



***Chusquea yungasensis* (Bambusoideae, Poaceae): a new species of woody bamboo from South America and the first record of subgenus *Rettbergia* in Bolivia**

ALINE COSTA MOTA^{1,4}, IVÁN JIMÉNEZ PÉREZ², REYJANE PATRÍCIA DE OLIVEIRA¹ & LYNN G. CLARK³

¹Programa de Pós-graduação em Botânica, Universidade Estadual de Feira de Santana, Departamento de Ciências Biológicas, Avenida Transnordestina s/n, Novo Horizonte, 44036-900, Feira de Santana, Bahia, Brazil

²Herbario Nacional de Bolivia, Casilla, 10077, Correo Central, La Paz, Bolivia

³Department of Ecology, Evolution and Organismal Biology, 251 Bessey Hall, Iowa State University, Ames, Iowa 50011-1020, USA

⁴Author for correspondence: alinecostamota@gmail.com

Abstract

A new species of *Chusquea* subg. *Rettbergia* is described, illustrated and compared with *C. bambusoides*. *Chusquea yungasensis* sp. nov. differs from other species of subg. *Rettbergia* by its racemose synflorescences. The new species is endemic to Bolivia, and found only in the Yungas ecoregion. Although this subgenus is exclusive to South America, this new species represents the first record of the group in Bolivia.

Key words: Bambuseae, Chusqueinae, woody bamboo, Yungas ecoregion

Chusquea Kunth (1822: 151) is the most diverse genus of bamboos, with 170 described species (BPG 2012, Guerreiro & Agrasar 2013, Mota *et al.* 2013, Ruiz-Sanchez & Clark 2013). It occurs from sea level to over 4,000 m in elevation, and it is widely distributed from Mexico to Argentina and Chile (Clark 1997). *Chusquea* is considered monophyletic based on morphological and molecular data (Clark 1997, Kelchner & Clark 1997, Clark *et al.* 2007, Fisher *et al.* 2009), with papillate subsidiary cells and a spikelet structure of four glumes, one fertile floret, and no rachilla extension as synapomorphies. Three subgenera and two informal groups are recognized in the infrageneric classification of *Chusquea*: *C.* subg. *Rettbergia* (Raddi 1823: 17) Clark (1997: 41), *C.* subg. *Chusquea*, and *C.* subg. *Swallemochloa* (McClure 1973: 106) Clark (1997: 42), and *Neurolepis* I and *Neurolepis* II (Fisher *et al.* 2009).

Chusquea subg. *Rettbergia* was delimited by Fisher *et al.* (2009) as including 11 species: *C. arachniformis* Clark & Londoño (1998: 425), *C. bahiana* Clark (1996: 250), *C. bambusoides* (Raddi 1823: 18) Hackel (1908: 81), *C. bradei* Clark (1996: 254), *C. capitata* Nees (1834: 489), *C. capituliflora* Trinius (1835: 613), *C. oligophylla* Ruprecht (1839: 124), *C. oxylepis* (Hackel 1908: 81) Ekman (1913: 65), *C. pulchella* Clark (1993: 236), *C. sellowii* Ruprecht (1839: 35), and *C. urelytra* Hackel (1903: 158). This subgenus occurs exclusively in South America (Judziewicz *et al.* 1999).

Almost all species of subg. *Rettbergia* are found in the Brazilian Atlantic Forest (A.C. Mota *et al.*, unpublished data), except *Chusquea arachniformis*, which occurs only in lower montane forests at the northern end of the Central Cordillera in Colombia (Londoño & Clark 1998). Recently, two new species of this subgenus were discovered, also from the Brazilian Atlantic Forest (Mota *et al.* in press), increasing to 13 the number of species accepted in this group.

Stephan G. Beck, a German botanist, collected a specimen in 1981 (Beck 4722), from Sud Yungas, Huancané, La Paz, Bolivia, which is housed in the Herbario Nacional de Bolivia (LPB). This material undoubtedly belongs to *Chusquea* subg. *Rettbergia*, due to the presence of solid culms, infravaginal branching, a central and circular bud growing perpendicularly, and lemmas with a connate apex. Although S.A. Renvoize annotated the specimen in 1985 as *Chusquea bambusoides*, probably due to its vegetative similarity to this species, he did not cite either *C.*

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