

A Study of Diversity of Fungi

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Abstract :-

Most of the rust fungi were collected from herbaceous and shrubby hosts, while few were found to be pathogens of tree species. *Populus niggers* var. *italics*, and an extensive cultivated tree in this area was found to be a new host of the rust fungus *Melampsora ciliate* Barclay. The study suggested further exploration of the area for rust disease in order to assess the diversity of these fungi particularly in ferns, grasses, sedges and trees including cultivated ones.

Keywords: Biodiversity, Climate change, Ecosystem, Aliments, Cultures, Indigeneous,

INTRODUCTION :

- Moulds produce millions of spores, which are loosely attached and even slight air currents will disturb the spores making them airborne.
- Due to their small size (large spores are 10-20mm average 1-5mm) spores easily stay airborne and may be respirable and breath deep into the airways. Spores are very tolerant of dryness, changes from / into temperature, UV light and some chemicals.
- The spores may carry allergens and toxins, which are stable and may stay active even after the spore has lost its viability. Some fungi do not produce infections but can cause allergic reactions. Fungal spores are generally recognized as important causes of respiratory allergies,
- in both the lower and upper respiratory tracts (Garette 1998). An endophytic fungus lives in mycelial form of biological association with the living plant, at least for some time. Therefore, a minimal requirement before a fungus is termed a 'endopyte' should be the demonstration of its hyphae in living tissue.
- An endophyte is a "plant living within another plant". Fungal surveys of various hosts of the past 20 years have demonstrated that endophytic colonization of land plants by fungi is ubiquitous. Endophytes are known from plants growing in tropical, temperate, and boreal forest; from herbaceous plants from various habitats, including extreme arctic, alpine (Petrini, 1987; Fisher et al, 1995), and xeric environments (Mushin and Booth, 1987; Mushin et al, 1989) and from mesic temperate and tropical forests.
- Endophytic microfungi may be diverse at an exceedingly small scale; a single conifer needle may harbor several dozen species. Endophytic microfungi typically are present as internal, unseen, microscopic fungi were included in the plant kingdom; however, because fungi lack chlorophyll and are distinguished by unique structural and physiological features (i.e., components of the cell wall and cell membrane), they have been separated from plants.
- In addition, fungi are clearly distinguished from all other living organisms, including animals, by their principal modes of vegetative growth and nutrient intake. Fungi grow from the tips of filaments (hyphae) that make up the bodies of the organisms (mycelia), and they digest organic matter externally before absorbing it into their mycelia.
- Humans have been indirectly aware of fungi since the first loaf of leavened bread was baked and the first tub of grape must be turned into wine. Ancient peoples were familiar with the ravages of fungi in agriculture but attributed these diseases to the wrath of the gods. The Romans designated a particular deity, Robigus, as the god of rust and, in an effort to appease him, organized an annual festival, the Robigalia, in his honour.

SECONDARY DATA:-

GOOGLE, science journal, newspaper, magazine

CONCLUSIONS:-

- fungus , Anyof about 80,000 known species of organisms belonging to the kingdom Fungi , including yeasts , rusts , smuts , molds , mushrooms , and mildews . Though formerly classified as plants , fungi lack chlorophyll and the organized plant structures of stems , roots , and leaves . The thallus , or body , of a typical fungus consists of a mycelium through which cytoplasm flows . •
- The mycelium generally reproduces by forming spores , either directly or in special fruit bodies that make up the visible part of a fungus . The soil provides an ideal habitat for many species , although fungi can also live in the air and water and on plants and animals . Fungi are found in all regions of the world that have sufficient moisture to enable them to grow . Lacking chlorophyll , fungi are unable to carry out photosynthesis and must obtain nutrients by secret enzymes onto the surface •
- Decomposition of organic matter by fungi results from / of the release of carbon , oxygen , nitrogen , and phosphorus into the soil or the atmosphere . Essential to many food and industrial processes , fungi are used in the production of enzymes , organic acids , vitamins , and antibiotics . Fungi can also destroy crops , cause diseases in humans (e . G , candidiasis and ringworm) , and ruin clothing and food with mildew and rot . Parasitic fungi invade living organisms ,
- often causing disease and death (seeparasitism) , whereas other fungi establish symbiotic relationships of / to / between algae (forming lichens) , plants (forming mycorrhizae ; see mycorrhiza) , and certain insects . •
- The pollen is used as a convenient experimental system in genetic investigations , directed towards plant improvement . Pollen are irradiated to induce desired mutational variations and to overcome intraspecific incompatibility or to remove other fertilization barriers . •
- . The direct and indirect roles played by pollen in various spheres of applied biological research will be found useful in view of the fact that pollen is a material to work which seems to be providing an easier and even better means for experimentally controlling the genetic behaviors of the plants .

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