

## Diversity of xylariales in Sharavathi wild life sanctuary

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### SUMMARY

Sampling was done by 50x10m transects. The species richness, species evenness and Shannon diversity index was determined. *Xylaria hypoxylon* (L.: Fr.) Grev. was the dominant species and found in all the months, followed by *Rosellinia necatrix* Prillieux. *Xylaria filiformis* (Alb. and Schw.: Fr.) Fr. was the only species collected on dead dicot leaf and remaining from dead dicot and monocot stems.

**Key Words :** *Xylaria*, Xylariales, Diversity, *Rosellinia*, Diversity indices

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One of the fascinations of life is its incredible variety. The Indian tradition estimates this variety at 84 lakh different types, the sequence of births through which humans must pass before being united with Brahma, the ultimate. Remarkably enough, this is right on target, for modern science estimates that there are somewhere between 80 to 120 lakh different species of living organisms on the earth today. But the bulk of this diversity of life is in the form of fungi and smaller animals that are yet to be described by scientists. Only about 16 lakh species are known to science, and India with a land area of 2.2 per cent of the earth as a whole harbours over 1.2 lakh or more than 7.5 per cent of the world's known species. This is why India ranks amongst the world's top twelve megadiversity countries (Gadgil, 2004).

Tropical forests harbour the greatest wealth of biological and genetic diversity (Hubbell and Foster 1983). Covering

only 7 per cent of the earth's land surface these forests have more than half of the world's species (May and Stumpf 2000). The tropical forests with a mean annual rainfall of 250 to 2000 mm and potential evapo-transpiration (PET) >1 represent tropical dry forests (Holdridge 1967).

The order Xylariales was established by Tulsane and Tulsane (1863). These members are generally saprobes or weak pathogens; many are endophytic, mainly in wood and bark. About 243 species of Xylariales members are known from Western Ghats of Maharashtra (Pande, 2008). The majority of species previously reported from Uttar Pradesh, Bihar, Maharashtra and West Bengal and only few reports from Khasshi hills, Darjeeling and Nilgiri hills. Despite numerous studies in Western Ghats, still remain a number of interesting *Xylaria* species in protected areas and special habitats which are unexplored (Dargan, 2006).

Xylariales play an important role in plant litter decomposition in forest ecosystems through soil nutrient recycling and build-up of soil organic matter because they decompose the lignocellulose matrix in litter that other organisms are unable to decompose (Takashi and Takeda, 2006).

### MATERIALS AND METHODS

Repeated survey was carried from January to June for Xylariales in Sharavathi Wild Life Sanctuary (SWLS). It comes under central western ghats of Karnataka i.e. malnad region,

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