

Section VIII. 14. **Elutanthos** Croizat, J. Wash. Acad. Sci. 33: 12. 1943; Webster, J. Arnold Arb. 39: 50.

1958. *Phyllanthus* subg. *Botryanthus* Webster, J. Arnold Arb. 37: 345. 1956. TYPE: *Phyllanthus glaucescens* Kunth in H.B.K. (= *P. grandifolius* L.).

This section of 13 neotropical species was placed in a subgenus separate from *Xylophylla* by Webster (1958), primarily because of the unspecialized branching (no deciduous branchlets). However, since the sister group of subg. *Xylophylla* is almost surely subg. *Emblica* or subg. *Conami*, which share the synapomorphy of phyllanthoid branching, the lack of deciduous branchlets in sect. *Elutanthos* must be interpreted as a reversion. The distribution of sect. *Elutanthos* is centered in three areas: Mexico, the Greater Antilles, and Brazil.

pseudonobilis ?

Key to the species

1a. ~~Flowers in axillary or terminal glomerules (or brachyblasts < 3 mm long).~~
1a. Fruiting pedicels less than 10 cm long; ♀ fls. not in terminal clusters of < 25 flowers.

2a. Stamens 3.

3a. Staminate disk dissected.

4a. Staminate sepals at least 1.5 mm long.

5a. Staminal column without appendages; leaf blades glabrous or sparsely hirsutulous abaxially; styles bifid.

6a. Seeds less than 5 mm long; fruit not over 10 mm broad; leaf blades with smooth epidermis abaxially (not reticulate).

7a. Fruiting pedicel > 5 mm long.

8a. Styles bifid; monoecious.

9a. Leaf blades chartaceous, veins not sunken adaxially; stipules not indurate; stylar column distinctly narrower than ovary. 1. *P. nutans*

9b. Leaf blades coriaceous, main veins distinctly sunken adaxially; stipules indurate; stylar column nearly as broad as ovary. 2. *P. pachystylus*

8b. Styles unlobed; dioecious.*P. aripuanensis*

7b. Fruiting pedicel < 5 mm long; 3. *P. huallagensis*

6b. Seeds (5-) 6—10 mm long; fruit usually well over 10 mm broad; leaf blades smooth or reticulate abaxially.

stamens free *

- 10a. Leaf blades distinctly whitish-reticulate abaxially. 4. *P. grandifolius*
- 10b. Leaf blades smooth and green abaxially. 5. *P. coalcomanensis** *lexiflorus*?
- 5b. Staminal column with 3 apical appendages; leaf blades densely hirsutulous beneath; styles entire or emarginate. 6. *P. urbanianus*
- 4b. Staminate sepals < 1.5 mm long.
- 11a. Leaf blades acuminate; pistillate flowers several to many per axil. 7. *P. umbratus*
- 11b. Leaf blades rounded to acute; pistillate flowers one/axil.
- 12a. Styles bifid, tips reflexed; pistillate disk tenuous; branches and inflorescence axes hirsutulous. 8. *P. anderssonii*
- 12b. Styles truncate or emarginate, erect and connivent; pistillate disk massive; plants glabrous. 9. *P. botryanthus*
- 3a. Staminate disk not dissected, entire or crenulate. *axes glabrous, ♀ ped. 3-4 m* *duckeanus**
stamens free *axes hirtellous, ♀ ped 9-15 m* *prancei**
- 13a. Staminal column slender, > 1 mm. high; styles unlobed; dioecious. 10. *P. poeppgianus*
- 13b. Staminal column < 1 mm high; monoecious.
- 14a. Styles bifid, free; staminal column inflated. 11. *P. vincentae*
- 14b. Styles entire, connate into a column; staminal column slender. 12. *P. harlingii*
- 2/b. Stamens 1 or 2.
- 15a. Staminate sepals and disk-segments 5 or 6.
- 16a. Seeds > 5 mm long; staminate sepals usually 6; stamen solitary. 13. *P. tequilensis*
- 16b. Seeds < than 5 mm long; staminate sepals 5.
- 17a. Pistillate pedicels 30—50 mm long; stipules entire. 14. *P. cladotrichus*
- 17b. Pistillate pedicels < 20 mm long; stipules lacerate. 15. *P. morjanus*
umbratus
- 15b. Staminate sepals and disk-segments 4. 16. *P. biantherifer*
17 racemigerus ?

VIII.12.1. *Phyllanthus nutans* Sw., Prodr. 27. 1788; Fl. Ind. Occid. 1103. 1800; Müll. Arg., DC.

Prodr. 15(2): 375. 1866; Fawc. & Rendle, Fl. Jamaica 4: 253. 1920; Webster, J. Arnold Arb.

39: 56. 1958; Proctor, Kew Bull. add. ser. 11: 524. 1984. TYPE: Jamaica, Swartz (lectotype, S;

isotypes, A, C, G, P).

Dry to moist forests, 0—750 m; Jamaica (ssp. *nutans*) and in Cuba and the Cayman Islands (ssp. *Grisebachianus* [Müll. Arg.] G. L. Webster); synonymy and specimen citations are provided in Webster (1958).

VIII.12.2. *Phyllanthus pachystylus* Urb., Symb. Ant. 3: 286. 1902; Webster, J. Arnold Arb. 39: 62. 1958.

TYPE: Cuba, Oriente, savannas near Sagua de Tánamo, *Wright 1947* (lectotype, GH; isotypes, G, GOET).

Savannas and woodlands on serpentine, below 500 m, eastern Cuba.

P. aripuanensis

VIII.12.3. *Phyllanthus huallagensis* Standl. ex Croizat, J. Wash. Acad. Sci. 33: 13. 1943.

TYPE: Peru, San Martín, Juan Juí, *Klug 4240* (holotype, A; isotype, US!).

Forests, 400-800 m, Ecuador and Peru.

VIII.12.4. *Phyllanthus grandifolius* L., Sp. Pl. 981. 1753. TYPE: probably from Campeche, Mexico,

Houston (holotype, Herb. Hort. Cliffort., BM).

Andrachne arborea Miller, Gard. Dict. Ed. 8. 1768. TYPE: Mexico, Campeche, *Houston* (holotype, Herb.

Miller, BM; possibly part of the same collection as *Phyllanthus grandifolius*).

Phyllanthus glaucescens Kunth in H.B.K., Nov. Gen. Sp. 2: 115. 1817. TYPE: Mexico, Campeche,

Humboldt & Bonpland (holotype, P; photograph of isotype, UC).

Phyllanthus adenodiscus Müll. Arg., Linnaea 32: 23. 1863. TYPE: Mexico, Veracruz, Papantla,

Schiede 1134 (holotype, B, destroyed; photograph, UC).

Widespread in Mexico, usually on limestone, 50—1400 m, Tamaulipas to San Luis Potosí, Campeche, and Oaxaca.

VIII.12.5. *Phyllanthus laxiflorus* Benth., Pl. Hartweg. 90. 1840. TYPE: Guatemala, *Hartweg 612*

(holotype, K; isotype, G).

Phyllanthus chiapensis Sprague, Kew Bull. 1909: 264. 1909. TYPE: Mexico, Chiapas, Cacate, *Linden*

1634 (holotype, K).

Highlands of Guatemala and Chiapas; very similar to *Phyllanthus grandifolius* but lacking the characteristic cuticular reticulum of that species.

VIII.12.6. *Phyllanthus coalcomanensis* Croizat, J. Wash. Acad. Sci. 33: 13. 1943. TYPE: Mexico,

Michoacán, Coalcomán, Aquila, *Hinton et al.* 15857 (holotype, A; isotypes, NY, UC!, US!).

Seasonal forests, 20—500 m, Western Mexico (Jalisco and Michoacán); perhaps also represented by incomplete specimens in Nicaragua.

VIII.12.7. *Phyllanthus urbanianus* Mansf., Repert. Sp. Nov. 32: 86. 1933; Webster, J. Arnold Arb.

39: 65. 1958. TYPE: Haiti, Dept. Sud, Massif de la Hotte, Les Roseaux, *Ekman H10435* (holotype, S; isotypes, A, US).

Known only from the type collection; possibly now extinct.

VIII.12.8. *Phyllanthus anderssonii* Müll. Arg., DC. Prodr. 15(2): 395. 1866; Webster, J. Arnold Arb.

39: 53. 1958; Howard, Fl. Lesser Antilles 5: 74. 1989. TYPE: "Caracas, Herb. Holm. 288," *Andersson* (holotype, G).

Phyllanthus barbadensis Urb., Symb. Ant. 3: 287. 1902. TYPE: Barbados, Forsteer Hall Wood,

Eggers 7130 (lectotype [designated by Webster, 1958], US; isotypes, A, GOET).

Seasonal woodlands, c. 100 m; ^{earlier} thought to be endemic to Barbados, but specimens from Colombia (Magdalena Valley, Tolima, Melgar, *Goudot* (K, P) appear conspecific, so that contrary to Webster (1958), it no longer appears unlikely that Andersson's collection could have been made in Venezuela. Problems in typification are discussed by Webster (1958) and Howard (1989).

VIII.12.9. *Phyllanthus botryanthus* Müll. Arg., DC. Prodr. 15(2): 323. 1866; Webster, J. Arnold Arb. 39:

51. 1958; Contr. Univ. Mich. Herb. 2001. *Glochidion botryanthum* (Müll. Arg.) Pax & K. Hoffm., Natürl. Pflanzenfam. Ed. 2, 19c: 58. 1931. 2001. TYPE: Colombia, Cartagena, *Triana 3664* (lectotype, P; isotypes, K!, W!).

Phyllanthus euwensii Bold., Fl. Dutch W. Ind. Isl. 2: 50. 1914. TYPE: Curaçao, *Boldingh 5279* (isotype, NY 83521!).

? *Phyllanthus larensis* Croizat, Fieldiana Bot. 28(2): 318. 1952. TYPE: Venezuela, Lara, between Carora and boundary with Trujillo, *Staeyermark 56813* (holotype, F).

Seasonal woodlands, 50—900 m; disjunct between western Mexico (Jalisco) and the southern Caribbean (Aruba, Bonaire, Curaçao, Colombia, and Venezuela). West Indian specimens are cited in Webster (1958) and Mexican in Webster (2001).

VIII.12.10. *Phyllanthus poeppigianus* (Müll. Arg.) Müll. Arg., DC. Prodr. 15(2): 323. 1866; Fl. Brasil.

11(2): 27. 1873. *Glochidion poeppigianum* Müll. Arg., *Linnaea* 32: 71. 1863. TYPE: Brazil, Amazonas, Ega [Tefé], *Poeppig* 2758 (holotype, G!; isotype, W!).

Phyllanthus martii Müll. Arg., *Fl. Brasil.* 11(2): 27. 1873. TYPE: Brazil, Amazonas, "Rio Negro in sylvis Japurensibus," *Martius* (lectotype [selected here], M!).

Widespread in lowland Amazonian forests, often in várzea or igapó, 100—250 m, Peru and Brazil. Müller (1873) distinguished *Phyllanthus martii* on the basis of its smaller leaves and flowers, as well as its longer inflorescence. Only the latter character seems impressive, and even here there is more or less continuous intergradation with *P. poeppigianus*.

VIII.12. 11. *Phyllanthus vincentae* J. F. Macbr. *Publ. Field Mus. Nat. Hist., Bot.* 13(3A): 47. 1951.

Xylosma minutiflora J. F. Macbr., *Candollea* 5: 392. 1934 (not *Phyllanthus minutiflorus* F. Muell., 1865). TYPE: Peru, Loreto, Yurimaguas, Puerto Arturo, *Williams* 4970 (holotype, F!).

Phyllanthus ventricosus G. L. Webster, *Ann. Missouri Bot. Gard.* 54: 198. 1967. TYPE: Peru, Loreto, Iquitos, Rancho Indiana, *Mexia* 6414 (holotype, MO; isotypes, GH, UC, US, WIS).
Amazonian rain forests, c. 100-200 m, northeastern Peru.

VIII.12.12. *Phyllanthus harlingii* G. L. Webster, **sp. nov.** TYPE: Ecuador, Loja, 5 km E of Celica, seasonal evergreen forest, 1500 m, 11 IV 1980, *G. Harling & L. Andersson* 18185 (holotype, AAU).

Frutex monoicus glaber, ab affine *Phyllanthi poeppigiani* differt foliis emarginatis, sepalis majoribus, stylis connatis dilatatis.

Glabrous monoecious shrub; leaves elliptic, rounded or emarginate at apex, veinlets pale and ± prominulous adaxially, 2.5—4 cm long, 1.8—2.5 cm broad; petiole 1—2 mm long, fluted; stipules reflexed, acuminate, 1.8—2.5 mm long; flowers in axillary glomerules, the pistillate solitary; staminate pedicel 8—9 mm long; sepals 6, elliptic, 1.7—2.2 mm long; disk flat, angled, 1.8—2 mm broad; stamens 3, filaments connate, staminal column c. 0.3 mm high; anthers muticous, dehiscing horizontally, 0.5—0.6 mm long; pistillate sepals 6, 2—2 mm long; disk patelliform, c. 1.5 mm broad; ovary 3-locular; styles c. 0.5 mm long, erect, connate; fruits and seeds not seen.

Known only from the type collection.

VIII.12.13. *Phyllanthus tequilensis* Robinson & Greenm., Proc. Amer. Acad. 29: 392. 1894; Webster, Contr. Univ. Mich. Herb. 2001. TYPE: Mexico, Jalisco, Tequila, *Pringle 5490* (holotype, GH; isotype, UC).

Phyllanthus micromalus McVaugh, Brittonia 13: 198. 1961. TYPE: Mexico, Nayarit, Seasonal woodlands, 300—1500 m, western Mexico (Nayarit to Guerrero).

VIII.12.14. *Phyllanthus cladotrichus* Müll. Arg., Linnaea 32: 25. 1863; DC. Prodr. 15(2): 380. 1866; Fl. Brasil. 11(2): 41. 1873. TYPE: Brazil, Rio de Janeiro, Mandioca, *Riedel* (holotype, G; photograph of isotype at B, UC).

? *Phyllanthus ramosus* Vell., Fl. Flumin. 10: t. 17. 1832. TYPE: No specimen appears to be extant, hence Vellozo's plate must serve as holotype.

Coastal rain forests (Mata Atlántica), 50—150 m, Brazil (Ceará to Rio de Janeiro). Goyerts et al. (2000) treat *Phyllanthus cladotrichus* as a synonym of *P. ramosus*, but in the absence of a type specimen the identity of the latter cannot be established with certainty.

VIII.12.15. *Phyllanthus morianus* G. L. Webster, *sp. nov.* TYPE: Brazil, Bahia, Mun. Maracás,

Fazenda do Pássaros, 24 km E of Maracás, *Mori & King 12176* (holotype, DAV; isotype, NY).

Frutex monoica glabra, ab *Phyllantho cladotricho* differt pedicellis fructiferus brevioribus, stipulis laceratis; ab *P. umbrato* staminibus 2.

Monoecious, glabrous shrub; branchlets c. 10—15 cm long with c. 13—15 leaves; stipules lacerate, c. 1.5 mm long; flowers in axillary glomerules; staminate pedicels c. 4 mm long; sepals 5, c. 1.2 mm long; disk massive, entire (3-angled), c. 0.5 mm broad; stamens 2, filaments very short (c. 0.1 mm long); anthers muticous, dehiscing horizontally, c. 0.5 mm long; pistillate flowers 2 or 3 per axil; pedicel 8—17 mm long in fruit; sepals 5, c. 1.3--1.4 mm long; disk massive, entire (angled), c. 1 mm broad; ovary smooth; seeds c. 2.9 mm long, testa smooth, with carunculate appendage.

Mata de cipó, c. 1000 m, Bahia, Brazil.

VIII.12.16. *Phyllanthus biantherifer* Croizat, Trop. Woods 78: 7. 1944. TYPE: Brazil, Amazonas, Humayta, Livramento, *Krukoff 6691* (holotype, A; isotypes, NY!, US!) RB

Lowland rain forest, 100-200 m, western Amazonian Brazil.

VIII.12.17. *Phyllanthus racemigerus* Müll. Arg., Linnaea 32: 23. 1863; DC. Prodr. 15(2): 375. 1866;

Fl. Brasil. 11(2): 34. 1873. TYPE: Brazil, between Santarem and Barra do Rio Negro, Oct.

1850, *Spruce 1097* (lectotype [selected here], K!; isotype, G!).

Riparian forests, 100-200 m, Amazonian Brazil.

VIII.12.18. *Phyllanthus umbratus* Müll. Arg., DC. Prodr. 15(2): 356. 1866; Fl. Brasil. 11(2): 32. 1873.

TYPE: Brazil, Rio de Janeiro, *Riedel* (holotype, B, destroyed; photograph, CNMH 5041, DAV).

Coastal rain forests (Mata Atlántica), Rio de Janeiro, Brazil.

Diploccica
P. octomerus

EXCLUDED SPECIES

bolivarensis?

1. *Phyllanthus croizatii* Steyerl., Fieldiana Bot. 28: 317. 1952. TYPE: Venezuela, Yaracuy, near Taria,

Steyermark 56854 (holotype, F; isotype, US!). The type collection represents the

common weed *Phyllanthus urinaria* L., introduced from the Old World.

2. *Phyllanthus lacerilobus* Croizat, *Caldasia* 3: 21. 1944; Macbride, Field Mus. Nat. Hist., Bot. 13(3A,1):

41. 1951. TYPE: Peru, Loreto, Caballo-Cocha, *Ll. Williams 2378* (holotype, F). This is a

synonym of *Phyllanthus pulcher* Wall. ex Müll. Arg., an Asiatic ornamental (sect.) that is occasionally

planted in tropical American gardens; it has become naturalized to some extent in the West Indies

→ 3. *P. bolivarensis* Steyerl. (Trinidad and St. Vincent; Webster, 1958).

4. *Phyllanthus orinocensis* Steyerl., Fieldiana Bot. 28: 321. 1952. TYPE: Venezuela, Amazonas, Cerro

Duida, *Steyermark 57891* (holotype, F). Probably not a *Phyllanthus*; cf. *Sebastiania*.

5. *Phyllanthus zanthoxyloides* Steyerl., Fieldiana Bot. 28: 321. 1952. TYPE: Venezuela, Monagas,

Montaña de Aguacate, between Caripe and Caripito, *Steyermark 62189* (holotype, F). Perhaps

a species of sect. *Hylaeanthus*.

Literature cited.

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Cordeiro, I. 1992. *Phyllanthus*, in Flora da Serra do Cipó, Minas Gerais: Euphorbiaceae.

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