

**PHYLOGENETIC RELATIONSHIPS OF *GORDONIA* SPECIES (THEACEAE)
ENDEMIC TO SRI LANKA**

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A study was carried out to investigate the phylogenetic relationships of *Gordonia* species (Theaceae) that are endemic to Sri Lanka. During a recent taxonomic revision four species of *Gordonia*, *G. ceylanica* Wight, *G. elliptica* Gardner, *G. speciosa* (Gardn.) Choisy, and *G. dassanayakei* Wadhwa et Weerasooriya have been identified as naturally occurring in Sri Lanka. All four species are restricted to the upper montane areas of the island.

Fresh specimens were collected from all recorded locations, where possible as well as from other likely locations. Ninety three characters that showed variation were identified, studied and coded into different states. Data coding and analysis was done using the computer programs MacClade and PAUP 4.0. The resulting phylogenetic trees were evaluated.

The phylogenetic trees supported the monophyly of the genus. The phylogenetic analyses, did not recover the expected monophyletic groups for the four taxa. *G. speciosa* and *G. dassanayakei* were recovered as two monophyletic clades with support, but the clades were nested either within other large clades or those that contained members of other species. *G. elliptica* and *G. ceylanica* are non-monophyletic.

The study revealed several confusing character combinations that overlap among the *Gordonia* species and with the current species limitation for Sri Lankan *Gordonia* species seems confusing. Further the study unveils the necessity of carrying out a study on species limits of *Gordonia* with more informative characters.