



High Diversity of Fungi in Air Particulate Matter

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Fungal spores account for large proportions of air particulate matter, and they influence the hydrological cycle and climate as nuclei for water droplets and ice crystals in clouds, fog and precipitation. Moreover, some fungi are major pathogens and allergens. The diversity of airborne fungi is, however, hardly known.

By DNA analysis we found pronounced differences in the relative abundance and seasonal cycles of various groups of fungi in coarse and fine particulate matter, with more plant pathogens in the coarse and more human pathogens and allergens in the respirable fine particle fraction ($< 3 \mu\text{m}$). Moreover, the ratio of Basidiomycota to Ascomycota was found to be much higher than previously assumed, which might also apply to the biosphere.

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