

Metadata Details

Title

Studies on the Effect of Antarctic Environment on Some Saprophytic Tropical Fungi.

Science Keywords

Category	Atmosphere
Topic	Atmospheric Temperature
Expedition Year	1985-1986
ISO Topic	Atmosphere

Summary

Abstract

Ten strains of saprophytic tropical fungi were exposed to the Antarctic environment for 14 months, beginning with Fifth Indian Expedition to Antarctica, with a view to study the effect of extreme climate variations on their survival, rate of growth and virulence. The data obtained suggested slight changes in the activity of a few types. No major variations were observed in any of the exposed strains.

Purpose

Antarctica is a desolate isolated plateau measuring approximately 5 million sq. miles in area with an average altitude of 8000 ft. It is considered to be the coldest region on the globe (McGraw Hill, 1982). The lowest temperature recorded is -88°C whereas the normal range is $+5^{\circ}\text{C}$ to -50°C . However, life existed there from times immemorial in the form of the most primitive living beings the microbes, along with some other specialised types of flora and fauna (Tubaki, 1961.) The microbes included are lichens, algae, yeasts, bacteria and, some psychrophilic fungi mostly belonging to basidiomycetes and ascomycetes groups. According to some workers (Singer, 1954) the dominance of these groups of fungi is due to very much reduced activity of soil bacteria and fungi of the imperfecti group in breaking down of the organic matter. The presence of this microbial population is restricted to small areas free from permanent coverings of ice and snow and having a mean temperature around 0°C .

Data Center