

Title: “REDE PARANAENSE DE COLEÇÕES MICROBIOLÓGICAS - TAXON LINE” - BIODIVERSITY, CONSERVATION AND FUNGAL STRAINS TAXONOMY

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Abstract: The microbiology collections are constituted by different sets of microorganisms, arranged in order to provide information about the origin and identification of each species. These are essential to the conservation and availability of microorganisms for experimental, educational and industrial purposes. The consolidation of “Rede Paranaense de Coleções Microbiológicas – TAXON line” as a reference in the conservation of microorganisms by the TAXON line, was a national and international range initiative. Consequently, this work involves from scanning data integrated into TAXON line platform, to the morphological and molecular identification of strains from different partner laboratories. The cultures were maintained through subculture in tubes containing Sabouraud Agar (SAB) and 2% Malt Extract Agar (MEA). Besides, the preservation was made with solid medium in sterilized distilled water and/or in mineral oil according to the microbial group, and also by lyophilization (freeze-drying). Also, DNA extraction and molecular identification based on sequencing of the ITS region of the ribosomal DNA were performed. The LABMICRO (Laboratory of Microbiology and Molecular Biology) has a collection of about 5200 environmental and clinical origin fungal isolates, all identified morphologically. Until now, 924 (17.7%) strains were identified by molecular markers, with data in final insertion process into a digital system, with labels containing specific barcodes to access the digital data of each isolate through computerized reading. Hitherto, were identified 23 fungi general: *Exophiala*, *Fonsecaea*, *Cladophialophora*, *Cladosporium*, *Diaphorte*, *Aspergillus*, *Penicillium*, *Acremonium*, *Paecilomyces*, *Phoma*, *Chrysosporium*, *Rhizoctonia*, *Auxarthron*, *Nigrospora*, *Veronaea*, *Capronia*, *Haplographium*, *Rhizopus*, *Lichtheimia*, *Xilaria*, *Rhinoctadiella*, *Candida* and *Saccharomyces*. The LABMICRO has a collection of relevant mission composed by phytopathogenic and saprophytic strains of filamentous fungi, actinomycetes of endophytic nature, and in addition, reference strains of other official collections, such as the Fungal Biodiversity Institute of the Netherlands (CBS). As a perspective, the objective is to consolidate a center of excellence in culture conservation in the Paraná state.

Keywords: Microbiology Collection, Conservation, Culture, Fungi.

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