Isolation and identification of fungi that inhibiting the growth of cyanobacteria

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Fungi that lyse blue green algae (Anabaena cylindrica) was isolated from 4 reservoirs located in Kyunggi-Do, Korea. These isolates from Wangsong reservoir shown in eutrophication, were identified the genera Acremonium sp., and Pencillium sp. by morphological characters. The Pencillium sp. generally showed less algal lytic activity than the Acremonium sp. on the A. cylindrica agar lawn, but the cultured supernatant of Penicillium sp. exhibited greater activity than the Acremonium sp. on Micrococcus luteus. In the mixed culture of A. cylindrica and HCLF-34, the algae was segmented and lysed in 3 days. On the other hand, A. cylindrica was aggregated, segmented, and lysed within 3 hours in the mixture of A. cylindrica and the supernatant of HCLF-34. In addition, A. cylindrica was segmented and the width sheath of A. cylindrica was lysed on Scanning Electron Microscopy, in mixed culture of the algae and the fungi on agar plate.