



# A new combination is required in *Conocliniopsis* (Compositae: Eupatorieae: Gyptidinae)

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**Summary.** A new combination, *Conocliniopsis grossedentata*, in *Conocliniopsis* R.M.King & H.Rob. (Compositae: Eupatorieae: Gyptidinae) is provided. An earlier assessment of Prince Maximilian Wied-Neuwied's collections (sent by Martius to Colla), proposed that Colla's *Eupatorium grossedentatum* was a new synonym of *Lourteigia ballotifolia* (Kunth) R.M.King & H.Rob., a Colombian endemic. A critical assessment of Wied's collection has indicated that the material, collected in Brazil near the Bahian coast, on the banks of the Rio Belmonte (= Rio Jequitinhonha), is conspecific with the plant more usually known as *Conocliniopsis prasiifolia* (DC.) R.M.King & H.Rob. Colla's name pre-dates that of de Candolle's *Conoclinium prasiifolium*, the basionym of *Conocliniopsis prasiifolia*; a new combination is necessary. A full synonymy of *Conocliniopsis grossedentata* is provided, types indicated, and other issues discussed.

**Key Words.** Asteraceae, Bahia State, Brazil, Colombia, endemic, *Eupatorium ballotifolium*, *Lourteigia ballotifolia*.

## Introduction

Whilst reassessing my draft checklist of the Compositae of the Departamento de Boyacá, Colombia, I had cause to review some of my earlier work on the Compositae from Bahia State, Brazil. Of particular interest was the plant known as *Conocliniopsis prasiifolia* (DC.) R.M.King & H.Rob. (Compositae: Eupatorieae: Gyptidinae). This species has a disjunct distribution between Brazil (Alagoas, Bahia, Ceará, Minas Gerais, Pernambuco), and central and western Colombia and Venezuela (where it is widespread), together with some confusing aspects in its history.

The basionym, *Conoclinium prasiifolium* DC. (de Candolle 1836: 135) was described from syntypes found in coastal Bahia State (Brazil) and in Caracas (Venezuela). With the recognition of *Eupatorium ballotifolium* Kunth var. *caucense* B.L.Rob. (Robinson 1918: 238), as a synonym (King & Robinson 1972: 308), its distribution was extended to Colombia. This apparent link with *Eupatorium ballotifolium* (as its basionym) has regrettably linked *Conocliniopsis prasiifolia* to *Lourteigia ballotifolia* (Kunth) R.M.King & H.Rob. This has included the recently published checklist of Colombia (Avila *et al.* 2016: 865), within which *Eupatorium ballotifolium* var. *caucense* was presumably mistakenly placed in synonymy of *Lourteigia ballotifolia*. It is based on this tortuous link that *Lourteigia ballotifolia* is now also erroneously referred to the Brazilian flora (see Moraes *et al.* 2013: 215), although strangely excluded in the *Flora do Brasil 2020* database, which however includes the Bahian *Eupatorium grossedentatum* Mart. ex Colla in synonymy.

However, it would appear that Moraes *et al.*'s reference was based solely upon Baker's determination of the Wied-Neuwied collection now in BR — BR(000006592684) — as '*Eupatorium ballotaefolium* HBK'. Baker's account of the species in *Flora Brasiliensis* (Baker 1876: 360) provided a confused concept of *Eupatorium ballotifolium* that included the plant currently known as *Conocliniopsis prasiifolia*.

A comparison of the holotype of *Eupatorium ballotifolium*, P-Bonpl.-P(00320082), with the Wied-Neuwied material in BR, shows that other than a superficial similarity in leaf form, the Wied-Neuwied duplicates are certainly not conspecific. In *Eupatorium ballotifolium* the capitula are considerably smaller, the phyllaries more numerous, few-seriate, imbricate, narrower, lanceolate, sparsely pubescent and marginally shorter than the pappus setae, and with long-acute apices. The Wied-Neuwied material has significantly longer petioles, much larger lamina, the capitula are larger, the phyllaries distant, subequal, broader and almost oblong, clearly veined, and conspicuously hirsute towards the darker, acute apices. The achenes of the two are also different in that in *Eupatorium ballotifolium* the body is relatively sparsely setuliferous, whereas in the Wied-Neuwied material they are densely setuliferous. Ecologically, *Lourteigia ballotifolium* is a high-altitude Andean species (generally known above 2500 m), whereas the Wied-Neuwied material is clearly low-altitude, with the Rio Belmont[e] locality a few metres above sea level. The two are clearly not conspecific, and the Wied-Neuwied material an excellent match for the plant currently known as *Conocliniopsis prasiifolia*.

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Moraes *et al.* (2013: 215) indicated that the Wied-Neuwied material was described as *Eupatorium grossedentatum* Mart. ex Colla (Colla 1835). This name predates de Candolle's *Conoclinium prasiifolium* by more than a year, and as such has priority, although no combination has yet been made in the genus *Conocliniopsis* R.M.King & H.Rob. where it clearly belongs.

In the necessary new combination provided below a full synonymy is provided. For each novel name the type citation is provided in the traditional sense and is a transcription of the protologue. In some instances, the collector's name has been placed in italics. The location of known type material is provided (herbarium acronyms following Thiers, [continuously updated](#)), the numbers representing barcodes used in those institutions. De Candolle's name is lectotypified.

### New combination

***Conocliniopsis grossedentata*** (Mart. ex Colla) D.J.N.Hind, **comb. nov.**

<http://www.ipni.org/urn:lsid:ipni.org:names:77304112-1>

*Eupatorium grossedentatum* Mart. ex Colla, *Herb. Pedem.* 3: 284 (1835). Type: 'E[*upatorium*]. *grossedentatum* = Mart: hb: (Brasil: Rio Belmonte). ... Obs: Missum sub allato nomine cum duobus praecedentibus.' Lectotype (selected by Moraes *et al.* 2013: 215): 'BRAZIL. Bahia, Rio Jequitinhonha, "ad ripas fluminis Rio Belmonte," 1816, Wied s.n. (Menke nr. 113) (TO; Isolectotypes, BR 0000006593018, BR 0000006592684).'

*Conoclinium prasiifolium* DC. (de Candolle 1836: 135). Types: 'in Brasiliã circa Bahia, leger. cl. Blanchet, Salzmann [sic] et Lhotsky, et circa Caracas cl. Vargas. E. nepetoides Lindl. herb. ... (v. s.)'. Syntype: Blanchet 71, G-DC(00494004 — mounted with Salzmann 30). Syntype: Lhotsky 73, G-DC(G00494003). Syntype: Vargas s.n., G-DC(G00494005 — mounted with Vargas 265). Syntype: Salzmann 30, G-DC(G00465944 — mounted with Blanchet 71), HAL(0111856 — s.n.; 0111857), K(000069886 — ex Herb. Benthamianum; 000069887 — ex Herb. Hookerianum), MO(797925), MPU(023494 — s.n.), P(02410143, 02671563). Syntype: Vargas 89, G-DC(G00465947). Syntype: Vargas 265, G-DC(G00494012 — mounted with Lhotsky s.n.). Note: P(00603173) is a duplicate of one of the Vargas collections in G-DC, donated by de Candolle. Lectotype (selected here): [Brazil:] 'Bahia, locis incultis. Salzmann Compositae. 30', G-DC(G00465944); isolectotypes: K(000069886 — ex Herb. Benthamianum; 000069887 — ex Herb. Hookerianum), MO(797925), MPU(023494 — s.n.), P(02410143).

*Eupatorium nepetoides* Lindl. ex DC. (de Candolle 1836: 135), nom. nud. pro syn.

*Eupatorium ballotifolium* Kunth var. *caucense* B.L.Rob. (Robinson 1918: 238). Type: 'COLOMBIA: in the upper Cauca Valley, under low isolated thickets on savannahs near Anserma Nueva, alt. 1000 m., Lehmann, no. 3279 (TYPE Gr.) ...'. Holotype: GH(00007552); isotype: US(00147503).

*Conocliniopsis prasiifolia* (DC.) R.M.King & H.Rob. (King & Robinson 1972: 308).

**DISTRIBUTION.** Brazil (Alagoas, Bahia, Ceará, Minas Gerais, Pernambuco), Colombia (Antioquia, Caldas, Casanare, Cundinamarca, Guajira, Huila, Santander, Tolima), ?Cuba (Santiago de Cuba), ?Haiti, Venezuela (Anzoátegui, Carabobo, Distrito Federal, Falcón, Lara, Mérida, Miranda, Nueva Esparta, Sucre, Táchira, Yaracuy, Zulia). (See Discussion below for comments on the Cuban and Haitian distribution.)

**HABITAT.** Disturbed ground, pastures, rough grassland, rocky ground, cliff bases, along water courses, alluvial soils.

**ALTITUDINAL RANGE.** Just above sea level – 1805 m.

**HABIT.** Subshrub or shrub, sometimes described as herbaceous.

**FLOWERING TIME.** Flowering sporadically throughout the year.

**CONSERVATION STATUS.** This species is common throughout its rather extensive range and is considered to be LC (Least Concern) (IUCN 2019).

**DISCUSSION.** The inclusion of '*Eupatorium ballotifolium* H.B.K.' in Guedes' (1985) list, for the Raso da Catarina, is in error. Elsewhere in the list he cited '*Eupatorium prasiifolium* Griseb.', also used in error; both refer to *Conocliniopsis grossedentata*.

Two other names have been associated with *Conocliniopsis prasiifolia*, the first by implication (although not listed in *Index Kewensis* (Jackson 1893), or in the IPNI (2021) and POWO (2021) databases):

*Eupatorium betoniciforme* (DC.) Baker var.  $\delta$  *ascendens* Baker (1876: 363). Type: [Brazil:] 'Prov. Minas Geraes ad S. Ignacio: Sello.' Type material: ?B†, and;

*Campuloclinium ascendens* Sch.Bip. ex Baker (1876: 363), nom. nud. pro syn., based upon a Riedel collection (see K000941149) (see Jackson 1893; King & Robinson 1987: 492; POWO 2021; WFO 2021).

Both of these collections are clearly referable to *Barrosoa betoniciformis* (DC.) R.M.King & H.Rob. and not to *Conocliniopsis grossedentata*.

### DISTRIBUTION IN CUBA AND HAITI

Although the distribution of this taxon is apparently well-defined (to Brazil, Colombia and Venezuela), Liogier (1969, 1996), in citing *Eupatorium ballotifolium* (also citing *Lourteigia ballotifolia* in synonymy), indicated that the species is present in Cuba (citing Clemente 3420) and La Española (Haiti — citing Poiteau s.n.).

Liogier's citation of the *Clemente* collection lacked a herbarium acronym (for where he had seen the material), nor added any collection date; it was certainly collected between December 1943 (3233) and April 1944 (3453) based on collections in GH. Lanjouw & Stafleu (1954: 130) provided an entry for Brother Clement (= Augustin Clément Têteau [Monnet]/Brother Clemente; 1878 – 1951) who collected in Cuba between 1908 and 1950 (Francisco-Ortega *et al.* 2016; see also material in GH). Clemente's original herbarium was not specified (although now likely to be in HAC, via LS), but duplicates are reasonably widespread ('[A, BM,] L, LE, LS (4000), NS, NY, SV, US (658), WTU' — Lanjouw & Stafleu (1954: 130)); the LS material has since been transferred to HAC. The *Poiteau* collection has, so far, proved elusive, and searches in P fruitless; verification of both collections is still pending. A Cuban distribution is only supported by a map for the POWO (2021) record of *Conocliniopsis prasiifolia*; there was no supporting reference; POWO (2021) did not indicate a Haitian distribution. However, examination of the brief description provided by Liogier (1969: 130) casts some doubt as to his determination of the material. Material of both *Lourteigia ballotifolia* and *Conocliniopsis grossedentata* possesses opposite leaves in the lower parts of the stem, those of *Conocliniopsis* sometimes appearing alternate distally; Liogier (1969: 130) described his plant as having alternate leaves. The phyllaries of both taxa are distant and subequal (*Conocliniopsis*) or imbricate and gradate (*Lourteigia*), and nominally c. 3 or c. 3 – 4-seriate respectively; Liogier's description indicated biseriate and equal. There are 20 – 30 florets per capitulum in *Conocliniopsis* and c. 40 in *Lourteigia ballotifolia*; Liogier's plant has 30 – 50. However, I do doubt Greuter & Rodríguez (2016a, 2016b, 2017 — albeit citing the incorrect supporting reference) citing *Conocliniopsis prasiifolia* (based on the citation of *Eupatorium ballotifolium* appearing in Liogier (1969: 130)) for Cuba, as they too failed to cite any material, possibly basing the species' presence upon a name in the synonymy of *Conocliniopsis prasiifolia*.

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### Declarations

**Conflict of interest.** The author declares no conflict of interest.

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