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Lectotypifications in species of *Chusquea* (Poaceae, Bambusoideae, Bambuseae) from southern South America

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Abstract

Lectotypes of *Chusquea phacelophora*, *C. tenella*, *C. uruguayensis* and *C. valdiviensis* are herein designated on the basis of specimens deposited at Museo Nacional de Historia Natural (MVM), Museu National d'Historie Naturelle (P) and Smithsonian Institution (US) herbaria.

Introduction

Chusquea Kunth (1822: 151) is the most diverse woody bamboo genus in the world, comprising ca. 169 species (Fisher *et al.* 2014). *Chusquea* is distributed from Mexico to Argentina and Chile with a large group of endemic species in Brazil and one disjunct species in the Juan Fernandez Islands, another in the West Indies, and a third in the Sierra Parima of Venezuela and Brazil, and the Guayana highlands (Clark 1995). It has the widest latitudinal range of any bamboo genus, 24°N to 47°S, and the widest altitudinal range, from sea level to over 4000 m (Judziewicz *et al.* 1999). The species of *Chusquea* are often significant, sometimes dominant components of montane forest and high altitude grassland vegetation (Judziewicz *et al.* 1999).

Based on a recent taxonomic study of woody bamboos native to Northeastern Argentina (Lizarazu 2012, 2013), the revision of the Argentinean species of the genus *Chusquea* (Guerreiro & Rúgolo 2012) and the upcoming treatment of the Chilean species of the genus for the Flora of Chile project (Guerreiro & Vega unpubl.), four taxa were detected that remain without typification. For this reason, lectotypes are herein designated for the following taxa: *Chusquea phacelophora* Pilger (1923: 456), *C. tenella* Nees (1835: 492), *C. uruguayensis* Arechavaleta (1897: 546) and *C. valdiviensis* Desvaux in Gay (1854: 446). The label and characters exhibited by the specimens selected agree with the original descriptions of these species. In some cases, holotypes were deposited at Berlin Dahlem Herbarium (B), but these were destroyed during the Second World War and duplicates of them are preserved at BAA and US herbaria.

In the taxonomic treatment accepted names are in bold face and synonyms are in italics. Type protogues were checked in original publications and type specimens are cited. In cases where type specimens are fragments, the kind of material available is described: inflorescence, spikelets, leaf blade, line drawing, etc. For each taxon, details about the selected lectotype material are included, as well as the isolectotypes and the herbaria where they are housed. Herbarium acronyms follow Thiers (2014). Usually, herbaria have identification (accession) numbers and/or barcodes to designate their specimens, and when this is the case, these numbers are given after the herbarium acronym. Information on specimens housed at BAA was obtained from Vega (2013).

Taxonomic Treatment

1. *Chusquea ramosissima* Lindman (1900: 24). Lectotype (designated by Parodi 1941: 338):—PARAGUAY. Cordillera de Villa Rica, in silvis abundans, 30 September 1874, B. Balansa 134a [S 055423 photo SI!, isolectotypes BR, S 0510846 photo SI!, US 2874652! (fragm. ex S)].

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References

- Arechavaleta, J. (1897) Las gramíneas uruguayas. *Anales del Museo Nacional de Montevideo* 1 (6): 373–553.
<http://dx.doi.org/10.5962/bhl.title.53692>
- Camus, E.G. (1913) *Les Bambusées*. Lechevalier, Paris, 215pp.
<http://dx.doi.org/10.5962/bhl.title.15463>
- Clark, L.G. (1995) Diversity and distribution of the Andean woody bamboos (Poaceae: Bambuseae). In: Churchill, S.P., Balslev, H., Forero, E. & Luteyn, J.L. (Eds.) *Biodiversity and conservation of neotropical forests*. The New York Botanical Garden, Bronx, New York, pp. 501–512.
- Clark, L.G. (2000) *Chusquea*. In: Judziewicz, E.J., Soreng, R.J., Davidse, G., Peterson, P.M., Filgueiras, T.S. & Zuloaga, F.O. (Eds.) Catalogue of New World Grasses (Poaceae): I. Subfamilies Anomochlooideae, Bambusoideae, Ehrhartoideae, and Pharoideae. *Contributions from the United States National Herbarium* 39: 1–128.
- Desvaux, E.E. (1853) Gramíneas. In: Gay, C. (Ed.) *Historia Física y Política de Chile. Botánica. Flora Chilena* 6. Thunot & Co, Paris, pp. 233–469.
- Dutra, J. (1938) Les bambusées de Rio Grande do Sud. *Revista Sudamericana de Botánica* 5 (5–6): 145–152.
- Fisher, A.E., Clark, L.G. & Kelchner, S.A. (2014) Molecular phylogeny estimation of the bamboo genus *Chusquea* (Poaceae: Bambusoideae: Bambuseae) and description of two new subgenera. *Systematic Botany* 39 (3): 829–844.
<http://dx.doi.org/10.1600/036364414X681554>
- Guerreiro, C. & Rúgolo de Agrasar, Z.E. (2012) *Chusquea*. In: Zuloaga, F.O., Rúgolo de Agrasar, Z.E. & Anton, A.M. (Eds.) *Flora Argentina. Plantas Vasculares de la República Argentina. Monocotiledoneae: Poaceae: Aristidoideae–Pharoideae*. Graficamente, Córdoba, pp. 52–58.
- Judziewicz, E.J., Clark, L.G., Londoño, X. & Stern, M.J. (1999) *American bamboos*. Smithsonian Institution Press, Washington D.C., 392 pp.
- Kunth, K.S. (1822) Notice sur le genre *Bambusa*. *Journal de Physique, de Chimie, d'Histoire Naturelle et des Arts* 95: 148–151.
- Lindman, C.A.M. (1900) Beiträge zur gramineenflora südamerikas. *Kongliga Svenska Vetenskaps Akademien Handlingar* 34 (6): 3–52.
- Lizarazu, M.A. (2012) *Bambúes leñosos (Poaceae: Bambusoideae: Bambuseae) del Noreste argentino y regiones límitrofes: estudios taxonómicos, morfológicos, anatómicos y biogeográficos*. Doctoral Dissertation, Universidad de Buenos Aires, Buenos Aires, 241 pp.
- Lizarazu, M.A., Areta, J.I. & Rúgolo de Agrasar, Z.E. (2013) *Chusquea juergensis* (Poaceae, Bambusoideae, Bambuseae), nueva cita para la Argentina. *Boletín de la Sociedad Argentina de Botánica* 48(2): 341–345.
- McNeill, J., Barrie, F.R., Buck, W.R., Demoulin, V., Greuter, W., Hawksworth, D.L., Herendeen, P.S., Knapp, S., Marhold, K., Prado, J., Prud'homme van Reine, W.F., Smith, G.F., Wiersema, J.H. & Turland, N.J. (2012) *International Code of Nomenclature for algae, fungi, and plants (Melbourne Code)*. Regnum Vegetabile 154. Koeltz Scientific Books, Koenigstein, 240 pp.
- Nees, C.G. (1835) Bambuseae brasilienses. *Linnaea* 9 (4): 461–494.
- Parodi, L.R. (1941) Estudio preliminar sobre el género *Chusquea* en la Argentina. *Revista Argentina de Agronomía* 8: 331–344.
- Philippi, R.A. (1896) Plantas nuevas chilenas de las familias que corresponden al tomo VI de la obra de Gay (continuación). *Anales de la Universidad de Chile* 94: 341–362.
- Pilger, R. (1923) Gramineae nonnullae austro-americanae. *Notizblatt des Botanischen Gartens und Museums zu Berlin-Dahlem* 8 (76): 452–456.
- Thiers, B. (2014) *Index Herbariorum: A global directory of public herbaria and associated staff*. New York Botanical Garden's Virtual Herbarium. Available from: <http://sweetgum.nybg.org/ih/> (accessed 27 May 2014).
- Vega, A.S. (2013) *Catalogue of Poaceae type specimens conserved in Gaspar Suarez Herbarium (BAA)*. Sociedad Argentina de Botánica, Buenos Aires, 266 pp.