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Five new South American species of *Myrcia* s.l. (Myrtaceae)

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Abstract

Five new species of *Myrcia* s.l. are described and illustrated: *Myrcia ascendens* (related to *Myrcia densa*), *Myrcia attenuata* (related to *Myrcia bicolor*), *Myrcia costeira* (related to *Myrcia bicarinata*), *Myrcia rupestris* (related to *Myrcia lenheirensis*) and *Myrcia subterminalis* (related to *Myrcia bicolor*). The new species occur in the Brazilian Atlantic Forest (*M. costeira* and *M. subterminalis*), the Espinhaço range in Brazil (*M. ascendens* and *M. rupestris*) and the eastern Guiana Shield in French Guiana (*M. attenuata*). Additionally, species are discussed regarding distribution, habitat, phenology and taxonomic affinity.

Key words: *Aulomyrcia*, *Calyptranthes*, *Marlierea*, Neotropics

Introduction

Myrcia s.l. is an informal group that comprises three genera (Govaerts *et al.* 2015): *Calyptranthes* Swartz (1788: 79), *Marlierea* Cambessèdes (1833: 373) and *Myrcia* De Candolle (1827: 401). This clade was first recognized by Lucas *et al.* (2007; under the name "*Myrcia* Group"). Within this group, *Marlierea* and *Myrcia* do not form monophyletic groups and *Calyptranthes* is monophyletic but emerges within a larger clade comprised of the two former genera (Lucas *et al.* 2011). Contemporary authors are moving to synonymise *Calyptranthes* and *Marlierea* under *Myrcia*; however, it is depending on the conservation of *Myrcia* against the older name, *Calyptranthes* (Lucas & Sobral 2011). These three genera together contain more than 700 species and, taken in this sense, form the fourth largest genus of the family (Govaerts *et al.* 2015).

Lucas *et al.* (2011) diagnosed nine clades in *Myrcia* s.l. based on DNA and morphological characters, which will be the base of an infrageneric classification. One of these, clade 7 is characterized mainly by dibrachiate trichomes, cataphylls at the internode base, inflorescences with sympodial basal branching and strictly opposite branching towards the apex (Santos 2014). Furthermore, floral hypanthia within the group is extended beyond the top of the ovary and does not tear after anthesis, calyx lobes are distinct from the hypanthium, free from each other and regularly deciduous (Lucas *et al.* 2011, Santos 2014).

Five new species were identified during taxonomic revision of this group (Santos 2014) from the following diverse regions of South America: the Atlantic Forest in Brazil (2 spp.), the Espinhaço range in Brazil (2 spp.) and the Guiana Shield in French Guiana (1sp.). Here, these species are described and illustrated; discussion is also provided regarding their distribution, habitat, phenology and taxonomic affinities.

Materials & Methods

Herbaria visited for this study were: ALCB, B, BHCB, BM, BR, C, CEN, CEPEC, CESJ, CVRD, DIAM, ESA, ESAL, F, G, HBR, HEPH, HRCB, HUEFS, HUFU, IAC, IAN, IBGE, ICN, INPA, K, LE, M, MBM, MBML, MG, MICH, MO, NY, OUPR, P, PACA, PAMG, R, RB, S, SP, SPF, SPSF, UB, UEC, US, VIC and W (acronyms according to Thiers 2015). Flowers and fruits were rehydrated prior to dissection and analysed under an Olympus SZH10 stereomicroscope. Observation of specimens during field work also yielded data for this study.

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