ECOLOGICAL ANALYSIS AND ISOLATION SAPROPHYTIC THERMOPHILES FROM SUNDERBAN MANGROVE FOREST

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Abstract: Thirty five saprophytic fungi were isolated from mud, wood debries and leaf litter samples taken from Sunderban mangrove forest, West Bengal, in India. Of the medium used, yeast powder soluble starch agar supports better fungal growth. Among the isolated fungi, eight *Aspergillus* species were most frequent. The highest fungi species were found from Sajnakhali site because the presence of the highest organic matter and moisture content.

Keyword: Ecological condition, sunderban mangrove forest, saprophytic fungi

REFERENCES

Apinis, A.E. (1963). Occurrence of thermophilic fungi in certain alluvial soils near Nottingham. Nova Hedwigia 5: 57 - 78.

Cooney, D.G and Emerson, R. (1964) Thermophilic fungi, An account of their Biology, activities and classification, W.H. freeman & Co, San Francisco 188 p.

Jaitly A.K. (1982). Ecological studies of thermophilic fungi native to mangrove swamps temperature growth relationship. Trans mycol. soc. Japan 23:65-75

Jaitly, A.K. (1987). pH optima of the fungi isolated from mangrove swamp India Trans mycol. Soc. Japan **28**: 168 – 174.

Jaitly, A.K. (1990). Biology of thermophiles from mangrove swamps in "International biodegradation and biodegradation Symposium University of Windsor Canada. pp167 - 169.

Lee, **Y.E.** (2004). Isolation and characterization of thermostable xylanase – producing paenibacillus S.P.

DG–22. Korean Journal of microbiology and Biotechnology V.**32**(1) 22–28.

Rai, J.N.; Jaitly, A.K. and Garg (1982). Saprophytic fungi isolated from woods in mangrove swamps and their wood decaying ability, Trans. Mycol. Soc. Japan **22** : 65 – 74.

Rahman, M.A.; Shah, M.S.; Murtaza, M.G. (1998). Diseases and wood decay of tree species with particular reference to dying of sundri and the magnitude of its damage in the Sundarbans in Bangladesh. Intergrated management of Ganges flood plains and Sunderban ecosystem; proceedings of the national. 50 - 76.

Suvilampi, J; Lehtomak, A; Rinala, J. (2005). Comparative study of laboratory – Scale thermophilic and mesophilic activated sludge processes. Water – Research **39** (5): 741 -750.

Tomita, K; Kuroki, Y; Hayashi, N; Komukai, Y. (2000). Isolation of a thermophile degrading poly (butylene suiccinate – co – butylene adipale. Journal of Bioscience and Bioengineering **90** (3) p. 350 – 352.