ABSTRACT

Mushroom samples were collected during the course of fieldwork from district Gujranwala. Sampling sites include, Laddy wala wariach (along Hafizabad road), Dharamkot, Jabboke, Kotli Mashrawa, Mandiala Tegha, Talwandi Musa Khan (along Feroz wala road), Abdal, Aroop, Buttrawali, Nawan pind, Nandi pur, Sangowali (along the Sialkot road), Bagrian Kohna, Bhatti Mansoor, Chaura, D.C colony, Dodanwali Kalan, Jaura, Kot Anayat Khan, Kot Shahan, Kotli Essa, Mandiala warriach, Matwan, Neevan Ojla, Wazirabad (along GT Road). The taxa which have been identified belong to 12 families (Agaricaceae, Amanitaceae, Bolbitiaceae, Ganodermataceae, Hymenochaetaceae, Lyophyllaceae, Marasmiaceae, Pluteaceae, Polyporaceae, Psathyrellaceae, Strophariaceae, Tricholomataceae). A total of 62 species were collected, out of which 46 species were found different. Among these, gilled mushrooms comprised of 40 taxa and non-gilled mushrooms comprised of 6 taxa. The 20 genera of gilled mushrooms include *Agaricus, Agrocybe, Amanita, Bolbititius, Chlorophyllum, Conocybe, Coprinopsis, Lactocollybia, Lepiota, Leucocoprinus, Macrocybe, Macrolepiota, Marasmiellus, Panaeolus, Parasola, Podaxis, Psathyrella, Termitomyces, Volvariella, Volvopluteus,* and 5 genera of non-gilled mushrooms are, *Cryptoporus, Ganoderma, Inonotus, Lenzites, Trametes.* In this study, one species of genus *Agaricus* i.e., *Agaricus gujranwaliensis* nom. prov., seems previously undescribed and 19 species viz., *Agaricus brunneodiscus, A. flocculosipes*, A. *purpureosquamulosu, Agrocybe praecox, Amanita nana, A. vittadinii, A. zangi, Conocybe apala, Cryptoporus sinensis, C. watlingii, Inonotus rickii, Leucocoprinus cretaceus, Marasmiellus tenerrimus, Panaeolus foenisecii, P. subbalteatus, Psathyrella longistriata, Termitomyces heimii, T. robustus, Volvariella volvacea,* are new records for Pakistan. However rest of 26 species have already been reported from Pakistan but all the taxa are first time reported from different localities of district Gujranwala. Collected specimens have been identified by morpho-anatomical and molecular methods. ITS-nrDNA was used as a molecular marker for molecular phylogenetic study.