



A new cauliflorous species of *Aristolochia* (Aristolochiaceae) from Espírito Santo, Brazil

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Abstract

We describe and illustrate *Aristolochia subglobosa*, a new species assigned to subseries *Anthocaulicae*. The subseries is characterized by the presence of extremely short and cauliflorous racemes in which each flower is subtended by a small bract. The new species is related to *A. bahiensis*, *A. daemoninoxia* and *A. guentheri*. So far, *A. subglobosa* is the second species of this subseries known to occur in the Atlantic Forest of Brazil.

Resumo

Neste trabalho é descrita e ilustrada *Aristolochia subglobosa*, uma nova espécie pertencente à subsérie *Anthocaulicae*. A subsérie é caracterizada pela presença de racemos caulifloros extremamente curtos e com folhas reduzidas a pequenas brácteas. A nova espécie é relacionada com *A. bahiensis*, *A. daemoninoxia* e *A. guentheri*. Até o momento, *A. subglobosa* é a segunda espécie desta subsérie conhecida para a Mata Atlântica do Brasil.

Introduction

With about 500 species, *Aristolochia* is the largest genus of the family Aristolochiaceae (González, 2011). Three monophyletic subgenera are recognized: *Aristolochia*, widely distributed in all continents; *Isotrema*, from Asia, North America, Mexico and Central America; and *Pararistolochia*, from Africa and Australasia. All the South American species belong to section *Gymnolobus* Duchartre subsection *Hexandrae*, easily recognized by the hexamerous gynostemium that lacks a transverse roof-like process on top of the stamens (Fig. 1F). The estimated number of *Aristolochia* species native to Brazil is 88 (Barros & Araújo, 2013).

Although González (1990, 1991, 1994, 1997, 1998) proposed two series, *Hexandrae* and *Thyrsicae*, only the latter has shown to be monophyletic in recent phylogenetic analyses (Neinhuis *et al.*, 2005, Ohi-Toma *et al.*, 2006, Wanke *et al.*, 2006). *Aristolochia* ser. *Hexandrae* is paraphyletic with respect to the monospecific genera *Euglypha* and *Holostylis* (González, 2012; González & Stevenson, 2002). In addition, González (1990) proposed two subseries within series *Hexandrae* (*Anthocaulicae* and *Hexandrae*). *Aristolochia* subser. *Anthocaulicae* comprises 22 species mainly from pluvial lowland forests from Belize to Bolivia. Despite the molecular-based phylogenetic analyses by Neinhuis *et al.* (2005), Ohi-Toma *et al.* (2006) and Wanke *et al.* (2006) are not conclusive about the monophyly of the subseries *Anthocaulicae*, all the species assigned to this taxon possess ramiflorous to cauliflorous racemes with internodes extremely short and subtending leaves reduced to small bracts. These diagnostic characters are clearly present in the new species described below. The phylogenetic relationships of the new species will require its inclusion in the molecular-based analyses available so far; however, we can anticipate that it could be sister to *A. bahiensis* F. González (1998: 8), based on morphological characters and geographical distribution (González, 1998; Freitas *et al.*, in press).