Diversity of Higher Fungi Collected from Natural Recreation Forests in Jeollabuk-do, Korea

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The National Institute of Forest Science (NIFOS) has conducted a study to develop proliferation and preservation techniques from mushrooms collected in the forest. In this year, we collected mushrooms from 9 natural recreation forests in Jeollabuk-do from July to September. They were identified by morphological characteristics and sequence analyses of the internal transcribed spacer (ITS) and large subunit (LSU) region of rDNA sequences. As a result, 407 specimens belonging to 94 genera, 41 families, 13 orders were recognized. The most frequently collected genus was Amanita, followed by Gymnopus and Russula.

Keywords: Diversity, Higher fungi, Jeollabuk-do, Wild mushrooms

New Species and Two New Records of Ascomycetes from Korea

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During a survey of ascomycete fungi diversity in Korea, three isolates EML-FP2-1, EML-RD9, EML-RD8216 were isolated from pomegranate fruit and fecal animal samples. Sequence analysis of the internal transcribed (ITS) regions by BLASTn search indicated that the isolates, EML-FP2-1, EML-RD9, EML-RD8216 were closest to Penicillium sp. CMV-2013p (GenBank accession no. JX140897), Beauveria felina (GenBank accession no. KP269039), Cephalio- phora tropica (GenBank accession no. FJ792583) with identity values of 93.9% (419/446 bp), 99.6% (550/552 bp), 98.9% (552/558 bp), respectively. Based on the morphological characteristics and phylogenetic analyses of multigenes including calmodulin (CaM), beta tubulin (BenA) and RPB2, the EML-FP2-1 isolate was identified as a new Penicillium species. The EML-RD9 and EML-RD8216 isolates were identified as new recorded species: Beauveria felina and Cephalio phora tropica, respectively in Korea.

Keywords: Beauveria felina, Cephalio phora tropica, Morphology, Multigenes