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Author: Santos, Isidro E. Méndez

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ISIDRO E. MÉNDEZ SANTOS[1]

New combinations in *Ovieda* (*Lamiaceae*) for Cuba and Hispaniola

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Abstract: All endemic species of Hispaniola and Cuba that were formerly assigned to *Clerodendrum*, with the exception of *Volkameria aculeata* (or *C. aculeatum*), are transferred to *Ovieda*, based on morphological and phytogeographical evidence. A full synonymy, with citation of types, is given for all of them, and the necessary seven new combinations are validated.

Key words: *Lamiaceae*, *Labiatae*, *Clerodendrum*, *Ovieda*, *Volkameria*, taxonomy, new combinations, lectotypification, Caribbean, West Indies, Greater Antilles, Cuba, Hispaniola

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Introduction

The name *Ovieda* L. was validly published by Linnaeus (1753) for a genus with a single species, *O. spinosa* L., from "America meridionali" (in fact from the Caribbean island of Hispaniola). Subsequently, several additional species were added to *Ovieda*, some newly described (e.g. *O. mitis* L. 1763; *O. ovalifolia* Juss. 1806; *O. verticillata* Roxb. ex D. Don 1825), some transferred from other genera (e.g. *O. inermis* (L.) Burm. f. 1768 and *O. aculeata* (L.) Baill. 1891 [non (Sweet) Klatt 1864], both from *Volkameria* L.). All were later included in *Clerodendrum* L. (e.g. by Briquet 1894).

The wide circumscription of *Clerodendrum* prevailed until recently, when molecular evidence showed it to be unnatural. Using chloroplast DNA sequence data, Yuan & al. (2010) restricted the genus *Clerodendrum* to Old-World taxa, placing the New-World representatives formerly assigned to it in two other Linnaean genera, *Ovieda* and *Volkameria*. The former they considered as unispecific: *O. spinosa*, the species providing its type and the only one they had used in their analysis, being endemic to Hispaniola. The remaining New World species they placed in what Steane & al. (1997) had identified as a clade of "pantropical coastal *Clerodendrum*" species, now assigned to *Volkameria*, a genus represented on the Caribbean islands by its nomenclatural type, *V. aculeata* L. (Yuan & al. 2010).

Yuan & al. (2010) did not mention the remaining autochthonous Caribbean *Clerodendrum* species, which were not studied by them. By implication, one might conclude that they were considered as belonging to *Volkameria*. However, they appear to be closely related to, and in my opinion congeneric with, *Ovieda spinosa* rather than *V. aculeata*. This conclusion is not only supported by similarity of general habit and habitat, but also by details of morphology. In major characters considered by Yuan & al. (2010) as distinguishing *Volkameria* and

1 Centro de Estudios de Gestión Ambiental, Universidad "Ignacio Agramonte Loynáz", CP-74670, Camagüey, Cuba; e-mail: isidro mendez@reduc.edu.cu, imendezs1958@gmail.com

Ovieda, the Caribbean island endemics agree with *O. spinosa*. The young branches are tuberculate by prominent lenticels; the leaves are large, often with a ± spinulose-denticulate margin and with a reticulum of abaxially prominent veins.

According to Yuan & al. (2010), the fruit is a drupe in both genera, but has four one-seeded locules in *Volkameria* and only two one-seeded locules in *Ovieda* (however, elsewhere in the same paper, they state that the fruit was "not recorded recently").

Material and methods

The present revision is based on field observations in different places of Cuba and the study of herbarium material with the aid of a binocular dissecting microscope Wild M5A at up to 100× magnification. Fruits were soaked in tap water and boiled until mollified. Specimens were studied at, or obtained on loan from, the following herbaria (abbreviated in conformity with Thiers 2016+): A, B, BM, F, G, GH, HAC, HAJB, HIPC, JE, K, MO, NY, P, PAL-Gr, S and US. Digital images available via the Internet (A, F, G, P, K, KW, NY, S, YU) and in microfiches (G in B) were also studied.

Results and Discussion

Recent studies on *Ovieda spinosa* (e.g. *García & al. 4890*, PAL-Gr) and the other Caribbean island endemics species lead the author to the conclusion that they all have drupes with two one-seeded pyrenes.

Morphological and phytogeographical evidence is sufficiently conclusive to justify inclusion in *Ovieda* of all endemic species of Hispaniola and Cuba that were formerly assigned to *Clerodendrum*. During preparation of the *Lamiaceae* treatment for the *Flora de la República de Cuba* these species were recently revised by me, and their synonymy established. This revision results in the need for seven new combinations, validated as follows:

Ovieda anafensis (Britton & P. Wilson) I. E. Méndez, **comb. nov.** ≡ *Clerodendrum anafense* Britton & P. Wilson in Mem. Torrey Bot. Club 16: 99. 1920. – Holotype: Cuba, Pinar del Río: Sierra de Anafe, 21 Dec 1911, *Wilson & León 11466* (NY 00111241!; isotypes: US 00119323 [photo!], F 0074334 [photo!]).

= *Clerodendrum denticulatum* Moldenke in Caribbean Forrester 2: 14. 1940. – Holotype: Cuba, Oriente: mogote in coll. calcar. prope Palmarito del Cauto, 300 m alt., 10 Apr 1918, *Ekman 9176* (B†, NY [photograph of holotype!]; **lectotype (designated here):** S 042646 [photo!]; isolectotype: NY 111244!).

Ovieda brachypus (Urb.) I. E. Méndez, **comb. nov.** ≡ *Clerodendrum brachypus* Urb. in Repert. Spec. Nov. Regni Veg. 20: 347. 1924. ≡ *Clerodendrum cubense* var. *brachypus* (Urb.) Kereszty in Acta Bot. Hung. 36: 56. 1993. – Holotype: Cuba, Pinar del Río: Ensenada de Vega Cuchilla, 12.6.1923, *Ekman 16673* (B†; **lectotype (designated here):** S 04-2645 [photo!]).

= *Clerodendrum grandiflorum* subsp. *cajalbanense* Kereszty in Acta Bot. Hung. 36: 53. 1993. – Holotype: Cuba, Pinar del Río: Cajálbana, without date, *Acuña 16416* (HAC!).

Ovieda calcicola (Britton) I. E. Méndez, **comb. nov.** ≡ *Clerodendrum calcicola* Britton in Bull. Torrey Bot. Club, 39: 9. 1912. – Lectotype (Moldenke in Phytologia 58: 410. 1985): Cuba, Pinar del Río, Bahía de Corrientes, 10–12 Mar 1911, *Britton & Cowell 9871* (NY 00111242!).

Ovieda cubensis (Schauer) I. E. Méndez, **comb. nov.** ≡ *Clerodendrum cubense* Schauer in Candolle, Prodr. 9: 658. 1847. – **Lectotype (designated here):** Cuba, 1833, *Sagra 595* (G-DC [IDC microfiche 1904: B7!]; isolectotype: G-DC [IDC microfiche 1904: B6!]; isolectotypes?: *Sagra 215*, BM 000992847 [photo!]; G 366310 [photo!]; *Sagra 208*, G 366309 [photo!]).

= *Clerodendrum lindenianum* A. Rich. in Sagra, Hist. Fís. Cuba 11: 147. 1850. – Holotype: Cuba: Santiago de Cuba, 1844, *Linden 1775* (P 03410281 ex herb. Richard [n.v.]; isotypes: G 00366384 [photo!], G 00366385 [photo!], K 000485177 [photo!], K 000485178 [photo!], P 03410286 [n.v.]).

= *Clerodendrum nipense* Urb. in Repert. Spec. Nov. Regni Veg. 20: 348. 1924. – Holotype: Cuba, Provincia de Oriente, in Sierra de Nipe ad Río Piloto, in pinetis, 20 Apr 1919, *Ekman 9500* (B†; **lectotype (designated here):** S 04-2647 [photo!]; isolectotype: NY 00111245 fragment [photo!]).

= *Clerodendrum nipense* var. *pubescens* Moldenke in Caribbean Forester 2: 14. 1940. – Holotype: Cuba, Caguaneque, Sagua de Tánamo, without date, *Bucher 10* (HAC-LS!; isotype: NY 00111245 [fragment!]).

= *Clerodendrum camagueyense* Britton & P. Wilson in Mem. Torrey. Bot. Club 16: 99. 1920 ≡ *Clerodendrum lindenianum* var. *camagueyense* (Britton & P. Wilson) Moldenke in Rev. Sudamer. Bot. 5: 1. 1937. – Holotype: Cuba, Camagüey, savanna south of Sierra de Cubitas, 20–21 Feb 1909, *Shafer 496* (NY 00111243!; isotypes: F 0074335 [photo!], A 00094525 [photo!]).

Ovieda grandiflora (Hook.) I. E. Méndez, **comb. nov.** ≡ *Aegiphila grandiflora* Hook. in Bot. Mag. 72: t. 4230. 1846 ≡ *Clerodendrum grandiflorum* (Hook.) Schauer in Candolle, Prodr. 9: 659. 1847. – **Lectotype (designated here):** plate 4230 in Curtis's Botanical Magazine, 1846, of a plant of unstated origin cultivated in Kensington, U.K.

= *Clerodendrum sagrae* Schauer in Candolle, Prodr. 11: 659. 1847. – **Lectotype (designated here):** Cuba, Havane, 1833, *Sagra 591* (G-DC [IDC microfiche 1904:

B8!]; isolectotypes?: *Sagra s.n.*, F 0074336 [photo!], P 00689876 [photo!]; *Sagra 105*, G-DC [IDC microfiche 1904: C1!]).

= *Aegiphila aurea* Turcz. in Bull. Soc. Imp. Naturalistes Moscou 36(3): 218. 1863. – Holotype: Cuba: provincia de la Habana, 1844, *Linden 131* (KW 1001654 [photo!]).

= *Citharexylum longiflorum* Turcz. in Bull. Soc. Imp. Naturalistes Moscou 36(3): 207. 1863. – Holotype: Cuba, *Sagra 50* (P? [n.v.]).

Ovieda picardae (Urb.) I. E. Méndez, **comb. nov.** ≡ *Clerodendrum picardae* Urb., Symb. Antill. 3: 367. 1903. – Syntypes: Haiti, prope Payan ad habitationem Icard, January; in montibus Furcy, 1515 m, August. *Picarda 172*, *621* (both B†).

Ovieda tuberculata (A. Rich.) I. E. Méndez, **comb. nov.** ≡ *Clerodendrum tuberculatum* A. Rich. in Sagra, Hist. Fís. Cuba 11: 147. 1850 ["*Clerodendron*"]. – **Lectotype (designated here):** Cuba: without date, ex herb. Richard without number ["Crescit cerca Jaguae (*De la Ossa*)"] (P 03283942 [photo!]; isolectotype P 03283945 [photo!]).

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