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SPECIES DELIMITATION OF *HORTONIA* (MONIMIACEAE) USING MORPHOLOGICAL DATA

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Hortonia is a genus endemic to Sri Lanka, belonging to the family Monimiaceae, which is thought to have originated in the Gondwanaland about 100-120 million years ago. In Sri Lanka the family Monimiaceae is represented only by the genus *Hortonia.* The taxonomic history of *Hortonia* has been controversial where circumscription of taxa among different treatments differ. The latest revision of the Flora of Ceylon recognizes the originally described three species of *Hortonia*: *H. floribunda, H. angustifolia* and *H. ovalifolia.* A recent chemical study once again questions the species limits by claiming the presence of identical biological active chemical compounds in the three species. Therefore the present study was conducted with the aim of studying the species limits of the genus *Hortonia* and re-evaluating the morphological features, specially leaf shapes, used in the past classification systems and also looking for additional characters to elucidate the species limits.

All presently recognized taxa from different geographical locations were studied. More emphasis was given to leaf characters observed after clearing of leaves and floral characters. More than fifty characters with different character states were studied. The data clearly suggest that there are many differences as well as similarities among the three species. These differences, specially the acuminate leaf apex, small flowers, petals with tufts of trichomes on the margin of *H. angustifolia;* obtuse leaf base, entire and strongly revolute leaf margin, channeled petiole, large orange yellow flowers with a well developed, cup-shaped, fleshy hypanthium of *H. ovalifolia* and acute leaf base, unchanneled petiole, small greenish yellow flowers with small hypanthium of *H. floribunda* provide additional support for the recognition of three distinct species of *Hortonia.* The fact that the three species of *Hortonia* posses identical biologically active compounds could be explained as they have been retaining the primitive chemical composition of their ancestor and evolving as three different species with distinct morphological features.

Therefore we conclude that the endemic genus *Hortonia* is rich with three species with distinct morphological features. A modified key to the three species with several stable morphological characters is proposed.

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