

## First record of the genus *Cranichis* Sw. (Orchidaceae) for the state of Pará, Brazil Primeiro registro do gênero *Cranichis* Sw. (Orchidaceae) para o estado do Pará, Brasil

Climbiê Ferreira Hall<sup>1</sup>, Ana Kelly Koch<sup>1</sup>,

Augusto Francener<sup>1</sup>, Fábio de Barros<sup>1</sup>

<sup>1</sup>Instituto de Botânica de São Paulo. São Paulo, São Paulo, Brasil

**Abstract:** *Cranichis* is a Neotropical genus with about 53 species, five of which are known from Brazil. *Cranichis muscosa* is only known in Brazil from the states of Amazonas, Paraná and São Paulo. In this paper, a new record of *C. muscosa* is presented for the state of Pará, expanding the occurrence of the species.

**Keywords:** Amazon. *Cranichis muscosa*. New record. Orchid.

**Resumo:** *Cranichis* é um gênero Neotropical constituído por 53 espécies, sendo cinco delas ocorrentes no Brasil. *Cranichis muscosa* possuía ocorrência conhecida no Brasil apenas para os estados do Amazonas, Paraná e São Paulo. Nesta nota de pesquisa, um novo registro de *C. muscosa* é apresentado para o estado do Pará, expandindo a ocorrência da espécie.

**Palavras-chave:** Amazônia. *Cranichis muscosa*. Novo registro. Orquídea.

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Autor para correspondência: Ana Kelly Koch. Instituto de Botânica de São Paulo. Núcleo de Pesquisa Orquidário do Estado. Caixa Postal 68041. São Paulo, SP, Brasil. CEP 04045-972 (anakbio@gmail.com).

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The Neotropical genus *Cranichis* Sw. has 53 species distributed from South Florida to Argentina (WCSP, 2013). Five species of *Cranichis* are known to occur in Brazil and only *Cranichis muscosa* Sw. is known from the Brazilian Amazon (Barros et al., 2013). The genus comprises terrestrial caespitose plants, with one to many basal, membranaceous, petiolate, ovate to lanceolate leaves, usually in rosette, a terminal, erect inflorescence, in raceme, flowers non-resupinate, white, sometimes with green spots, sepals and petals free, lip cochleate, column short, erect, and four pollinia (Pridgeon et al., 2003).

*Cranichis muscosa* is distributed from South Florida to South Brazil (WCSP, 2013), being cited for Brazil in Amazonas, Paraná, and São Paulo (Macagnan et al., 2011; Barros et al., 2013), and is here recorded for the first time

in the state of Pará, increasing its known distribution. The occurrence of *C. muscosa* in Pará also represents the first record of the genus for the state.

We conducted this study by examining individuals collected *in situ* in the margin of the Curuá River, municipality of Altamira, Pará, and also was analyzed a sample deposited in the Herbarium Museu Paraense Emílio Goeldi (MG) and Instituto Nacional de Pesquisas da Amazônia (INPA) (Figure 1). The collected material was deposited in the Herbarium Maria Eneyda P. K. Fidalgo (SP). The individuals of *Cranichis muscosa* occur within the litter layer of the forest, in a shaded area. The collection site, called Salto Curuá (Figure 2A), comprises a series of waterfalls, that are a popular regional touristic attraction and have a small hydropower station. The site is located

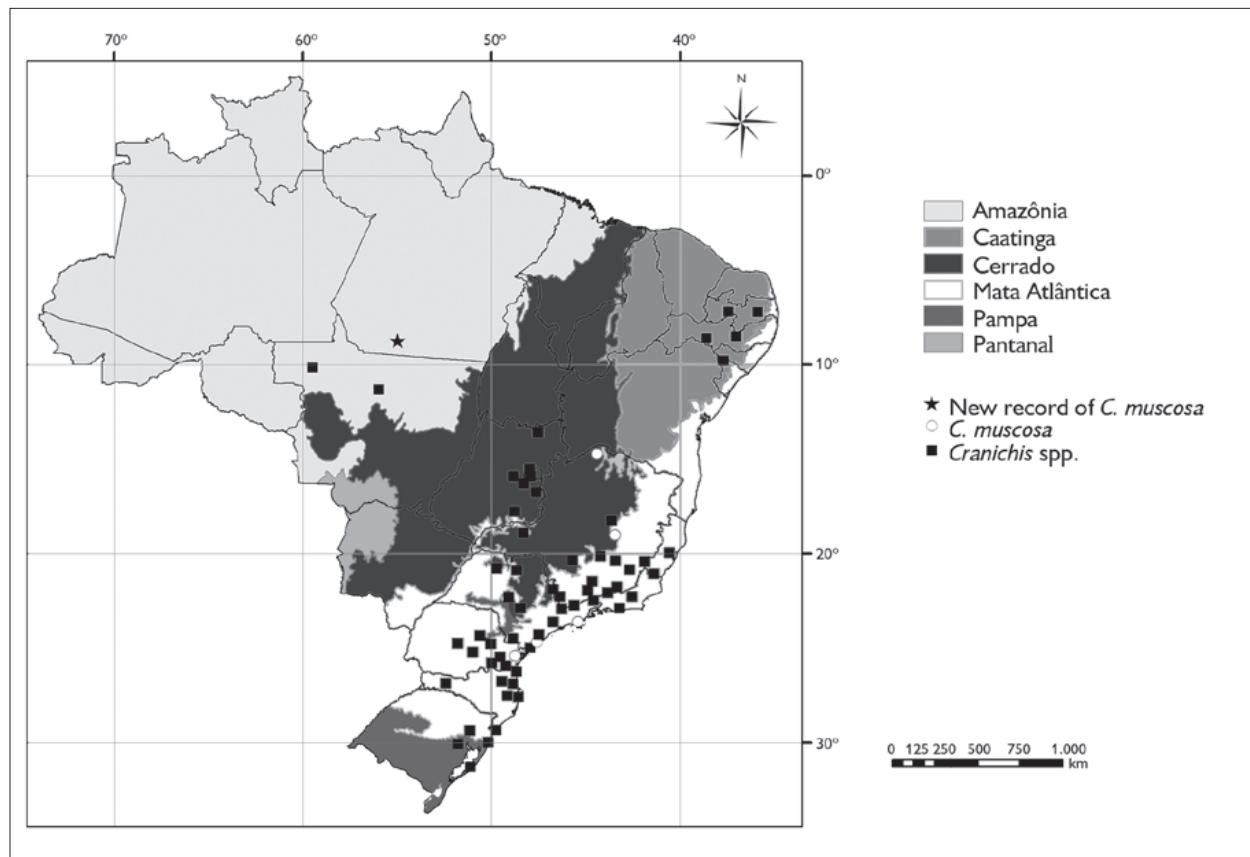


Figure 1. Map of geographic distribution of *Cranichis* in Brazil. The data for the map was obtained from herbarium material and from the Specieslink database (Species Link, 2013). The occurrence of *Cranichis muscosa* in Amazonas is not shown in the map, because no voucher material was found.

between the western limit of the 'Nascentes da Serra do Cachimbo' Biological Reserve and the highway BR-163 (ICMBIO et al., 2009).

The vegetation of the Biological Reserve is composed by a mosaic of grasslands, open savannahs and rainforests (Lleras & Kirkbride Jr., 1978). The Serra do Cachimbo is a region in Brazil considered as priority for surveys and inventories of plants (Sousa-Baena et al., personal communication) and other groups of organisms, with an expressive quantity of endemism (e.g. Santos et al., 2011). In spite of this, it still remains as one of the least known in all of Amazonia (Cracraft, 1985).

**CRANICHIS MUSCOSA SW., NOVA GENERA ET  
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Terrestrial plants, 15-30 cm height; leaves 3-5, basal, petiolate, petiole 3.5-7 cm long, lamina 3.5-7.9 × 1.2-3.9 cm, elliptic to oval, membranaceous; inflorescence

in raceme, glabrous, 20-60 flowered, loose; flowers ca. 0.3 cm diameter, non resupinate, white; petals with pilose margin; lip with green spots, cochleate; column winged (Figure 2B-2D).

Material examined: Brazil. Pará: Altamira, Salto Curuá, margin of highway BR-163, 08° 44' 05" S/54° 57' 43" W, 12.03.2013, C. F. Hall et al. 900 (SP); Base of Cachoeira Curuá, 15.02.1977, J. H. Kirkbride Jr. & E. Lleras 2806 (MG and INPA).

The new record of *Cranichis muscosa* for Curuá River increases the distribution of this species in the Brazilian Amazon and the possibility of the species to be found in the forests of the Cerrado Biome (Brazilian Savannah). Firstly, the Salto Curuá is located in a region that is a transition from Cerrado to Amazon Forest, showing a mosaic of these biomes (Lleras & Kirkbride Jr., 1978). Therefore the updated distribution of *C. muscosa* presented here (Figure 1) shows that there is a big gap in collection efforts for this species in Brazil, and especially

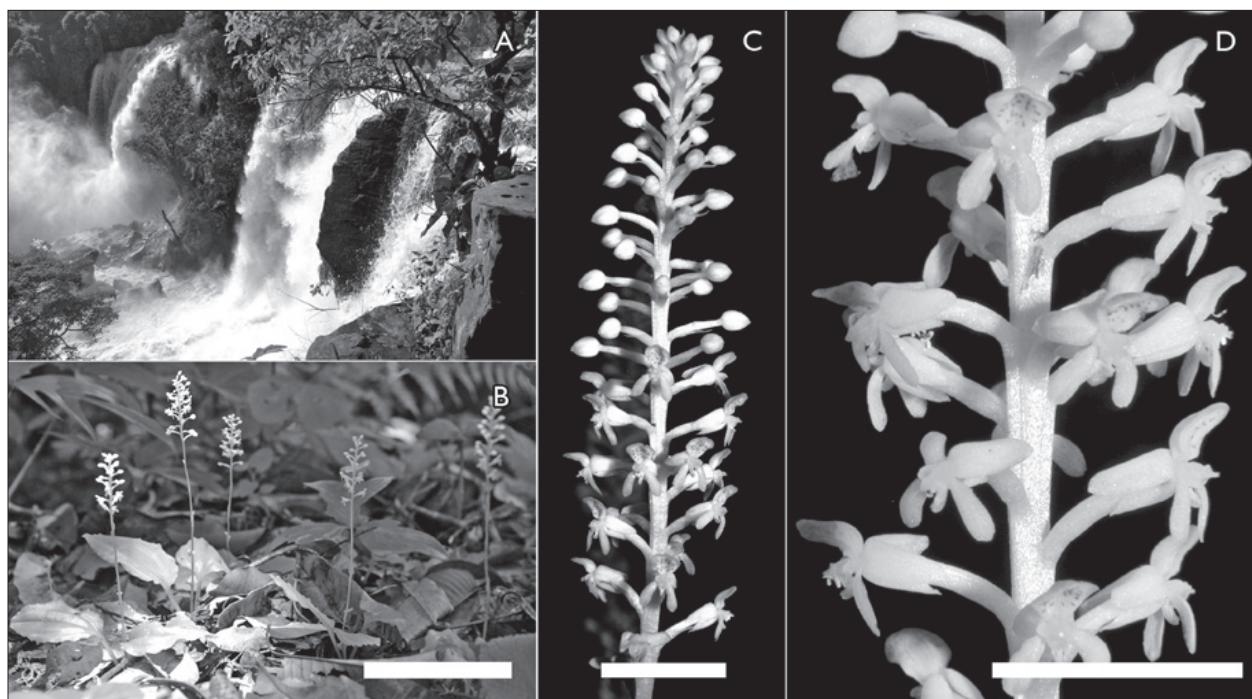


Figure 2. Locality of collection and *Cranichis muscosa* in situ: A) Curuá River; B-D) *Cranichis muscosa*; B) habit (bar = 10 cm); C) inflorescence (bar = 1 cm); D) inflorescence in detail (bar = 0.5 cm).



in the central part of the country, where the Cerrado vegetation prevails.

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## REFERENCES

- BARROS, F., F. VINHOS, V. T. RODRIGUES, F. F. V. A. BARBERENA, C. N. FRAGA, E. M. PESSOA, W. FOSTER & L. MENINI NETO, 2013. Orchidaceae. In: JARDIM BOTÂNICO DO RIO DE JANEIRO (JBRJ). *Lista de espécies da flora do Brasil*. Available at: <<http://floradobrasil.jbrj.gov.br/2012>>. Accessed on: 22 March 2013.
- CRACRAFT, J., 1985. Historical biogeography and patterns of differentiation within the South American avifauna: areas of endemism. *Ornithological Monographs* 36: 49-84.
- INSTITUTO CHICO MENDES DE CONSERVAÇÃO DA BIODIVERSIDADE (ICMBIO), WORLD WIDE FUND FOR NATURE-BRASIL (WWF-BRASIL) & INSTITUTO CENTRO DE VIDA (ICV), 2009. *Plano de manejo da Reserva Biológica Nascentes da Serra do Cachimbo*. Encarte 2: análise da região da Unidade de Conservação: 1-80. Available at: <[http://www.icmbio.gov.br/portal/images/stories/imgs-unidades-conservacao/rebio\\_nascentes\\_da\\_serra\\_do\\_cachimbo.pdf](http://www.icmbio.gov.br/portal/images/stories/imgs-unidades-conservacao/rebio_nascentes_da_serra_do_cachimbo.pdf)>. Accessed on: 20 May 2013.
- LLERAS, E. & J. H. KIRKBRIDE JR., 1978. Alguns aspectos da vegetação da Serra do Cachimbo. *Acta Amazonica* 8(1): 51-65.
- MACAGNAN, T. A., E. C. SMIDT & C. O. AZEVEDO, 2011. A subtribo Cranichidinae Lindl. (Orchidaceae) no Estado do Paraná, Brasil. *Revista Brasileira de Botânica* 34(3): 447-461.
- PRIDGEON, A. M., P. J. CRIBB, M. W. CHASE & F. RASMUSSEN, 2003. *Genera Orchidacearum* 3: Orchidoideae: 2: Vanilloideae: 1-400. Oxford University Press, Oxford.
- SANTOS, M. P. D., L. F. SILVEIRA & J. M. C. SILVA, 2011. Birds of Serra do Cachimbo, Pará State, Brazil. *Revista Brasileira de Ornitologia* 19(2): 244-259.
- SPECIES LINK, 2013. Available at: <<http://splink.cria.org.br>>. Accessed on: 4 September 2013.
- WORLD CHECKLIST OF SELECTED PLANT FAMILIES (WCSP), 2013. Facilitated by the Royal Botanic Gardens, Kew. Available at: <<http://apps.kew.org/wcsp/advanced.do>>. Accessed on: 22 March 2013.

