From the Editor's Desk

The ecological relationships between fungi and insects range from agonistic parasitism, commensalism to mutualism. Real symbiosis is seen in *Termitomyces*, a basidiomycetous fungus and termites. Termite nests provide appropriate conditions of temperature and humidity to the fungus while *Termitomyces* helps termites to degrade plant material.

Though fungal infections in insects have been known for centuries, the first experimental proof of silkworm infected with *Beauveria bassiana* was recorded in 1835 by Agostino Bassi, while Methschnikoff in 1879 discovered *Metarhizium anisopliae* (*Entomophthora anisopliae*) on infected larvae of the wheat cockchafer *Anisopliae austriaca* and later on *Cleonus punctiventris*. Almost immediately, controlled experiments for biocontrol of insect pests with entomopathogenic fungi started. Thus insect pathogenic fungi have now become a significant contributor to contemporary insect pest management schemes. As mycologists, we need a perspective and knowledge of their biology, host- interaction, diversity with respect to hosts and parameters which are important to change a saprophyte to entomopathogenic behaviour. Around 90 genera and 700 species exhibit entomopathogenecity which can be grouped as known, opportunistic and secondary colonisers.

This special issue includes articles on biochemistry of entomopathogenesis, mission mode collection of the insect pathogens, commercialization - issues and challenges, scope and status of mycoinsecticides in Maharashtra as well as in North- East, and the potential of endophytic and nematophagous fungi for biocontrol of pest. I am indeed thankful to all the authors who have contributed to cover aspects related to 'concept to commercialization' , and 'laboratory to field'.

In view of the high volume low cost agriculture market, bioprospecting of these organisms as agents with dual specificity, plant growth promoters, catalysts for bioremediation, biotransformation, in biosensors and for bionanofactory is necessary. The use of genetically modified fungi with, for example, protease, protein kinase or scorpion toxin gene(s) to achieve a greater efficiency for the insect control is a novel trend in research that has not been discussed in this issue. In fact, questions like, 'what could happen to GM fungi in the wild' or 'could a gene escape and spread to other microbes' and 'what is the impact of GM fungi on all functionally known ecological and environmental processes in the soil' need more attention and thus could be a topic for forthcoming events of the Mycological Society of India.

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