

THE LOGANIACEAE OF AFRICA 1)  
V. USTERIA WILLD.

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HISTORY OF THE GENUS

The name *Usteria* was used by various authors for entirely different plants. Unfortunately two of these authors, WILLDENOW and MEDIKUS, published this name on about the same date in 1790. WILLDENOW's *Usteria* was published within the period January to May and MEDIKUS's within March to May. As it was impossible to find more exact data on this subject and as *Usteria* was in use for a long time for the Loganiaceous genus, STAFLEU and the present author (1961) preferred to maintain the latter.

RELATIONSHIP WITH OTHER GENERA

*Usteria* belongs to the tribe *Antonieae* and is related to the other genera of this tribe by its aestivation, 2-valved capsule and winged seeds. It differs from those by having one much enlarged sepal and one instead of 5 stamens.

**Usteria** Willd. in Cothenius, Disp. 1. 1790 (Jan-Mai); Willdenow, Schr. Berlin. Ges. Naturf. Fr. 10 (= Beob. Berlin. Ges., etc. 4): 51. 1790 (Jun-Aug); Schreber, Gen. Pl. 2: 782. 1791; Willdenow, Sp. Pl. 1: 18. 1797; Afzelius & Elgenstierna, Gen. Pl. Guin. 1. 1804; Persoon, Syn. 1: 4. 1805; König, Ann. Bot. ed. König & Sims 1: 363. 1805; Roemer & Schultes, Syst. 1: 5, 37. 1817; Steudel, Nom. Bot. 865. 1821; Schultes in Roemer & Schultes, Mantissa 1: 53. 1822; Sprengel, Syst. 1: 16. 1825; Martius, Nov. Gen. 2: 133. 1827; Reichenbach, Consp. 133. 1828; "Lamarck" ex Bartling, Ord. 206. 1830; G. Don, Gen. Syst. 4: 166. 1838; Endlicher, Gen. Pl. 576. 1838; Endlicher, Ench. 289. 1841; De Candolle, Prod. 9: 22. 1845; W. J. Hooker, Icon. Pl. 8: t. 795. 1848; E. Bureau, Thèse Logan. 53. 1856; Bentham & J. D. Hooker, Gen. Pl. 2: 796. 1876; Solereder in Engler & Prantl, Nat. Pflanzenf. 4 (2): 36. 1892; Baker in Fl. Trop. Afr. 4 (1): 517. 1903; Hutchinson & Dalziel, Fl. W. Trop. Afr. 2: 24. 1931; Leeuwenberg & Stafleu, Taxon 10: 212. 1961. Not Medikus, Acta Theod. Palat. Phys. 6: 480. 1790 (Mar-Mai) (= *Endymion* Dum. or *Scilla* L. p.p., *Liliaceae*); nor Cav., Ic. 15, t. 116. 1793 (= *Mauranda* Ortega,

1) Continued from Act. Bot. Neerl. 10: 1–53, 460–465. 1961, 11: 47–50. 1962 and Meded. Landbouwhoges. Wageningen 61 (4): 1–31. 1961.

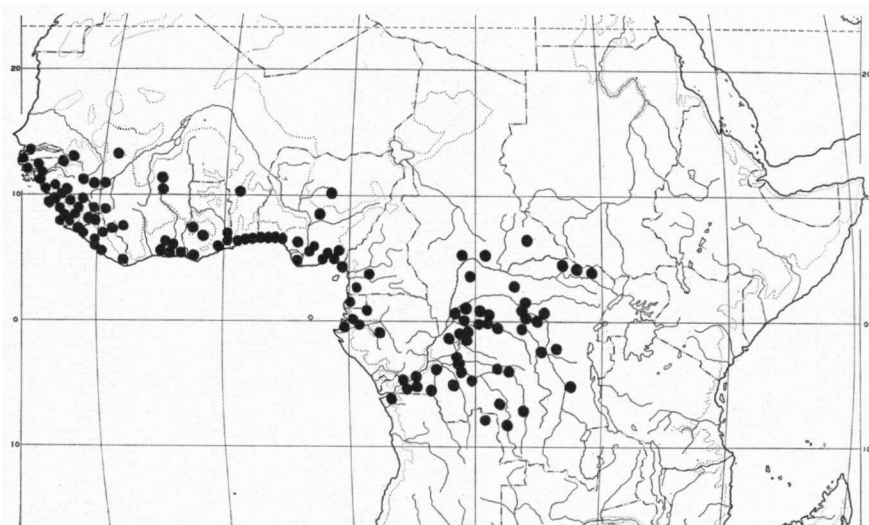
*Scrophulariaceae*); nor Dennst., Schluess. Hort. Malab. 31. 1818 (= *Acalypha* L., *Euphorbiaceae*).

Type species: *U. guineensis* Willd.

Homotypic synonym: *Monodynamis* J. F. Gmelin, Syst. 10. 1791; Poiret in Lamarck, Enc. Suppl. 3: 732. 1813.

Type species: *M. iserti* J. F. Gmelin (illegitimate synonym of *U. guineensis* Willd.)

Climbing and twining shrubs or lianas, 0.60–12 (usually about 1–3) m high. *Stems* terete, glabrous. *Leaves* opposite, those of a pair equal, shortly petiolate; petioles of a pair slightly joined at the base, especially when young; blade simple, almost orbicular to oblong-elliptic, entire, glabrous on both sides. Stipules reduced to interpetiolar ridges. *Inflorescence* terminal, dichasial, many-flowered. *Calyx* pale green, pale yellow or creamy, often purple-dotted when dry; sepals 4, of which 3 very small and triangular and one much longer, oblong-lanceolate. *Corolla* lilac, mauve, violet, purple or white, often with yellow on the lobes, often purple-dotted when dry, narrowly tubular, puberulous outside like the calyx; tube cylindrical; lobes 4, subequal, valvate in the bud, spreading, oblong-triangular, acute, entire. *Stamen* one, exserted; filament inserted near the apex of the corolla tube; anther oblong-orbicular, versatile; cells 2, parallel, discrete, dehiscent throughout by a longitudinal split. *Ovary* superior, glabrous, globose or nearly so, 2-celled; style filiform, glabrous, exserted; stigma minute, club-shaped. In each cell on the septum one entire fleshy placenta with many ovules on both sides. *Fruit* a capsule, oblong, dark brown, shining, 2-celled, septical, 2-valved, with several seeds in each cell. *Seeds* flat, dark brown, surrounded by a large wing,



Map 1. *Usteria guineensis*.

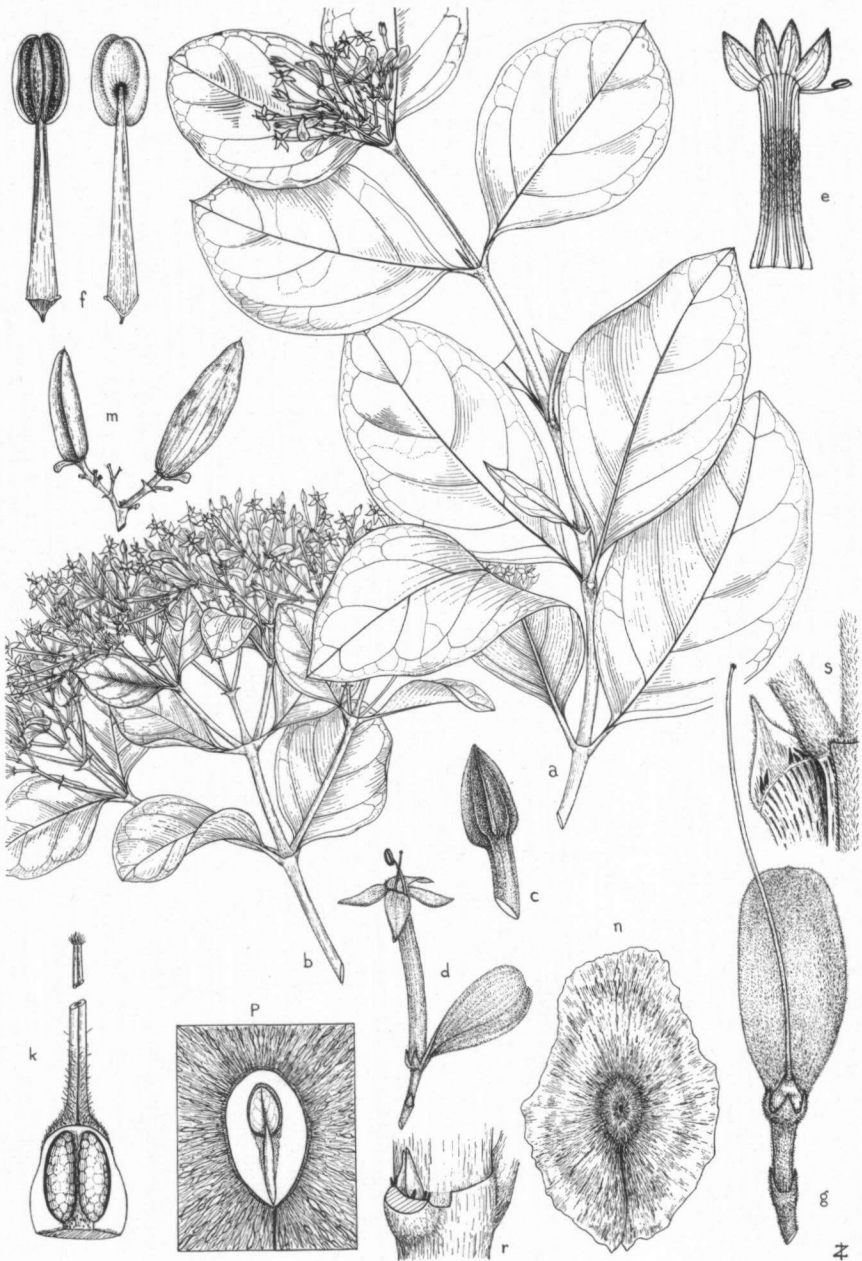


Fig. 1. *Usteria guineensis*: a. branchlet, 0.5 × ; b. inflorescence, 0.5 × ; c. apex of flower bud, 4 × ; d. flower, 2 × ; e. opened corolla, 2 × ; f. stamen, 12 × ; g. calyx with pistil, 4 × ; h. longitudinal section of ovary, 12 × ; i. seed, 2 × ; j. embryo, 4 × ; k. node with colleters, 3 × ; l. portion of inflorescence branch, with colleters, 6 × . (a-k and r-s, Leeuwenberg 1744; m-p, Leemans 498).

ellipsoid; testa dull, minutely reticulate; wing reticulate, diaphanous, membranaceous, dark brown, slightly shining like covered with powdered gold. Embryo large, spatulate, 3.5 mm long, straight, white, surrounded by much pale yellow endosperm; cotyledons elliptic,  $1.5 \times 1$  mm, rounded at the base and at the apex; rootlet 0.3 mm in diam. Colleters in the axils of the leaves and of the lower bracts, not in the axils of the sepals.

Distribution: A single species in West tropical Africa from Sénégal to Angola, and towards the East in Oubangui-Chari.

***Usteria guineensis*** Willd., Schr. Berlin. Ges. Naturf. Fr. 10: 55. 1790; Willdenow, Sp. Pl., l.c.; Persoon, l.c. (as *U. guineensis*); König, Ann. Bot. ed. König & Sims 1: 363, pl. 7. f. 3. 1805; Roemer & Schultes, Syst. 1: 37. 1817; Sprengel, l.c.; G. Don, l.c.; De Candolle, l.c.; Solereder in Engler & Prantl, Nat. Pflanzenf. 4 (2): 36, f. 19. G. H. 1892; Baker, l.c.; Hutchinson & Dalziel, Fl. W. Trop. Afr. 2: 25, f. 187. 1931; Saunders, Handb. W. Afr. Flow. 56, f. 182. 1958.

**Fig. 1; Map 1.**

Type: "Guinea": sin. loc., Isert s.n. (B, herb. Willdenow, holotype, not seen; photograph: WAG; isotype: M!).

Homotypic synonyms: *U. guianensis* Steudel, Nom. 865. 1821; 2nd. ed. 2: 736. 1841; Schultes in Roemer & Schultes, Mantissa 1: 53. 1822. *U. guianeensis* Willd. ex Stapf, Ind. Lond. 4: 398. 1931.

*Monodynamis iserti* J. F. Gmelin, l.c.

*M. guineensis* (Willd.) Poir., l.c.

Heterotypic synonyms: *U. volubilis* Afzel. et Elgenstierna, Gen. Pl. Guin. 27, fs. 1-6. 1804. Type: Sierra Leone: sin. loc., Afzelius s.n. (S, holotype; isotypes: BM (?), MO, 2 sheets (?), S). The BM and MO sheets not adnotated as *U. volubilis*).

*Rondeletia loniceroides* G. Don, Gen. Syst. 3: 516. 1834. Type: Sierra Leone: G. Don s.n. (BM: holotype; K: isotype).

Leaf-blades shining, especially above, medium green above, pale green and sometimes with a purplish midrib beneath, coriaceous also when living, variable in shape and size,  $1-2.5 \times$  as long as wide, usually comparatively wider towards the apex of the twigs,  $2-14.5 \times 1.8-9.5$  cm or smaller, acute, obtuse, rounded or occasionally acuminate at the apex, cuneate to rounded at the base; secondary veins 3-6 pairs. Sepals connate at the base, entire, the 3 small ones  $1-1.5 \times$  as long as wide, 0.5-1 mm long, puberulous outside, the large one at least half as long as the corolla,  $2-3 \times$  as long as wide,  $6-10 \times 2-5$  mm, truncate, retuse, or shortly apiculate at the apex, cuneate at the base, puberulous on both sides. Corolla 11-18 mm long when closed, tube 9-14 mm long, 0.5-1 mm in diam., slightly widened at the base around the ovary.

Stems at the base 1.5-7 cm in diam.; branchlets terete. Leaves: petiole sometimes purplish, glabrous, 2-15 mm long. Inflorescence (2-usually)  $7 \times$  branched. Peduncle glabrous or puberulous, branches puberulous, especially above; pedicels puberulous. Lower bracts leafy, the others very small, oblong-triangular, about  $2-3 \times$  as

long as wide, about 1–2 mm long, very acute, puberulous in the upper part of the inflorescence, glabrescent. Flowers scented or not. Corolla not ventricose, inside pilose on the lower half and with glands in the throat; lobes about 2.5–4 × as long as wide, 2–4 × 0.8–1.5 mm. Stamen: filament glabrous, elongating at anthesis!; anther about 1.3 × as long as wide, about 0.7–1 × 0.5–0.7 mm, glabrous; connective very small. Ovary 0.7–1 mm long. Capsule 2–4.5 (usually about 3–4) × as long as wide, 20–58 × 8–14 mm, sometimes smaller, apiculate at the apex, rounded at the base, with 2 impressed lines along the line of dehiscence. Seeds in outline 13–20 × 6–15 mm, grain about 1.5–2 × as long as wide, 3–5 × 1.5–3 mm.

**Ecology:** Secondary forests or thickets, in open places in rain forests or in orchard savannas. Alt. usually 0–500 m, up to 1200 m.

**GAMBIA:** sin. loc., Brown-Lester 537 (E, K).

**SÉNÉGAL:** Lower Caçamance R., Ziguinchor (Jan.) Chevalier 2841 (P), 2842 (K, P); Upper Gambia R., Niokolo-Koba (fl. fr. April) Berhaut 1504 (BR, P), 2158 (BR, P).

**MALI:** Sirakoro, Kita Distr. (fl. fr. June) R. Dubois 193 (P); Oualia, Kita Distr. (Dec.) Chevalier 98 (BM, K, P); Sikasso (fl. fr. Feb.) Roberty 3442 (IFAN), 3450 (IFAN).

**PORTUGUESE GUINEA:** Bissau (fl. fr. Jan.) Espirito Santo 1115 (COI, LISC, U); Calequise, Teixeira Pinto (fl. fr. Jan.) Orey 107 (K, LISC); Fulacunda (fl. fr. May) Espirito Santo 542 (COI); between Fulacunda and Bedanda (Jan.) Orey 242 (COI); between Cacine and Gadamael, Buba Region (Nov.) Espirito Santo 1284 (COI, LISC).

**GUINEA:** Youkounkou (Dec.) Adam 2491 (P); Nunez R., Boké Distr., Heudelot 601 (A, FI, IFAN, K, P); Bambaya, Pobéguin 54 (P); Conakry (Oct.) Maclaud 56 (P); *ibid.* (fl. fr. Jan.) Dalziel 8088 (E, K, P); between Kouria and Ymbo (Nov.) Chevalier 15110 (P); Kouria, Chevalier 15630 (P), 18160 (P), 18166 (P); Kakoulima Mt., Schnell 7542 (BR); Iles de Los (Feb.) Chevalier 12110 (P), 12116 (P); *ibid.* (fl. fr. May) Pobéguin 1217 (P); Bouloukounta, near Kouria (Nov.) Chevalier 14859 (P, WAG); near Kindia, Jacques Felix s.n. (P); Labaya, Paroisse Jan.–May 1893 (P); Fercom (?), Chillou & Maunoury 103 (P); Frigui (Nov.) Chillou 3415 (IFAN); Dalaba Plateau (Dec.) Chevalier 20281 (P); Mamou (fl. fr. Feb.) Roberty 10607 (G, IFAN, Z); *ibid.* (Feb.) Boué (Pitard) 26 (G, P); Kissi (fl. fr. Feb.) Roberty 7101 (G); Bissikrima, Bouka R. (fr. Feb.) Roberty 10577 (G, IFAN, Z); Kouroussa (Jan. and July) Pobéguin 639 (K, P), 280 (K, P); *ibid.* (Feb.) Chevalier 378 (P), 15714 (P), 15721 (P); *ibid.* (Dec.) Roberty 16201 (G); Guékédou, Guelo, Paul Martine 405 (IFAN); Macenta (Jan.) Adam 3366 (P); sin. loc., Heudelot 597 (K); David Fairchild 16 Jan. 1927 (BR, fr.); Farmar 169 (K); Paroisse 31 (P).

**SIERRA LEONE:** Denkali, Loma Mts. (Jan.) Jaeger 4058 (K); Rokupr (Oct.) Jordan 137 (BR, K); *ibid.* (?), herb. J. E. Smith 16.2 (LINN); Samu (Dec.) Scott Elliot 4243 (BM, K); near Kichom (Dec.) Scott Elliot 4317 (K); Magbile (fl. fr. Dec.) Thomas 5935 (W), 6047 (BR), 6201 (S); Kafogo Limba (April) Scott Elliot 5497 (BM, K); Mabonto (fl. fr. Oct.) Thomas 3605 (P), 3608 (A); 3616 (K); Makump (Oct.) Glanville 42 (K), *ibid.* (Oct.) Thomas 3951 (BR); Kumrabai (fr. Dec.) Thomas 6965 (K); Banana Island (Dec.) Dawe 423 (K); Freetown (fr. Aug.) Pelly 154 (FHO); Sugarloaf Mt., S. of Freetown (fl. fr. Dec.) Scott Elliot 4025 (BM, GH, K, P); Mamah (Nov.) Thomas 4609 (A), 4645 (K); Arboretum Heddles Farm (Jan.) Lane-Poole 380 (K); Bunce Island (fr.) Kirk 26 March 1858 (K); Yonibana (Nov.) Thomas 4808 (S); Njala (Sept.) Deighton 2132 (BM, K), 2135 (K); Bagru R., Mann anno 1861 (GH, P); Kamabai (fr. May) Thomas 327 (K); Guenou-Gori (Nov.) Jaeger 5639 (IFAN); Widaro, Soro Chiefdom (Oct.) Fischer 54 (K); Warantaba G. Fotombu, Small 353 (K); Mayoso (Aug.) Thomas 1434 (A); sin. loc., Afzelius s.n. (S, holotype of *U. volubilis*; BM, MO, isotypes ?) of *U. volubilis*; G. Don s.n. (BM, K, type of *Rondeletia loniceroides*); Smeathmann s.n. (BM, P); Smeathmann in coll. J. E. Smith 16.1 (LINN); Thomas 1871 (K), 8090 (A), 9199 (A), 9869 (BM), 10024 (EA).

**LIBERIA:** Grand Cape Mount Co., Mano (fl. fr. Dec.) Baldwin 10811 (K); Gondolahun, Kolahun Distr. (Nov.) Baldwin 10113 (K); Brewerville (May)

Barker 1075 (K); Monrovia, Whyte anno 1904 (K); *ibid.* (Sept.) Baldwin 13328 (K); *ibid.*, Linder 3 (A, K); *ibid.* (Feb.) Dinklage 2803 (P); *ibid.*, Devil Bush, Paynisville (fl. fr. Nov.) Voorhoeve 106 (LIB, WAG); *ibid.* (Aug.) Leeuwenberg & Voorhoeve 4815 (WAG); left bank St. Pauls R. near Bong Range, Leeuwenberg & Voorhoeve 4915 (WAG); Du R. (Aug.) Linder 245 (A, K); Kakatown (fl.) Whyte April 1904 (K, P); Grand Bassa, Fishtown (Oct.-Nov.) Dinklage 1776 (B, P, WU), 2103 (BM, BR, E, G, W); Grand Bassa, Timbo (March) Baldwin 11221 (K); Gbarnga (Oct.), Traub 289 (BM, BR, COI, G, MO); Palilah, Gbarnga Distr., Baldwin 9163 (K); Ganta, Harley 188 (K, LIB); *ibid.*, Barker 1141 (K); Jabroke, Webó Distr. (July) Baldwin 6454 (K); Bywai (Oct.) Bunting 18 (BM, MO); *sin. loc.*, Farmar 348 (BM).

IVORY COAST: near Danané, Collenette 44 (K); S.W. of Oroumba-Boka Mts. (Oct.) de Wilde 657 (WAG); Ouosson, Baoulé (Oct.) Pobéguin 182 (P); Yapó (Oct.) Chevalier 22372 (P); Dabou (Nov.) Roberty 15536 (G); Adiopodoumé, W. of Abidjan (Oct.) Leeuwenberg 1744 (K, WAG); *ibid.* (June) herb. I.D.E.R.T. 1612 (ABI); Forêt du Banco, near Abidjan (fr. Jan.) de Wit 9056 (WAG); Abouabou, E. of Abidjan (fl. fr. Nov.) herb. I.D.E.R.T. 4091 (ABI); between Abidjan and Grand Bassam (fl. fr. Nov.) de Wilde 800 (WAG).

UPPER VOLTA: between Tengréla and Nangolo Ko (fl. fr. Jan.) Roberty 13429 (G).

GHANA: between Sunyani and Berekum R. (Nov.) Lawton (?) 107 (FH 5838) (FHO); between Techiman and Ejura (Dec.) Morton GC 9560 (K); N. of Mampong (Nov.) Vigne 3425 (A, BR, FHO, K); Assini, West-Skinn 61 (K); Esiana (Nov.) Vigne 1582 (EA, K, P); *ibid.*, Dishlord (?) 10 (K); Axim (Aug.) Vigne 4784 (BM); *ibid.*, Enti FH 6336 (K), *ibid.* (fl. fr. Feb.) Irvine 2087 (E, FHO), 2123 (E, K), Suku Suku, near Axim (?) (Nov.) Chipp 15/1911 (K); Aburi (Nov.) Adams 1921 (GC, K); *ibid.*, Johnson 1079 (K); Lunte Hills (Oct.) Johnson 828 (K); Anum (Nov.) Morton 7975 (K); Biakpa, near Amedzofwe (fl.) Morton 14 Nov. 1953 (K); Kadjakpe, Hohoe Distr., Togo Plateau (fl. fr. Nov.) St. Claire Thompson 3604 (FHO); Kpandu, Robertson 80 (BM).

TOGO: Lomé (fl.) Mahoux May 1931 (L); *sin. loc.*, Kersting A 107 (BM).

DAHOMEY: Atakora Mts., Chevalier 24204 (P); Ouidah (April) Chevalier 23436 (P); between Ouidah and Adjouna, Chevalier 23460 (P); Ouéré (Aug.) Le Testu 153 (IFAN, P); Porto Novo (fr. March) Chevalier 23335 (P).

NIGERIA: Lagos, Dawoder 335 (P, W); *ibid.* (fl. fr. Nov.) Millen 23 (K); *ibid.* (May) Punch 75 partly (K); *ibid.* (July) Dalziel 1232 (E, K); *ibid.* (Dec.) Hagerup 802 (K); *ibid.*, Rowland s.n. (K, P); Ikorodu, near Lagos, Onochie FHI 38336 (FHO, K); Aguku Distr., Thomas 952 (K), 1172 (K); Abeokuta, Roberty 1759 (IFAN); Sapoba, Jamieson R. (Nov.) Keay & Onochie FHI 21509 (FHO); *ibid.* (June) Onochie FHI 23320 (K); *ibid.*, Kennedy 1871 (FHO), 1898 (A, BM, BR, FHO), 2765 (BM), 2804 (FHO); *ibid.*, Thompson s.n. (K); Agbede, Benin Province (Dec.) Farquhar 34 (K); near Jesse, Warri Province, Butler-Cole 22 (BR, K); Nun R., Niger Delta (Aug.) Mann 460 (K); near Kachia, Zaria Province, Meikle 780 (BR); Zurzufa Stream, Nasarawa Division (Nov.) Peal 150 = FHI 42783 (K); Akpaka Forest Reserve, Onitsha Distr. (Sept.) Onochie FHI 33446 (K); Mamu R., Awka Distr. (Nov.) Onwudinjoh FHI 22295 (K); Udi Forest Reserve, S. of Enugu, Onitsha Province (Nov.) Smuts 34 (FHO); Ukpór-Nzaghá, Nwéni Distr. (Oct.) Okafor FHI 35868 (K); Degema, Talbot anno 1916 (BM, K, Z); between Oron and Eket, Talbot 3028 (BM, K); Calabar Distr., Williams 52 (K); Oban, Talbot 303 (BM, K).

CAMEROUN: Johann Albrechtshöhe, West Cameroun, Staudt 526 (COI, S); Bite R., Yaoundé, Bates 1105 (BM, BR, MO, Z); Bipindi, Zenker 3557 (BM, BR, E, G, GOET, HBG, K, MO, W, WU); *sin. loc.*, Preuss 525 (BM).

RIO MUNI: Benito R., Guiral rec. 29 July 1883 (P); *ibid.*, near Numi (Sept.) Bates 580 (L, P).

GABON: near Libreville, Griffon du Bellay 256 (P), 335 (P); *ibid.* (fr. Dec.) Klaine 82 (P), 2045 (BR, P); *ibid.*, Trilles 195 (P), 196 (P); Ogooué R. (Oct.) Klaine 144 (B, P); Mitzic, between Ogooué R. and Cameroun boundary (Oct.) Le Testu 9325 (P); Lac Ayem, N.E. of Lambaréné (May) Le Testu 9112 (P); Ngoungui, near Lastourville (Dec.) Le Testu 8559 (P); *sin. loc.*, Duparquet 300 (P).

OUBANGUI-CHARI: Boukoko, N. of Bangui (fl. fr. Dec.) Tisserant 2322 (P, WAG);

60 km E. of Bambari (Oct.) Tisserant 2675 (A, IFAN, P); Yalinga Region, Le Testu 4371 (P).

CONGO: LEOPOLDVILLE: between Selenge and Lukolela (July) Goosens 5020 (BR), 5041 (BR), 5095 (A, BR); Bosobe, Lukende, Kutu Territory (May) Flamigni 6313 (BR); Bokoro, S.E. of Kutu (Oct.) Jans 601 (BR); Madibi, Kikwit Territory (June) Lescrauwaet 94 (BR); between Lembolo and Lukunga, Gillet 1 April 1926 (BR); M'vuazi Forest, Mambamba, Thysville Territory (Oct.) Devred 835 (BR, WAG); Kimuenza (Jan., May) Gillet 1903 (BR), 2506 (BR); *ibid.* (Nov.) Jans 315 (BR); Kimpako (Feb.) Vanderyst 18 Dec. 1908 (BR) and Feb. 1909 (BR); Sanda, Vanderyst 29 Nov. 1908 (BR); *ibid.* (Nov.) Gillet 3309 (BR), 3536 (BR); near Leopoldville (fl.) Gillet Aug. 1902 (BR); Dembo, E. of Kisantu, Callens 2746 (BM, K); Kamtsha R., Kasai R., Vanderyst 11313 (BR); Popokabaka (Sept.) Vanderyst 15349 (BR); Kwango R. (Dec.) Mechow 532 (M); Ipamu, S. of Oshwe (May) Vanderyst 9309 (BR), 11051 (BR).

EQUATEUR: Bokete, W. of Gemena, Evrard 1030 (BR); Befale Territory (Nov.) Evrard 3005 (WAG), 4142 (WAG), 4225 (WAG); Mobwasa, Vermoesen 253 (BR); near Coquilhatville, Broun anno 1913 (BR); *ibid.* (June) Laurent 1457 (BR); Eala, near Coquilhatville, Corbisier-Baland 1846 (BR); *ibid.*, Coûteaux 413 (BR); *ibid.* (May) Laurent 682 (BR), 826 (BR), 1254 (BR); *ibid.* (Sept.) Lebrun 914 (BR), 1513 (BR, FHO, G, P, PR, UC); *ibid.*, Leemans 498 (A, B, BR); *ibid.* (July) Pynaert 288 (BR); *ibid.* (Oct.) Staner 1303 (BR, G, K, P, PRE); *ibid.* (July, Dec.) Pynaert 724 (BR), 1578 (BR); Ruki R., Goosens 2644 (BR); Bolomba Territory, Evrard 5004 (WAG); *ibid.*, Busira R. (Dec.) L. Dubois 289 (BR, WAG); Busonkusu (June) L. Dubois 452 (BR); Busira R., Ingende Territory (Nov.) Goosens 2792 (BR), 2800 (BR); Bomputu, Golongo (fl. fr. June) Ghesquière 2805 (A, BR, K, P, PR); Efomi (?), Boende (Oct.) Gorbatoff 190 (BR, K); Boende (fr. July) Hulstaert 1398 (BR); Bombeka, Boende, Evrard 3939 (WAG); Bokondji, S.E. of Boende, De Wanckel 14 (BR); Bokungu Territory (fr. Jan.) Evrard 5627 (WAG); Ivulu, Ingende Territory (Nov.) Goosens 2765 (BR); Bikoro (?), Tumba Lake, Goosens 2316 (BR); Buli, Tumba Lake, Goosens 2376 (BR).

ORIENTALE: Duru-Rungu R., Abimbali (June) Seret 738 (BR); Wangata (May) Seret 888 (BR); Bambesa, near Uele R. (Oct.) Gerard 2412 (BR); Basoko (fl.) Laurent 27 Jan. 1896 (BR); Boosa Island, between Litèko and Basoko (April) Louis 14594 (BR); Yalibwa, N. of Yangambi (June) Louis 9978 (BR, WAG); Yangambi (fl. fr. Jan., fl. Sept.) Donis 3473 (BR, K), of same plant "liane en observation" 2800: Gilbert 8760 (BR) and Madoux 408 (BR); *ibid.* (April) Germain 4871 (BR); *ibid.* (Oct.) A. Léonard 116 (BR, WAG); *ibid.* (Jan., May, June, Aug.-Oct.) Louis 349 (BR, K), 7456 (BR, WAG), 9478 (BR), 10656 (BR, WAG), 15042 (BR, WAG), 15150 (BR, WAG); Yalulia (Nov.) Louis 12552 (BR); Lojo Island, Isangi R. (Dec.) Louis 13167 (BR); Yandja Lake, Isangi R. (fr. Aug.) Germain 424 (BR), 5153 (BR); *ibid.* (fr. May) Louis 17005 (BR); Opala, Lombo R. (fl. fr. Feb.) Louis 14148 (BR).

KASAI: Jakoudi, near Katako Kombe, Claessens 632 (BR); Bolingo, Lukende (fr. Dec.) Flamigni 6401 (BR); Sankuru (fl.) Luja April 1919 (BR); between Hemptinne and Kamwandu, Dibaya Territory (fr. June) Liben 3193 (BR, PRE, WAG); Tilen, near Katanga boundary, Vanderyst 22185 (BR), 22187 (BR).

KIVU: Kasongo, Vanderyst 17552 (BR); Maniema, Berger anno 1909 (BR).

KATANGA: Kapanga (April) Overlaet 1214 (BR).

ANGOLA: Zaire Distr., Sumba, Peco (fl. fr. Dec.) Gossweiler 8961 (BM, K), 9105 (A, BM, K); Dundo, near Luachimo R. (fl. fr. June) Gossweiler 14202 (B, K). "GUINEA": *sin. loc.*, Isert *s.n.* (M, isotype).