

**“STUDIES ON MYXOMYCETES OF AJANTA
REGION OF MARATHWADA (MAHARASHTRA)”**

**MINOR RESEARCH PROJECT
IN
BOTANY**

SUBMITTED BY

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SUBMITTED TO

UNIVERSITY GRANT COMMISSION

**WESTERN REGIONAL OFFICE,
GANESHKHIND, PUNE-411007**

SUMMARY

The present work is based on Myxomycetes floristic exploration from the region. An extensive and intensive field works was undertaken at different places of the forest in different seasons during the period of 2014 – 2016. To collect the maximum number of specimen of myxomycetes. Visits to different localities were made frequently. Localities for visities were selected so as to cover the maximum area for investigation. Repeated visits were made to some of the localities under different seasons for the collection. Overall study of the Myxomycetes reveals that floristic investigations have been carried out from limited areas only. Vast global virgin and ecologically varied areas are still awaiting for explorations.

Scordian 'List' (1882-1935), included 704 species from 72 genera (including "Species incerta") of myxomycetes. Hagelstein (1944), described 318 species from 53 genera from N. America. Martin and Alexopoulos (1969), accepted only 423 species from 53 genera and cited exhaustive list of 'excluded or doubtful' species. Farr (1976) described, 240 species from 37 genera, from Neotropics. Martin, Alexopoulos and Farr (1983), mentioned 490 species from 54 genera. In Ainsworth and Bisby's 'Dictionary of the Fungi' (1983), 500 species are mentioned, belonging from 71 genera, from the world.

From India, study of Myxomycetes was not cognizable upto 1950's except some stray reports. Lodhi's (1934), 'Indian Slime-Moulds', was the first book on Indian Myxomycetes, dealt with 43 species belonging to 16 genera. Agnihotrudu (1961), published a list of Myxomycetes comprising 140 species and 6 varieties from 28 genera. Thind (1977), compiled 'The Myxomycetes', of India published upto 1970. He described 183 species, 2 varieties and 1 forma, belonging to 34 genera. Bilgrami et. al. (1977), listed 335 species, 13 varieties of 43 genera of Myxomycetes in their 'Fungi of India'. Lakhanpal and Mukerji (1981), gave a systematic account of 216 species, 2 varieties and 1 forma, belonging to 41 genera, and presented an index of Indian Myxomycetes upto 1980, comprising of 44 genera, 304 species, 3 varieties and 1 forma. Above studies were

mainly restricted to the east-west of northern India (Assam, Delhi, Bihar, H.P., Punjab, U.P. and West Bengal) and part of South India (Karnataka, Tamil Nadu).

From central India, Myxomycetes were neglected until Nanir (1978), from Marathwada region and Ranade (1979), from Poona area for their Ph.D work, on floristic study on Myxomycetes from their respective area. A systematic floristic study is being carried out from other parts of Maharashtra, Gujrat and Madhya Pradesh under the leadership of Dr. S. P. Nanir.

In the present work a systematic account of five species has been presented out of the investigation of about forty five specimens. Of the described species, i.e. *Hemitrichia serpula* (Scop) Rost., *Metatrichia vesparium* (Batsch) Nann-Brem., *Physarina echinospora* Thind & monacha, *Didymium floccosum* Martin, Thind & Rehill and *Stemonitis fusca* Roth. Of these *Hemitrichia serpula* (Scop) Rost and *Physarina echinospora* Thind & monacha described for second time from Marathwada. *M. vesparium* (Batsch) Nann-Brem and *Didymium floccosum* Martin, Thind & Rehill and *Stemonitis fusca* Roth., are being illustrated and described for the first time from Ajanta region.

Present work has relevance with taxonomy of Myxomycetes. This work can also study in respect of pharmacology, biotechnology. Knowledge of Myxomycetes will be helpful in order to study morphology and Taxonomy of Myxomycetes of Ajanta forest.

From Indian systematic floristic study of this group is essential to be undertaking extensively in order to understand the Myxomycetes flora of India. Ajanta region forest is dry deciduous type. It is one of the most important forests of Marathwada region. The floristic study of the myxomycetes from this region is totally unreported. Hence it is felt to undertake the study of myxomycetes of this region. Present work will be helpful to survey of the myxomycetes study of Ajanta region. The review of literature reveals that Myxomycetes study has not been done to fulfill this lacuna.

