ALLELOPATHIC IMPACT OF THREE FUNGAL EXUDATES ON ALGAL POPULATION (EL-IBRAHEMIA CANAL, ASSIUT, EGYPT) AND CHLORELLA FUSCA

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Abstract:

The exudates of three fungal species (Aspergillus niger, Fusarium sambucinum and Penicillium canescens) have been tested for their effect on the algal population and diversity of El-Ibrahemia Canal. It has been found that the exudates of F. sambucinum was stimulatory for the algal population, whereas that of A. niger was inhibitory. Penicillium canescens exudate, in comparison, displayed the weakest effect. The results imply a great variation in the effectiveness of different types of fungal exudates on the different algal taxa. Chlorella fusca has been studied intensively, because it was the only chlorophycean species that survived and tolerated all applied concentration of the exudates of the three studied fungi. The growth of C. fusca has been enhanced by F. sambucinum exudates, but not by that of A. niger. The effect of fungal exudates on some metabolic components of C. fusca is discussed.

Keywords:

Key words: allelopathy, Chlorella fusca, fungal exudates

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