

SUPPLEMENTARY INFORMATION

The Infraclassical Taxonomy of African Sapindaceae

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Taxonomic Treatments

Family: SAPINDACEAE Juss.

Sapindaceae Juss. nom. cons. Gen. Pl.: 246. (1789).

Type genus: *Sapindus* L. nom. cons. Gen. Pl. 1: 359. (1737).

Description

Trees or shrubs (or woody vines with tendrils in *Cardiospermum* and *Paullinia*), rarely herbaceous climbers. Indumentum is usually of simple hairs, often glandular on young parts, buds, and inflorescences. Leaves alternate, usually estipulate; leaf blade pinnate or digitate, mostly compound, a few simple (*Dodonaea* and *Pappea*); leaflets alternate or sub-opposite, entire or dentate to serrate. Inflorescence is a terminal or axillary thyrse. Flowers are usually unisexual, actinomorphic or zygomorphic, usually small. Sepals are 4 or 5 (or 6), equal or unequal, free or connate at base. Petals are 4 or 5 (or 6), sometimes absent, free, imbricate, usually clawed, often with scales or hair-tufted basal appendages. Fruit, a capsule, berry or drupe, or consisting of 2 or 3 samaras, often 1-seeded and 1-loculed by abortion. Seeds 1 (or 2 or more) per locule; testa black or brown, hard, often with a conspicuous fleshy aril.

Subfamily SAPINDOIDEAE Burnett Outl. Bot.: 889. (1835).

Type genus: *Sapindus* L.

Specimen examined: Ghana, Legon Bot. nursery, Akpabi G., 23 Apr 1957, GCH 1834; Aburi Botanic Gardens, Hall et al., 26 Mar 1976, GCH 45844;

Nigeria, Abeokuta, Stanfield, 24 Aug 1962, FHI 45605; Abeokuta, Daramola, B.O, 31 Aug 1968, FHI 61564

Description: Trees, shrubs or vines. Leaves spirally arranged or opposite on the branches. Flowers 4 or 5 fold. Carpels usually three (two to six) with a single ovule.

Tribe - Thouinieae Blume emend. Radlk. Rumphia 3: 186. (1847).

Type: *Thouinia trifoliolata* Poit. Antilles Ann. Mus. Paris: 72. (1804).

Genus- *Allophylus* L. Sp. Pl. 1: 348. (1753).

Type species: *Allophylus zeylanicus* L. Sp. pl. 1: 348. (1753).

Specimen examined: Nigeria Ibadan, Onochie, 26 Oct 1956, FHI 35882, Zaria, Jackson, 31 May 1964, FHI 54289; Abuja, Olorunfemi, 17 Aug 1964, FHI 54989; Jos, Olorunfemi, 20 Jan 1981, FHI 94301; Gwari, Onochie, 21 Jun 1958, FHI 40206; Zaria, Osua, 15 Jun 1944, FHI 7874; Olokemeji, Lowe, 11 May, 1971, FHI 27547; Ondo, Olorunfemi, 13 Sep, 1978, FHI 88234; Plateau, Magbagbeda, 22 Jul 1983, FHI 100720; Imo, Ariwaodo, March 1974, FHI 99476; Katsina, Muhamadu, 18 Sep 1956, FHI 35008, Kabba, Daramola, 12 Jun 1958, FHI 36945; Olokemeji,

Ajayi, 30 May 1950, FHI 19910; Dumbi, Ottaeri, 30 Jun 1977, ABU 1283; Yankari, Ottaeri, 6 Jul 1971, ABU 283; Buea, A.S.B, 13 Dec 1952, GCH 12603;

Ghana, J.K. Morton, 25 May 1953, GCH 9228; J.K. Morton, 10 Apr 1954, GCH A609; J.K. Morton, 15 May 1952, GCH 7305; Legon Hills, C.D. Adams, 17 Apr 1956, GCH 4252; Innes R.R., 9 Apr 1957, GCH 30342

Cameroun, Bertoua, G.J.H Amshoff, 30 Aug 1962, SRFK 10678; Bertoua, F.J. Brettler, 28 Jul 1961, SRFK 10679; Ngaoundere, F.J. Brettler, 30 Sep 1960, SRFK 10681; Yaounde, A.J.M Leeowenberg, 2 Jul 1965, SRFK 19848; Batouri, A.J.M Leeowenberg, 14 Jun 1965, SRFK 19852; Youkadouma, A.J.M Leeowenberg, 23 Jul 1965, SRFK 19853; Victoria, A.J.M Leeowenberg, 12 Oct 1965, SRFK 21093; Bangou, de wilde, 6 May 1964, SRFK 27424; Banyo, A.J.M Leeowenberg, 4 Jul 1972, SRFK 49405; Barombi, Nemba J., 17 Oct 1987, HNC 64483

Ivory coast, Amshoff, 14 Jul 1967, UGH 278;

Description: Shrubs, rarely trees [rarely woody climbers], monoecious or dioecious. Leaves 3-foliolate, usually minutely glandular and serrate, often associated with tufts of hairs in the axils of the main nerves beneath. Inflorescences axillary, racemose or compound racemose. Flowers unisexual, usually male and female in the same inflorescence. Sepals 4, the 2 outer are larger, petals 4, each with a hairy scale, green, white or yellow. Fruit parted into 2 or 3 schizocarps, often only 1 developed, berrylike, subglobose or obovoid. Seeds ellipsoidal to globose, black, without arillode.

Tribe - Paullinieae Kunth ex DC. Prodr. 1: 601 (1824).

Type: *Paullinia* L. Sp. Pl. 1: 366. (1753).

Genus- *Cardiospermum* L. Sp. Pl. 1: 366. (1753).

Type species: *Cardiospermum halicacabum* L. Sp. Pl. 1: 366. (1753).

Specimen examined: Nigeria, Ibadan, Ujor, 21 Apr 1950, FHI 26417; Shaki, Gbile, 19 Oct 1968, FHI 20477; Niger, Daramola, 28 Feb 1968, FHI 61918; Cross River, Lowe, 30 Mar 1972, FHI 67934; Jos, Lawlor, 15 Aug 1962, FHI 20349; Dumbi, Kershaw, 2 Jun 1964, ABU 900355; Dumbi, Ohaeri, 29 May 1975, ABU 947; Dumbi, Ohaeri, 24 Feb 1971, ABU 367; ABU, Ohaeri, 20 Mar 1974, ABU 647; Kachia, S.O. Oyewole, 10 Dec 1973, ABU 1749; KATAP, S.O. Oyewole, 9 Dec 1973, ABU 1733; Onitsha, Akpaka, 25 May 1972, FHI 65204; Bendel, Odewo, 13 Oct 1976, FHI 78970; Yola, Olorunfemi, 3 Mar 1968, FHI 62010;

Cameroun, Garoua-Maroua, Biholong, 26 Aug 1964, SRFK 8926; Akonetye, Koufaru A, 18 Jan 1978, HNC 40781; Garoua, Geerhing, 22 May 1974, HNC 36914; Mokolo, Biholong, 18 Sep 1964, HNC 8927; Malzy log P, HNC 15343; Ebolowa, de Wilde, 8 Oct 1974, HNC 46697;

Ghana, Bui dom site, A.A. Enti, 17 Aug 1964, GCH 35098; Mahkrong, Morton J. K., 10 Apr 1954, GCH 4589;

Description: Annual or perennial climbing herbs, stems ridged, stipules small. Leaves alternate, compound (2-ternate to apparently pinnate). Inflorescence axillary, at the apex of a relatively long peduncle, with a pair of coiled tendrils just below. Flowers zygomorphic, bracts minute, sepals 4; lateral small, the other 2 larger; petals 4, stamens 8, ovary 3-locular. Fruit an inflated membranous capsule. Seed black with a white, ovate to reniform (sometimes heart-shaped) hilum.

Genus - *Paullinia* L. Sp. Pl. 1: 366. (1753).

Type species: *Paullinia pinnata* L. Sp. Pl. 1: 366. (1753).

Specimen examined: Nigeria, Ikorodu, M. Hossain & J. Opayemi, 5 Apr 1971, LUH 1629; Abeokuta, A.W.A. Edwards, Feb 1968, LUH 1627; LUH 2013; LUH 2102; Ibadan, Taiwo Lawal,

Apr 2005, LUH 1303; Abeokuta, Faluti Dare, 28 Mar 2008, LUH --; Ibadan, Adeyemi Tope, Apr 2005, LUH 1302; Ibadan, Okeowo Funmi, Apr 2005, LUH 1584; Zaria, A.W.A. Edward, 25 Mar 1968, LUH 1628; Birnin gwari, A.O. Ohaeri, 15 Apr 1983, BUK 2237; Kagoro, Chazanfoni, 21 May 1983, BUK 149; Falgore, Adamu T, 26 Nov 1983, BUK 216; ABU, T.C. Baker, 13 Jul 1977, ABU 579; Oyewole, ABU 1582; ABU, Ohaeri, 15 Jul 1974, ABU 685; ABU Bot. Garden, Ohaeri, 4 Mar 1971, ABU 366; Gasau, Oyewole, ABU 1658; Enugu, Emwiogbon, 26 Jan 1973, FHI 166219; Kubanni, Ohaeri, 15 Jan 1972, FHI 570; Lagos, Oyayomi, 16 Jun 1977, FHI 83398; Minna, Eimunjeze, 23 May 1973, FHI 66500; Awka, Emwiogbon, 5 Mar 1974, FHI 72145; Ondo, Olorunfemi, 29 Jul 1980, FHI 93672; Serti, Ekwuno, 16 Feb 1980, FHI 92730; Benue, Daramola, 16 Jun 1978, FHI 103248; Ogoja, Binuyo, 15 May 1959, FHI 41358; Anambra, Ariwado, 7 Dec 1977, FHI 89210.

Cameroun, Victoria, Ogun 87, 14 Jan 1960, FHI 50332; Kumba-Mbange rd., DW Thomas, 9 Jan 1986, FHI 102792; Yokadouma, Loewenberg, 20 Jul 1965, SRFK 20022; Batouri, Loewenberg, 14 Jun 1965, SRFK 19850; Kribi, Loewenberg, 28 Apr 1965, SRFK 19849; Batouri, Loewenberg, 18 Jun 1965, SRFK 19597; Doume, Breteler, 10 Nov 1960, SRFK 10702; Benoue Forest, 7 Sep 1966, SRFK 8933; Yaounde, Benoit, 26 Nov 1958, SRFK 2734

Description: Woody climbers. Stipules present. Leaves imparipinnate. Inflorescence raceme-like with 2 coiled tendrils from the peduncle apex. Flowers unisexual, slightly zygomorphic, sepals 5, petals 4, stamens 8, ovary 5-locular. Fruit a tardily dehiscent, trigonous or narrowly winged, woody capsule. Seed with arillode.

Tribe - Sapindeae Kunth ex DC. Prodr. 1: 607. (1824).

Type: *Sapindus* L. nom. cons. Gen. Pl. 1: 359. (1737).

Genus - *Deinbollia* Schumach. & Thonn. Danske Vinensk Selsk. Skift. 4: 16. (1827).

Type species: *Deinbollia pinnata* (Poir.) Schum. & Thonn. Beskr. Guin. Pl. 242. (1827).

Specimen examined: Nigeria, Ondo, Olorunfemi Fagbemi, 27 Feb 1973, FHI 70658; Lagos, Odewo & Adedeji, 17 May 1983, FHI 99927; Ogun, Odewo, 19 Feb 1987, FHI 102574; Ondo, Odewo, 17 Apr 1989, FHI 103697; Adekunle, 30 Oct 1948, FHI 24236; Kwara, Daramola, 10 May 1978, FHI 85504; Ondo, Daramola, 30 May 1978, 85505; Oyo, Adesogan, 22 Jul 1983, FHI 100135; Gembu, Daramola, 30 Nov 1968, FHI 62400; Onitsha, Apr 1928, FHI 400; Benin, Emwiogbon, 28 Sep 1966, FHI 60655.

Ivory Coast, Sassanda, Leuwenberg, 27 Feb 1959, FHI 51058.

Ghana, Scholes J, GCH; Tafo, J. K. Morton, 11 Apr. 1954, GCH 4627; Weija Accra Plains, J. K. Morton, 13 Jun 1953, GCH, Shai Hillls, J. K. Morton, 9 Mar 1956, GCH 41916; Elmina, J. K. Morton, 8 Mar 1956, GCH 41890.

Description: Dioecious trees or shrubs. Leaves paripinnate; leaflets in 2-11 pairs. Inflorescence a terminal or axillary thyrse. Flowers actinomorphic, sepals 5, free or almost so, petals present, well-developed, 5, ciliate, with a deeply 2-lobed scale at the base. Stamens 12-30. Ovary (2)3(5)-locular; each loculus 1-ovulate. Fruits of (2)3(5) cocci, sub-spherical, indehiscent, seed 1 per coccus.

Genus - *Sapindus* L. nom. cons. Gen. Pl. 1: 359. (1737).

Type species: *Sapindus saponaria* L. Sp. Pl. 1: 367. (1753).

Specimen examined: Ghana, Legon Bot. nursery, Akpabi G., 23 Apr 1957, GCH 1834; Aburi, Hall et al., 26 Mar 1976, GCH 45844;

Description: Trees, rarely shrubs, monoecious. Leaves paripinnate, rarely simple, alternate,

estipulate; leaflets entire, opposite or alternate. Thyrses large, many branched, terminal or fascicled at branchlet apices. Flowers unisexual, actinomorphic or zygomorphic, sepals 5 or sometimes 4, imbricate, outer 2 smaller, petals 5, clawed, with 2 earlike scales at base or margin thickened adaxially. Fruits trilobed.

Tribe - Lepisantheae Radlk. Sitzungsber. Math.-Phys. Cl. Königl. Bayer. Akad. Wiss. München 8: 269. (1878).

Type: *Lepisanthes* Blume. Bijdr. Fl. Ned. Ind. 237: (1825).

Genus - *Chytranthus* Hook. f. Gen. Pl. 1(1): 403. (1862).

Type species: *Chytranthus mannii* Hook f. Gen. Pl. 1: 404. (1862)

Specimen examined: Nigeria, Benin, J.R Charter, May 1957, FHI 31300; Ibadan, Onochie, 14 Dec 1943, FHI 7494; Ibadan, R.W. J. Keary, 17 Jan 1949, FHI 19802; Oyo, R.W.J. Keary, 29 May 1948, FHI 15352; Ibadan, Latilo, 11 Mar 1967, FHI 59988; Benin, J.R. Charter, Mar 1955, FHI 39314; Calabar, J. C. Okafor, 20 Feb 1957, FHI 36400; Ogoja, Latilo, 23 Jun 1952, FHI 31850; Oyo, Charter, May 1955, FHI 19637.

Cameroun, Kumba, Legit Dundas, 10 Aug 1945, FHI 8386; Bakundu, Dundas, 8 Nov 1945, FHI 8471; Kumba, Olorunfemi, 20 Jun 1951, FHI 30640; Yokadouma, Satable B., 20 Jun 1979, HNC 42294; Satable, 3 Jun 1976, HNC 38966; Mamfe, Letouzey, 28 May, 1975, HNC 37640; Eseka, de Wilde, 16 Jul 1964, HNC 27433; Yaoundé, Amshoff, 8 Jul 1961, HNC 10692; Muyuka, D. Thomas, 26 Aug 1983, HNC 50597.

Ghana, Mpraeso, Morton J.K., 1 Dec 1956, GCH 2424; Kakum, Ofei L.M.O., 22 Feb 1965, GCH 35216; Kade, Enti A., 24 Mar 1970, GCH 40155; Katakayi, Hall & Abbini, 3 Jan 1973, GCH 43876;

Description: Shrub or tree. Leaves compound paripinnate, pubescent or glabrescent, hairy on the petioles, rachides, petiolules and midrib. Leaflets oblong to elliptic, apex acuminate, base cuneate. Inflorescence raceme. Stamen 7-9.

Genus - *Glenniea* Hook. f. Gen. Pl. 1: 404 (1862).

Syn.: *Crossonephelis* Baill. Adansonia 11: 245. (1874).

Specimen examined: Nigeria, Abeokuta, Binuyo, 28 Jan 1961, FHI 40899; Abeokuta, Onochie, 9 Oct 1945, FHI 13543; Abeokuta, Onochie, 19 Jun 1945, FHI 3444; Abeokuta, Binuyo, 25 Jan 1961, FHI 40885; Abeokuta, Onochie & Latilo, Apr 1956, FHI 32448;

Liberia, Grassfield, J.G. Adam, 24 Sep 1971, FHI 84378;

Description: Small trees or shrubs, monoecious or dioecious. Leaves spirally arranged or partly decussate, unifoliolate or paripinnate. Leaflets opposite to alternate, ovate, beneath smooth, glabrous or variably hairy; base symmetrical or slightly oblique; margin entire; veins and veinlets finely reticulate. Inflorescences terminal and usually in the upper leaf-axils, thyrsoid or paniculate with few spreading branches. Flowers actinomorphic, unisexual, *sepals* 4 or 5, connate at base, petals absent. Fruits variable, indehiscent with a thick pericarp and membranous to thin-crustaceous endocarp, wings absent. Seeds with a thin-crustaceous testa, closely adhering to the endocarp, no arillode.

Genus - *Lepisanthes* Blume Bijdr. Fl. Ned. Ind. 237: (1825).

Type species: *Lepisanthes montana* Blume Bijdr. Fl. Ned. Ind. 5: 238. (1825).

Specimen examined: Nigeria, Idanre, Chizea, 26 Oct 1961, FHI 44501; Idanre, Daramola, 18 Aug 1956, FHI 35294; Adamawa, Daramola, 19 Nov 1954, FHI 28718; Ibadan, Onochie, 4 Nov 1955,

FHI 34940; Niger, 12 Mar 1946, FHI 5568; Abeokuta, Latilo, 3 Dec 1965, FHI 57724; Onitsha, C of F, FHI 404; Ijebu, Tamajong, 16 Apr 1946, FHI 16901; Imo, A.O. Ohaeri, 13 Sep 1988, ABU 2619; Dumbi, A.D Umoru, 9 Jun 1981, ABU 2;

Cameroon, Olorunfemi, 25 Sep 1951, FHI 30771; Garoua, Fotiusg, 25 Feb 1976, HNC 39307; Ziver, Fotiusg, 17 May 1974, HNC 38237;

Ghana, Hatogodo, Akpabla, Sept 35, GCH 353; Hatogodo, G.K & Akpabla, Sept 35, GCH 935; Keta, G.K & Akpabla, 10 Jul 1935, GCH 34; Winneba, J.B Hall, 7 Nov 1970, GCH 42305;

Description: Trees or shrubs, monoecious. Leaves usually paripinnate, alternate, estipulate, usually petiolate; leaflets 2 to several pairs, opposite or alternate, usually entire. Flowers unisexual, actinomorphic or zygomorphic, sepals 5, leathery, concave, imbricate, outer 2 smaller, orbicular, inner ones usually broadly ovate or elliptic, petals 4 or 5, often spoon-shaped, longer than sepals, base clawed, apex with adaxial scale. Fruit ellipsoidal, 2- or 3-loculed; pericarp leathery or slightly fleshy, both sides or only abaxially hairy, rarely glabrous on both sides. Seeds ellipsoidal, bilaterally slightly flat.

Genus - Pancovia Willd. Sp. Pl. 2: 280-285. (1799).

Type species: *Pancovia bijuga* Willd. Sp. Pl. 2: 285. (1799).

Specimen examined: Nigeria, Lagos, Opayemi J, 25 Jan 1973, LUH 765; Lagos, Ebile & Daramola, 10 Jun 1971, FHI 64019; Ogun, Onochie, 29 Dec 1952, FHI 32033; Lagos, Juillick, 17 Jan 1965, FHI 56562; Gashaka, Chapman, 6 May 1977, FHI 106708; Lagos, Orebanjo, FHI 55822.

Ghana, Cape coast, Hall J. B, 13 Mar 1956, GCH 292; Legon Hills, C.D. Adams, 2 Jan 1956, GCH 3669; River Daroa, J.K Morton, 21 Feb 1952, GCH 6470; Pokoase, Irvine F.R, Feb 1935, GCH 2658.

Description: Trees or shrubs. Leaves paripinnate. Inflorescence usually a raceme-like thyrses. Flowers unisexual, zygomorphic, sepals 4-5, unequal, connate to form a campanulate calyx, petals 3-4, unguiculate. Fruit indehiscent, fleshy, seed flattened.

Genus - Placodiscus Radlk. Sitzungsber. Bayer. Akad. Wiss. Munchen 8: 332. (1878).

Type species: *Placodiscus turbinatus* Radlk. Sitzungsber. Math.-Phys. Cl. Königl. Bayer. Akad. Wiss. München 8: 270. (1878).

Specimen examined: Nigeria, Calabar, Binuyo, 29 Jan 1962, FHI 45461; Calabar, Okafor, 22 Feb 1957, FHI 36423; Calabar, Onochie, 18 Jan 1957, FHI 36040; Ogoja, Binuyo, 12 May 1959, FHI 41293; Benin, Odewo T.K. 29 Jun 1984, FHI 101699

Cameroon, Kumba, Ejiofor, 23 Feb 1946, FHI 14075; Korup Nat. Park, Odewo T.K., 3 Apr 1988, FHI 105431

Description: Tree 5-12 m; glandular hairs present; leaves 30-40 cm long, petiole 2-11 cm, rachis 5-16 cm, drying pale green; leaflets in 4 pairs, oblong-elliptic, 15-21 cm long, 3-7 cm wide, hairy beneath, acuminate at apex (1-1.5 cm long), petiolules 3-5 mm long.

Genus - Radlkofera Gilg. Bot. Jahrb. Syst. 24: 300. (1897).

Type species: *Radlkofera calodendron* Gilg. Engl. & Prantl. Nat. Pflanzenfam. Nachtr. Sapindaceae 1: 228. (1897); Bot. Jahrb. Syst. 24: 300. (1897).

Specimen examined: Nigeria, Calabar, Okeke et al., 14 Aug 1974, FHI 1073355; Benin, Chizea L.G., 19 Nov 1948, FHI 24470; Benin, Onochie, 21 Jun 1957, FHI 31223; Benin, J.R. Charter, May 1957, FHI 31298; Benin, Keay, 15 Aug 1960, FHI 37942;

Description: Tree, palm-like, usually unbranched, monoecious, 4-15 m tall; trunk 20 cm, sometimes divided near the base; leaves tufted at apex, 1-2 m long, 40-50 cm wide, petiole 25-30(-50) cm long, 1.5 cm, brownish velvety like the rachis.

Tribe - Melicocceae Blume Rumphia 3: 142. (1847).

Type: *Melicocca* L. Sp. Pl., ed. 2(1): 495. (1762).

Genus - *Melicoccus* P. Browne., Civ. Nat. Hist. Jamaica: 210. (1756).

Type species: *Melicoccus bijugatus* Jacq. Enum. Syst. Pl. 19. (1760).

Specimen examined: Cameroon, Victoria Bot. gardens, Ogu, 13 Apr. 1960, FHI 52431; Victoria Bot. gardens, Ogu, 13 Apr. 1960, HNC 34898;

Ghana, Aburi Gardens, Irvine F.R., Jan 1933, GCH 1882;

Description: Tree, 10–25 m (33–82 ft) tall. Leaves alternate, 8–5 cm long, pinnate with two or four opposite leaflets (no terminal leaflet). Leaflets usually 4 to 14 cm long (sometimes as much as 20 cm) and 2.2 to 5 cm wide (occasionally up to 7 cm). Flowers in panicles at the tips of branches, greenish-white, unisexual, either with male and female inflorescences on the same tree, or on separate trees. Fruits drupaceous, green, ovoid, seed ovoid with a fleshy tan-coloured edible seed coat.

Tribe - Nephelieae Radlk.sitzungsber. Math –Phys. Cl. Konigl. Bayer. Akad. Wiss. Munchen

Type: *Nephelium* L. Syst. Nat., ed. 12. 2: 623. (1767); alt. publ.: Mant. Pl. 18: 125. (1767).

Genus - *Litchi* Sonn. Indes Orient. 3: 255. (1782).

Type species: *Litchi sinensis* Sonn. Voy. Indes Orient. 2: 230. (1782).

Specimen examined: Nigeria, Calabar, Daramola, 3 Aug 1964, FHI 55213; Ogoja, Latilo & Olorunfemi, 9 May 1961, FHI 43926;

Description: Evergreen Tree dense, monoecious, round-topped, slow-growing, 9-30 m high. Leaves, 12.5-20 cm long, paripinnate, leaflets 4-8 pairs, alternate, elliptic-oblong to lanceolate, abruptly pointed, leathery, smooth, glossy, dark-green on the upper surface and grayish-green beneath, 5-7.5 cm long. Flowers in terminal clusters, unisexual, actinomorphic, greenish-white to yellowish, 75 cm long. Fruits, in loose, pendent clusters of 2-30, deeply parted into 2 or 3 schizocarps, usually strawberry-red, sometimes rose, pinkish or amber, and some types tinged with green; 2.5 cm wide, 4 cm long; skin thin, leathery, rough or minutely warty, flexible and easily peeled when fresh. Seed 20 mm long, hard, with a shiny, dark-brown coat.

Genus - *Nephelium* L. Syst. Nat., ed. 12. 2: 623. (1767); alt. publ.: Mant. Pl. 18: 125. (1767).

Type species: *Nephelium lappaceum* L. Mant. Pl. 1: 125. (1767).

Specimen examined: Nigeria, Calabar, Daramola, 3 Aug 1964, FHI 55213; Ogoja, Latilo & Olorunfemi, 9 May 1961, FHI 43926

Ghana, Kade, J. B. Hall, 14 Jul 1976, GC 46110;

Description: Evergreen trees, rarely shrubs, monoecious or dioecious, 12–20 m. Leaves paripinnately compound, alternate, petiolate, 10–30 cm long, with 3-11 leaflets, each 5–15 cm wide, 3-10 cm broad, with an entire margin. Flowers unisexual, actinomorphic, small, 2.5–5 mm, apetalous, discoidal, borne in erect terminal panicles 15–30 cm wide, calyx cupular, 5- or 6-lobed; sepals small, valvate or imbricate, often opening early. Fruits drupe deeply parted into 2 or 3 schizocarps, round to oval, 3–6 cm (8 cm) tall and 3-4 cm broad with a leathery skin. Seed glossy brown, 1–1.3 cm.

Tribe - Schlechereae Radlk. Ind. Gen.: 76. (1887).

Type: *Schleichera* Willd. Sp. Pl., ed. 4(2): 892, 1096. (1806).

Genus - Haplocoelum Radlk. Sitzungsber. Bayer. Akad. Wiss. Munchen 8: 336. (1878).

Type species: *Haplocoelum inopleum* Radlk. Sitzungsber. Math. – Phys. Cl. Konigl. Bayer. Akad. Wiss. Munchen 8: 337. (1878)

Specimen examined: Cameroon, Barouma, Fotius, 15 Jun. 1974, HNC 38236; Villiers, J.F. 20 Jul. 1986, HNC 59423; Letouzey, 5 Sept. 1964, HNC 8934

Description: Dioecious trees or shrubs. Leaves paripinnate. Inflorescence short, raceme-like. Flowers unisexual, actinomorphic, apetalous, sepals 5-6. Fruit indehiscent, 1-seeded by abortion. Seed with an arillode nearly covering the seed.

Genus - Lecaniodiscus Planch. ex Benth. Niger Fl.: 250. (1849).

Type species: *Lecaniodiscus cupanioides* Planch. Niger Fl.: 251. (1849).

Specimen examined: Nigeria, Osun, Abolade G.O, 28 Aug 2008; Lagos, Hossan M & Opayemi J, 15 Apr 1971, LUH 281; Osun, Bakare, 5 Nov 1991, FHI 104242; Lagos, Hossain, 15 Apr 1971, FHI 68408; Lagos, Hossain M & Opayemi J, 15 Apr 1971, LUH 219; Birnin, Harris, 20 May 1978, ABU 6981; Benin, Emwiogbon, 7 Mar 1969, FHI 61609; Ibadan, Opayemi J, 10 Apr 1967, LUH 4; Oyo, Ighanesebhor, 15 Apr 2977 FHI 89577; Oyo, Ujor E, 8 Mar 1952, FHI 27974; Zaria, Keay & Jones, 13 Apr 1958, FHI 37626; Ondo, Olorunfemi, 29 Jul 1980, FHI 93703; Cameroon, Ndemba, Leewenborg, 16 Jun 1965, FHI 68988; Ndemba, Leewenborg, 16 Jun 1965, SRFK 19388; Bertoua, Breteba, 20 May 1961, SRFK 10696; Akonolinga, Letouzey, 24 Feb 1962, SRFK 6218; Yaounde, Mpom B, 22 Mar 1960, SRFK 4297; Ngambe, B.A. Nkongmeneck, 16 Mar 1984, SRFK 60055; Linte, Ngameni, 2 May 1978, SRFK 41815; Buea-Doula Road, Letouzey, 4 May 1976, SRFK 38969; Yaounde, Letouzey, 7 Jul 1972, SRFK 28394; Ghana, A.J.M Leuweenberg, 11 Mar 1977, GCH 11196; Senchi Ferry, F.R., June 1932, GCH 1783; Mankrong, Morton J.K., 10 Apr 1954, GCH 4603;

Description: Tree (2-)10-12(-30) m, sometimes shrub 1.5-3 m tall, dioecious; bole to 15 m high, 10-50 cm, often with many adventitious shoots near base; crown spreading; young branchlets with dense orange soft curly hairs.

Genus - Schleichera Willd. Sp. Pl., ed. 4(2): 892, 1096. (1806).

Syn.: *Koon* Gaertn.

Type species: *Schleichera trijuga* Willd. Sp. Pl. 4: 1096. (1806).

Specimen examined: Cameroon, Jacarand & Rock Garden, 14 Mar. 1934, FHI 12061; Victoria Botanic Gardens, de Wild, FHI 9313.

Description: Trees dioecious. Leaves paripinnate, 2-4-jugate; rachis not winged; no pseudo-stipules, leaflets sub-opposite (to alternate), margin entire. inflorescences in the defoliated part of the branchlets above the leaf-scars, sometimes axillary, flowers sometimes male and female flowers present in the same inflorescence, sepals 4 or 5 (or 6), petals absent. Fruit a hard-crustaceous, dry berry, 1- (or 2) celled, not winged, either smooth or with patent, simple or branched, strong thorns, glabrous. Seeds completely enveloped by a thin-papery arillode, often adhering to the endocarp when dried.

Tribe - Cupanieae Reich. Consp. Reg. Veg.: 200. (1828).

Type: *Cupania* L. Gen. Pl. (1737).

Genus - *Aporrhiza* Radlk. Sitzungsber. Bayer. Akad. Wiss. Munchen 8: 338. (1878).

Type species: *Aporrhiza paniculata* Radlk. Sitzungsber. Math.-Phys. Cl. Königl. Bayer. Akad. Wiss. München 8: 339. (1878).

Specimen examined: Nigeria, CR, Emwiogbon, 11 May 1978, FHI 87370; Uwet, Binuyo, 31 Jul 1959, FHI 41423; CR Oban, P. Tuley, 13 Jul 1964, FHI 5439; Benin, Sapoba, Kennedy, 1 Sep 1952, FHI 9268; Sapoba forest, Emwiogbon, 26 Jan 1966, FHI 57920.

Sierra Leone, Samai, 29 Oct 1964, FHI 17120;

Ivory Coast, Amshoff, Dec. 1965, FHI 6969;

Ghana, Lock & Hall, 28 Jun 1972, GCH 43491; Lock & Hall, 24 Sep 1976, GCH 46467; Hall & Naboo, 25 May 1977 GCH 46617; P. Cudjoe, 23 Sep 1954, GCH 4817

Description: Tree 4.5–22 m tall; bark smooth, grey; young parts and fruits with a short, velvety, reddish or grey-green pubescence. Petiole 1–9 cm long, woody; rachis 10–36 cm long; leaflets in 3–5 pairs, sub-opposite; petiolules fleshy, sparsely pilose; blade oblong-elliptic or elliptic, the terminal pair largest, 9–25 cm long, 5–9 cm wide, the other pairs progressively smaller, shortly and bluntly acuminate, the base acute. Inflorescence-axes 20–50 cm long; branches 2–16 cm long. Calyx-lobes green, 2 mm long, petals yellow or white, equalling the sepals, ovate, ciliate. Seed black, 1.3 cm long, 5 mm wide, covered by an orange aril.

Genus - *Laccodiscus* Radlk. Sitzungsber. Bayer. Akad. Wiss. Munchen 9: 477, 496, 535. (1879).

Type species: *Laccodiscus ferrugineus* (Bak.) Radlk. Sitzungsber. Bayer. Akad. Wiss. Munchen 9: 477. (1879)

Specimen examined: Nigeria, Calabar, Ikom, Jones & Onochie, 12 May 1946, FHI 8303; Akamkpa-Odukpani forest, Ariwaodo, J.O., 3 May 1977. FHI 92550; 4miles on ikom road from ikom to etomi, A.P.D. Jones, 7 May 1946, FHI 17446; Bendeghe-Ayuk village Ikom, Latilo & Oguntayo, 27 Feb. 1973, FHI 67713.

Description: Shrub, erect, 2-3 m tall, or scandent 5-6 m, or tree 6-7 m, all parts densely clothed with brown hairs 1-2 mm long; monoecious; leaf petiole 6-15 cm long; leaflets in 3-5 pairs, oblong, acuminate, dentate in upper half, 7-22 (-30) cm long and 4-10 cm wide. Fruits bright red when ripe, seeds with a bright orange aril.

Genus - *Lychnodiscus* Radlk. Sitzungsber. Bayer. Akad. Wiss. Munchen 8: 271. (1878).

Type species: *Lychnodiscus reticulatus* Radlk. Sitzungsber. Bayer. Akad. Wiss. Munchen 8: 333. (1878).

Specimen examined: Nigeria, Ondo, C.F, 22 Apr 1943, FHI 3394; Oyo, Ahmed & Chizea, 2 Apr 1949, FHI 19806; Ondo, Keay, 19 Oct 1946, FHI 21558; Cross River, Ariwaodo, 18 May 1977, FHI 88761; Ogoja, Amachi J.O, 22 May 1958, FHI 38271;

Ghana, Understory, Hossain & Agyakwa, 28 Mar 1968, FHI 23220; Ashanti, Akpabia, 1 Mar 1935, GCH 288; Kade, Hossain, 28 Mar 1968, GCH 38240;

Description: Slender, small to medium-sized tree up to 20 m tall; bark smooth, greyish white; twigs soft short-hairy. Leaves alternate, paripinnately compound with 6–7 pairs of leaflets; stipules absent; petiole up to 10 cm long, rachis grooved, up to 60 cm long; petiolules 3–6 mm long; leaflets opposite to alternate, oblong-elliptical to ovate-oblong, 11–15 cm long, 3–5 cm wide, acuminate at apex, margins usually toothed, pinnately veined with 10–16(–22) pairs of lateral veins. Inflorescence an axillary or terminal panicle up to 45 cm long, brown hairy. Flowers unisexual,

regular, 5-merous; pedicel 4–6 mm long; sepals 2.5 mm long, fused at base; petals free, funnel-shaped, 3–3.5 mm long, whitish, with a reflexed hairy scale just below the apex; stamens 10–13. Fruit a 3-lobed ellipsoid to ovoid capsule up to 2 cm long, hairy, red when ripe, dehiscent, (1–) 3-seeded. Seeds 3-angled, up to 18 mm long, covered by a waxy, red aril.

Genus - Eriocoelum Hook. f. *Gen. Pl.* 1 (1): 400. (1862).

Type species: *Eriocoelum paniculatum* Bak. *Explor. Bot. Afrique Occ. Franc.* 154. (1920).

Specimen examined: Nigeria, Benin, Ejiofor, Apr 1956, FHI 24670; Benin, Kennedy, Aug 1931, FHI 9282; Benin, Ejiofor, Jul 1954, FHI 33683; Delta, Onochie, 8 Sep 1954, FHI 34316; Onitsha, Oxon, Jan 1935, FHI 1237;

Cameroon, Victoria, Hartland, Apr 1924, FHI 9285; Mfou, Benoit, 21 Oct 1953, HNC 1881; Eseka, Mbarga, 4 Jul 1955, HNC 2722; Ebolowa, Letouzey, 2 Feb 1970, HNC 21803; Eseka forest, Amshoff G., 2 Feb 1964, HNC 27419; Kribi, J.J. Bos, 11 Jan 1969, HNC 30330; Bipindi, J.J. Bos, 9 Apr 1970, HNC 31751; Mabeta, Cheek E.S., 13 Jul 1992, HNC 61189; Ebolo-Meloka, Thomas D. W., 22 Sep 1986, HNC 64011;

Description: Tree 6-10 or 20-25 m; bole 20-30 cm; branchlets rusty spreading hirsute; leaves with 3-6 pairs of leaflets, the lowermost stipule-like, cordate, 3 cm, the others obovate, 4-16 cm long, 3.5-5.5 cm wide.

Genus - Blighia Koenig *Ann. Bot.* 2: 571 tab 16, 17 (1806).

Syn.: *Phialodiscus* Radlk., *Sitzungsber. Bayer. Akad. Wiss. Munchen* 9: 479, 497, 539, 655 (1879); 20: 263, 291 (1890).

Type species: *Blighia sapida* Koenig. *Ann. Bot.* 2: 571. (1806).

Specimen examined: Nigeria, Ondo Oniparaga, Adesina Adebayo, 16 Apr 1993, LUH 794; Abatadi, Odewo T.K., 18 Oct 2008, LUH 822; Ota, Fabunmi Seun, 10 Jan 2006, LUH 1283; Ibarapa, Adejimi, 15 Feb 1979, FHI 89486; Ogun, Daramola, 10 Mar 1993, FHI 104860; Oyo, Keay, 26 Jan 1948, FHI 22466; Ibadan, Wit P, 8 Jan 1973, FHI 66957; Kabba, Olorunfemi, 2 Oct 1978, FHI 88398; Oyo, T.K. Odewo, 6 Jul 1979, FHI 79328; Ilorin, Gbile, 28 Sep 1971, FHI 64102; Ibarapa, Adejimi, 14 Apr. 1977, FHI 89509; Ibadan, Stanfield, 1 Feb 1964, FHI 47500; ABU Bot. Gardens, A.O Ohaeri, 24 Jan 1972, ABU 096; Kagoro, S.O. Oyewole, 17 Dec 1973, ABU; Bot. Gardens, A.O. Ohaeri, 24 Feb 1971, ABU 074; Umuahia, A.O. Ohaeri, 18 Aug 1974, ABU 748; Ibadan, Oyeachusimi, 3 Jun 1964, FHI 54715; Oyo, Odewo, 10 Jun 1978, FHI 91098; Abeokuta, Ighanesebhor, 16 Apr 1977, FHI 89466;

Ivory Coast, Amshoff, Dec 1965, FHI

Cameroon, Asonganyi, 28 Mar 1982, HNC 48413; Ngoro, Vivien J., 3 Jul 1983, HNC 48348; Buea, Letouzey, 14 Mar 1976, HNC 38973;

Ghana, A.A.ENTI, 14 Nov 1957, GCH 6838; Akpabla, 24 Jun 1935, GCH 297;

Togo, F.N Howes, 25 Jan 1926, GCH 1116;

Description: Shrubs or trees, leaves paripinnate with 2-5 leaflets. Inflorescence an axillary raceme-like thyrses, flowers actinomorphic, sepals 5, connate, petals present, well-developed, not or scarcely exceeding the sepals, 5, pouch-like. Fruit a 3-lobed, 3-winged dehiscent capsule. Seed with a fleshy arillode enclosing the base.

Subfamily: Dodonaeoideae Burnett. *Outl. Bot.*: 889 (1835).

Type genus: *Dodonaea* L. *Gen., ed. 1. Append. Octandriae*: 341 (1737).

Tribe - Harpullieae Radlk. Ind. Gen.: 81 (1887).

Type: *Harpullia* Roxb. Fl. Ind. 2: 441. (1824).

Genus - *Majidea* J. Kirk ex Oliv. Hook. Ic. Pl. 11: 78 (1871).

Syn.: *Harpullia* Roxb., subgen. *Majidea* (Kirk) Radlk. Sap. Holl. Ind.: 53 (1877-78);

Sitzungsber. Bayer. Akad. Wiss. Munchen 8: 273 (1878); 20: 279 (1890)

Chev., Bull. Soc. Bot. France 58: Mem.: 148 (1912).

Type species: *Majidea zanguebarica* Kirk. Sitzungsber. Math.-Phys. Cl. Königl. Bayer. Akad. Wiss. München 20: 279. (1890).

Specimen examined: Cameroon, Victoria, Letouzey, 20 Jun 1963, FHI 9291.

Description: Tree, 2-22-25 m; bark rough or smooth, whitish, slash cream orange; young branchlets pale-mid-brown, lenticels conspicuous; leaflets (5-7 pairs) 3-6 cm long, glabrous, shining, drooping when young; flowers pink or red.

Genus - *Harpullia* Roxb. Fl. Ind. 2: 441. (1824).

Type species: *Harpullia pendula* Planch. ex F. Muell. Trans. Philos. Soc. Victoria 3: 26. (1859).

Description: Shrubs to medium-sized trees, dioecious. Leaves paripinnate, 1-9-jugate, without pseudostipules; (petiole and rachis winged). Leaflets alternate (or opposite), not papillate beneath; margin entire. Inflorescences axillary, terminal. Flowers unisexual, actinomorphic, sepals 5, free, imbricate, petals 5, longer than the sepals. Fruits capsules, 2- or 3-lobed, the lobes erect to spreading, inflated, round. Seeds with a thin-crustaceous testa; arillode, covering half the seed and without appendages; hilum covering less than 1/6 of the seed.

Tribe - Dodonaeae Kunth Nov. Gen. Sp. 5: 100. (1821).

Type: *Dodonaea* L. ed. 1. Append. *Octandriae*: 341. (1737).

Genus - *Dodonaea* L. Gen., ed. 1. Append. *Octandriae*: 341 (1737).

Syn.: *Dodonaea* Mill. Gard. Dict. Abr. (ed. 4) no. 1: (1754).

Type species: *Dodonaea viscosa* (L.) Jacq. Enumeratio Systematica Plantarum 19. (1760).

Specimen examined: Nigeria, Takwa Bay, Hassan M, 31 mar 1971, LUH 795; Takwa Bay, Hassan M, 31 mar 1971, LUH 796; Zaria, Kershaw, 3 Mar 1964, ABU 900241; Takwa Bay, Student, 31 Mar 1971, ABU --; Zaria, Ohaeri, 16 Jun 1971, ABU 201; Zaria, Oguntayo, 25 Feb 1977, FHI 89651; Kangora Forest, Fagbemi, 25 Feb 1977, FHI 89846; Kano, Ufor Edwin, 24 May 1949, FHI 26181; Jos, Fagbemi, 8 Mar 1979, FHI 89875; Nigeria, Zaria, Fagbemi, 25 Feb 1977, FHI 89849; Zaria, Clayton D, Apr 1957, FHI 5190; Gamba, Daramola & Latilo, 7 Jan 1955, FHI 34652; Bar beach, Onochie, 7 Dec 1954, FHI 34656; Epe, Ponman, 22 Feb 1946, FHI 14857; Eket, Onochie, 13 May 1953, FHI 32944;

Cameroon, Mokolo, Letouzey, 19 Sep 1964, HNC 8938; Sanaga, Letouzey, 6 Jan 1974, HNC 32565;

Ivory Coast, Sanpedro, Enti A. A., 14 Jun 1967, GC 53443;

Description: Usually dioecious trees or shrubs. Leaves simple. Inflorescence a raceme-like or paniculate thyrse. Flowers actinomorphic, unisexual or (rarely) bisexual. Sepals 3-7, sometimes slightly connate. Petals 0. Stamens 5-8. Ovary 2-4(-5)-locular; loculi 2-ovulate. Fruit a 2-6-locular capsule, winged. Seed without an arillode.

Tribe - Doratoxyleae Radlk. Ind. Gen.: 81 (1887).

Type genus: *Doratoxylon* Thou. ex Hoof. F. Genera Plantarum 1: 408. (1862).

Genus - Ganophyllum Blume Mus. Bot. 1: 230. (1850).

Type species: *Ganophyllum falcatum* Blume. Mus. Bot. Lugduno-Batavum: 1 (1850).

Specimen examined: Cameroon, Letouzey, Diezama river, 30 Jan. 1960, SFRK 381; Letouzey, Diezama river, 2 Jul. 1963, SFRK 7361.

Description: Tall trees, possibly monoecious. Leaves paripinnate, leaflets alternate to rarely opposite, herbaceous; base slightly to strongly oblique; margin entire. Inflorescences axillary thyrses. Flowers unisexual, actinomorphic, sepals 4-6, petals absent. Fruit a sessile drupe, not winged, smooth, outside and inside glabrous, with 1 or 2 locules. Seeds 1 per locule, arillode absent.

Genus - Zanha Hiern. Cat. Afr. Pl. Welw. 1: 128. (1896).

Type species: *Zanha golugensis* Hiern Cat. Afr. Pl. 1: 128. (1896).

Specimen examined: Nigeria, Jos, Kershaw, 10 Feb 1964, ABU 900136; Zaria, Latilo & Daramola, 8 Apr 1963. FHI 47409; Oyo, 22 Jul 1980, FHI 93419; Zaria, R.W.J Keay, 7 May 1948, FHI 22911; Zaria, Latilo, 8 Apr 1963, FHI 47411; Niger, Latilo & Okeke, 16 Jun 1958, FHI 40178; Oyo, RWJ Keay, FHI 44491.

Cameroon, Mokolo, Letouzey, 15 Sep 1964, SRFK 8930;

Ghana, Kpandai, J B Hall, 1 Aug 1968, GCH 38726; Mole, Hall & Houston, 13 Jul 1974, GCH 45026; Degedege, Hall & Abinni, 29 May 1974, GCH 44862.

Description: Dioecious trees. Leaves paripinnate, but often appearing imparipinnate; Inflorescence a short paniculate thyrses. Sepals 4-6. Petals absent. Stamens (3-) 4-7. Ovary 2-locular; loculi with 2 ovules. Fruit 1-seeded by abortion, drupaceous, indehiscent. Seed 1; aril absent.