



Two new species of *Baccharis* subgen. *Baccharis* (Asteraceae, Astereae) with single-flowered female capitula from the Serra do Cipó, Minas Gerais, Brazil

GUSTAVO HEIDEN^{1,2} & JOSÉ RUBENS PIRANI¹

¹Departamento de Botânica, Instituto de Biociências, Universidade de São Paulo, Rua do Matão, Travessa 14, 321, São Paulo, SP 05508-090, Brazil.

²email: gustavo.heidem@gmail.com

Abstract

Two new species of *Baccharis* subgen. *Baccharis* endemic to the Serra do Cipó, south-eastern Brazil, are described and illustrated. *Baccharis obdeltata* is morphologically similar to the allopatric obdeltate-leaved *B. truncata* but is distinguished by its leaves with 3(–5)-dentate apex, fewer-flowered sessile capitula, the male capitula bearing 5–7 florets and the female capitula with solitary florets. *Baccharis simplex* resembles the sympatric *B. concinna*, from which can be differentiated by its oval to oblong leaves, with obtuse base and rounded to obtuse apex, and shorter female capitula, florets and cypselae. Illustrations, distribution map, habitat and conservation assessments are provided for the new species.

Resumo

Duas novas espécies de *Baccharis* subgen. *Baccharis* endêmicas da Serra do Cipó, Sudeste do Brasil, são descritas. *Baccharis obdeltata* é morfologicamente similar a espécie alopátrica de folhas obdeltadas *B. truncata*, sendo distinta pelas folhas com ápice 3(–5)-dentado e capítulos femininos sésseis e com menos flores, o masculino portando 5–7 flores e o feminino uma única flor. *Baccharis simplex* se assemelha à *B. concinna*, espécie simpátrica com capítulos femininos também unifloros, da qual pode ser diferenciada pelas folhas ovais a oblongas, base obtusa e ápice arredondado ou obtuso com dentes suaves e capítulo feminino, flores e cípselas menores. Ilustrações, mapa de distribuição, considerações sobre habitat e conservação são também fornecidos para as novas espécies.

Key words: Baccharidinae, Campos rupestres, Compositae, Espinhaço

Introduction

The Serra do Cipó, a section of the Cadeia do Espinhaço, is recognized as a center of species richness and endemism in south-eastern Brazil (Giulietti *et al.* 1997, Echternacht *et al.* 2011). A revision of herbarium specimens and field work are being conducted by the authors aiming at the completion of the tribe Astereae treatment for the Flora of the Serra do Cipó project. Current records for this area include 26 species of *Baccharis* Linnaeus (1753: 860; Asteraceae: Astereae), a New World genus broadly characterized by the tufted indumentum of the leaves and stems, with adjoining basal cells of the trichomes, and the common occurrence of dioecy (Müller 2006). Two of the species recorded from the Serra do Cipó were recently collected by the authors and recognized as new to science. These species are described and illustrated, and their affinities and areas of occurrence are discussed below.

glabrous >8-costate cypsela with deciduous biseriate pappus. The new species is similar to the sympatric *B. concinna* Barroso (1976: 162), also endemic to the Serra do Cipó. The two species possess leaves with dentate margins and axillary few-flowered male capitula and single-flowered female capitula, being distinguished by habit, leaf shape and female capitula length. While *B. simplex* is a small shrub (0.3–0.5 m tall) with oval to oblong leaves, obtuse base and rounded to obtuse apex with small teeth and shorter female capitula (3.5–4.1 mm long), floret (1.4–1.5 mm long) and cypsela (1.5–1.7 mm long), *B. concinna* is a taller shrub (0.5–1 m tall) with obovate to lanceolate leaves, attenuate base and rounded apex with coarse teeth and longer female capitula (4.5–5 mm long), floret (2–2.2 mm long) and cypsela (2–2.2 mm long).

Acknowledgements

The authors acknowledge FAPESP (processes 2010/00519-8, 2011/18385-0 and 2012/17911-3) and CNPq for financial support. We are also grateful to the staff of the herbaria BHZB, RB and SPF for technical support, to two anonymous referees for the invaluable comments, to João Iganci for preparing the illustrations, and to Carolina Moriani Siniscalchi for assistance with fieldwork, collecting additional samples of *B. obdeltata* and providing pictures of this species in its habitat.

References

- Barroso, G.M. (1976) Subtribo Baccharidinae Hoffmann. Estudo das espécies ocorrentes no Brasil. *Rodriguésia* 40: 1–281.
- Burman, A. (1991) Saving Brazil's savannas. *New Scientist* 1758: 30–34.
- Echternacht, L., Trovó, M., Oliveira, C.T. & Pirani, J.R. (2011) Areas of endemism in the Espinhaço Range in Minas Gerais, Brazil. *Flora* 206: 782–791.
<http://dx.doi.org/10.1016/j.flora.2011.04.003>
- Gardner, G. (1848) Contributions towards a Flora of Brazil, being the distinctive characters of some new species of Compositae, belonging to the tribe Asteroideae. *The London journal of botany* 7: 78–90.
- Giulietti, A.M., Pirani, J.R. & Harley, R.M. (1997) Espinhaço Range. In: Davis, S.D., Heywood, V.H., Herrera-MacBryde, O. & Villa-Lobos, J. (eds.) *Centres of Plant Diversity. Vol. 3. The Americas*. National Museum of Natural History, Smithsonian Institution, Washington, pp. 397–404.
- IUCN Standards and Petitions Subcommittee (2011) Guidelines for Using the IUCN Red List Categories and Criteria. Version 9. Prepared by the Standards and Petitions Subcommittee. Available from: <http://www.iucnredlist.org/documents/RedListGuidelines.pdf> (accessed 14 February 2012).
- Linnaeus, C. (1753) *Species plantarum*, vol. 2. L. Salvii, Holmiae.
- Müller, J. (2006) Systematics of *Baccharis* (Compositae–Astereae) in Bolivia, including an overview of the genus. *Systematic Botany Monographs* 76: 1–341.