A NEW SECTION OF BACCHARIS (ASTERACEAE: ASTEREEAE), AND NOTES ON ALLIED TAXA

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ABSTRACT

A new section of Baccharis is described: sect. Punctatae, including six species formerly placed in sect. Aristidentes (B. bigelovii, B. crassicuneata, B. mexicana, B. sulcata, B. thesioides, and B. zamoranensis). Baccharis palmeri is excluded from sect. Aristidentes while the South American B. hirta is added. Six species (B. auriculigera, B. huaicracenis, B. klatiti, B. maxima, B. volubilis, and B. zumbadoresensis) are added to sect. Tubulatae. A key is provided to differentiate these allied sections, as well as the related sect. Bogotenses.

RESUMEN

Se describe una nueva sección de Baccharis sect. Punctatae, la cual incluye seis especies previamente ubicadas en la sección Aristidentes (B. bigelovii, B. crassicuneata, B. mexicana, B. sulcata, B. thesioides y B. zamoranensis). Baccharis palmeri es excluida de la sección Aristidentes, mientras que la especie sudamericana B. hirta es agregada a ella. Seis especies (B. auriculigera, B. huaicracenis, B. klatiti, B. maxima, B. volubilis y B. zumbadoresensis) son agregadas a la sección Tubulatae. Se provee una clave para diferenciar estas secciones alíneas, incluyendo asimismo la sección Bogotenses.

In a revision of the infrageneric taxonomy of North and Central American species of Baccharis, Nesom (1990) proposed the section Aristidentes to include 12 species. Later, the same author (Nesom 1998) recognized two informal groups within this section: the “Baccharis multiflora complex”, including 6 species (B. brevipappa (McVaugh) G.L. Nesom, B. mexicana Cuatrec., B. multiflora Kunth – the type species of the section–, B. serrifolia DC., B. sordescens DC., and B. zamoranensis Rzed.), and the “Baccharis thesioides complex”, comprising 3 species (B. bigelovii A. Gray, B. sulcata DC., and B. thesioides Kunth). With further observation, the differences between these two groups have proved to be more significant, especially when two closely related South American taxa, sect. Bogotenses Cuatrec. and sect. Tubulatae Cuatrec., are also considered. Effectively, the “B. multiflora group” shares more features with these South American taxa than with the “B. thesioides group” (see key below); therefore, this taxon is here given formal recognition at sectional rank, as follows.


Section Aristidens similis, sed plantis glutinosis nudis pilosis vestitis, foliis unius vel obscure trinervatis et achaeninis minoribus differt.

Erect shrubs or subshrubs, glutinous, covered by minute tufts of (microscopic) biseriate glandular hairs; on both leaf surfaces, each tuft is placed in a depression of circular contour, altogether forming a characteristic dotted pattern. Leaves pseudopetiolate, unis- or trinervate, margins aristate-serrate (rarely entire). Capitula pedicellate, arranged in simple or compound corymbs, altogether forming a false panicle. Involucres campanulate. Receptacles flat or slightly convex, alveolate, epaleate. Ratio of carpellate: staminate florets ca. 1:1. Carpellite corollas filiform, apically truncate and crowned by long and short biseriate hairs. Achenes terete, 1.2–2.2 mm long, 5–8-ribbed, glabrous or with few uniseriate hairs with apiculate terminal cell; pappus bristles in 1–2 series, persistent, slightly accrescent. Stamine corollas campanulate, 5-lobed at apex; style branches lanceolate, free; pappus bristles apically broadened.

Includes 6 species, distributed from the southwestern United States to southern Mexico.

4. **B. sulcata** DC., Prodr. 5: 419. 1836.
5. **B. thesioides** Kunth, in Humboldt, Bonpland & Kunth, Nov. gen. sp. 4 [quarto]: 61. 1820.

Formerly, **B. mexicana** and **B. zamoranensis** were included in the “**B. multiflora** complex” of sect. **Aristidens** (Nesom 1998) but now are classified within **Punctatae**, as they are glutinous plants dotted with tufted hairs.

Section **Punctatae** is closely related to sect. **Aristidens**, sect. **Bogotenses** and sect. **Tubulatae**; the four taxa form a complex characterized by the capitulescence architecture (a false panicle of compound corymbs), achenes with 5–8 pale ribs, glabrous or with few uniseriated hairs, and pappus with persistent accrescent bristles in 2–3 series. These sections can be differentiated by the following features:

1. Plants glutinous, dotted by minute (microscopic) tufts of glandular hairs, without other vestiture. Leaves uni- or obscurely trinervate. Achenes 1.2–2.2 mm long. **Sect. Punctatae**

1. Plants non-glutinous, non dotted by minute hair tufts but densely or loosely clothed by conspicuous (non-microscopic), non-glandular uniseriate hairs with acuminate terminal cell, often incurved. Leaves usually reticulate-nervate, trinervate in some species. Achenes 2.5–4 mm long.

2. Scandent shrubs, densely pubescent, with long uniseriate conic hairs accompanying the uniseriate hairs with acuminate terminal cell. Capitula often grouped in few-headed inflorescences; carpellate involucres 7–9 mm long. Stamine florets with tubulose elongate limb and short straight lobes. **Sect. Tubulatae**

2. Scandent or erect shrubs, without conic hairs but densely or loosely clothed by
uniseriate hairs with acuminated terminal cells. Capitula usually grouped in many-headed inflorescences; carpellate involucres 3–6 mm long. Stamine florets with short limb and developed recurved lobes.

3. Scandent shrubs, subglabrous, with few isolated hairs. Sect. Bogotenses
3. Erect shrubs, densely pubescent. Sect. Aristidentes

The following couplet provides a summary of the contrasts between sect. Punctatae and the taxon from which it was segregated, sect. Aristidentes:

1. Plants glutinous, dotted by minute tufts of (microscopic) glandular hairs, without other vestiture. Leaves uni- or obscurely trinervate. Achenes 1.2–2.2 mm long. Sect. Punctatae
1. Plants non-glutinous, non dotted by minute hair tufts but densely clothed by conspicuous (non-microscopic), non-glandular uniseriate hairs with acuminated terminal cell, often incurved. Leaves usually reticulate-nervate, trinervate in some species. Achenes usually 2.5–3 mm long. Sect. Aristidentes

Further notes on sect. Aristidentes

Several of the species originally included in sect. Aristidentes are here relocated to the new section Punctatae. Baccharis palmeri Greenm. is also here excluded from sect. Aristidentes since it lacks the pubescence characteristic of this taxon, and it is placed in sect. Angustifoliae Baker emend. Cuatrec., considering that it produces solitary capitula at the apex of the branches, which often are grouped to form false capitulescences.

On the other hand, one species needs to be added to sect. Aristidentes, since it presents its typical features: B. hirta DC., from southern Brazil and Uruguay. This species was previously classified in the formerly heterogeneous sections Trinervatae DC. (Candolle 1836), Cuneifoliae DC. (Hooker & Arnott 1841), Oblongifoliae DC. (Baker 1882) and Paniculatae Heering (Heering 1904). With the 4 South American species added to sect. Aristidentes by Giuliano (2001), the number of species for the section becomes 11: B. brevipappa (McVaugh) G.L. Nesom, B. hirta DC., B. liloi Heering, B. malibensis R.M. Beauch. & Henrickson, B. multiflora Kunth, B. plummerae A. Gray, B. polygama Ariza, B. pulchella Sch. Bip. ex Griseb., B. racemosa (Ruiz & Pav.) DC., B. serrifolia DC., and B. sordescens DC.

Addition of species into sect. Tubulatae

Section Tubulatae was founded by Cuatrecasas (1967), who included 3 Andean species (B. fraterna Cuatrec., B. granadina Cuatrec., and B. grandiflora Kunth). Here it is considered necessary to add 5 species more, as they accord with the diagnostic features of this taxon: the Andean B. auriculigera Hieron. (previously placed in sect. Trinervatae; Hieronymus 1905), B. huairacajensis Hieron. (placed in sect. Oblongifoliae when originally described; Hieronymus 1901), B. klattii Benoist (never classified before), B. volubilis Kunth (formerly in sect. Oblongifoliae; Candolle 1836), and B. maxima Baker, endemic of the state of Rio de Janeiro in Brazil (placed in sect. Oblongifoliae when described; Baker 1882).

Another species, the Venezuelan endemic B. zumbadoensis V.M. Badillo,
also placed here although staminate specimens are still unknown, since it has scandent habit, long conic hairs, reticulate-nerved leaves, large few-headed capitula, and large achenes, which fit properly in Tubulatae. The nine species of this section are mainly Andean in distribution.

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REFERENCES


