

Some records of Ascomycete macrofungal species from selected areas of dry zone of Sri Lanka

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Fungi that produce fruit bodies large enough to be observed by the naked eye are identified as macrofungi and these are distributed among the two sub Divisions of Ascomycota and Basidiomycota. While majority of Ascomycetes are smaller in size, a minor portion can be considered as macrofungi due to their prominently visible fruiting bodies. Although few old published fungal collections are available on macrofungi, recent studies are lacking in Sri Lanka. Further, habitat destruction and climate change endanger the species diversity of organisms and hence recording the biological wealth and their habitats would pave the way for formulating conservation strategies. The Ascomycete diversity which was observed during a study carried out in the Dry zone of Sri Lanka, with the objective of identifying and recording the diversity of macrofungi species is reported here. Opportunistic and random sampling was carried out and an area of 50 – 100 m radius into the forests/National parks (Dambulla, Sigiriya, Minneriya, Kaudulla and Wasgamuwa) from either side of the walking path was used for sampling. Morphological characteristics (shape, colour, hymenial surface) of the fruiting bodies and anatomical characteristics (hyphal system, presence/absence and measurements of sterile structures and ascospores) were analyzed. Identification was confirmed by sequencing the Internal Transcribed Spacer (ITS) region in the nuclear ribosomal repeat unit, using the primers ITS1 and ITS4. All recorded Ascomycetes belonged to Family Xylariaceae and were found on decaying logs. The collection consisted of *Daldinia eschscholtzii*, *Hypoxylon polyporoideum*, *Hypoxylon* sp., *Xylaria feejeensis*, *X. papulis*, *X. polymorpha*, *X. regalis* and *X. schweinitzii*. As per the literature, the collection is of medicinal importance with evidences of anticancer, antimicrobial, antibacterial and antioxidant activities and economical importance with secondary metabolites of *Daldinia eschscholtzii* proved to be nematocidal. Further, *X. regalis*, is reported to have the potential to be used as a bio-bleaching agent of pulp in the paper industry.

Key words: Ascomycetes, dry zone, macrofungal diversity, *Xylaria*

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