Compositae of the Guayana Highland—X. Reduction of *Pollalesta* to *Piptocoma* (Vernonieae: Piptocarphinae) and Consequent Nomenclatural Adjustments

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**Abstract.** Central and South American *Pollalesta* is reduced to synonymy of West Indian *Piptocoma*. Fourteen new species combinations and three new sectional combinations are made, and *Piptocoma acevedoi* from Puerto Rico is described as new, raising the number of species in *Piptocoma* from 3 to 18. A key to the four sections of *Piptocoma* is also provided.

While preparing accounts of the Compositae (Asteraceae) for the Guayana Highland in northeastern South America and for the Flora of St. John, U.S.V.I., I came to the conclusion that West Indian *Piptocoma* Cassini and Central and northern South American *Pollalesta* HBK (Vernonieae subtribe Piptocarphinae, sensu Robinson et al., 1980, and Pruski, 1992) are congeneric. Schultz-Bipontinus (1863) also treated neotropical *Piptocoma* and *Pollalesta* as congeneric more than a century ago, but treated them as synonyms of paleotropical *Oliganthes*. *Piptocoma* tends to have smaller leaves and larger heads than those of *Pollalesta*, but the differences are not genetically useful. *Piptocoma* was treated as distinct from *Oliganthes* (then including *Pollalesta*) by Bentham (1873) and from *Pollalesta* by Stutts and Muir (1981) because of striate (not 10-costate) cypselas (achenes); however, I cannot discern a difference and do not accept recognition of two neotropical genera. The purposes of this paper are to reduce *Pollalesta* to the synonymy of *Piptocoma*, to describe a new species from Puerto Rico, and to provide the necessary transfers from *Pollalesta* to *Piptocoma*.

*Pollalesta* was considered by Bentham (1873) to be a synonym of *Oliganthes* Cassini, which is typified by material from Madagascar and now contains nine species, all endemic to that island. However, the neotropical species of *Oliganthes* sensu Bentham were noted by Aristeguieta (1963) to have a double pappus (vs. a uniseriate pappus in *Oliganthes* s. str.) and were treated by him in the newly resurrected *Pollalesta*, in which 24 species were recognized. In a more recent treatment of *Pollalesta*, Stutts (1981) recognized only 16 species. In my treatment of the four species of the group from Guayana (all endemic) for the *Compositae of the Guayana Highland and Flora of the Venezuelan Guayana*, I follow the species circumscriptions of Stutts (1981), except that I place *P. faustiana* into the synonymy of *P. schomburgkii* and *P. rarissima* into the synonymy of *P. niccfroei*.

*Oliganthes* has a uniseriate pappus as reported by Aristeguieta (1963), or when double has a rigid and persistent outer or shorter pappus that is formed from a cartilaginous annulus on the apex of the cypsela. The annulus is thick and is often of nearly the same color as the cypsela. Moreover, *Oliganthes* has a corolla throat that is about as long as the lobes, anthers partly included within the throat, and short-triangular anther appendages. In contrast, the pappus of the New World taxa (*Piptocoma* and *Pollalesta*) is generally deciduous and consistently white to cream-colored, and it and the cypselas thus strongly discolorous. Additionally, the species from the Neotropics have a very short corolla throat that is much shorter than the lobes, anthers mostly exerted from the throat, and long-triangular anther appendages.

The Old and New World genera can thus be readily distinguished, but the two neotropical genera cannot. The general aspect, gross morphology, and floral microcharacters (the type A pollen, anthers with similar long-triangular apical appendages and spurred bases, styles with a glabrous, non-enlarged base, and a generally biseriate pappus with an inner series of spiral scales) of the neotropical species show continuous variation, making impossible the distinction of two neotropical genera. Therefore, *Pollalesta* is merged with the earlier *Piptocoma*.

**Piptocoma** Cassini, Bull. Soc. Philom. Paris 1817: 10. 1817. **TYPE:** *Piptocoma rufescens* Cassini.

*Odontoloma* HBK, Nov. Gen. Sp. (folio ed.) 4: 34. 1818.

Syn. nov. **TYPE:** *Odontoloma acuminatum* HBK. "acuminata." [= *Piptocoma acaminata* (HBK) Pruski.]
Dialesta HBK, Nov. Gen. Sp. (folio ed.) 4: 35. 1818. Syn. nov. TYPE: Dialesta discolor HBK [= Piptocoma discolor (HBK) Pruski].

Pollalesta HBK, Nov. Gen. Sp. (folio ed.) 4: 36. 1818. Syn. nov. TYPE: Pollalesta vernonioides HBK [= Piptocoma vernonioides (HBK) Pruski].

Adenocyclus Lessing, Linnaea 4: 337. 1829. Syn. nov. TYPE: Adenocyclus condensatus Lessing [= Piptocoma acuminata (HBK) Pruski].

Erect subshrubs, scendent to vining shrubs, or trees; stems tomentose when young, irregularly angled. Leaves simple, alternate, petiolate; blade narrowly lanceolate to ovate or cordiform, pinnately veined, the upper surface becoming glabrous, sometimes gland-dotted, the lower surface commonly stellate-tomentose. Capitulescence terminal, corymbiform or glomerate, of several to many short-pedunculate capitula. Capitula discoid, 1-12-flowered; involucre cylindrical to narrowly campanulate, the phyllaries imbricate, graduated; receptacle weakly convex to flat, naked, plane or ridged, rarely obviously 1- or 2-awned. Florets bisexual; corollas actinomorphic, funnelform, 5(-6)-lobed, white to purple, the anthers spurred, the style base glabrous, non-enlarged, the style shaft upwardly hispidulous, the style branches ascending, slender, hispidulous, the stigmatic surface continuous. Cypselas obconical to less commonly plump and pyriform at maturity (Costa Rica south to Peru and Brazil). 

Key to the Sections of Piptocoma

1a. Phyllaries distichous; cypselas plump and pyriform at maturity (Costa Rica south to Peru and Brazil) .................. 1. P. sect. Dialesta

1b. Phyllaries spirally arranged; cypselas obconical.

2a. Outer pappus series persistent though fragile; heads 4-12-flowered (Hispaniola, Puerto Rico, and the Virgin Islands) .......................... 3. P. sect. Piptocoma

2b. Outer pappus series eventually deciduous, either individually or as a ring; heads 1-6-flowered.

3a. Heads 1-2(3)-flowered; involucres narrowly cylindrical; inner pappus of 0-4(-6) scales (South America) .......................... 2. P. sect. Odontoloma

3b. Heads 2-5(6)-flowered; involucres cylindric or broadly so; inner pappus of (4-)6-14 scales (South America) .................. 4. P. sect. Pollalesta

1. Piptocoma sect. Dialesta (HBK) Pruski, stat. nov. Based on: Dialesta HBK, Nov. Gen. Sp. (folio ed.) 4: 35. 1818. TYPE: Dialesta discolor HBK [= Piptocoma discolor (HBK) Pruski].

2. Piptocoma discolor (HBK) Pruski, comb. nov. Basionym: Dialesta discolor HBK, Nov. Gen. Sp. (folio ed.) 4: 35, tab. 320. 1818. [Eupatorium cuspidatum Willdenow ex Lessing, pro syn., Linnaea 4: 315. 1829.] Oliganthes discolor (HBK) Schultz-Bipontinus, Linnaea 20: 502. 1847. Piptocoma discolor (HBK) Aristeguieta, Bol. Soc. Venez. Ci. Nat. 23: 275. 1963. TYPE: Colombia. Honda, 366 m, July 1801, Humboldt & Bonpland s.n. (holotype, P not seen [IDC microfiche 6209. 92.I.3]; isotypes, B-W 15156 & Bonpland s.n. [IDC microfiche 6209.92.I.3], P not seen [photo, US]).

Distribution. Costa Rica south to Peru and Brazil. This is the only species of Pollalesta sensu Stutts (1981) not found in Venezuela.

2. Piptocoma sect. Odontoloma (HBK) Pruski, stat. nov. Based on: Odontoloma HBK, Nov. Gen. Sp. (folio ed.) 4: 34. 1818. TYPE: Odontoloma acuminata HBK, “acuminata.” [= Piptocoma acuminata (HBK) Pruski].
Oliganthes subg. Adenocyclus (Lessing) Schultz-Bipontinus, Linnaea 20: 501. 1847.

Oliganthes subg. Odontoloma (HBK) Schultz-Bipontinus, Linnaea 20: 502. 1847.

Piptocoma acuminata (HBK) Pruski, comb. nov. Basionym: Odontoloma acuminatum HBK, Nov. Gen. Sp. (folio ed.) 4: 34, tab. 319. 1818, "acuminata." [Eupatorium cornifolium Wild- enow ex Lessing, pro syn., Linnaea 4: 337. 1829.] Oliganthes acuminata (HBK) Schultz-Bipontinus, Linnaea 20: 502. 1847. Pollalesta acuminata (HBK) Aristegueta, Bol. Soc. Ve- nez. Ci. Nat. 23: 282. 1963. TYPE: Venezuela. Silla de Caracas, 823 m, Jan. 1800, Humboldt & Bonpland s.n. (holotype, P not seen [IDC microfiche 7440. 1087.III.8]).

Distribution. Colombia, Trinidad, and Venezuela.

Piptocoma barinensis (Aristeguieta) Pruski, comb. nov. Basionym: Pollalesta barinensis Aristegueta, Bol. Soc. Venez. Ci. Nat. 23: 282. 1963. TYPE: Venezuela. Barinas: near Bari- nas, 500 m, Aug. 1958, Aristeguieta 3256 (ho- lotype, VEN; isotypes, NY, US).

Distribution. Venezuela.

Piptocoma hypochlora (S. F. Blake) Pruski, comb. nov. Basionym: Oliganthes hypochlora S. F. Blake, Contr. U.S. Natl. Herb. 20: 533. 1924. Pollalesta hypochlora (S. F. Blake) Ar- istegueta, Bol. Soc. Venez. Ci. Nat. 23: 280. 1963. TYPE: Venezuela. Carabobo: vicinity of Las Trincheras, near Valencia, 200-400 m, 15 Oct. 1918, Piiitier 8185 (holotype, US).

Distribution. Trinidad and Venezuela.

Piptocoma trujillensis (Aristegueta) Pruski, comb. nov. Basionym: Pollalesta trujillensis Aristegueta, Bol. Soc. Venez. Ci. Nat. 23: 281. 1963. TYPE: Venezuela. Trujillo: Loma de Mor- ron, near Valera, 18 Nov. 1922, Piiitier 10732 (holotype, VEN; isotypes, NY, US).

Distribution. Venezuela.

3. Piptocoma sect. Piptocoma

Piptocoma acevedoi Pruski, sp. nov. TYPE: Puerto Rico. Isabela: Guajataca Forest, along Juan Pérez trail, 100-200 m from trail #4, [ca. 200-250 m], 28 Aug. 1992, Acevedo-Rdgz. & Chinea 5217 (holotype, US; isotypes, K not seen, NY, SJ not seen, UPR not seen, UPRRP not seen). Figure 1.

Piptocoma samanensis similis et affinis sed foliiis lae- vibus integris magnis, ramulo capitulecentiam subten- dienti 6-14 cm longo, involucro cylindrico, necon capitulo 6-10-floro diversa.

Scandent, scrambling, or vining shrub; stems 3-7 m long, tomentose, subterete below, irregularly angled distally, finely striate, tips arching or droop- ing. Leaves simple, alternate, petiolate; blade char- taceous, elliptic to obovate, 2-9.5 X 1-4.3 cm, the base acute to attenuate, the apex acute to obtuse or rounded, the margins entire, venation pinnate, not obviously reticulate, the upper surface dark green, smooth, gland-dotted, thinly puberulent, the lower surface often gray or rust-colored, stellate- tomentose; petiole 2-8 mm long. Capitulecence glomerate, held well above uppermost leaves on tomentose 1-bracted (otherwise naked) branches 6-14 cm long; individual glomerules with 4-9 capitula, to 2 cm broad. Capitula discoid, 6-10-flow- ered, 7-10 mm tall, sessile or less commonly sub- sessile, glomerule or individual capitula often subtended by herbaceous bracts, bracts narrowly elliptic to lanceolate, to 6.5 mm long, commonly longer than the outermost phyllaries; involucre cy- lindrical or often becoming campanulate in fruit, 5-6.5 X (2-)3-4 mm, 3-4-seriate; phyllaries 20-23, imbricate, graduated, outer 1 or 2 herbaceous, pubescent, the outer series deltoid to elliptic, 1.5-2.5 X 0.7-1.2 mm, apically acute to rounded, the inner ones elliptic-lanceolate, 4.5-5.5 X 1.2-1.5 mm, apically obtuse to rounded, scarious, proximally glabrous, pubescent and gland-dotted toward apex; receptacle flat, 0.5-1.5 mm diam., glabrous, naked or less commonly awned (paleate), pitted or with 2 ridges bordering pits to ca. 0.2 mm tall, one or both ridges sometimes elongating into awns 1-4 mm long. Corollas actinomorphic, deeply 5(-6)-lobed, (4-)5-6.3 mm long, lavender, funnelform, the limb exserted from involucre, the tube and es- pecially the lobe apex glandular; tube narrow, 2.5-3 mm long; throat broadened, ca. 0.5-0.8 mm; lobes ascending, linear, 2-2.8 mm long; anthers ex- verted from throat, cream-colored, 1.8-2.2 mm long, long-triangular at apex, basally spurred, the filaments very short, ca. 0.8 mm long; style to 6.8 mm long, without basal node, hispidulous in upper half, the branches ascending to gently recurved, slender, 1.2-2.3 mm long, the stigmatic surface con- tinuous. Cypselas obconical, ca. 10-nribed, 2.5-4 mm long, light brown, glabrous or sometimes weakly puberulent at top; pappus biseriate, cream-colored, outer series of ca. 10, reduced, persistent scales, these free or pseudocoroniform, 0.4-1(1.4) mm long, inner series of 9-12 elongate, erect, twisting, deciduous scales, ca. 3-4.7 mm long. Pollen type A.
I am happy to name this species after its discoverer, my friend and colleague Pedro Acevedo-Rodriguez. Pedro is the author of Los Bejucos de Puerto Rico (Acevedo-Rodriguez, 1985).

Distribution and ecology. This species is uncommon on limestone or serpentinite in moist disturbed or riverine forests in western and northern Puerto Rico. It has been collected from 200 to 545
m elevation and is known to flower from August to January. With the description of this new species, the floras of Puerto Rico and Hispaniola each have two species of *Piptocoma*, one with a glomerate capitulescence and another with a corymbiform capitulescence.

By its persistent outer pappus, *P. acevedoi* belongs to *Piptocoma* sect. *Piptocoma*. Because of its glomerate capitulescence it is most closely related to *P. samanensis* Alain of Hispaniola. The two other species of section *Piptocoma*, *P. rufescens* Cassini from Hispaniola and *P. antiliana* Urban from Puerto Rico, have a corymbiform capitulescence and are not as closely related. *Piptocoma acevedoi* differs from *P. samanensis* by entire (vs. aculeate or less commonly denticulate), smooth (vs. rugose) leaves that are often twice as long as those of *P. samanensis*, by glomerules held high above the upper stem leaves on 1-bracted (vs. 1-leaved) branches that are 6–14 (vs. 3–8) cm long, and by cylindrical (vs. broadly cylindrical to turbinate), 6–10 (vs. 8–12)-flowered heads. Moreover, the receptacle in *P. acevedoi* is occasionally awned with elongations to 4 mm long, a "paleate" condition not found in *P. samanensis*, and seen rarely elsewhere in the tribe *Vemonieae*.

**Paratypes.** PUERTO RICO. Bosque de Guajataca, Vereda #4, [ca. 200-250 m], 16 Jan. 1992, Acevedo-Rdgz. et al. 4784 (F not seen, MO not seen, US); Maricao, Bo. Maricao Afuera, along Maricao River, between 0.5 & 1 km upriver from entrance to fish hatchery, 18°10.191'N, 66°59.163'W, 485–545 m, 10 Jan. 1995, Acevedo-Rdgz. & Cedeflo 7148 (HAC, UPR not seen, US); Maricao, Bo. Maricao Afuera, Rfo Maricao margins, on shaded river banks, serpentinitic soil, 18°09'43"N, 66°59'15"W, 500 m, 10 Jan. 1995, Cedeno & Acevedo 379 (MARP not seen, US).

**Piptocoma antillana** Urban, Ark. Bot. 23A(11): 50. 1931. TYPE: U.S. Virgin Islands. Water Island near St. Thomas, July 1881, Eggers edit. Toepffer 475 (holotype, B destroyed; isotype, GH not seen [photo, US]).

**Distribution.** Guayana region of Venezuela.

**Piptocoma macrophylla** (Schultz-Bipontinus) Pruski, comb. nov. Basionym: *Oliganthes macrophylla* Wurdack, Mem. New York Bot. Gard. 8: 144. 1953. *Pollalesta macrophylla* (Schultz-Bipontinus) Pruski, stat. nov. Based on: *Pollalesta vernonioides* HBK [= *Piptocoma vernonioides* (HBK) Pruski].

**Oliganthes subg. Pollalesta** (HBK) Schultz-Bipontinus, Jahresber. Pollichia 20-21: 337. 1863.

**Distribution.** Colombia and Venezuela.

**Piptocoma milleri** (J. R. Johnston) Pruski, comb. nov. Basionym: *Vernonia milleri* J. R. Johnston, Proc. Amer. Acad. Arts 40: 698. 1905. *Oliganthes milleri* (J. R. Johnston) Gleason, Bull. Torrey Bot. Club 46: 251. 1919. *Pollalesta milleri* (J. R. Johnston) Aristeguieta, Bol. Soc. Venez. Ci. Nat. 23: 268. 1963. TYPE: Venezuela. Nueva Esparta: Isla de Margarita, El Valle, summit of South hill, 300 m, 31 July 1901, Miller & Johnston 254 (holotype, GH not seen; isotypes, NY, US).

**Distribution.** Trinidad and Venezuela.
Piptocoma neglecta (Stutts) Pruski, comb. nov.
Basionym: Pollalesta neglecta Stutts, Rhodora 83: 412. 1981. TYPE: Venezuela. Sucre: Peninsula de Paria, between Cumaná and Carupano, 5 m, 14 Aug. 1966, Steyermark & Rabe 96443 (holotype, NY; isotype, US).

Distribution. Venezuela.

Piptocoma niceforoi (Cuatrecasas) Pruski, comb. nov.
Basionym: Oliganthes niceforoi Cuatrecasas, Revista Acad. Colomb. Ci. Exact. 9: 243. 1954. Pollalesta niceforoi (Cuatrecasas) Aristeguieta, Bol. Soc. Venez. Ci. Nat. 23: 267. 1963. TYPE: Colombia. Norte de Santander: Río Zulia, 4 Jan. 1949, Nicéforo 35 (holotype, F not seen [photo, NY]).

Pollalesta rarissima Stutts, Rhodora 83: 412. 1981. Syn. nov. TYPE: Venezuela. Táchira: between La Muleta and Independencia, 1300 m, 15 Feb. 1939, Alston 7070 (holotype, MO; isotypes, NY, US, VEN).

Distribution. Colombia and Venezuela.

Piptocoma roraimensis (Steyermark) Pruski, comb. nov.
Basionym: Oliganthes roraimensis Steyermark, Fieldiana, Bot. 28: 662. 1953. Pollalesta roraimensis (Steyermark) Aristeguieta, Bol. Soc. Venez. Ci. Nat. 23: 271. 1963. TYPE: Venezuela. Bolivar: Mount Roraima, SW-facing quebrada near Rondón Camp, 2040 m, 25 Sep. 1944, Steyermark 58678 (holotype, F not seen; isotype, NY).

Distribution. Guayana region of Guyana and Venezuela; expected from adjacent Brazil.

Piptocoma schomburgkii (Schultz-Bipontinus) Pruski, comb. nov. Basionym: Oliganthes schomburgkii Schultz-Bipontinus, Linnaea 20: 504. 1847. Pollalesta schomburgkii (Schultz-Bipontinus) Aristeguieta, Bol. Soc. Venez. Ci. Nat. 23: 269. 1963. TYPE: Venezuela. Near Roraima, Nov. 1842, Rich. Schomburgk 921 [cited in the Schomburgk determination lists (ms. in K, copy in NY) as 626(921)] (holotype, B destroyed [photo, US]).

Pollalesta faustiana Stutts, Rhodora 83: 414. 1981. Syn. nov. TYPE: Venezuela. Bolívar: Río Suapure, along river between Raudal Budare and Raudal Pta. Brava (70–80 river km from mouth), 110–120 m, 17 Jan. 1956, Wurdack & Monachino 41267 (holotype, K not seen; isotypes, NY, US).

Distribution. Guayana region of Brazil, Colom-
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Stutts, J. G. 1981. Taxonomic revision of Pollalesta H.B.K. (Compositae: Vernonieae). Rhodora 83: 385–419.

—— & M. A. Muir. 1981. Taxonomic revision of Piptocoma Cass. (Compositae: Vernonieae). Rhodora 83: 77–86.
Pruski, J F. 1996. "Compositae of the Guayana Highland---X. Reduction of Pollalesta to Piptocoma (Vernonieae: Piptocarphinae) and consequent nomenclatural adjustments." *Novon a journal of botanical nomenclature from the Missouri Botanical Garden* 6, 96–102. [https://doi.org/10.2307/3392220](https://doi.org/10.2307/3392220).

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