

Mestrado em Biologia Humana e Ambiente. Departamento de Biologia Animal

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Fungi in Water Environments

The emergence of *Candida auris* has drawn international attention within the Fungi community, particularly in the context of environmental and occupational health, water management, and research. Currently, wastewater analysis is not limited to COVID-19 investigation but also encompasses other microbial factors like *Candida auris* and *Aspergillus fumigatus* sensu stricto. The World Health Organization (WHO) addressed fungal taxa in its 2021 recreational water quality management guidelines, recognizing their significance. To enhance human health protection, these guidelines recommend monitoring beach sand for both bacterial indicators of fecal pollution and all fungi as a reflection of contamination levels, indicating the potential exposure of beachgoers to these microorganisms. In 2022, WHO reinforced the need to monitor fungi in national and supranational regulations, introducing a watch list of fungi of interest. Furthermore, Europe updated its Drinking Water Directive and proposed, in a side document designed to help Member-states implement the revised directive (state-of-play) the monitoring of fungi in public buildings used by immunocompromised patients, including hospitals and nursing homes. These recent developments have paved the way for the inclusion of fungi in water quality regulation, whether for drinking or recreational or wastewater regulation.