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Xiuguozhangia, a new genus of microfungi to accommodate five *Piricaudiopsis* species

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Abstract — *Xiuguozhangia* gen. nov. is established to accommodate five species described in *Piricaudiopsis* but characterized by holoblastic conidial ontogeny. Five new combinations are proposed: *Xiuguozhangia appendiculata*, *X. indica*, *X. punicae*, *X. rhaphidophorae*, and *X. rosae*. Notes and illustrations on the type species of *Piricaudiopsis*, *P. elegans*, are also provided.

Key words — asexual fungi, systematics, leaf litter

Piricaudiopsis J. Mena & Mercado, typified by *P. elegans* J. Mena & Mercado (Mena Portales & Mercado Sierra 1987), is characterized by conidiophores that are macronematous, mononematous, unbranched, erect, cylindrical, and dark brown and conidiogenous cells that are monotretic, integrated, terminal and discrete, intercalary, doliiform, and subspherical to rather lageniform (Fig. 1). Conidial ontogeny is enteroblastic; the conidia are dictyoseptate, with several compact rows of cells, somewhat complanate, brown, verrucose towards the base, verruculose or smooth towards the distal cells; 4–7 of the apical cells produce a divergent, straight to slightly curved arm.

Five additional species have been described in *Piricaudiopsis*: *P. appendiculata* (Bhat & Kendrick 1993); *P. indica* (Sureshkumar et al. 2005); and *P. punicae*, *P. rhaphidophorae*, and *P. rosae* (Zhang et al. 2009). All five of these species have holoblastic conidial ontogeny (in contrast to the enteroblastic conidial

ontogeny of *P. elegans*). We therefore propose a new genus, to which we transfer the five holoblastic species.

Taxonomy

Fig 1. ***Piricaudiopsis elegans*** (INIFAT C06/70). A. Conidia. B. Conidiogenous cells. Fig 2. ***Xiuguozhangia rosae*** (HSAUPVII$_{0\text{-}KA1}$1092). Conidiogenous cells and conidia.

Xiuguozhangia K. Zhang, R.F. Castañeda, Jian Ma & L.G. Ma, **gen. nov.**

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Differs from *Piricaudiopsis* by its holoblastic conidial ontogeny.

Type species: *Xiuguozhangia rosae* (K. Zhang & X.G. Zhang) K. Zhang & R. F. Castañeda

Etymology: Latin *Xiuguozhangia*, dedicated to Prof. Xiu Guo Zhang (Shandong Agricultural University, China) for his contribution to microfungal taxonomy.

Colonies on the natural substrate effuse, hairy, velutinous, brown to dark brown. Mycelium mostly superficial immersed. Conidiophores distinct, single, cylindrical, erect, straight or flexuous, unbranched or moderately branched, multiseptate, brown to dark brown below, mid to pale brown toward

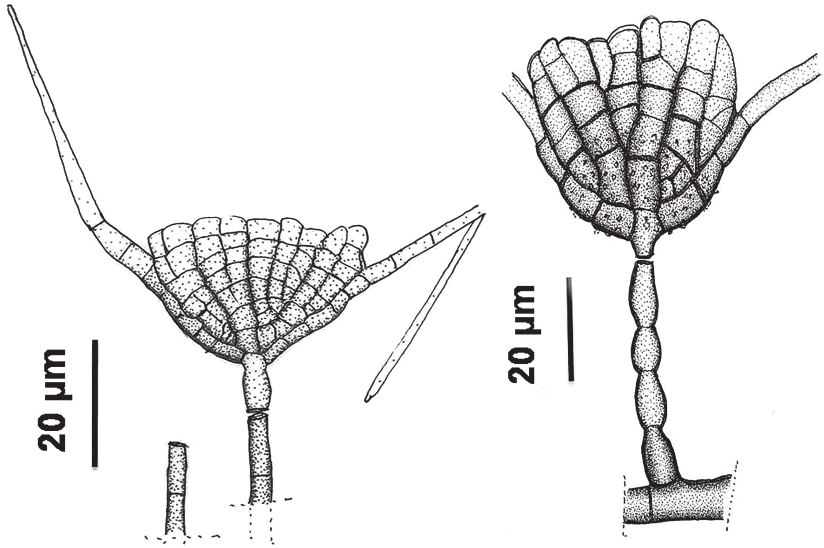

Fig 3. ***Xiuguozhangia appendiculata*** (DAOM 214610). Conidiogenous cell and conidium. Fig 4. ***Xiuguozhangia indica*** (ex HCIO-45498). Conidiogenous cell and conidium. Redrawn from original publication.

the apex, smooth or verruculose. Conidiogenous cells monoblastic, mostly discrete, few, terminal, integrated, lageniform, determinate, or indeterminate with several enteroblastic percurrent elongations, pale brown. Conidiogenous loci flat, truncated. Conidial ontogeny holoblastic. Conidial secession schizolytic. Conidia solitary, acropleurogenous, dictyoseptate, campanulate, cheiroid, composed of several compact rows of cells, that form a compact cluster after successive ± dichotomous branchings, brown, verrucose towards the base, verruculose or smooth towards the distal cells; 0–4 of the apical cells may produce a slender, divergent, straight to slightly curved, septate, pale brown, appendage.

Xiuguozhangia rosae (K. Zhang & X.G. Zhang) K. Zhang & R.F. Castañeda, **comb. nov.** Fig. 2

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≡ *Piricaudiopsis rosae* K. Zhang & X.G. Zhang, Mycologia 101(3): 419 (2009).

Xiuguozhangia appendiculata (Bhat & W.B. Kendr.) K. Zhang & R.F. Castañeda, **comb. nov.** Fig. 3

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≡ *Piricaudiopsis appendiculata* Bhat & W.B. Kendr., Mycotaxon 49: 62 (1993).

Fig 5. ***Xiuguozhangia punicae*** (HSAUPVII$_{0\text{-}KAI}$0432)Conidiophore, conidiogenous cells and conidia. Fig 6. ***Xiuguozhangia rhaphidophorae*** (HSAUPVII$_{0\text{-}KAI}$1417). A. Conidia. B–C. Conidiophores, conidiogenous cells and conidia.

Xiuguozhangia indica (Sharath, Sureshk., Kunwar & Manohar.) K. Zhang & R.F. Castañeda, **comb. nov.** Fig. 4

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≡ *Piricaudiopsis indica* Sharath, Sureshk., Kunwar & Manohar., Mycotaxon 92: 280 (2005).

Xiuguozhangia punicae (K. Zhang & X.G. Zhang) K. Zhang & R.F. Castañeda, **comb. nov.** Fig. 5

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≡ *Piricaudiopsis punicae* K. Zhang & X.G. Zhang, Mycologia 101(3): 417 (2009).

Xiuguozhangia rhaphidophorae (K. Zhang & X.G. Zhang) K. Zhang & R.F. Castañeda, **comb. nov.** Fig. 6

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≡ *Piricaudiopsis rhaphidophorae* K. Zhang & X.G. Zhang, Mycologia 101(3): 420 (2009).

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