



Air fungal contamination in two elementary schools in Lisbon, Portugal

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Abstract

A descriptive study was developed to monitor air fungal contamination in two elementary schools in Lisbon, Portugal. Eight air samples of 250 litres through impaction method were collected in canteen, library, classrooms and also, outside premises as reference place. Simultaneously, were also monitored environmental parameters, including temperature, and humidity through the equipment Babouc, LSI Systems and according to the International Standard ISO 7726 - 1998.

Considering both schools, sixteen different species of fungi in air were identified, being the 2 most commonly isolated *Cladosporium* sp. (51,1%) and *Penicillium* sp. (27,5%). Besides these genera *Trichoderma*, *Aspergillus*, *Alternaria*, *Chrysonilia*, *Botrytis*, *Ulocladium*, *Athrium*, *Aureobasidium*, *Phoma*, *Scedosporium* e *Geotrichum* were also isolated. Regarding yeasts, *Candida* sp., *Cryptococcus* sp. and *Rhodotorula* sp. were isolated. The youngest school, as well canteens in each school, presented the worst results concerning the air fungal contamination, maybe due to the higher number of occupants. There was no significant relationship ($p>0,05$) between fungal contamination and temperature and humidity.

Keywords: air, fungal contamination, elementary schools, comparison

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