

Czczuga, B., Muszyńska, E., Mazalska, B. & Godlewska, A. 2008. Interactions between several species of macrophytes, zoosporic fungi and fungus-like organisms in different seasons in trophically different water bodies. – *Mycologia Balcanica* **5**: 45-53.

Abstract. Excretion into the environment of dissolved organic matter produced during photosynthesis is a characteristic phenomenon for several species of aquatic macrophytes (Wetzel 1969 a, b). Several of these substances are imbibed by heterotrophic microorganisms and may also inhibit the growth of other hydrobionts. An examination of the interactions between macrophytes and aquatic fungi showed that during the growing period (spring, summer and autumn), relationships between these organisms change. At the beginning of the growth period, the number of species of aquatic fungi rose in the presence eight macrophytes; during the summer there was a decrease in the number of fungi observed; while in the autumn (end of the growing season) there was an inhibitive influence of macrophytes on the growth of aquatic fungi, which was higher in eutrophic water. This inhibitive influence depends probably on the storage of any secondary compounds during aging of several macrophytes, which inhibit the growth of several species of fungi and fungus-like organisms.

Key words: fungi, fungus-like organisms, hydrochemistry, interactions, macrophytes, Poland, water bodies