

Re-classification of *Melanopsichium inouyei* producing galls on buds of *Machilus* spp.

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Purpose: *Melanopsichium inouyei* transforms shoot buds of *Machilus japonica* and *Ma. thunbergii* (Lauraceae) into galls. This fungus was first collected in Tosa, Japan and described as *Uredo inouyei* by Hennings (1900). About thirty years later, Hino and Nagaoka (1931) reported a fungus collected from Miyazaki as a new smut species, *Cintractia machili*, without morphological comparison with *U. inouyei*. Now these two species have been treated under *Me. inouyei* by Ling (1953) on the basis of their morphological characters. The taxonomic concept of this genus and its relatives is, however, unstable because their morphological characters are relatively simple and detail molecular approaches have not been done. The objectives of this study are to reclassify this fungus using current detailed morphological and molecular analyses.

Methods: We obtained a fresh specimen on *Ma. japonica* from Miyazaki, the type locality of *C. machili*. Its morphological examination was performed with light microscope. Molecular maximum likelihood trees were produced based on ITS and LSU.

Results and Conclusions: Based on our morphological observation, the fungus bore abundant basidia with aseptate, elliptic basidiospores. The basidiospores that could germinate but not bud on culture were morphologically somewhat similar to ustospores. Our molecular phylogenetic analyses using ITS and LSU regions showed that the fungus fell into *Clinoconidium* clade (Cryptobasidiaceae, Exobasidiomycetes), not *Melanopsichium* (Melanopsichiaceae, Ustilaginomycetes). A new combination, *Clinoconidium inouyei*, is therefore needed.