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Genetic relationships between Mexican species of *Pleurotus* analyzing the ITS-region from rDNA*

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ABSTRACT

Mexico is considered a country having great biodiversity, but genetic resources of edible mushrooms are as yet poorly studied. Twenty five strains of oyster mushrooms (*Pleurotus*) isolated from tropical, subtropical and temperate regions were studied. Strains were identified sequencing the ITS1-5.8S-ITS2 region from the rDNA. Six species were determined using neighbor-joining and maximum parsimony analyses with high levels of support: *P.* "agaves", *P. djamor*, *P. levis*, *P. ostreatus*, *P. pulmonarius*, and *P. smithii*. Further collections and genetic analysis are needed for *P.* "agaves" and *P. smithii*. Most sequences from Mexican strains were clearly separated in the consensus trees from reference strains of European and North American origin. The exception was the sequence ECS-0156 of *P. pulmonarius*, which was grouped with those of reference strains from North American and European origin, opening the possibility that strains cultivated commercially may have escaped from cultivation. Species identified represent a broad genetic base for breeding programs, and good potential for commercial cultivation.

Key words: *Pleurotus*, ITS region of rDNA, phylogenetic relationships, Mexico.

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