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## Study on Species Diversity of Indigenous Mushrooms in Jeju

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The importance of utilizing biological resources has become magnified and it has been a big issue to share the benefit among nations as Nagoya Protocol began in 2010. This study was conducted to research the diversity and distribution of wild mushrooms, and to survey the traditional mushroom knowledge of the people in Jeju which is a volcanic island having a distinctive climate and forest environment.

The research sites were Dongbaekdongsan, Keuneonggot, Hallasan National Park, Muryeongarioreum, Saryeonisupgil and other important area where mushrooms are growing spontaneously in Jeju. A total of 511 species comprising 2 phylums, 8 classes, 20 orders and 74 genera were identified from 1600 specimens collected from 2006 to 2012. In previous studies, a total of 561 species comprising 69 families and 99 genera were investigated. As a result, a total of 755 species comprising 23 orders, 87 families and 263 genera were documented in Jeju.

In this study, 137 species were newly identified as unrecorded species in Jeju and 9 species, *Amanita gemmata*, *Tricholoma aurantiipes*, *Panellus violaceofulvus*, *Leucopaxillus septentrionalis*, *Bondarzewia montana*, *Psilocybe argentipes*, *Boedijnopeziza insititia*, *Sarcoscypha occidentalis* for. *occidentalis* and *Morchella patula* var. *semilibera* were the first record for Korea. Also, 7 species, *Amanita gemmata*, *Tricholoma aurantiipes*, *Panellus violaceofulvus*, *Leucopaxillus septentrionalis*, *Boedijnopeziza insititia*, *Sarcoscypha occidentalis* for. *occidentalis* and *Morchella patula* var. *semilibera* were known as only growing in Jeju.

The traditional knowledge was collected from visiting and questionnaire survey in 50 villages in Jeju. A total of 23 mushrooms were found in which 12 species were used for food, 2 species were poisonous, 6 species were medicinal, 2 species were used for folk religion and 3 species were used for play purposes.

*Macrolepiota procera* was the most commonly used as an edible mushroom and *Chlorophyllum neomastoidea* was the most well known poisonous mushroom. Also, 267 cases of traditional knowledge about using mushrooms as a food and medicine were collected.

This study has significance for supplementing previous studies about distribution of wild mushrooms in Jeju and documenting unrecorded species in Korea. Also, it is valuable by providing important data of traditional knowledge for using mushrooms since old times.

**Keywords:** biodiversity, Hallasan, Jeju Island, Oreum, wild mushroom