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RESEARCH ARTICLE

Xylariales of Sharavathi wild life sanctuary Karnataka

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SUMMARY

A detailed floristic monograph of 33 Xylariales species of Sharavathi wild life sanctuary (SWLS) was presented along with cultural nature of few taxa. These taxa belongs to 4 genera *viz.*, *Xylaria*(13), *Hypoxylon*(10), *Rosellinia*(5) and *Nemania*(5). It includes both annulated and non-annulated/erect taxa.

Key Words **:** *Xylaria*, Xylariales, *Hypoxylon*, *Rosellinia*, *Nemania*

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Xylariales is oldest group belongs to the class Pyrenomycetes. It is considered as one of the specialized order in Ascomycetes exhibits a wide range of morphological variations. It includes 48 genera and 386 species (Kirk *et al*., 2001). The history of Xylariales is as old as the history of fungi in general. The earliest record of Xylariaceous fungus in India seems to be *Sphaeria* (*Cordyceps*) *nigripes* Klotzsch, who described it on the basis of a collection sent to him by Wright from Belgaum (Karnataka). The floristics of Xylariales in India has never been specifically studied, and whatever was known is through the scattered reports of different workers of fungi in general. Many members of the family were reported with different names, from time to time (Dargan, 2006). Most of the members of this order are grow in wet and shady places, either on dead wood or litter. Some members are known to be pathogenic inciting wood rots and cankers (Pande, 2005).

Xylariales play a primary role because, they act as decomposers. They found in associate with algae to form lichens, act as parasites to cause damage to plants, and in association with roots of plants as mycorrhizae. Additionally, they may play an unquantified but crucial role in the carbon cycle (Senkowsky, 2006). All the members of Xylariales have the capacity to degrade lignin and cellulose. The enzymatic activity of these fungi is widely exploited except for the endophytic species (Pande, 2005).

Important morphological characteristics of Xylariales are: stomata usually well developed, made up of only fungal tissue; ascocarps perithecial; rarely clestothecial, globose, superficial or immersed in stroma; generally black, thick walled with plane, irregular, or wrinkled surface; perithecia spherical, obovoid, or tubular; ostiolate; paraphyses simple; asci cylindrical, persistant, thick walled, apical structure complex; ascospores are light brown, brown, dark brown, or blackish brown, ellipsoid-inequilateral or crescent shaped; germ slit conspicuous, inconspicuous straight, or sigmoid with spore length or less than spore length; conidiogenous structure are *Sporothrix*, *Virgariella*, *Nodulisporium*, or *Perioniella* like (Pande, 2008).

The present study attempts a detail account of 33 species of Xylariales, belongs to genera *Xylaria*, *Hypoxylon*, *Rosellinia* and *Nemania*. Telomorphic details were given for all the species, along with cultural details for few species.

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