

## Incidence of Indoor Airborne Fungi at the Central Library of Rajshahi University and Their Relation to Allergy Symptoms

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### ABSTRACT

*The indoor air sampling was conducted at the Central Library of Rajshahi University by settling plate technique during November 2006 to April 2007 using Potato dextrose agar, Czapek's and Sabouraud's media. Total of 4,613 colonies of airborne fungi were trapped and 11 genera were identified. The most frequently isolated genera were Alternaria, Aspergillus, Curvularia, Fusarium, Penicillium and Rhizopus. Percentages of the six dominant genera were recorded as 29.25, 14.55, 13.64, 10.79, 7.48 and 6.43%; 26.83, 9.58, 14.25, 8.77, 8.19 and 7.38%; and 25.05, 12.98, 9.32, 7.25, 5.85 and 14.63% on PDA, Czapek's and Sabouraud's media, respectively. The incidence of airborne fungi significantly ( $p=0.05$ ) varied with floor and the highest incidence was recorded at ground floor, followed by 1<sup>st</sup> floor and the lowest in 2<sup>nd</sup> floor. Among the 11 identified genera, Aspergillus, Fusarium, Mucor and Penicillium showed positive results in hemolytic activity test. The incidence of airborne fungi was correlated with allergy symptoms of employees, students and researchers, showing the highest peak in April, 2007.*

**Key words:** Indoor airborne fungi, Percentage contribution, Room condition, Hemolytic activity, Allergy symptoms