



**Enumeration and identification of endophytic fungi from various aged leaves of mangrove plant species, *Bruguiera cylindrica***

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**Abstract :** Mangrove forests play an important role in tropical and subtropical coastal ecosystems. Endophytic fungi are widely distributed in various ecosystems and have great contribution to global biodiversity. In order to better understand the effects of mangrove species and tissue types on endophytic fungal community, we investigated cultivable endophytic and phylloplane fungi in different aged leaves of mangrove plant viz., *Bruguiera cylindrica* by employing moist chamber and agar plate methods. The four types of aged leaves had similar overall colonization rates of endophytic and phylloplane fungi. The colonization rates of endophytic fungi were higher in litter leaves followed by yellow, mature and young ones. A total of 23 endophytic fungal taxa were identified under 16 genera based on morphological characteristics. Fungi belongs to Deuteromycetes were found higher in their occurrence in all the leaf samples followed by Zygomycetes and Ascomycetes. *Aspergillus* was dominated followed by *Phoma*, *Curvularia*, *Colletotrichum*, *Drechslera*, *Ulocladium*, *Helminthosporium* and white sterile mycelia. The diversity of phylloplane fungi were more in comparison to endophytic fungi in all the leaves of the plant species. Some endophytic fungi showed host and tissue preference. The endophytic fungal community composition was different among four leaves and between the moist chamber and agar plate methods.

**Key words :** Phylloplane, Endophytic fungi, Mangrove, Diversity, Aged leaves, *Bruguiera cylindrica*.