



Article

Two new species of *Phellinus* s.l. from the Brazilian Amazonia

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Abstract

Phellinus fibrosus sp. nov. and *P. sousae* sp. nov. have a distinct combination of morphological characteristics not known in other *Phellinus* species and are described as new species to science. They were collected in the states of Amazonas and Mato Grosso, and deposited in herbarium INPA 34 years ago. Morphological descriptions, pictures of the basidiomata and basidiospores in light microscopy and/or SEM, and a key to the species of *Phellinus* s.l. from the Brazilian Amazonia are provided.

Key words: Basidiomycota, Hymenochaetaceae, taxonomy

Introduction

Phellinus Quél. (*Hymenochaetaceae* Donk, *Hymenochaetales*) is a cosmopolitan genus that accommodates species with annual to perennial, resupinate to pileate, brown basidiomata, with or without hymenial setae, tramal setae and/or setal hyphae, a dimitic hyphal system, hyaline to rusty brown, smooth, thin- to thick-walled, dextrinoid or not dextrinoid basidiospores (Larsen & Cobb-Poullé 1990, Ryvarden 2004). The species of *Phellinus* cause a white rot and occur on dead wood of both gymnosperms and angiosperms, or on living trees causing damage to the tissues of their host (Lindblad 2001, Ryvarden 2004, Dai *et al.* 2007, Gibertoni *et al.* 2007, Dai 2012).

Phellinus has been accepted by several authors based on morphological characters (Ryvarden & Johansen 1980, Fiasson & Niemelä 1984, Gilbertson & Ryvarden 1986, Ryvarden & Gilbertson 1993, Núñez & Ryvarden 2000, Ryvarden 1991, 2004). However, other authors, based on molecular studies, have shown it to be an artificial genus with convergent species (Wagner & Fischer 2001, 2002, Jeong *et al.* 2005, Larsson *et al.* 2006, Dai 2010). Currently, 57 species are reported to Brazil, of which 12 to the Brazilian Amazonia (Gibertoni *et al.* 2012).

The aim of the present article is to contribute to the knowledge about the diversity of *Phellinus* s.l. in the neotropical region with description and figures of two new species.

Material and Methods

Specimens collected in one reserve in the Brazilian Amazonia from 2010 to 2011 were studied: Estação Ecológica de Cuniã (8°04'S 63°31'W) in the state of Rondônia. Additionally, specimens deposited in herbarium INPA was also studied (Thiers, continuously updated).

For the identification, specimens were analyzed macro- (shape, color, hymenial surface) and micro-morphologically (hyphal system, presence/absence and measurements of sterile structures and basidiospores).