

## ABSTRACT

In the present study a total of 18 mushrooms were collected and described from Moola Banda Forest, Swat, KPK Pakistan. These mushrooms were characterized on the basis of morphological and anatomical features. These 18 mushrooms belonged to 8 families viz; Boletaceae (1 genus), Cantharellaceae (1 genus), Cortinariaceae (2 genera, 2 spp.), Inocybaceae (1 genus, 3 spp.), Marasmiaceae (2 genera, 4 spp.), Psathyrellaceae (1 genus), Pluteaceae (1 genus), Russulaceae (1 genus, 3 spp.). Among these, six species seem to be new to science, six are new records while six have already reported from Pakistan. Molecular analysis of *Cantharellus cibrius*, *Gymnopus spongiosus*, *Gymnopus dryophilus*, *Marasmius oreades*, *Phaeocollybia jannyae*, *Panaeolus cinctulus*, *Porphyrellus porphyrosporus*, *Russula emetica*, *R. queletii*, *R. Kanadii*, *Volvariella bombycine*, was carried out using universal and fungal specific primers and sequences obtained confirmed their identification. In the present investigation, the exploration of the floristically rich area of District Swat provided insight about high species diversity of Basidiomycetes which not only upgraded the existing mushroom repository of the area but will also provide baseline information for further research.