

***Physarum pachganensis*: A New Species of Myxomycetes from Panchgani****Tembhurne R .R.**

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**Abstract:**

The present study is the floristic study of one new species of *Physarum pachganensis* Nanir et al., sp. nov. Near about thousands of specimens are described throughout the western part of Maharashtra which grow in natural habitat. Newly recorded specimen was described from the natural habitat grown on angiospermic plant leaves which is the first report from Panchgani, Maharashtra (India).

**Key words:**Fructification, Stipe, Collumella, Capillitium, Spores. angiospermic plant

**Introduction:**

Panchgani is one of the popular hill stations of India located at Satara district, Maharashtra. It consists of tropical moist deciduous forests in them, various types of diversity of plants located such as Hirda, Mango, Bheda, Karvi, Jambhala and Manjan etc. According to Dalzell and Gibson (1861), Blatter (1909) and Mahabale (1966) reported that the western part of Maharashtra is not only richest in angiospermic plants even though there is pteridophyte, bryophytes and algae. After study of many genera and species of fungi are also in large scale in western Maharashtra (Kamat et al, 1971), in spite of all group of plant studied Myxomycetes are also seen in this region with lack amount, which are well developed on living as well as on dead organic matter like root, trunk, bark, stem, leaves, fruit and seed. by considering these aspects present study was carried out from Panchgani hill station (Maharashtra) India.

**Material and Methods:****a. Study region and sample collection:**

Panchgani is stretched between 17.920 N longitude and 73.79<sup>0</sup> E latitude. Particularly in the region of western Maharashtra, India. It is collected on living angiospermic plant leaves from the North-East region of Panchgani and immediately carried to the laboratory and preserved inside the paper box taking prior precaution of decay, dehydration and insect infestation. The collected specimen were numbered and labeled according to the location and date of collection,



**Location Map- Panchgani (MS) India (Source: Google map)**

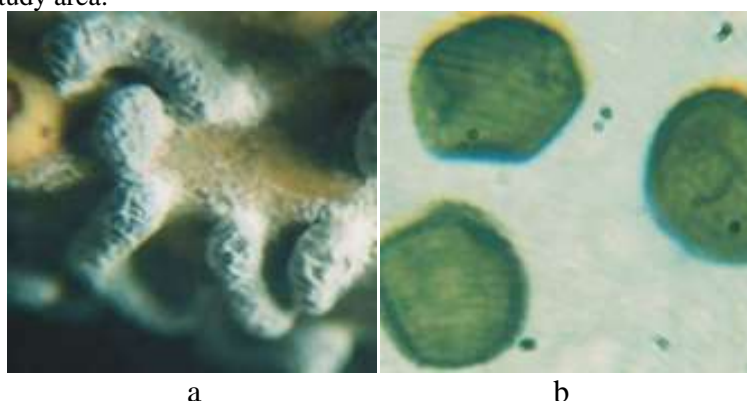
**b. Identification of Myxomycetes:**

The collected myxomycetes were observed under digital Trinocular Microscope SZ-PT Olympus, Japan model SZ4 for the study of characterization and low power of Research Trinocular Microscope KIC Olympus model.

The specimens were identified and taxonomically described by following the literature of Lakhanpal & Mukerji (1981), Nannenga - Bremekamp (1973), Thind (1977), Martin and Alexopoulos (1969), Lister (1925), Olive (1975), Lodhi (1934), Lister G (1925), Hagelstein (1944), Farr (1976) and Ainsworth and Sussman (1973). Panchgani. Micheli (1679-1737).

**Results:**

In the present study, *Physarum pachganensis* Nanir et al., sp. nov. of Myxomycetes was first time newly recorded from the study area.



**Fig. 1** *Physarum pachganensis* Nanir et al., sp. nov. Fig.1 a-Habit, b-Spores

**Description:** *Physarum pachganensis* (Nanir & Tembhurne sp. nov.) is marked by fruiting sporangiate sessile ; sporangia clusters with turmeric yellow ; peridium double ; hypothallus inconspicuous ; capillitium lax, nodes white ; spore black in mass, violaceous brown by transmitted light. *Physarum* spp-II is compared with *Physarum leucophaeum* Fries. However *Physarum leucophaeum* Fries is characterized by fruiting sporangiate stipitate ; sporangia scattered with grayish white ; Peridium single ; hypothallus prominent ; capillitium abundant nodes pinkish white ; spore brown in mass, pinkish brown by transmitted light.

**Discussion:**

Kazunari et al., (2018), studied geographical distribution of myxomycetes from Japan recorded annual mean temperature 8.5 °C -21.0 °C suggested that the distribution of myxomycetes was affected by temperature changes resulting from latitudinal and altitudinal variations in a temperate zone. They also stated that, geographical distribution of myxomycetes in a temperate zone, and occurrence of corticolous myxomycetes strongly depends on habitat selectivity.

In present study, this species was recorded from Panchgani where temperature ranged between 17.1°C to 20.7 °C and altitude from the sea level is 1293 M. The occurrence of new species *Physarum panchaganiensis* Nanir & Tembhurne sp. nov.; in Panchgani was might be due to angiospermic habitat and high altitude of the region

**Conclusion:**

Myxomycetes are omnipresent all over the world. This species is newly recorded and there is urgent need of further study to explore new species of myxomycetes in the area. **References:**

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