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Metabolite profiling of wild edible mushrooms species

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Mushrooms are of increasing importance in modern nutrition and medicine. Trás-os-Montes region (north-eastern Portugal) is known for the variety of its soils and diversity of climate conditions. This variability assumes an important role in mushroom production, explaining why this region is recognized as one of the richest ones in wild edible species. A metabolomics approach was applied to twelve wild edible mushroom species (Suillus bellini, Suillus luteus, Suillus granulatus, Hygrophorus agathosmus, Amanita rubescens, Russula cyanoxantha, Boletus edulis, Tricholoma equestre, Fistulina hepatica, Cantharellus cibarius, Amanita caesarea and Hydnum rufescens) collected in this area, with the purposes of improving the knowledge about their chemical profiles and to find out whether the determined compounds can play some role in taxonomic identification. Primary and secondary metabolites (organic acids, amino acids, fatty acids, phenolic compounds and volatile components) were characterized by several means (HPLC-DAD, HPLC-UV and GC-MS), allowing to notice important differences between the analyzed species.

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