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Steccherinum puerense and *S. rubigimaculatum* spp. nov. (Steccherinaceae, Polyporales), two new species from southern China

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With 5 figures and 1 table

Abstract: Two new wood-inhabiting fungal species, Steccherinum puerense and S. rubigimaculatum spp. nov., are proposed based on a combination of morphological features and molecular characters. Steccherinum puerense is characterized by an annual growth habit, resupinate basidiocarps with buff to cinnamon-buff, odontioid hymenial surface, a dimitic hyphal system with generative hyphae bearing clamp connections, strongly encrusted cystidia and subcylindrical, hyaline, thinwalled, smooth, negative in Melzer's, acyanophilous basidiospores measuring $3-4.2 \times 1.5-2.2 \mu m$. Steccherinum rubigimaculatum is distinguished by odontioid hymenial surface dotted with rust tints and longer aculei (up to 0.5 mm), a dimitic hyphal system with simple-septata generative hyphae, strongly encrusted cystidia and ellipsoid, hyaline, thin-walled, smooth basidiospores (3.5–5 \times 2.5–3.5 µm). Sequences of ITS and LSU nrRNA gene regions of the studied samples were generated, and phylogenetic analyses were performed with maximum likelihood, maximum parsimony and bayesian inference methods. The phylogenetic analyses based on molecular data of ITS+nLSU sequences showed that the two new species belonged to the Steccherinaceae and nested into the residual polyporoid clade. The result demonstrated that *Steccherinum puerense* singly formed a well-supported monophyletic lineage distinct from other Steccherinum species and S. rubigimaculatum sistered to S. bourdotii with a strong support.

Key words: Basidiomycota; Molecular phylogeny; Steccherinaceae; Taxonomy; Wood-rotting fungi