

## **An assessment of species delimitation of *Hortonia* (Monimiaceae) using a large number of morphological data**

*Hortonia* an endemic genus of the family Monimiaceae, is thought to have originated in the Gondwanaland about 100-120 million years ago. It is the sole representative of that family in Sri Lanka. The latest revision of the Handbook to the Flora of Ceylon recognizes three species of *Hortonia* viz. *H. floribunda*, *H. angustifolia* and *H. ovalifolia*. The taxonomic history of *Hortonia* has sometimes been controversial. However, a recent chemical analysis showed the presence of identical biological active chemical compounds in the three species. This information suggests that the three taxa are more similar and questions whether they are three species or not! The aim of the present study was to re-evaluate the species delimitations of *Hortonia* using a large number of morphological characters.

Specimens of *Hortonia* collected from different geographical locations were studied. More emphasis was given to leaf and floral characters. Altogether 57 different characters were used in the study. The data clearly suggested that there are many dissimilarities as well as similarities among the three taxa. These dissimilarities and similarities were then used to make a new identification key to the taxa. Acuminate leaf apex, small flowers, petals with tufts of trichomes on the margin distinguished *H. angustifolia* while obtuse leaf base, entire and strongly revolved leaf margin, channeled petiole and large orange yellow flowers with a well developed, cup-shaped, fleshy hypanthium represent the main features of *H. ovalifolia*, acute leaf base, unchanneled petiole, small greenish yellow flowers with small hypanthium differentiated *H. floribunda*. Therefore the results provide additional support for the recognition of three species of *Hortonia*. The fact that the three species of *Hortonia* possess similarities could be explained as they have been retained from the primitive ancestor and they evolved as three different species with distinct morphological features. Therefore we confirm that the endemic genus *Hortonia* is composed of three species showing distinct morphological features.