

BACCHARIS CHIONOLAENOIDES (ASTERACEAE), A NEW SPECIES OF SUBGENUS TARCHONANTOIDES FROM SANTA CATARINA STATE (BRAZIL)

Daniel de Barcellos Falkenberg¹ & Leonardo Paz Deble²

¹Departamento de Botânica, UFSC, 88040-900, Florianópolis, SC, Brasil; daniel@ccb.ufsc.br (author for correspondence)

²Departamento de Ciências Florestais, UFSM, 97105-900, Santa Maria, RS, Brasil.

Abstract. Falkenberg, D. B. & L. P. Deble. 2010. *Baccharis chionolaenoides* (Asteraceae), a new species of subgenus Tarchonantoides from Santa Catarina State (Brazil). *Darwiniana* 48(1): 64-67.

Baccharis chionolaenoides, a new species placed within subgenus Tarchonantoides section Curitybenses, is described and illustrated. The delimitation from *B. curitybensis* is discussed.

Keywords. *Baccharis*, Brazil, Santa Catarina, section Curitybenses, subgenus Tarchonantoides.

Resumen. Falkenberg, D. B. & L. P. Deble. 2010. *Baccharis chionolaenoides* (Asteraceae), una nueva especie del subgénero Tarchonantoides del estado de Santa Catarina (Brasil). *Darwiniana* 48(1): 64-67.

Baccharis chionolaenoides, una nueva especie del subgénero Tarchonantoides sección Curitybenses, es descrita e ilustrada, y se comentan las diferencias con *B. curitybensis*.

Palabras clave. *Baccharis*, Brasil, Santa Catarina, sección Curitybenses, subgénero Tarchonantoides.

INTRODUCTION

The genus *Baccharis* L. is comprised of five subgenera: *Baccharis*, Molina (Pers.) Heering, *Pteronioides* Heering, *Stephananthus* (Lehm.) Heering, and *Tarchonantoides* Heering (Heering, 1904). The subgenus *Tarchonantoides* is well defined by non-tufted indument, functionally male flowers with short and free style branches, and female flowers with broad corollas with five papillose teeth, short style branches, pappus with several series of accrescent and persistent bristles (non accrescent, deciduous only in *B. curitybensis* Heering ex Malme), and by short or long twin trichomes on cypselas. The subgenus includes the “*Lanugobaccharis*” group of Hellwig (1996). It comprises 18 species with greatest center of diversity in southeastern Brazil with 17 species (Deble, unpubl. data).

Giuliano (2005) described the monotypic section Curitybenses with *Baccharis curitybensis* because this species shows several contradictory

characters which make it problematic for placement within any described subgeneric taxon. The author related, by pappus bristles in two deciduous series and cypselas 10-ribbed, the singular *B. curitybensis* with the subgenus *Baccharis*, but recognized that the non-tufted indument, the free style branches of the functionally male flower, the glandular apex of the female flower and the twin trichomes on the cypselas wall not occur in any species of subgenus *Baccharis*. Müller (2006) placed *B. curitybensis* in the subgenus *Tarchonantoides*, and this concept is accepted in the review of the subgenus from Brazil (Deble, unpubl. data). The analyses of collections made in Urubici (Santa Catarina, Brazil) evidenced a new species closely related to *B. curitybensis*, described herein.

TAXONOMIC TREATMENT

Baccharis chionolaenoides D. Falkenberg & Deble, sp. nov. TYPE: BRAZIL, Santa Catari-

na, Urubici: extremo sul do topo do Morro da Igreja, pouco além da área cercada pelo CIN-DACTA, ♀, 06-XII-1996 (fl. and fr.), *D. B. Falkenberg 8961* (holotype, FLOR!; isotypes, CTES! SI! MBM! UEC!). Fig. 1.

A Baccharis curitybensi primo aspectu, sed foliis ad apicem ramorum coronatis, basi in pseudopetiole longe attenuato (vs. foliis petiolatis), cypselis majoribus, 2.4-3.2 mm (versus 1.3-1.8 mm), obconicis (versus cylindricis), cum paucis (versus densis) pilis geminis vestitis, setis pappi florum marium apice non plumoso (versus plumoso), cellulis apicalibus in papillas longas, ascendentes erective, acutas (versus patentes, subclavas) productis bene differt.

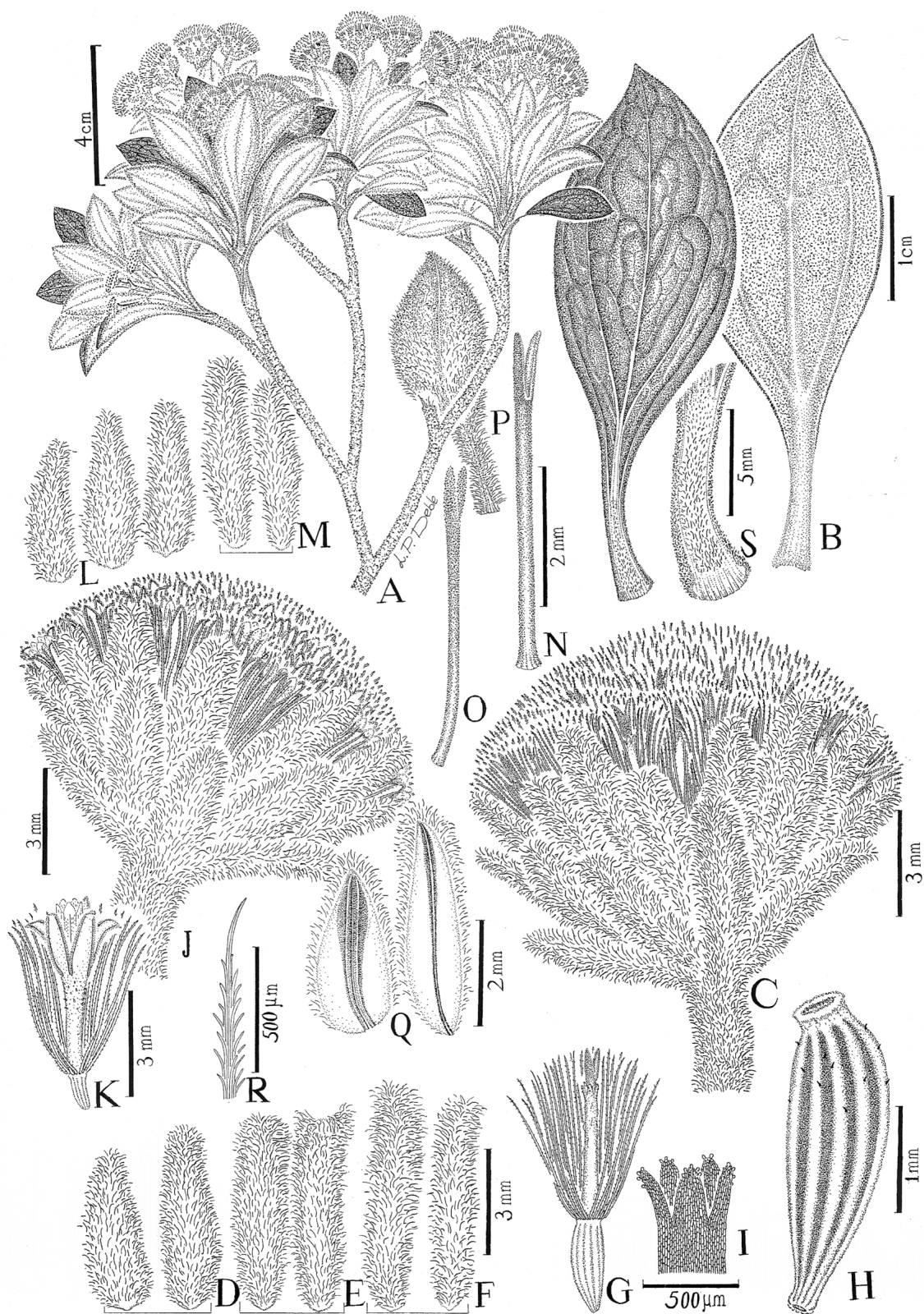
Subshrubs 0.3-0.4 m high; stems spreading or erect, dichotomously branched; young shoots densely orange- to yellow-lanuginose; older shoots ochre to darker. Leaves elliptic to oblanceolate, 2.2-6.4 cm long, 0.7-2.4 cm wide, spirally alternate, crowded at the apex of the branches, discolorous, margin entire, revolute, apex slightly acute to obtuse, base long-attenuate in a pseudopetiole up to 2.5 cm long; leaf blade coriaceous, greenish brown, olive or light brown, 3-veined from near base, adaxially glabrous or sparsely floccose in the proximal third and prominently reticulate-veined, densely yellow, ochre or yellowish-ochre lanuginose, apparently 3-veined abaxially; young leaves adaxially with dense to sparser deciduous whitish hirsute trichomes, abaxially densely orange to yellow lanuginose. Capitulescence in terminal corymbs of 4-9 capitula. Capitula pedunculate; peduncles densely ochre lanuginose, up to 3.8 cm long; bracts 0-1, lanceolate, up to 2.5 mm long. Female capitula hemispheric, 9.5-12.2 mm long, 9.5-14.2 mm wide, involucre 6.3-9.8 mm long, 7.3-11.5 mm wide, flowers 46-63. Involucral bracts in 4-5 series, cartilaginous, abaxially densely ochre lanuginose, 1-3-veined, veins dark brown, visible only on the ventral surface. Outer bracts ovate-lanceolate, 3.8-5.2 mm long, 1.4-2 mm wide, median bracts elliptic to elliptic-lanceolate, 4.4-6.5 mm long, 1.2-1.6 mm wide, inner bracts lanceolate to linear-lanceolate, 4.9-6.2 mm long, 1-1.4 mm wide. Clinanthium flat, with scattered whitish flagellate trichomes. Corolla tubular, 3.1-4 mm long, apically with five acute, papillose

teeth up to 0.3 mm long. Style slightly exceeding the corolla, 4-5 mm long; style branches lanceolate, 0.8-1 mm long. Pappus yellowish, 3.9-5.2 mm long; bristles 45-64, multiseriate, deciduous. Cypselas obconical, 2.4-3.2 mm long, brown, 10-ribbed, with sparse twin trichomes. Male capitula hemispheric, 6.5-8.6 mm long, 7.8-13 mm wide, involucre 4.8-6.5 mm long, 7.8-12.5 mm wide, flowers 43-58. Involucral bracts in 3-5 series, cartilaginous, dorsum dense ochre lanuginose, 1-veined, veins dark brown, visible only on the ventral surface. Outer bracts lanceolate, 3.5-4.5 mm long, 1.1-1.5 mm wide, median bracts lanceolate to elliptic-lanceolate, 4.1-4.9 mm long, 1.2-1.6 mm wide, inner bracts elliptic-lanceolate to elliptic, 4.4-5.4 mm long, 0.9-1.3 mm wide. Clinanthium flat, densely covered by whitish flagellate trichomes. Corolla 4.2-5.1 mm long; tube 2-2.9 mm long, with a few trichomes scattered in the distal half; lobes 1.8-2.2 mm long. Style not or slightly exceeding the corolla, 4-4.6 mm long; branches free, lanceolate, 0.6-0.8 mm. Anthers 1-1.1 mm long. Pappus yellowish, 3.8-5 mm long; bristles 31-52, multiseriate, narrowed at apex. Abortive cypselas cylindrical, 0.5-1 mm long, glabrous.

Distribution and habitat. *Baccharis chionolaenoides* is known only from type population, which occurs in Morro da Igreja, Aparados da Serra Geral, Urubici city, where it was found on cliffs of volcanic rock, at 1,800 m altitude.

Observations. *Baccharis chionolaenoides* is placed within section *Curitybenses* Giuliano, being easily distinguished from *B. curitybensis* by leaves crowded at the apex of the branches, a long leaf base attenuated into pseudopetiole (vs. distinctly petiolate), pappus of the functionally male flower non-plumose, apical cells projected like long, erect, acute papillae (vs. plumose, with apical cells projected like long, patent, subclavate papillae), and cypselas obconical, 2.4-3.2 mm long (vs. cylindrical, 1.3-1.8 mm), sparsely clothed by twin trichomes (vs. densely clothed by twin trichomes).

The section *Curitybenses* comprises two species, that occur in south (Santa Catarina and Paraná states) and southeastern (São Paulo state) Brazil, being segregated from the other species of the subgenus *Tarchonantoides* by cypselas essentially



10-ribbed (very rarely 9 or 11) and non-acrescent, deciduous pappus of female flowers.

Paratypes

BRAZIL. **Santa Catarina.** Urubici, extremo sul do topo do Morro da Igreja, pouco além da área cercada pelo CINDACTA, ♂, 29-I-1997 (fl.), *D. B. Falkenberg 9421* (FLOR!); idem, 16-X-1993, *D. B. Falkenberg 6290* (FLOR!); idem, ♂, 06-XII-1996 (fl.), *D. B. Falkenberg 8962* (FLOR!); idem, ♂, 03-XI-1996 (fl.), *D. B. Falkenberg 8724* (FLOR! CTES! SI! MBM! UEC!); idem, 08-X-1996, *D. B. Falkenberg 8378* (FLOR!); idem, 18-VI-1996, *D. B. Falkenberg 7958* (FLOR!).

Etymology. The specific epithet refers to its habit resembling species of the genus *Chionolaena* DC. (Asteraceae), especially *Chionolaena latifolia*.

Key to species of *Baccharis* section *Curitybenses*

1. Leaf base attenuate in a pseudopetiole. Cypsela obconical, 2.4-3.2 mm long, sparsely clothed by twin trichomes. Pappus of functionally male flower non-plumose, with apical cells projected like long, erect, acute papillae *B. chionolaenoides*

1. Leaf base distinctly petiolate. Cypsela cylindrical, 1.3-1.8 mm long, densely clothed by twin trichomes. Pappus of functionally male flower plumose, with apical cells projected like long patent, subclavate papillae *B. curitybensis*

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BIBLIOGRAPHY

- Giuliano, D. A. 2005. New infragenera in *Baccharis*. *Novon* 15: 534-541.
- Heering, W. 1904. Die *Baccharis*-Arten des Hamburger Herbars. *Jahrbuch der Hamburgischen Wissenschaftlichen Anstalten* 21(3): 1-46.
- Hellwig, F. H. 1996. Taxonomy and evolution of Baccharidinae (Compositae), in D. J. N. Hind & H. J. Beentje (eds.), *Compositae: Systematics. Proceedings of the International Compositae Conference, Kew* 1: 575-590.
- Müller, J. 2006. Systematics of *Baccharis* (Compositae-Asteraeae) in Bolivia, including an overview of the genus. *Systematic Botany Monographs* 76: 272-278.

Fig. 1. *Baccharis chionolaenoides*. **A**, branch of female plant. **B**, leaves. **C**, female capitulum. **D-F** and **Q**, female involucre bracts. **D**, outer. **E**, median. **F**, inner. **Q**, adaxial surface. **G**, female flower. **H**, cypsela. **I**, apex of female flower. **J**, male capitulum. **K**, male flower. **L-M**, male involucre bracts. **L**, outer and median. **M**, inner. **N**, style of female flower. **O**, style of male flower. **P**, young leaf. **R**, pappus apex of a male flower. **S**, detail of the leaf base. **A-I**, **N**, **P-Q**, **S** from *D. B. Falkenberg 8961* (Holotype, FLOR). **J-M**, **O**, **R** from *D. B. Falkenberg 8962* (Paratype, FLOR).