

Element Content in Some Wild Amanita Taxa from Marmara Region, Turkey

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Abstract : Element contents were analyzed in twelve wild Amanita taxa [A. caesarea (Scop.) Pers., A. citrina (Schaeff.) Pers., A. excelsa (Fr.) Bertill., A. franchetii (Boud.) Fayod, A. gemmata (Fr.) Bertill., A. mairei Foley, A. muscaria (L.) Lam., A. pantherina (DC.) Krombh., A. phalloides (Fr.) Link, A. rubescens Pers., A. vaginata (Bull.) Lam., and A. verna (Bull.) Lam.] from Marmara Region of Turkey by ICP-AES equipment. The element uptake levels were observed at different amounts in each Amanita species. The highest Pb and P concentrations were determined as 15.11 and 0.861 mg.kg⁻¹ in A. caesarea. Fe, Co, As, Sr, Ca, Mg, Al and Na concentrations were determined as 0.832, 4.56, 15.6, 18.9, 0.44, 0.253 and 0.190 mg.kg⁻¹ in A. gemmata respectively. A. muscaria has highest Mo, Th, Sb, V, Cr, and B concentrations as 1.45, 1.17, 1.06, 44, 75, and 7 mg.kg⁻¹ respectively, whereas A. rubescens has highest Zn, Ba, K, S, and Se as 430.6, 65.7, 5.47, 1.16, 11.5 mg.kg⁻¹ respectively. A. muscaria has highest Hg concentrations as 5855 µg.kg⁻¹. The highest Mn concentration were found in A. pantherina with 1176 mg.kg⁻¹, the highest Cd were found in A. phalloides as 10.77 mg.kg⁻¹. In contrast to A. verna has highest Ag and Au content as 77728 and 192 µg.kg⁻¹. Although A. citrina has only the highest Ni content as 75.9 mg.kg⁻¹ and A. vaginata has Cu content as 67.04 mg.kg⁻¹ on the other hand A. phalloides has highest Cd concentrations as 10.77 mg.kg⁻¹.

Keywords : amanita, element, macrofungi, Turkey

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