

SYNOPSIS OF **XYLOPHYLLA**

Subgenus **VIII. XYLOPHYLLA** (L.) Pers., Syn. Pl. 591. 1807; Webster, J. Arnold Arb.

39: 66. 1958. *Xylophylla* L., Mant. Pl. 147. 1771. TYPE: *Xylophylla latifolia* L.

[nom. illeg., ≡ *Phyllanthus epiphyllanthus* L.]

Phyllanthus subgenus *Botryanthus* G. L. Webster, J. Arnold Arb. 37: 345. 1956. TYPE: *Phyllanthus grandifolius* L.

Monoecious (rarely dioecious) trees or shrubs with phyllanthoid branchig; branchlets pinnatifid or bipinnatifid; staminate sepals 4—6, entire; disk segments isomerous with sepals, free or united; stamens 2—15, free or more commonly united; anthers dehiscing vertically to horizontally; pollen grains spheroidal, pantoporate, clypeate (exine shields mostly pentagonal or hexagonal); pistillate sepals (4) 5 or 6, entire; disk patelliform or cupular; ovary 3-locular; styles free or connate at base, bifid to multifid; fruits capsular; seeds smooth, punctulate, colliculose, or verruculose.

This New World subgenus has 16 sections with about 80 species; the majority of the species occur in the West Indies, especially the Greater Antilles. The circumscription of subg. *Xylophylla* is here broadened to include subg. *Botryanthus*, which was distinguished mainly because its lack of phyllanthoid branching. However, the similarity in pollen morphology and other structures suggests that the two subgenera are part of a single clade; apparently the loss of phyllanthoid branching in sect. *Elutanthos* is a reversal, and not an indication that it is more primitive than other taxa of subg. *Xylophylla*.

Key to the Sections

1. Branching phyllanthoid (branchlets deciduous); flowers in axillary cymes.
 2. Leaves on main stems not reduced to cataphylls; dioecious; stamens 3, filaments free; seeds smooth (minutely striate). sect. VIII.2. **Sellowianthus**
 2. Leaves on main stems reduced to cataphylls; monoecious.
 3. Branchlets pinnatifid.

4. Styles bifid or unlobed, but not dilated or lacerate.
5. Staminate disk dissected; branchlets mostly with > 10 leaves.
6. Styles bifid; anthers not apiculate, dehiscing vertically to horizontally;
pistillate sepals persistent in fruit.
7. Capsule somewhat fleshy, tardily dehiscent; stamens 3; leaves without
mesophyllar sclereids. sect. VIII.1. **Omphacodes**
7. Capsule dry, readily dehiscent; stamens 2—6; leaves with mesophyllar sclereids.
8. Filaments equalling or shorter than anthers; stipules caducous; leaves > 2 cm
long. sect. VIII.6. **Thamnocharis**
8. Filaments longer than anthers; stipules mostly persistent; leaves mostly 1—2
cm long. sect. VIII.8. **Orbicularia**
6. Styles entire or emarginate; anthers apiculate, dehiscing vertically; pistillate sepals
deciduous in fruit. Sect. VIII.10. **Ciccastrum**
5. Staminate disk not dissected; stamens 3, filaments free or connate; branchlets mostly
with 5—10 leaves. . Sect. VIII.9. **Diplocicca**
4. Styles distinctly dilated, ± lacerate; stamens 2—15.
9. Staminate disk dissected; anthers dehiscing vertically to horizontally.
10. Flowers strictly axillary on branchlets, not cauliflorous; styles elongated, dilated
distally; stamens 4 or more..
11. Leaves obtuse, usually with mesophyllar sclereids; stamens 3—7; seeds
colliculose or verruculose. Sect. VIII.8. **Orbicularia**
11. Leaves obtuse to acuminate, without prominent mesophyllar sclereids;
stamens 3—15; seeds verruculose or smooth.
12. Pistillate flowers solitary; leaves glabrous; seeds verruculose.
Sect. VIII.7. **Williamia**
12. Pistillate flowers several per node; leaves often pubescent; seeds smooth.
Sect. VIII.3. **Oxalistylis**
10. Flowers in cauliflorous thyrses; styles calyptriform; stamens 2 or 3.

Sect. VIII.11. **Epistylum**

9. Staminate disk not dissected; stamens 2—7, anthers dehiscing horizontally.

13. Staminate sepals 5; stamens 3—7; seeds smooth; leaves chartaceous,

acuminate, greenish abaxially..

Sect. VIII.4. **Asterandra**

13. Staminate sepals 4; stamens 2; seeds with fissured testa; leaves coriaceous,

revolute, yellowish abaxially.

Sect. VIII.5. **Glyptothamnus**

3. Branchlets bipinnatifid, axes incrustate or hirsutulous; stamens 2—6.

Sect. VIII.12. **Hemiphyllanthus**

2. Branchlets modified into phylloclades; leaves usually reduced or absent; stamens mostly 3;

seeds verruculose.

Sect. VIII.13. **Xylophylla**

1. Branching not phyllanthoid, flowering axes not deciduous; stamens 2--4, filaments usually connate;

styles connate, bifid or unlobed; seeds smooth.

Sect. VIII.14. **Elutanthos**

Sect. VIII.1. **Omphacodes** G. L. Webster, Contr. Gray Herb. 176: 59. 1955; J. Arnold Arb. 39: 142.

1958. TYPE: *Phyllanthus subcarnosus* C. Wright ex Müll. Arg.

Glabrous monoecious shrubs' branchlets pinnatifid, often borne on spur shoots; leaves chartaceous; cymules bisexual; staminate sepals 5, disk segments 5, free or coalescent; stamens 3 (4), filaments connate, anthers muticous, dehiscing obliquely; pollen exine shields polybrochate; pistillate sepals 5, often deciduous; disk cupular; styles free, bifid; capsules with somewhat fleshy exocarp, tardily dehiscent; seeds smooth.

Monotypic, the single species endemic to the Greater Antilles, *Phyllanthus subcarnosus*, resembles the Cuban endemic *P. pseudocicca* Griseb., which has been assigned to subgenus *Kirganelia*. Section *Omphacodes* may therefore be the sister group to all the other taxa of subg. *Xylophylla*, and the connecting link between subgenera *Kirganelia* and *Xylophylla*.

Sect. VIII.2. **Sellowianthus** G. L. Webster, sect. nov. TYPE: *Phyllanthus sellowianus* Müll. Arg.

Frutices dioecae, glabrae; ramificatione more sectionis *Phyllanthi* sed foliis axium penultimorum

non reducti; sepala 5 libera; discus segmenti 5; stamina 3, discreta; stylis bifidis; semina laevia.

Dioecious glabrous shrubs; branchlets deciduous but leaves on main axes scarcely reduced; leaves chartaceous; sepals and disk-segments 5; stamens 3, filaments free; anthers deflexed, dehiscing obliquely; pollen grains pantoporate, clypeate; ovary 3-locular; styles free, bifid; fruit capsular; seeds smooth (minutely striate).

Monotypic; the South American type species, *Phyllanthus sellowianus*, is common in the basin of the Río Paraná and Río Uruguay. The unreduced axial leaves and free filaments would appear as “primitive” characters, but it is possible that they are reversals.

Sect. VIII.3. **Oxalistrylis** Baillon, Étude Gen. Euphorb. 628. 1858; Müll. Arg., DC. Prodr. 15(2): 330.

1866. TYPE: *Phyllanthus salviifolius* Kunth.

Monoecious shrubs, sometimes arborescent; stems and leaves often pubescent; branchlets pinnatifid; leaves lanceolate, chartaceous, acuminate; cymes mostly unisexual, pistillate flowers mostly 3—7 per node and proximal to staminate; sepals 5 or 6; staminate disk dissected; stamens 3—7, filaments connate; anthers dehiscing ± horizontally; pollen grains clypeate; pistillate disk entire; ovary 3-locular; styles connate below, elongated and exerted from calyx, tips dilated, bifid to multifid; fruits capsular; seeds smooth.

This monotypic section is of phylogenetic interest in being the possible sister group to most of the West Indian sections of subg. *Xylophylla*. It is very close to sect. *Asterandra* in many ways, but clearly differs in its inflorescence pattern, staminate disk, and more elongated styles more abruptly dilated distally..

SPECIES INCLUDED: *Phyllanthus salviifolius* Kunth

Sect. VIII.4. **Asterandra** (Klotzsch) Müll. Arg., Linnaea 32: 5. 1863.. *Asterandra* Klotzsch, Arch.

Naturgesch. 7: 200. 1841. 1863. TYPE: *Asterandra cornifolia* (Kunth) Klotzsch [= *Phyllanthus juglandifolius* Willd.]

Monoecious shrubs; pubescence absent or inconspicuous; branchlets pinnatifid; cymes mostly bisexual; pistillate flowers solitary; sepals 5; staminate disk massive, angular, pitted; stamens 3—7,

filaments connate; anthers deflexed or dehiscing horizontally; pollen grains clypeate; pistillate disk massive, angled; ovary 3-locular, carinatae; styles connate below, dilated, tips bifid or emarginatae; fruits capsular; seeds smooth, thick-walled..

Three closely related species; additional study is required to understand variation in Central and South America. *Phyllanthus cornifolius* appears to be the closest species to subsect. *Salviifolii*.

SPECIES INCLUDED: CENTRAL AMERICA & WEST INDIES: *Phyllanthus juglandifolius* Willd. PANAMA: *P. gentryi* G. L. Webster. SOUTH AMERICA: *P. cornifolius* (Kunth) Klotzsch.

Sect. VIII.5. **Glyptothamnus** G. L. Webster, J. Arnold Arb. 39: 68, 160. 1958. TYPE: *Phyllanthus chryseus* R. A. Howard.

Glabrous monoecious shrub; branchlets pinnatifid; leaves coriaceous, revolute; cymules axillary, mostly unisexual, but staminate and pistillate flowers ± interspersed; staminate sepals 4; disk segments coalescent into a massive ring; stamens 2, filaments connate; anthers dehiscing horizontally; pollen grains clypeate; pistillate sepals 5; disk massive as in staminate flower; styles free, spreading, dilated, lacerate; fruits capsular; seed coat fissured.

This section includes only the type species, which is endemic to a restricted area of serpentine barrens in eastern Cuba.

SPECIES INCLUDED: *Phyllanthus chryseus* R. A. Howard.

Sect. VIII.6. **Thamnocharis** G. L. Webster, Contr. Gray Herb. 176: 59. 1955; J. Arnold Arb. 39: 91. 1958. TYPE: *Phyllanthus cinctus* Urb.

Monoecious glabrous shrubs; cataphylls subtending branches large, indurate; leaves coriaceous, stipules deciduous; cymules bisexual; sepals 4—6; staminate disk segments 4; stamens 2—6 (-8), filaments free or connate; anthers dehiscing vertically; pollen grains spheroidal, clypeate; pistillate disk entire, angled; ovary 3-locular; styles free or connate, bifid; fruit capsular; seeds smooth or rugulose.

This section of 3 species endemic to Cuba appears to be related to sect. *Williamia*, as at least one natural intersectional hybrid is known (*P. comptus* × *P. discolor*).

SPECIES INCLUDED: CUBA: *Phyllanthus cinctus* Urb., *P. comptus* G. L. Webster, *P. ekmanii*

G. L. Webster.

Sect. VIII.7. **Williamia** (Baillon) Müll. Arg., *Linnaea* 32: 4. 1863; DC.Prodr. 15(2): 328. 1866; Webster,

J. Arnold Arb. 39: 69. 1958. *Williamia* Baillon, *Étude Gen. Euphorb.* 559. 1858. TYPE:

Williamia pruinosa Baillon [= *Phyllanthus discolor* Poepp. ex Spreng.]

This section of 7 species endemic to Cuba, originally regarded (Webster, 1958) as the “basal” group of subg. *Xylophylla*, now appears to be an Antillean offshoot of a mainland American ancestor (probably sect. *Oxalistrylis*). The species have been apportioned to 3 subsections (Webster, 1958):

Subsect. VIII.7.1. **Discolores** G. L. Webster, J. Arnold Arb. 39: 71. 1958. TYPE: *Phyllanthus discolor* Poepp.

Stems smooth, lenticels not prominent; branchlets with alternate leaves; stamens 6—15; styles erect, moderately dilated distally.

Three species of Cuba. Hybrids between *Phyllanthus discolor* and *P. comptus* G. L. Webster (sect. *Thamnocharis*) have been collected in the vicinity of La Cajálbana, Pinar del Río.

SPECIES INCLUDED: CUBA. Pinar del Rio to Las Villas: *Phyllanthus discolor* Poepp. Oriente: *P. cristalensis* Urb., *P. microdictyus* Urb. :

Subsect. VIII.7.2. **Incrustati** G. L. Webster, J. Arnold Arb. 39: 82. 1958. *Phyllanthus* sect. *Williamiandra* Griseb., *Goett. Nachr.* 1865: 171. 1865. TYPE: *Phyllanthus williamioides* Griseb.

Ramsdenia Britton, *Mem. Torr. Bot. Club* 16: 72. 1920. TYPE: *Ramsdenia incrustata* (Urb.) Britton (≡ *Phyllanthus incrustatus* Urb.)

Axes incrustate with platelets of bark; branchlets with alternate leaves; stamens (2) 3—6; styles erect, conspicuously lacerate.

Three species of eastern Cuba (Oriente).

SPECIES INCLUDED: *Phyllanthus excisus* Urb., *P. incrustatus* Urb., *P. williamioides* Griseb.

Subsect. VIII.7.3. **Mirifici** G. L. Webster, J. Arnold Arb. 39: 89. 1958. TYPE: *Phyllanthus mirificus*

G. L. Webster.

Stems smooth but prominently lenticellate; branchlets with opposite leaves; stamens 5; styles

obsolete, dilated stigmas capping the ovary.

In some respects, this monotypic section of eastern Cuba is intermediate between subsect. *Discolores* and subsect. *Incrustati*, but the calyptra-like stigmas and opposite leaves are unique.

Sect. VIII.8. **Orbicularia** (Baillon) Griseb., Fl. Br. W. Ind. 34. 1859; Müll. Arg., DC. Prodr. 15(2): 331.

1866; Webster, J. Arnold Arb. 39: 111. 1958. TYPE: *Orbicularia* Baillon, Étude Gen. Euphorb.

616. 1858. TYPE: *Orbicularia phyllanthoides* Baillon [= *Phyllanthus orbicularis* Kunth].

Dimorphocladium Britton, Mem. Torr. Bot. Club 16: 74. 1920. TYPE: *Phyllanthus formosus* Urb.

Roigia Britton, Mem. Torr. Bot. Club 16: 73. 1920. *Phyllanthus* sect. *Dimorphocladium* (Britton)

Pax & K. Hoffm., Natürl. Pflanzenfam. ed. 2, 19c: 63. 1931. TYPE: *Phyllanthus comosus* Urb.

Glabrous monoecious shrubs; branchlets pinnatifid; leaves with mesophyllar sclereids; stipules mostly persistent; cymes staminate and bisexual, pistillate flowers solitary; sepals 6 (rarely 5), entire; staminate disk entire or dissected; stamens 3—7, filaments connate; anthers dehiscent horizontally or obliquely; pollen grains spheroidal, pantoporate, exine shields oligobrochate; pistillate disk entire; ovary sessile or stipitate; styles free or basally connate, bifid; fruit capsular; seeds trigonous, verruculose.

This West Indian section of 10 species is prominent on serpentine outcrops in Cuba, with disjunct species in Hispaniola and Puerto Rico. A relationship with sect. *Williamia* subsect. *Incrustati* was suggested earlier (Webster, 1958). There is considerable morphological variability in the group, but proposed segregates such as *Dimorphocladium* and *Roigia* do not seem to merit recognition even at the subsectional level.

Subsect. VIII.8.1. **Orbiculari** G. L. Webster, subsect. nov.: monoici; ramulis deciduis floriferis; stamina 3—7; stylis connatis, stigmatibus plusminusve revolutis; semina puncticulata.. TYPE: *Phyllanthus orbicularis* Kunth.

All of the typical species of sect. *Orbicularia* are included here.

SPECIES INCLUDED: CUBA: *P. chamaecristoides* Urb., *P. comosus* Urb., *P. formosus* Urb., *P. myrtilloides* Griseb., *P. orbicularis* Kunth, *P. phlebocarpus* Urb., and *P. scopulorum* Urb. HISPANIOLA: *P. nummularioides* Müll. Arg.

Subsect. VIII.8.2. **Cuneifolii** G. L. Webster, subsect. nov.: dioici; ramulis deciduis deletis; stamina 3; stylis

liberis, stigmatis non revolutis; semina laevia. TYPE: *Phyllanthus cuneifolius* (Britton) Croizat.

Dioecious shrub; deciduous branchlets mostly suppressed, leaves and flowers produced on spur-shoots; stamens 3; styles free, branches slender, not revolute; seeds smooth.

The single species in this subsection, *Phyllanthus cuneifolius*, is very different in habit from the species of subsect. *Orbiculari* because of the nearly complete suppression of the deciduous branchlets; it was not included in the earlier treatment of sect. *Orbicularia*. However, the sclerified leaves appear typical for sect. *Orbicularia*. The arrest of phyllanthoid branching in subsect. *Cuneifolii* suggests a possible mechanism for reversal of phyllanthoid branching pattern to an “unspecialized” pattern as seen in sect. *Elutanthos*. It is possibly an adaptation arising in arid habitats where flowering takes place as the leaves appear.

SPECIES INCLUDED: PUERTO RICO: *P. cuneifolius* (Britton) Croizat.

Sect. VIII.9. **Brachycladus** G. L. Webster, Contr. Univ. Michigan Herb. 23: 384. 2001. TYPE: *Phyllanthus rupestris* Kunth.

Monoecious shrubs; branchlets pinnatifid, fasciculate, with only 5—10 leaves; sepals 6; staminate disk annular; stamens 3, filaments free or connate; pollen grains spheroidal, pantoporate, exine shields polybrochate; psitillate disk patelliform; ovary 3-locular; styles free, bifid; fruit capsular; seeds smooth.

About six species belong in this section, most of them rheophile shrubs in the Amazon basin; however, the single Mexican species, *Phyllanthus mickelii*, occurs in much drier habitats.

REPRESENTATIVE SPECIES: NORTH AMERICA. MEXICO (Jalisco): *Phyllanthus mickelii* McVaugh. SOUTH AMERICA: *P. adianthoides* Klotzsch, *P. atabapoensis* Jabl., *P. duckeanus* G. L. Webster, *P. manabianus* G. L. Webster, *P. paezensis* Jabl., *P. rupestris* Kunth, *P. spruceanus* Müll. Arg.

Sect. VIII.10. **Ciccastrum** Müll. Arg., Fl. Brasil. 11(2): 26. 1873. *Glochidion* sect. *Ciccastrum* (Müll. Arg.) Pax &

K. Hoffm., Natürl. Pflanzenfam. ed. 2, 19c: 58. 1931. TYPE: *Phyllanthus riedelianus* Müll. Arg.

Glabrous monoecious shrubs; branchlets pinnatifid; cymules unisexual or bisexual; sepals 6, subequal or biseriata, entire; staminate disk segments 6; stamens 3, filaments connate; anthers apiculate, dehiscent vertically; pollen grains spheroidal, clypeate; pistillate disk patelliform; ovary 3-locular; styles free, bifid or emarginate; fruit capsular; seeds rugulose.

This section of 2 widely disjunct species may be unnatural. The plants are different in aspect, and the biseriata perianth and bifid styles of *Phyllanthus purpusii* contrast strongly with the perianth of subequal sepals and unlobed styles of *P. riedelianus*. On the other hand, the androecium of 3 connate stamens with apiculate anthers is similar in both species.

SPECIES INCLUDED: NORTH AMERICA (Chiapas & Guatemala): *Phyllanthus purpusii* Brandege. SOUTH AMERICA. BRAZIL (Santa Catarina to Bahia): *P. riedelianus* Müll. Arg.

Sect. VIII.11. **Epistylum** (Sw.) Griseb., Fl. Br. W. Ind. 33. 1859; Webster, J. Arnold Arb. 39: 153. 1958.

Epistylum Swartz, Fl. Ind. Occid. 1100. 1800. TYPE: *Omphalea axillaris* Swartz [= *Epistylum axillare* (Sw.) Sw., *Phyllanthus axillaris* (Sw.) Müll. Arg.].

Glabrous monoecious shrubs or trees; branchlets pinnatifid; inflorescences of axillary or cauliflorous thyrses, cymules bisexual, pistillate flowers solitary; staminate sepals 4 or 5, entire; disk segments 4 or 5; stamens 2 or 3, filaments connate; anthers deflexed, dehiscent longitudinally and downwards to horizontal; pollen grains spheroidal, exine clypeate; pistillate sepals 5, entire; disk patelliform to segmented; ovary subglobose to beaked; styles reduced to petaloid stigmas; fruits capsular; seeds smooth.

This is the only section of subg. *Xylophylla* endemic to Jamaica. The habit of the plants suggests a possible relationship with sect. *Oxalistylis*, while it may be the sister group to sections *Hemiphyllanthus* and *Xylophylla*.

SPECIES INCLUDED: JAMAICA: *Phyllanthus axillaris* (Sw.) Müll. Arg., *P. cauliflorus* (Sw.) Griseb., *P. cladanthus* Müll. Arg.

Sect. VIII.12. **Hemiphyllanthus** (Müll. Arg.) Müll. Arg., Flora 1865: 370. 1865; DC. Prodr. 15(2): 323.

1866; Webster, J. Arnold Arb. 39: 163. 1958. *Glochidion* sect. *Hemiphyllanthus* Müll. Arg.,

Linnaea 32: 59. 1863. LECTOTYPE: *Phyllanthus ovatus* Poir.

Monoecious arborescent shrubs; axes incrustate or tomentulose; branchlets bipinnatifid; sepals 5, entire; staminate disk segments 5; stamens 2—6, filaments free or connate; anthers dehiscing obliquely to horizontally; pollen grains spheroidal, clypeate; pistillate disk cupular to dissected; styles free or connate, bifid; fruits capsular; seeds smooth or verruculose.

This section of 6 species is the only one that has radiated in the Lesser Antilles. It appears to have arisen as a vicariant of sect. *Epistylum* and is probably the sister group of sect. *Xylophylla*.

SPECIES INCLUDED: HISPANIOLA: *Phyllanthus maleolens* Urb. & Ekman, *P. myriophyllus* Urb. LESSER ANTILLES (Antigua to Martinique). *P. mimosoides* Sw. DOMINICA: *P. megapodus* G. L. Webster. MARTINIQUE: *P. ovatus* Poir. TOBAGO: *P. acacioides* Urb.

Sect. VIII.13. **Xylophylla** (L.) Baillon, Étude Gén. Euphorb. 623. 1858; Müll. Arg., DC. Prodr. 15(2): 427. 1866;

Webster, J. Arnold Arb. 39: 179. 1958. *Xylophylla* L., mant. Pl. 2: 147. 1771. TYPE: *Xylophylla latifolia* L. [nom. illeg., = *Phyllanthus epiphyllanthus* L.]

Monoecious, arborescent shrubs; branchlets bipinnatifid, with ultimate axes transformed into phylloclades, or (by reduction) simple phylloclades; leaves usually reduced to scales; cymules at nodes of phylloclades, unisexual or bisexual; sepals 6 (rarely 5), entire; staminate disk segments usually 6; stamens 3 (rarely 4 or 5), filaments connate at least below; anthers dehiscing ± horizontally; pollen grains spheroidal, clypeate, exine shields oligobrochate; pistillate disk urceolate to dissected; styles free or basally connate, bifid, branches often lobed or bifid; fruits capsular; seeds trigonous, verruculose.

This section of 7 West Indian species is especially well-known because of its phylloclades, and species such as *Phyllanthus angustifolius* or the hybrid *P. elongatus* are often cultivated as ornamentals. The center of evolution of the section is clearly in Jamaica, where all of the species occur.

SPECIES INCLUDED: WEST INDIES (Bahamas to Barbados): *Phyllanthus epiphyllanthus* L. JAMAICA, CAYMAN & SWAN I.: *P. angustifolius* (Sw.) Sw.). JAMAICA: *P. arbuscula* (Sw.) Gmel., *P. eximius* G. L. Webster & Proctor, *P. latifolius* Sw., *P. montanus* (Sw.) Sw., *P. proctoris* G. L. Webster.

Sect. VIII.14. **Elutanthos** Croizat, J. Wash. Acad. Sci. 33: 12. 1943; Webster, J. Arnold Arb. 39: 50. 1958.

TYPE: *Phyllanthus glaucescens* Kunth [= *P. grandifolius* L.]

Monoecious shrubs or trees; branchlets not deciduous, leaves on penultimate axes not reduced to cataphylls; flowers in axillary glomerules or thyrses (sometimes paniculate), cymules unisexual or bisexual, pistillate flowers 1-4 per cymule; sepals 6; staminate disk dissected; stamens (2) 3, filaments connate; anthers deflexed or dehiscing horizontally; pollen grains spheroidal, clypeate, exine shields polybrochate; pistillate disk patelliform; styles connate at least at base, bifid to entire; fruits capsular; seeds smooth.

Because of the lack of typical phyllanthoid branching, this section of 13 neotropical species was originally placed in a subgenus separate from subg. *Xylophylla* (Webster, 1958). At that time, it was suggested that the non-phyllanthoid branching in sect. *Elutanthos* might not be “primitive”, but rather a reversion from some taxon with phyllanthoid branching. The possible sister group to sect. *Elutanthos* has not been identified.

SPECIES INCLUDED: NORTH & SOUTH AMERICA: *Phyllanthus botryanthus* Müll. Arg. NORTH AMERICA: MEXICO & GUATEMALA: *Phyllanthus coalcomanensis* Croizat, *P. grandifolius* L., *Phyllanthus laxiflorus* Benth., *P. tequilensis* B. L. Rob. & Greenm. WEST INDIES: *P. nutans* Sw., *P. pachystylus* Urb., *P. urbanianus* Mansf. SOUTH AMERICA: *P. anderssonii* (also in Barbados); *P. biantherifer* Croizat, *P. cladotrichus* Müll. Arg., *P. huallagensis* Standl. ex Croizat, *P. morianus* G. L. Webster, *P. racemigerus* Müll. Arg., *P. umbratus* Müll. Arg.

Sect. VIII.15. **Diplocicca** Müll. Arg., Fl. Basil. 11(2): 30. 1873. TYPE: *Phyllanthus octomerus* Müll. Arg.

Glabrous monoecious glabrous shrubs; branchlets pinnatifid; cymules unisexual, staminate proximal, pistillate distal; pistillate flowers solitary; staminate sepals 6—8, entire; disk entire; stamens 3 or 4, free; anthers introrse, dehiscing vertically; pollen grains spheroidal, clypeate, exine shields oligobrochate; pistillate sepals 8—10 [ex Müller]; disk patelliform; ovary 4-locular; styles free, bifid; fruit and seeds unknown.

This monotypic section was described from caatinga vegetation in Bahia, Brazil. It appears very close to sect. *Brachycladus*.