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A Preliminary Survey of Airborne Fungal Spores of *Vittaleshwar* Temples at Sironcha (M.S.)

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Abstract: ***Fungal spores constitute the major portion of bio pollutant. Temple is religious place where people from various places gather to get their wishes fulfil. So it was decided to study the indoor aeromycoflora of few temples of Sironcha. Rotorod sampler was used for collection of airborne fungal spores .Sampler was run daily between 10:00 a.m. to 11:00 a.m. from June to December (2022). During investigation period total 12 types of fungal spores recorded viz. Aspergillus, Alternaria, Bispora, Cercospora, Chaetomium, Cladosporium, Fusarium, Curvularia, Helminthosporium, Nigrospospora, Penicilium and Torula. Among these Cladosporium and Aspergillus, were dominant. Dark, damp and moisture condition, presence of biogenic material and droppings of many birds help the fungus grow. These fungi are allergenic to the human beings. Therefore, the area of temple should be cleaned regularly. This information will be significant to allergy patients.***
Keywords: fungal spore, temple, sampler allergy.

I. INTRODUCTION

Temple is religious place where people gathered and prey for fulfil their wish. Sironcha is town in gadchiroli district of Maharashtra state. It is at the border of Maharashtra and telangana state. Vithaleshwar temple is the old temple about 400 years old. Many devotees from telengana and Maharashtra come to vithleshwar temple for many religious programme like *kalyanam, ekadashi, pushkar mela etc.*

During festive season, temples also offer lot of edible items to the devotees and very often the remaining of the food item are not disposed properly. They attract not only fungi but also other pathogens (Nayak, 2015). So it was decide to study the aeromycoflora of *vitthaleshwar* temple of sironcha.

II. MATERIAL AND METHOD

Rotorod sample was used for present investigation. The study was carried out for six months from June 2022 to December 2022. Rotorod sampler was run daily for one to two hours. Sampler was kept inside the vitthaleshwar temple. Total 180 slides were repair. Along with this daily meteorological data was also recorded. Fungal spores were identified by using standard literature and reference slides

III. OBSERVATION

During investigation period total 12 types of fungal spores recorded viz. *Aspergillus, Alternaria, Bispora, Cercospora, Chaetomium,* Cladosporium, *Fusarium, Curvularia, Helminthosporium, Nigrospospora, Penicilium and Torula*. Among these *Cladosporium* and *Aspergillus,* were dominant.

IV. VITHALESHWAR TEMPLE



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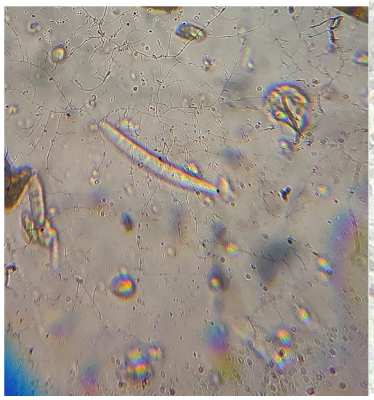



V. FUNGAL SPORES



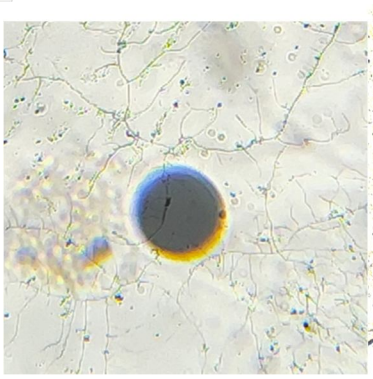


curvularia *laptosporangiate sp*



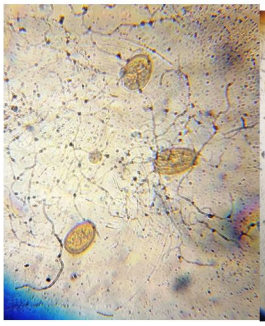
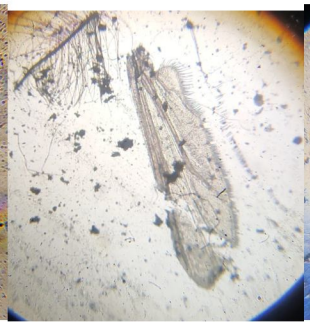


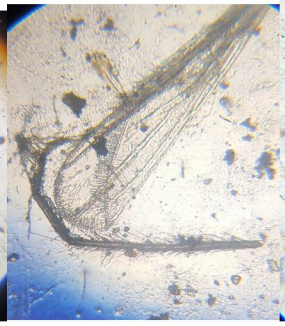
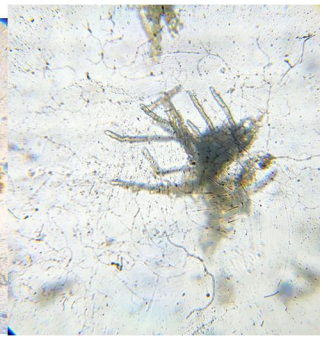
Fusarium alternaria Helminthosporium


Nigrospora


bispora


Smut spores



cladosporium



insect body parts

VI. RESULT AND DISCUSSION

In the present investigation total 12 types of fungal spores were recorded. Among these *Nigrospora* was dominant fallowed by *Cladosporium* and *Aspergillus.* Along with these fungal spores, insect body parts and trichomes also recorded.

Nayak (2015) studied the aeromycoflora of few temples at Pondicherry and recorded 12 types of fungal spores, out of which *Cladosporium* was dominant followed by *Aspergillus* and *Penicilium.* Shende and Kalkar (2013) also recorded *Alternaria* and *Aspergilus as* dominant fungal spores in the air of Nagpur.

Prasad et.al. (2015) recorded thirteen fungal spores while studying outdoor aeromycoflora of Sai temple, Amapara, Raipur. Out of these *Cladospoium* spores wee dominant followed by *Aspergillus.* Chelak and Sharma(2012), observed *Cladospoium* and *Aspergillus* Spores dominant while studing aeromycoflora of Chandragirihill top , chattisgarh

Shende (2017) studied the aeromycoflora of vegetable market of sironcha and found *Aspergillus* as dominant fungal spores.Kumar and Shende (2022) recorded *Curvularia, Cladosporium, Aspergillus Alternaria,* as dominant fungal spores in the air of Gondpipri city.

Moist condition is favourable for fungal growth. In temple the condition is damp and if we did not wash temple regularly the fungal spores grow on fruit and flower which are used by devotee to worship god. These airborne fungal spores will affect the health of devotee by causing allergy.

These airborne mycoflora cause many diseases in human beings. Indoor condition of the temple is moist and damp which favours the growth of fungal spores. Dark moist condition, food material, droppings of birds and monkey help the growth of fungus. These are all only the possible factors which could have contribute the presence of fungal spores.

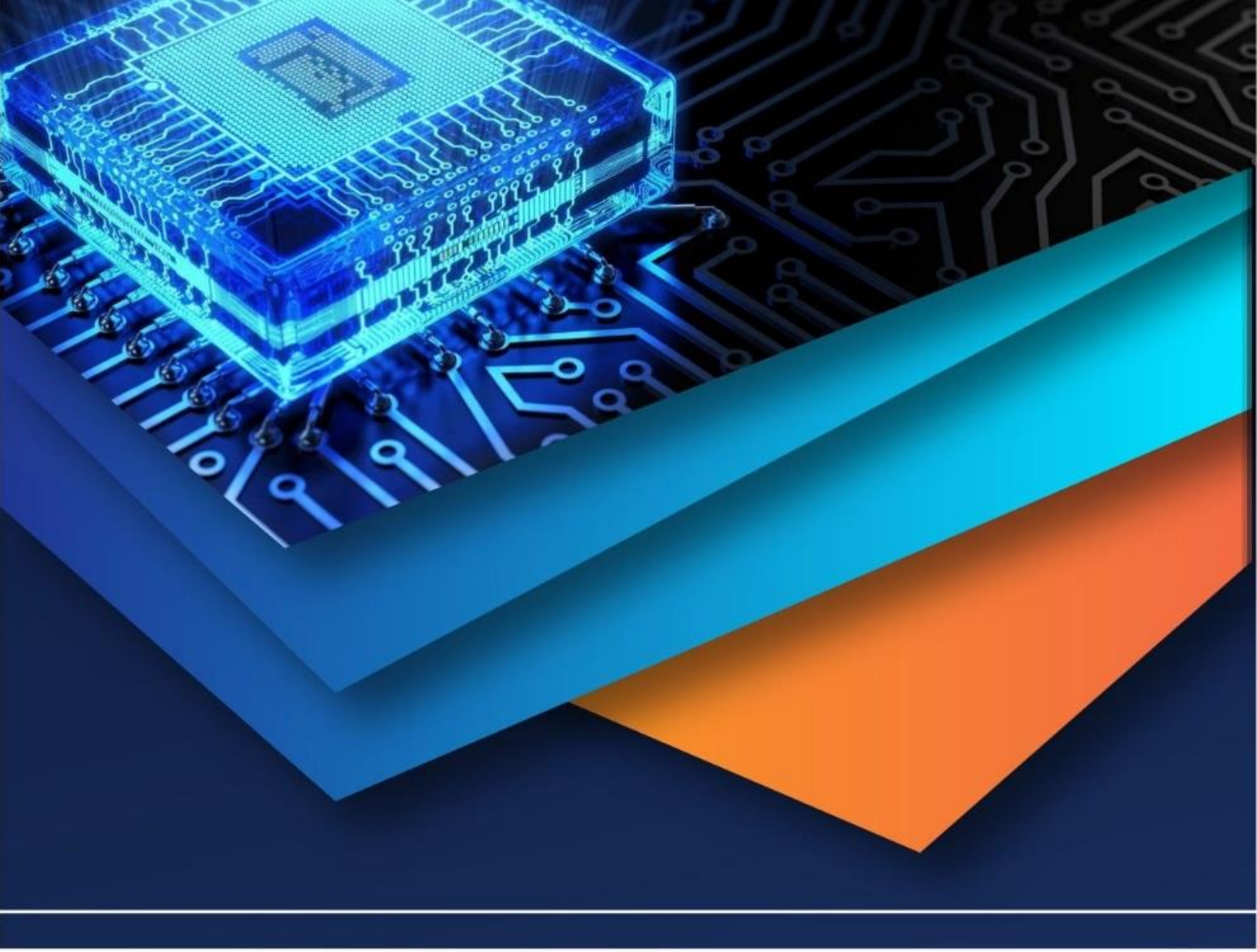
VII. CONCLUSION

Premises of temple should be regularly wiped out to keep it dry. Strict discipline should be imposed on the visitors and devotes regarding use of edible and their disposal, so that fungal growth can be minimise and avoid allergic disease.

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