

**PHYLOGENETIC RELATIONSHIPS OF *CINNAMOMUM* SPECIES  
IN SRI LANKA**

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The genus *Cinnamomum* of the family Lauraceae, and has about 350 species distributed in South Asia, East Asia and South-east Asia, Australia, Fiji, Samoa and tropical America. Eight species occur in Sri Lanka, and all are endemic. Three of these are listed as threatened / highly threatened in the IUCN Red Data List (2000). A knowledge of phylogenetic relationships is very important in breeding programs and conservation studies. The present study was aimed at determining the phylogenetic relationships of *Cinnamomum* occurring in Sri Lanka.

Specimens were collected from the field. The genera *Cryptocarya* R.Br. and *Beilschmiedia* Nees were used as the outgroup taxa. Morphological characters for all taxa were coded separately. A data matrix was constructed using the computer program MacClade. Phylogenetic analysis was performed using PAUP 4.0. Bootstrap analysis was carried out to determine support for the clades. The initial unweighted analysis resulted in seven most parsimonious trees with a tree length of 62.5, CI (Consistency Index) 0.901 and RI (Retention Index) 0.772. Successive weighting resulted in a single most parsimonious tree, with a length of 48.3. CI of 0.944 and RI 0.849.

Based on the recovered phylogeny the genus is a monophyletic group. Within the genus two monophyletic groups can be identified, though not supported by the bootstrap analysis.

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