

In the present investigation, the aquatic fungi, in and around Satara city and Satara District have been studied. There are present large number of aquatic fungi occur in various water bodies, free flowing as well as reservoirs. In rainy season large quantity of water flows through streams, rivers, small lakes. Some is gathered in reservoirs. They occur various groups of fungi in a aquatic habitat. They belongs to Mastigomycotina, Ascomycotina, Deuteromycotina and few from Basidiomycotina.

During last 30 – 35 years, various terrestrial, folicolous, leaf litter fungi, rust and smut fungi were studied from Western parts of Satara District i.e. Kas, Mahabaleshwar etc. have been exploited. Aquatic fungi, in these areas were remain unexploited, and neglected one. In the present investigation, only aquatic hyphomycetous fungi were collected in different seasons and studied.

These forms enjoy peculiar climatic conditions. They live in water or an organic matter in water. Their conidia or spores flow along with water currents or present in foam. They have peculiar mycelial structure. Their conidia are also very peculiar, than other forms. Some aquatic forms may occur as terrestrial one as well as in aquatic habitat. Various aquatic fungi were collected from Aug. 2007 – Nov. 2008 and studied and presented for the first time from this area.

The Order – Hyphomycetales in aquatic climate is represented here by only two families viz. Fam.- Moniliaceae and Fam. - Dematiaceae.

The family - Moniliaceae is represented by 6 genera with 7 species. Out of them 3 species, have been reported for the first time from Maharashtra state. While, a new variety has been proposed. Other forms were (3 spp.) studied and proposed here as a new from this area.

The family- Dematiaceae is a largest family, exploited and studied from various localities. It is represented by 14 genera with 24 species.

Four species have been reported for the first time in India. While, 10 spp. are new to the fungi of Maharashtra. A new variety has been proposed to accommodate, the morphologically peculiar collection.

Genus *Helicosporium* Nees is the largest to genus observed in the water or foam samples, with 5 species and other one is the *Beltrania* Penzig with 3 species.

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Thus, the present investigation deals with some "Ingoldian" hyphomycetous fungi from Satara and its surrounding water bodies. The Order- Saprolegniales was also studied but not represented here. The forms were cultured on various substrata and baits and efforts were made for pure culture in various culture media, but very few were able to grow in MEA, CDA, Sabourad's agar medium and PDA. Still there is vast scope, to study aquatic fungi from remote areas of Western Ghats.