Piriqueta crenata, a new species of Turneraceae (Passifloraceae s.l.) from the Chapada Diamantina, Bahia, Brazil

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Abstract

In this study, we describe and illustrate Piriqueta crenata, a new species from the Chapada Diamantina region, Bahia, Brazil. It is similar to and was initially identified as P. flammea from which it can be distinguished by the cuneate leaf blade bases (vs. rounded), slightly discoloured leaves (vs. strongly discoloured), inflorescences of fewer flowers (1–3 vs. 3–6), olive-green calyx when dry (vs. blackened), and yellow corolla (vs. orange red). Piriqueta crenata is only known from a single small savanna nested in the semiarid Chapada Diamantina region, close to areas under anthropogenic influence. Therefore, we evaluate the species as Critically Endangered.

Key words: floristics, Neotropics, savanna, taxonomy.

Resumo

(Piriqueta crenata, uma nova espécie de Turneraceae (Passifloraceae s.l.) da Chapada Diamantina, Bahia, Brasil)
Neste estudo, descrevemos e ilustramos Piriqueta crenata, uma nova espécie da Chapada Diamantina, Bahia, Brasil. Ela se assemelha e foi inicialmente confundida com P. flammea, mas pode ser distinguida daquela espécie pelas folhas cuneadas na base (vs. arredondadas) e levemente discolores (vs. fortemente discolores), inflorescências geralmente com menos flores (1–3 vs. 3–6), cálice verde-oliva quando seco (vs. enegrecido) e corola amarela (vs. vermelho-alaranjada). Piriqueta crenata é conhecida apenas de uma pequena localidade de cerrado, inserida na região semiárida da Chapada Diamantina, próxima a áreas sob influência antrópica. Portanto, consideramos a espécie Criticamente Ameaçada.

Introduction

The Turneraceae comprise 12 genera and 226 species, being widely distributed in the Americas and Africa (Arbo 2007, Thulin et al. 2012). Two genera and 156 species occur in Brazil (Arbo 2013), with centers of diversity in the Cerrado and Caatinga domains. The family is closely related to Passifloraceae and Malesherbiaceae (Soltis et al. 2000, Davis & Chase 2004, Korotkova et al. 2009, Thulin et al. 2012, Tokuoka 2012), and together, they are treated in Passifloraceae s.l. by APG III (2009). Traditional classifications, considering three independent families, however, are morphologically conceivable and do not contradict any principle of phylogenetic systematics. The monophyly of the three families is strongly supported, as well as the relationship among them: Malesherbiaceae emerges as sister to the clade formed by Turneraceae and Passifloraceae s.s. (Tokuoka 2012).

The genus Piriqueta Aublet (1775: 298) comprises 44 species and is an American endemic clade. It is mainly characterized by the corona emerging from the petals and sepals and the porrect-stellate trichomes (Thulin et al. 2012, Tokuoka 2012). The Chapada Diamantina, within the Caatinga domain, in the state of Bahia, Brazil, is the centre of diversity of Piriqueta (Arbo & Mazza 2011). During the preparation of Turneraceae for the Flora da Bahia project, we realized that the specimens formerly identified as P. flammea (Suessenguth 1942: 206) Arbo
habitat may be compromised and it should be considered critically endangered according to the IUCN (2001) criteria B1ab(iii) + B2ab(iii).

Etymology:—The epithet "crenata" refers to the division of leaf margins, which are conspicuously crenate.

Additional comments:—Piriqueta crenata can be recognized by the leaves with upper surface notably bullate, base cuneate and margins conspicuously crenate, inflorescences 1–3-flowered and flowers with green calyx and yellow corolla. It resembles P. flammea, which usually has distinctly discoloured leaves, more flowers (3–6) per inflorescence, and flowers with darker calyx when dry and an orange red corolla. To some extent, the new species also resembles P. sidifolia (Cambessèdes 1830: 227) Urban (1883: 61), a species widely distributed in Brazil, but whose leaves are not bullate and are rarely cuneate at the base, being usually rounded to cordate, and whose inflorescences usually bear more flowers (up to 12) than P. crenata. The BRBA Herbarium belongs to the Instituto de Ciências Ambientais e Desenvolvimento Sustentável, Bahia, Brazil (ICADS), not yet indexed.

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References

http://dx.doi.org/10.1111/j.1095-8339.2009.00996.x


http://dx.doi.org/10.1007/978-3-540-32219-1_53


http://dx.doi.org/10.1080/14772000.2011.603382

http://dx.doi.org/10.5962/bhl.title.48831


http://dx.doi.org/10.1007/s00606-008-0099-7

http://dx.doi.org/10.1007/s00606-008-0099-7

http://dx.doi.org/10.1111/j.1095-8339.2000.tb01588.x

http://dx.doi.org/10.1002/fedr.4870510804
http://dx.doi.org/10.1007/s10265-011-0472-4