

## GENERA NOVA ET COMBINATIONES NOVAE IN CACTACEIS AUSTRoAMERICANIS AD SUBFAMILIAM OPUNTIOIDEAE K. SCHUMANN SPECTANTIBUS III

### *Pseudomaihueniopsis* Guiggi *gen. nov.*

**Descriptio:** *Plants fruticose, much branched, forming small, low groups, with determinate growth; roots tuberous; leaves small, conical, ephemeral; joints dark green to purplish, globose to cylindrical or ovoid, tuberculate when young; areoles circular, slightly sunken, woolly, glochidiate, distributed over the entire surface of the joints; glochids reddish-brown; spines purplish-black, acicular, rigid, erect or spreading, rough, distributed only in the upper areoles; flower purplish to reddish-orange, subapical, tepals mucronate, hypanthium covered with areoles more densely in the upper part, these with bract-scales, wool and bristles, stigma exerted beyond the stamens; fruit purplish-red, indehiscent, obpyriform or spherical, truncate, smooth, sharply umbilicate, thin-walled, pulp purplish-red, juicy; seed reddish stained with pulp juice, comma-like, hard, rugose, with a narrow funicular envelope. Typus generis: Pseudomaihueniopsis nigrispina (K. Schumann) Guiggi. Etymologia: from the Greek pseudo false, referring to the resemblance to genus Maihueniopsis Spegazzini. Distributio: western South America, above 2500 m.*

### *Pseudomaihueniopsis nigrispina* (K. Schumann) Guiggi *comb. nov.* (imago 1-2)

**Basionymus:** *Opuntia nigrispina* K. Schumann, Gesamtb. Kakt. 695 1899 (1898). *Typus:* Argentina [erroneously cited as Bolivia in the protologue], Prov. Jujuy, Puna near Humahuaca, C. Lorentz s.n., non servatus. *Neotypus* (Kiesling, 1984: 210): Argentina, Prov. Jujuy, Dept. Santa Catalina, Santa Catalina, cerro, 10 Feb. 1980, P. Arenas et A. Dell'Arciprete s.n. [1738 BACP, *holo. spec. vis.*, ico 44 in Iliff, 2002: 213]. *Synonymi:* *Opuntia purpurea* R.E. Fries, in *Nova Acta Regiae Soc. Sci. Upsal.* ser. 4, 1(1): 123. (1905); *Tephrocactus nigrispinus* (K. Schumann) Backeberg in Backeberg & Knuth, Kaktus-ABC 109, 1935 (1936); *Platyopuntia nigrispina* (K. Schumann) F. Ritter, Kakt. Südamerika, 2: 413 (1980) *nom. incorr.* (cfr. ICBN Art. 11.4, McNeill et al., 2012); *Maihueniopsis nigrispina* (K. Schumann) R. Kiesling, in *Darwiniana* 25(1-4): 209 (1984). **Specimina visa:** Bolivia, Prov. Chuquisaca, Depto. Sud-Cinti, Culpina, Nr. 7, F. Ritter FR 90 loc.1 [122004 SGO]; Argentina: Prov. Jujuy, La Quiaca, barren sandy slope, 2 Feb. 1917, J.A Shafer 79 [000100912 K]; Argentina: Prov. Jujuy, Abra Pampa, Apr. 1962, F. Ritter FR 90 loc.2 [125320 SGO]. **Distributio:** N Argentina, S Bolivia.

***Pseudomaihueniopsis nigrispina* subsp. *atroglobosa*** (Backeberg ex F. Ritter) Guiggi *comb. nov.* **Basionymus:** *Platyopuntia atroglobosa* Backeberg ex F. Ritter, Kakt. Südamerika, 2: 502 (1980), *nom. incorr.* (cfr. ICBN Art. 11.4, McNeill et al., 2012); *Typus:* Bolivia, Depto. Potosí, Chiguana (Pot.), Mar. 1953, legit F. Ritter FR 95 [*holo. spec. vis.*, ico 358 in Ritter, *op. cit.* 1980(2): 741]. *Synonymi:* *Tephrocactus atroglobosus* Backeberg, in *Cactus* (Paris) 17(73-74): 5 (Mar. 1962), and *Die Cact.* 6: 3905 (26 Jun. 1962), *nom. inval.* (cfr. ICBN Art. 8.2, 40.1, McNeill et al., 2012); *Opuntia atroglobosa* (Backeberg) R. Crook et Mottram, in *Bradleya* 13: 106 (1995); *Maihueniopsis nigrispina* subsp. *atroglobosa* Backeberg ex Guiggi et Palacios, in *Kakt. And. Sukk.* 61(12): 330 (2010); *Tephrocactus nigrispinus* subsp. *atroglobosus* (Backeberg. ex F. Ritter) M. Lowry, *Cact. Syst. Init.* 27: 23 (2012). **Specimina visa:** Chile, I Región, Prov. de Iquique, Com. de Colchane, Sierra Chilani, 3550 m, 24 Dic. 02, R. Pinto 30 [156247 CONC]; Chile, I Región, Prov. de Iquique, Com. de Colchane, Sierra Chilani, 3550 m, 5 Feb. 03, R. Pinto 31 [156248 CONC]. **Distributio:** SW Bolivia, N Chile. **Notes:** Ritter's name *Platyopuntia atroglobosa* is validated by reference to the Latin diagnosis of Backeberg in *Die Cactaceae*, and the inclusion of a single element, the illustration, which is therefore automatically the holotype. *Maihueniopsis nigrispina* ssp.

*atroglobosa* (F. Ritter) Guiggi & Palacios was published as though a new taxon with Latin description, but with only the citation of seed as a holotype. There is, however, citation of the basionym, thereby validating a new combination. Guiggi & Palacios (2010: 331) designated a Ritter seed sample as the holotype, but this was preceded by Crook & Mottram's designation (Crook & Mottram, 1995: 106). R. Mottram *com. pers.*



**Images 1-2.** *Pseudomaihueiniopsis nigripina* ssp. *nigripina* in its habitat. **1:** An example with the long blackish spines (Jujuy, Humahuaca, Quebrada de Humahuaca, 18 km N of Humahuaca along Ruta Nacional 9 towards La Quiaca, 3300 m). Photo: Leuenberger & Egli 4538. **2:** A plant with the typical carmine flowers (Jujuy, Humahuaca, 11 km S of Abra Pampa on Ruta Nacional 9 towards Tres Cruces (= 16 km N of Tres Cruces), 3550 m). Photo: Leuenberger 4570.

## Bibliographia

- Anderson, E. F., and U. Eggli. 2011. *Das große Kakteen-Lexikon*. 2 ed. Verlag: Eugen Ulmer (Germany).
- Backeberg, C. 1958. *Die Cactaceae*. Bd. 1. Gustav Fischer Verlag: Jena (Germany).
- \_\_\_\_\_. 1962a. *Descriptiones Cactacearum Novarum* II. *Cactus* (Paris). 17(73-74): 3-5.
- \_\_\_\_\_. 1962b. *Die Cactaceae*. Bd. VI. Gustav Fischer Verlag: Jena (Germany).
- \_\_\_\_\_. 1977. *Cactus Lexicon*. Blandford Press: Dorset (England).
- Backeberg, C., and Knuth F. M. (1936) 1935. *Kaktus-ABC*. Nordisk Forlag: Kopenhagen (Denmark).
- Britton, N. L., and Rose J. N. 1919. *The Cactaceae*. Vol. 1. Carnegie Institution: Washington (U.S.A).
- Crook, R., and R. Mottram. 1995. *Opuntia* Index Part 1: Introduction and A-B. *Bradleya*. 13: 88-118.
- Griffith, M.P., and Porter J.M. 2009. Phylogeny of *Opuntioideae* (Cactaceae). *Int. J. Plant Sci.* 170(1): 107-116.
- Guiggi, A., and P. Palacios. 2010. Eine neue Unterart von *Maihueniopsis nigrispina* (Cactaceae) und Anmerkungen zu ihrer taxonomischen Stellung. *Kakt. And. Sukk.* 61(12): 330-331.
- Hoffmann, A.E.J., and Walter H.E.M. 2004. *Cactaceas En la flora silvestre de Chile*. 2 edc. Fund. Claudio Gay edc.
- Hunt, D., N. Taylor, and G. Charles (eds.). 2006. *New Cactus Lexicon*. David Hunt Books: Milborne Port (England).
- Katterman, F. 2012. Observations of Chilean *Opuntioideae*. Part.VI. *Cact. Succ. J. (U.S.)*. 84(2): 94-99.
- Kießling, M., and Pöschl J. 2000. *Tephrocactus und andere Feigenkakteen*. M. Kießling selfpub.: Schnaitsee (Germany).
- Kiesling, R. 1984. Estudios en *Cactaceae* de Argentina: *Maihueniopsis*, *Tephrocactus* y generos afines (*Opuntioideae*). *Darwiniana*. 25(1-4): 171-215.
- \_\_\_\_\_. 1984. *Cactaceas publicadas por el Dr. Carlos Spegazzini*. Librosur: Buenos Aires (Argentina).
- Illiff, J. 2002. The Andean opuntias: an annotated checklist of the indigenous non-platyopuntiid opuntias (*Cactaceae-Opuntioideae*) of South America. In: *Studies in the Opuntioideae (Cactaceae)*. D. Hunt & Taylor N. eds. *Succ. Plant Research*. 6: 133-244.
- Lambert, J. G. 1992. *Cactus d'Argentine*. Concordia-Roeselare.
- Leighton-Boyce, G., and Illiff, J. 1973. *The subgenus Tephrocactus*. Succulent Plant Trust: Morden (England).
- Lowry, M. 2012. *Tephrocactus*. In: NCL updates etc. *Cact. Syst. Init.* 27: 23.
- McNeill, J. et al. 2012. International Code of Nomenclature for algae, fungi, and plants (Melbourne Code). *Regnum Vegetabile* 154. Koeltz Scientific Books.
- Pinto, R. 2003. *Maihueniopsis nigrispina* (Cactaceae, *Opuntioideae*): nuevo registro para la flora chilena. *Chloris Chilensis*. 6(1): 1-5.
- Pinto, R., and Kirberg A. 2009. *Cactus del Extremo Norte de Chile*. R. Pinto pub.: Iquique (Chile).
- Ritter, F. 1980. *Kakteen in Südamerika*. Bd. 2: Argentinien/Bolivien. F. Ritter selfpub.: Spangenberg (Germany).
- Ritz, C.M, J. Reiker, G. Charles, P. Hoxey, D. Hunt, M. Lowry, W. Stuppy and N. Taylor. 2012. Molecular phylogeny and character evolution in terete-stemmed Andean opuntias (*Cactaceae - Opuntioideae*). *Mol. Phylogen. Evol.* 65: 668-681.
- Schumann, K. (1899) 1898. *Gesamtbeschreibung der Kakteen*. Verlag J. Neudamm (Germany).
- Stuppy, W. 2002. Seed characters and the generic classification of the *Opuntioideae* (Cactaceae). In: *Studies in the Opuntioideae (Cactaceae)*. D. Hunt & Taylor N. eds. *Succ. Plant Research*. 6: 25-58.
- Wallace, R.S., and Dickie S. L. 2002. Systematic implications of chloroplast DNA sequence variation in subfam. *Opuntioideae* (Cactaceae). In: *Studies in the Opuntioideae (Cactaceae)*. D. Hunt & Taylor N. eds. *Succ. Plant Research*. 6: 9-24.

Edited & published by Alessandro Guiggi  
DISTAV, Polo Botanico, Università degli Studi di Genova  
International Cactaceae Research Center (ICRC)  
alex.guiggi@libero.it

The text have been written by Alessandro Guiggi  
Roy Mottram revised the English text  
Illustrations by individual contributors

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### **Nomenclatural novelties proposed in this supplement**

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