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**\*Correspondence to:**

Muhammad Naeem Iqbal,  
PSM Editorial Office, Pakistan  
Science Mission (PSM), Narowal  
(Noor Kot 51770), Pakistan.

**Email:**

[editor@psmpublishers.org](mailto:editor@psmpublishers.org)  
[driqbalnaeem@hotmail.com](mailto:driqbalnaeem@hotmail.com)  
[chairman@psm.org.pk](mailto:chairman@psm.org.pk)

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## Filamentous Fungi in Beach Sands: Potential Pathogens for Infectious Diseases

Muhammad Naeem Iqbal<sup>1,3\*</sup>, Asfa Ashraf<sup>2,3</sup>, Azara Iqbal<sup>3</sup>

<sup>1</sup>The School of Life Sciences, Fujian Agriculture and Forestry University, Fuzhou 350002, China.

<sup>2</sup>The School of Life Sciences, Fujian Normal University, Fuzhou 350117, China.

<sup>3</sup>Pakistan Science Mission (PSM), Narowal (Noor Kot 51770), Pakistan.

**Abstract:**

Beach sand is a habitat that supports many microbes, including viruses, bacteria, fungi and protozoa. The microbes often get carried down streams to sea coasts where waves, currents and tides later deposit them on beaches. Microbiological contamination is more significant in the sand than in adjacent waters since sand acts as a passive port for cumulative contamination. Beach sands receive direct contamination from the garbage generated by people, which serves as nutrient for fungi growth. Humans receive extensive exposure to sand-associated microbes during recreational activities. While most of them are harmless, some are pathogenic, and the potential for pathogen occurrence is particularly great when sand is contaminated by human or animal waste. In order to understand the significance of pathogen occurrence in beach sand, it is important to understand potential for exposure and to conduct risk assessments and epidemiological studies.

**Keywords:** Beach sand, pathogen, filamentous fungi, contamination, infectious diseases.