

Molecular taxonomy of Australian endophytic Pezizales

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Abstract. The order Pezizales contains a wide variety of striking macro ascomycetes not commonly observed in Australia. Known as cup fungi and false morels due to the prominent, often brightly coloured apothecia that are produced, most samples may be observed on the ground or on decaying leaf and bark material. Recently, 33 likely novel isolates belonging to Sarcosomataceae and Sarcoscyphaceae were found occurring endophytically in leaves collected from a semi evergreen vine thicket in the Brigalow Belt in South-East Queensland. An endophytic life mode is considered rare for these families and so this observation raises interesting ecological questions. The 33 isolates were analysed to determine their phylogenetic relationship with other known Sarcosomataceae and Sarcoscyphaceae and found to belong to three potentially new genera. This observation represents an increase in the observance of Sarcosomataceae in Australia and also a possible range expansion for one genus within the Sarcoscyphaceae.

Keywords. Sarcosomataceae, Sarcoscyphaceae, endophytes.