

## Additions to the Myxomycetes from Andhra Pradesh

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There is meager information available in Myxomycetes from Andhra Pradesh. Twenty four Myxomycetes which form new additions to Andhra Pradesh are listed. These slime molds are found colonizing diversified habitats and have been collected from different localities of Andhra Pradesh, India.

**Key words:** Humid, forests, slime molds

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### INTRODUCTION

Myxomycetes are a small group of relatively homogenous group of eukaryotic organisms. They inhabit moist, shady places and grow on fallen, decaying plant parts. Myxomycetes are distributed throughout the world. This group of primitive organisms, despite many new approaches and advances made, still remains little understood and underexplored. Further slime molds or myxomycetes exhibit characteristic features of both plants and animals. They are plant like in reproduction and animal like in having plasmodium besides possessing holozoic mode of nutrition. The distribution of myxomycetes is governed by climatic conditions, topography and vegetation of an area with the availability of suitable temperature and moisture. Myxomycetes are now considered as a separate kingdom.

Floristics of slime moulds have not been explored in depth on par with fungi and algae in India. However, some reports are available on myxomycetes

of India (Lister, 1925; Lodhi, 1934; Singh and Pushpavathy, 1966; Agnihotrudu, 1968; Indira, 1975; Thind, 1977; Dhillon and Bermekamp, 1978; Lakhanpal, 1983; Nanir, 1985; Temburne and Nanir, 2011; Ranade *et al.*, 2012; Temburne *et al.*, 2012).

The biodiversity and taxonomy of myxomycetes have been sparingly worked out from Andhra Pradesh. Manoharachary *et al.*, (2012) have reported 20 myxomycetes colonizing diversified habitats from Andhra Pradesh. However there is a hidden wealth of myxomycetes from Andhra Pradesh which needs to be investigated. Hence, an attempt has been made to explore the myxomycetous flora associated with diversified habitats of some forest localities in Andhra Pradesh, India and the data have been presented.

### MATERIALS AND METHODS

Collections were made during July to December (2011-2012). About 150 samples were collected from the forests of Anantagiri, Araku,

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Bhadrachalam, Mulugu, Narsapur, Mannanoor, Adilabad, Srisailam, Pileru, Pakala, Eturnagaram, Rampachodavaram, and Manchippa areas of Andhra Pradesh, India. Slime molds were collected from dead leaves, twigs, litter, bark, wood pieces, petioles, fallen fruits etc. Meticulous care was taken during transportation. The collected samples were preserved in small plastic vials of 2½ x 4 cm and

## RESULTS AND DISCUSSION

Slime molds are worldwide in distribution and are ubiquitous, besides being heavy colonizers of litter, wood, bark, dead leaves, fallen fruits, dead branches, petioles and others. They occur not only in tropical, sub-tropical, temperate forests and also in deserts. Low temperatures, humid climate, av-

Table 1 : Myxomycetes collected from some forest localities of Andhra Pradesh

Myxomycete member	Place of collection	Source	Accession No.
<i>Arcyria glauca</i> Lister ex Minakata	Anantgiri hills	Dead wood	OUMH 29
<i>Arcyria globosa</i> Schwein.	Araku valley	Dead wood	OUMH 33
<i>C. pachydictyon</i> Nann-Brem	Pakala	Fallen fruit	OUMH 48
<i>C. costata</i> Dhillon & Nann-Brem	Pileru	Wood log	OUMH 46
<i>C. elegans</i> Berk & Curt	Adilabad	Dead wood	OUMH 39
<i>C. macrocarpa</i> Schrad	Srisailam	Petioles	OUMH 47
<i>C. purpurea</i> Schrad	Adilabad	Litter	OUMH 49
<i>C. splendens</i> (Schrad) Macbr	Bhadrachalam	Fallen leaves	OUMH 40
<i>Cienkowskia reticulata</i> (Alb & Schw) Rosi	Eturnagaram	Fallen leaves	OUMH 34
<i>Craterium rubronodum</i> G. Lister	Rampachodavaram	Bark	OUMH 45
<i>Cribaria aurantica</i> Schard	Manchippa	Litter	OUMH 30
<i>D. mirabilis</i> (Rost) Meylon	Pileru	Wood	OUMH 36
<i>Dictydium cancellatum</i> (Batsch.) Macbr	Narsapur	Wood	OUMH 31
<i>Diderma deplanatum</i> Fries	Araku	Bark	OUMH 41
<i>Didymium floccosum</i> Martin	Adilabad	Wood	OUMH 35
<i>Didymium muscorum</i> T.N. Lakh. & Mukerji	Pakala	Dried leaves	OUMH 37
<i>Enteridium lycoperdon</i> Bull	Adilabad	Fallen leaves	OUMH 32
<i>P. globuliferum</i> (Bull) Pers	Pileru	Wood	OUMH 52
<i>P. polycephalum</i> Schw	Mulugu	Wood	OUMH 51
<i>Physarum flavicomum</i> Berk.	Adilabad	Wood	OUMH 50
<i>Physerella oblonga</i> (Berk. & Curt.) Morgan	Adilabad	Wood	OUMH 43
<i>S. livifera</i> Macbr.	Adilabad	Fallen leaves	OUMH 53
<i>S. virginensis</i> Rost	Pileru	Wood	OUMH 42
<i>Stemonitis hyperopta</i> Meylon	Araku	Wood	OUMH 44

were placed vertically in cardboard boxes. Later samples were sun dried and were treated with potassium chlorate/ calcium chlorate for dehydration by keeping them in desiccators (Davis, 1965). Hoyer's medium (Distilled water - 50 ml, Arabic gum -30 g, chloral hydrate - 200 g, glycerin - 20g) was used for observing calcareous members. Non-calcareous specimens were observed in glycerin mixed with water (2:1). The examined materials have been deposited in the Herbarium of Osmania University under OUMH accessions.

erage to more moisture, moderate to heavy rainfall, type of vegetation, age of the plant, soil conditions and other such factors are known to influence the occurrence, distribution, seasonal variation, quantitative and qualitative association of myxomycetes. Agnihotrudu (1954), Indira (1975), Thind (1977) and Lakhanpal and Mukerji (1981) have made significant contributions to the understanding of myxomycetes from India.

Twenty four myxomycetous fungi collected from

different forest localities of Andhra Pradesh, India are listed in Table 1. Perusal of literature (Butler and Bisby, 1960; Bilgrami *et al*, 1979, 1991; Sarbhoy *et al*, 1975, 1996; Jamaluddin *et al.*, 2004) revealed that these 24 myxomycetes have not been reported earlier from Andhra Pradesh. Earlier Manoharachary *et al.*, (2012) have reported 20 myxomycetes for the first time from Andhra Pradesh, India. Among the substrates studied for colonization of slime molds, the dead wood has been colonized by more number of species. All the 24 myxomycetes reported here form new addition to Andhra Pradesh. This data further strengthens the diversity and taxonomic database of myxomycetes.

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