur. 1979/1980: 114. 1981; Mold., Phytologia 50: 150. 1982.

Additional & emended illustrations: C. K. Schneid., Illustr. Handb. Laubholzk. 2: 587, fig. 382 g--i & 385 b--g. 1911; Hatusima & Yoshinaga, Bull. Fac. Agr. Kagosh. Univ. 2: 108, pl. 14, fig. 2. 1970.

The Baileys (1976) assert that the corollas of this species are "purplish-rose" and the fruit "violet-purple". They regard *C. shirasawana* Mak. as a synonym.

CALLICARPA MOLLIS var. *MICROPHYLLA* Sieb. & Zucc.

Additional bibliography: Mold., Phytologia 40: 472. 1978; Mold., Phytol. Mem. 2: 300, 302, & 527. 1980.

CALLICARPA MOLLIS var. *RAMOSISSIMA* Nakai

Additional bibliography: Mold., Phytologia 33: 499. 1976; Mold., Phytol. Mem. 2: 300, 302, 378, & 527. 1980.

CALLICARPA NIGRESCENS Merr.

Additional bibliography: Mold., Phytologia 33: 499. 1976; Mold., Phytol. Mem. 2: 306, 322, & 527. 1980.

CALLICARPA NIPENSIS Britton & P. Wils.

Additional & emended bibliography: Alain in León & Alain, Fl. Cuba, imp. 1, 4: 305 & 307. 1957; Mold., Phytologia 33: 500. 1976; Mold., Phytol. Mem. 2: 88 & 527. 1980.

CALLICARPA NUDIFLORA Hook. & Arn.

Additional & emended bibliography: Roxb., Hort. Beng., imp. 1, [10]. 1814; Walp., Repert. Bot. Syst. 4: 125--126 & 128. 1845; Corner, Wayside Trees, ed. 1, pl. 212 (1940) and ed. 2, 697 & 698. 1952; L. H. & E. Z. Bailey, Hortus Third 201. 1976; Mold., Phytologia 40: 472. 1978; Mukherjee & Chanda, Trans. Bose Res. Inst. 41: 50. 1978; Mold., Phytol. Mem. 2: 258, 270, 271, 274, 276, 281--283, 291, 295, 310, 346, 376, & 527. 1980; Roxb., Hort. Beng., imp. 2, [10]. 1980; Mold., Phytologia 50: 218. 1982.

Additional illustrations: Corner, Wayside Trees, ed. 1, pl. 212. 1940.

The Baileys (1976) describe the fruit of this species as "blue" and the corollas as "red or purple". Recent collectors have en-

countered it on hillsides, at 190 m. altitude.

The synonym, *C. reevesii* Wall., was named in honor of John Reeves (1774--1856) of the East India Company.

Corner (1940, 1952) lists the common names, "Malayan Lilac" and "Cultivated Malayan Lilac", for this species and describes it as "A shrub to 15 ft. high: twigs, inflorescences and undersides of the leaves white or brownish white scurfy woolly. Leaf-blades 4 1/2 -- 12 x 1 1/2 -- 4 1/2", elliptic, tapered to a point, narrowly heart-shaped at the base, the edge toothed all round, the veins very distinct as fine depressed lines on the upperside: stalk 1/2 -- 1" long. Berry 1/4" wide, pale pinkish purple then white, pithy-juicy, with the purple calyx at the base. S. China: occasionally planted in gardens."

Additional citations: CHINESE COASTAL ISLANDS: Hainan: *Chow & al. 78323* (Ac, N).

CALLICARPA NUDIFLORA var. *ANGUSTIFOLIA* Metc.

Additional bibliography: Mold., Phytologia 33: 501. 1976; Mold., Phytol. Mem. 2: 281 & 527. 1980.

CALLICARPA OBLANCEOLATA Urb.

Additional & emended bibliography: Alain in León & Alain, Fl. Cuba, imp. 1, 4: 305 & 308, fig. 131. 1957; Mold., Phytologia 33: 501. 1976; Mold., Phytol. Mem. 2: 88 & 527. 1980.

Emended illustrations: Alain in León & Alain, Fl. Cuba, imp. 1, 308, fig. 131. 1957.

Recent collectors have found this plant growing on limonite, in lateritic soil, and in serpentine barrens, at 400--500 m. altitude, in anthesis in July.

Additional citations: CUBA: Oriente: *Alain & Clément 1029* (W--2288048); *Leon 21155* (W--2289843); *Marie-Victorin & Clement 21731* (W--1784463).

CALLICARPA OBTUSIFOLIA Merr.

Additional bibliography: Mold., Phytologia 33: 501. 1976; Mold., Phytol. Mem. 2: 306 & 527. 1980.

Merrill (1923) cites only the type collection and avers that the species is endemic to thickets at low altitudes on Luzon, where it is known popularly as "anoyop".

CALLICARPA OLIGANTHA Merr.

Additional bibliography: Mold., Phytologia 33: 501. 1976; Mold., Phytol. Mem. 2:276 & 527. 1980.

CALLICARPA OSHIMENSIS Hayata

Additional bibliography: Fedde & Schust., Justs Bot. Jahresber. 39 (2): 319. 1913; Hatusima & Yoshinaga, Bull. Fac. Agr. Kagosh. Univ. 2: 92 & 108, pl. 14, fig. 3. 1970; Hsiao, Fl. Taiwan 4: 413 & 418. 1978; Mold., Phytologia 40: 472--473. 1978; Mold., Phytol. Mem. 2: 300, 302, 304, & 527. 1980.

Illustrations: Hatusima & Yoshinaga, Bull. Fac. Agr. Kagosh. Univ. 2: 108, pl. 14, fig. 3. 1970.

[to be continued]