



## A new species of *Campomanesia* (Myrtaceae) from Bahia, Brazil, and its relationships with the *C. xanthocarpa* complex

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### Abstract

Results of studies with multiple approaches involving a species complex which includes *Campomanesia xanthocarpa* (Myrtaceae) indicate that specimens collected in Morro do Chapéu, the northern region of the Chapada Diamantina, Bahia, are distinct from those distributed farther south in Brazil. A description, comments, distribution map and an illustration of the new species, *C. costata*, are provided herein.

**Key words:** Chapada Diamantina, Myrteae, rocky grasslands, savanna, taxonomy

### Resumo

Resultados de estudos com múltiplas abordagens envolvendo um complexo de espécies que inclui *Campomanesia xanthocarpa* (Myrtaceae) indicam que indivíduos coletados em Morro do Chapéu, na porção norte da Chapada Diamantina, Bahia, são distintos daqueles com distribuição mais ao sul no Brasil. Descrição, comentários, mapa de distribuição e ilustrações da nova espécie, *C. costata*, são aqui apresentados.

**Palavras-chave:** campo rupestre, Chapada Diamantina, cerrado, Myrteae, taxonomia

### Introduction

The South American genus *Campomanesia* Ruiz & Pavón (1794: 62–63) comprises ca. 45 taxa distributed predominantly in forests and savanna vegetation (Landrum 1986, Govaerts *et al.* 2008). It is a member of the tribe Myrteae, which includes more species than any other in the Myrtaceae (Wilson *et al.* 2005, Lucas *et al.* 2007, Wilson 2011). It can be separated from other genera of Myrtaceae by the pentamerous flowers, the usually high number of locules (3–18, normally over 5), the presence of a glandular locular wall that covers the seed and serves as a false seed coat for it in the mature fruit and an embryo with a large hypocotyl and small cotyledons (Landrum 1986).

According to Sobral *et al.* (2013), 33 species of *Campomanesia* are known from Brazil, with 23 of them endemic. However, this number may be an underestimate given the discovery of new species in the past few years (Landrum 1987, Kawasaki 2000, Landrum 2001, Landrum & Oliveira 2010, Proença *et al.* 2010, Proença *et al.* 2011). Two of these new species occur in Bahia, Northeastern Brazil, and added to the other ones, make this state the second richest in *Campomanesia* after Minas Gerais in agreement with data from Sobral *et al.* (2013).

## References

- Berg, O. (1857–1859) Myrtaceae. In: Martius, C.F.P. von. *Flora Brasiliensis* 14(1):430–465.
- Buril, M.T. & Alves, M. (2012) *Jacquemontia macrocalyx* (Convolvulaceae), a new species endemic to the Espinhaço Range, Brazil. *Novon* 22(2): 137–140.  
<http://dx.doi.org/10.3417/2011040>
- Cabral, E.L., Miguel, L.M. & Salas, R.M. (2011) Dos especies nuevas de *Borreria* (Rubiaceae), sinopsis y clave de las especies para Bahia, Brasil. *Acta Botanica Brasilica* 25(2): 255–276.  
<http://dx.doi.org/10.1590/S0102-33062011000200002>
- Duno de Stefano, R., Angulo, D.F. & Stauffer, F.W. (2007) *Emmotum harleyi*, a new species from Bahia, Brazil, and lectotypification of other Icacinaceae. *Novon* 17(3): 306–309.
- ESRI. (2008) *ARCMAP*, v. 9.3. Environmental Systems Research Institute, California.
- França, F. & Melo, E. (2013) A complexidade da vegetação. In: França, F., Melo, E., Souza, I. & Pugliesi, L. (org.) *Flora de Morro do Chapéu*, vol. 1. Print Mídia, Feira de Santana, pp. 17–19.
- Govaerts, R., Sobral, M., Ashton, P., Barrie, F., Holst, B.K., Landrum, L.R., Matsumoto, K., Mazine, F.F., Nic Lughadha, E., Proença, C.E.B., Silva, L.H.S., Wilson, P.G. & Lucas, E.J. (2008) *World Checklist of Myrtaceae*, vol. 1. Royal Botanic Garden, Kew, pp. 57–59.
- Grisebach, A.H.R. (1860) *Flora of the British West Indian Islands*, part 3. Lovell Reeve & Co., London, pp. 193–315.
- IUCN. (2012) *IUCN Red List Categories and Criteria*, version 3.1. IUCN Species Survival Commission. IUCN, Gland, Switzerland & Cambridge, UK, 2nd ed., 32 pp.
- JSTOR. (2013) *Global plants*. Available from: <http://plants.jstor.org/> (accessed: 27 May 2013)
- Kawasaki, M.L. (2000) A new species of *Campomanesia* (Myrtaceae) from southeastern Brazil. *Brittonia* 52(2): 188–190.  
<http://dx.doi.org/10.2307/2666510>
- Landrum, L.R. (1986) *Campomanesia*, *Pimenta*, *Blepharocalyx*, *Legrandia*, *Acca*, *Myrrhinium* and *Luma* (Myrtaceae). *Flora Neotropica Monographs* 45: 7–72.
- Landrum, L.R. (1987) A New Species of *Campomanesia* (Myrtaceae) from Brazil. *Brittonia* 39(2): 245–247.  
<http://dx.doi.org/10.2307/2807384>
- Landrum, L.R. (2001) Two new species of *Campomanesia* (Myrtaceae) from Espírito Santo and Bahia, Brazil. *Brittonia* 53(4): 534–538.  
<http://dx.doi.org/10.1007/BF02809654>
- Landrum, L.R. & Kawasaki, M.L. (1997) The genera of Myrtaceae in Brazil: an illustrated synoptic treatment and identification keys. *Brittonia* 49(4): 508–536.  
<http://dx.doi.org/10.2307/2807742>
- Landrum, L.R. & Oliveira, M.I.U. (2010) A new species of *Campomanesia* from Bahia, Brazil, based on specimens collected by J.S. Blanchet over 150 years ago. *Journal of the Botanical Research Institute of Texas* 4(2): 603–607.
- Lucas, E.J., Harris, S.A., Mazine, F.F., Belsham, S.R., Nic Lughadha, E.M., Telford, A., Gasson, P.E. & Chase, M.W. (2007) Suprageneric phylogenetics of Myrteae, the generically richest tribe in Myrtaceae (Myrales). *Taxon* 56(4): 1105–1128.  
<http://dx.doi.org/10.2307/25065906>
- Oliveira, M.I.U., Funch, L.S., Santos, F.A.R. & Landrum, L.R. (2011) Aplicação de caracteres morfoanatomônicos foliares na taxonomia de *Campomanesia* Ruiz & Pavón (Myrtaceae). *Acta Botanica Brasilica* 25(1): 455–465.  
<http://dx.doi.org/10.1590/S0102-33062011000200021>
- Oliveira, M.I.U., Funch, L.S. & Landrum, L.R. (2012) Flora da Bahia: *Campomanesia* (Myrtaceae). *Sitientibus Série Ciências Biológicas* 12(1): 91–107.
- Oliveira, R.P. & Longhi-Wagner, H.M. (2007) New species of *Streptostachys* (Poaceae: Paniceae) from Brazil. *Kew Bulletin* 62(3): 493–497.
- Proença, C.E.B.; Soares-Silva, L.H.; Silva, P.I.T. & Fank-De-Carvalho, S.M. (2010) Two new endemic species of Myrtaceae and an anatomical novelty from the Highlands of Brazil. *Kew Bulletin* 65: 1–6.  
<http://dx.doi.org/10.1007/s12225-010-9221-4>
- Proença, C.E.B., Jennings, L.V. & Lucas, E.J. (2011) Two new species of Myrtaceae (Myrteae) from northern South America. *Brittonia* 63: 46–50.  
<http://dx.doi.org/10.1007/s12228-010-9125-5>
- Queiroz, L.P., Funch, L.S. & Funch, R.R. (2008) Vegetação da Chapada Diamantina – ênfase no Parque Nacional da Chapada Diamantina. In: Funch, L.S., Funch, R.R. & Queiroz, L.P. (eds.) *Serra do Sincorá: Parque Nacional da Chapada Diamantina*. Radami, Feira de Santana, pp. 35–47.
- Ruiz, H. & Pavón, J. (1794) *Florae Peruviana et Chilensis Prodromus*. La Imprenta de Sancha, Madrid, pp. 62–63.
- Sobral, M., Proença, C., Souza, M., Mazine, F., Lucas, E. (2013) Myrtaceae. In: *Lista de Espécies da Flora do Brasil*.

- Jardim Botânico do Rio de Janeiro, Rio de Janeiro. Available from: <http://floradobrasil.jbrj.gov.br/jabot/floradobrasil/FB10307> (accessed: 08 June 2013).
- Stearn, W.T. (2004) *Botanical Latin*, 4th ed. Timber Press., Portland, 546 pp.
- Thiers, B. (2012) *Index Herbariorum: a global directory of public herbaria and associated staff*. New York Botanical Garden's Virtual Herbarium. Available from: <http://sweetgum.nybg.org/ih/> (accessed: 04 June 2013).
- Wilson, P.G., O'Brien, M.M., Heslewood, M.M. & Quinn, C.J. (2005) Relationships within Myrtaceae *sensu lato* based on a matk phylogeny. *Plant Systematic and Evolution* 251: 3–19.  
<http://dx.doi.org/10.1007/s00606-004-0162-y>
- Wilson, P.G. (2011) Myrtaceae. In: Kubitzki, K. (ed.). *The families and genera of vascular plants - Sapindales, Cucurbitales, Myrtaceae*, vol. 10. Springer, Berlin, pp. 212–271.
- Zappi, D. (2008) Fitofisionomia da Caatinga associada à Cadeia do Espinhaço. *Megadiversidade* 4(1–2): 34–38.