

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

Author: Santos, Isidro E. Méndez

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ISIDRO E. MÉNDEZ SANTOS<sup>1</sup>

## 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 phyto-geographical 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

<sup>1</sup> Centro de Estudios de Gestión Ambiental, Universidad “Ignacio Agramonte Loynáz”, CP-74670, Camagüey, Cuba; e-mail: [isidro.mendez@reduc.edu.cu](mailto:isidro.mendez@reduc.edu.cu), [imendezs1958@gmail.com](mailto: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  $\pm$  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 $\times$  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.**  $\equiv$  *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!]).

$\equiv$  *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 $\dagger$ , NY [photograph of holotype!]; **lectotype (designated here)**: S 042646 [photo!]; isoelectotype: NY 111244!).

***Ovieda brachypus*** (Urb.) I. E. Méndez, **comb. nov.**  $\equiv$  *Clerodendrum brachypus* Urb. in Repert. Spec. Nov.

Regni Veg. 20: 347. 1924.  $\equiv$  *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 $\dagger$ ; **lectotype (designated here)**: S 04-2645 [photo!]).

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

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

$\equiv$  *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.]).

$\equiv$  *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 $\dagger$ ; **lectotype (designated here)**: S 04-2647 [photo!]; isoelectotype: NY 00111245 fragment [photo!]).

$\equiv$  *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!]).

$\equiv$  *Clerodendrum camagueyense* Britton & P. Wilson in Mem. Torrey Bot. Club 16: 99. 1920  $\equiv$  *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.**  $\equiv$  *Aegiphila grandiflora* Hook. in Bot. Mag. 72: t. 4230. 1846  $\equiv$  *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.

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

B8!]; isoelectotypes?: *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!]; isoelectotype P 03283945 [photo!]).

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