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The genus *Pleurotus* (Fr.) P. Kumm. in Brazil: a molecular and taxonomic overview

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Species delimitation in *Pleurotus* has been a matter of discussion for several years because of the multiple names that have been attributed to the same species. This means that the reported number of species has varied among different interpretations, from 20 to 40, depending on the author. In addition, to increase the taxonomic confusion, almost 800 taxa have been described or combined in *Pleurotus*. Studies of *Pleurotus* in Brazil are very dispersed and fragmentary, including misidentifications, synonyms, species of other genera, unpreserved specimens and records consisting of lists without complete descriptions or other evidences to support the identifications. Although phylogenetic evidence based on molecular analyses has been used for species delimitation in the genus, species occurring in Brazil were never been subject of this approach, except for *P. albidus* and for the anamorphic state *Antromycopsis*. Thus, based on sequences of ITS, we present a discussion of at least five species certainly known and the current state of knowledge of *Pleurotus* in Brazil, including all epithets available in the literature updated for their taxonomic status. The molecular data were obtained with the usual protocols in mycology and the list was based on literature. Five species were confirmed, *P. albidus*, *P. djamor*, *P. fuscusquamulosus*, *P. pulmonarius* and *P. rickii*. In addition more 62 names have been reported, and with the addition of a further four undetermined species, there are a total of 71 records of *Pleurotus* in Brazil. Among these, there are 28 species with Brazilian types, but most of them are synonyms, are combined in other genera, or are considered nomina dubia. The results obtained strongly support the necessity to revise, collect and study *Pleurotus* in South America to maintain an updated number of known species and to allow morphological and molecular studies to reduce taxonomic problems.

Key words: Basidiomycota, ITS, phylogeny, Pleurotaceae.

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