

Distribution Frequency, Ecology, and Economic Utility of Coprophilous Mushrooms (Agaricales, Basidiomycota) in Punjab, India

Authors : Amandeep Kaur, N. S. Atri, Munruchi Kaur

Abstract : Herbivorous dung is a special substrate for the growth of fungi. Fungi growing thereon are known as coprophilous. These fungi are amongst the most abundant taxa in the ecosystem, which regulate the decomposition of dung organic matter, nutrient dynamics and maintenance of ecological balance on the earth. The coprophilous fungi represent a diverse group of saprobes, including taxa from most major fungal groups belonging to Zygomycota, Ascomycota and Basidiomycota. The present work, however, has been focused on the basidiomycetous coprophilous mushrooms belonging to the order Agaricales. The research work includes the results of eco-taxonomic studies of coprophilous mushrooms in Punjab, India, on the basis of a survey of dung localities of the state. The mushrooms were collected growing as saprobes on dung of various domesticated and wild herbivorous animals in pastures, grasslands, zoos, and on dung heaps in villages, etc. The present study observed the frequency of distribution of coprophilous mushrooms in different taxonomic categories in different regions of the state in various seasons on different dung types along with their growing habit. The paper also discusses their economic utility as edible, inedible, poisonous, medicinal and hallucinogenic species. The study has shown that animal dung is a good niche for the growth of mushrooms. However, the natural habitats with dung deposits are getting destroyed because of different developmental activities. Livestock in agriculture-based societies like Punjab state in India should be managed in a manner that favors their grazing in the wild places and thereby the growth of coprophilous mushrooms so that a significant role in ecological balance on the earth is established.

Keywords : herbivorous dung, psychoactive, seasonal availability, taxo-ecology

Conference Title : ICM 2024 : International Conference on Mycology

Conference Location : New York, United States

Conference Dates : June 03-04, 2024