



Two new species of *Piper* section *Ottonia* (Piperaceae) from southeastern Brazil

MICHELINE CARVALHO-SILVA¹, ELSIE FRANKLIN GUIMARÃES², LUCIANO ARAUJO PEREIRA³
& VALDERES BENTO SARNAGLIA JUNIOR⁴

¹Universidade de Brasília, Departamento de Botânica, Instituto de Biologia, Universidade de Brasília, Asa Norte, 70910–900, Brasília, DF, Brazil. e-mail: silvamicheline@gmail.com

²Instituto de Pesquisas Jardim Botânico do Rio de Janeiro, Diretoria de Pesquisas, Rua Pacheco Leão, 915, Jardim Botânico, 22460–030, Rio de Janeiro, RJ, Brazil. e-mail: eguimar@jbrj.gov.br

³Universidade do Estado do Amapá. Av. Presidente Vargas, n 650, 68.906–970, Macapá, AP, Brazil. e-mail: luciano.araujo@jepa.ap.gov.br

⁴Escola Nacional de Botânica Tropical, Instituto de Pesquisas Jardim Botânico do Rio de Janeiro. Rua Pacheco Leão, 2040, Solar da Imperatriz, Horto, 22460-030, Rio de Janeiro, RJ, Brazil. e-mail: vsarnaglia@gmail.com

Abstract

Based on studies of Piperaceae from Brazil, two new species are described that belong to *Piper* section *Ottonia* from the state of Espírito Santo. *Piper bicorne* is recognized by membranaceous, densely glandulosous leaves, and a bifid prophyll. *Piper aghaense* is recognized by lanceolate leaves with a cordate to lobate base with one side overlapping the petiole. We present descriptions, illustrations and comments about the ecology and conservation of these species.

Key words: conservation, state of Espírito Santo, morphology, new taxa

Resumo

Com base em estudos com Piperaceae no Brasil, duas novas espécies de *Piper* seção *Ottonia* para o estado do Espírito Santo são descritas. *Piper bicorne* é reconhecida por possuir pelas folhas membranáceas, densamente glandulosas e o perfilo com ápice bífido, *Piper aghaense* é reconhecida pelas folhas lanceoladas com a base cordada a lobada com o lado maior cobrindo o pecíolo. São apresentados descrições, ilustrações e comentários sobre ecologia e conservação das espécies.

Palavras-chave: conservação, estado do Espírito Santo, morfologia, novos táxons

Introduction

Piper Linnaeus (1753: 28) is one of the ten largest genera of seed plants (Frodin 2004). It includes about 2000 species with a pantropical distribution (Quijano-Abril *et al.* 2006). Brazil harbors 282 species, which mainly occur in forest areas with the greatest amount of taxa found in the Atlantic rain forest followed by the Amazon forest (Guimarães *et al.* 2013).

The genus includes shrubs, subshrubs, and less common subtrees and has been characterized by its alternate, simple and entire leaves and inflorescences that are spikes or racemes with petal-less flowers protected by floral bracts. The ovary is uniloculate, uniovulate, with 3–4 stigmas and 2–6 stamens. The fruits are small drupes of varying shapes (Yuncker 1972, Callejas 1986).

The first species of the genus was described by Linnaeus (1753: 28). Sprengel (1820) described a new genus with a species new to the Piperaceae: *Ottonia anisum*. The genus *Ottonia* Sprengel (1820: 255) was characterized by their inflorescences being racemes with four stigmas. Miquel (1844), Kunth (1839), Trelease (1935), and Yuncker (1950, 1966) combined *Piper* within *Ottonia* and described new species.

Yuncker (1972, 1973) studied the Piperaceae from Brazil and distinguished five genera with different inflorescences, including the genus *Ottonia* with 29 taxa. Callejas (1986) proposed a new classification for the genus *Piper* based on morphological characters and cladistic analyses. As a result, the genus *Ottonia* was reclassified as *Piper* subgenus