

COMPARATIVE ANATOMICAL STUDY OF *Munronia pinnata* (Wall.) Theob. (Meliaceae) FOUND IN SRI LANKA

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Munronia pinnata (Wall) Theob. (Binkohomba) is a rare, therapeutically important plant in the family *Meliaceae* and is widely used in Ayurvedic medicine in Sri Lanka. Different populations of *M. pinnata* in Sri Lanka display an array of variable phenotypic characters. However, due to seasonal and rare flowering, study of reproductive characters in all populations is not possible. Present study emphasizes the use of anatomical characters of leaf, stem and petiole of 13 populations of *M. Pinnata* as a systematic tool. Sixty different quantitative and qualitative anatomical characters were scored. Cluster analysis was performed to derive the taxonomic relationship among the populations studied. A single access (sequential), indented (Yoked) key which could be used to identify anatomically different populations of *M. pinnata* was constructed using taxonomically stable anatomical characters. Findings indicate that the, entire study group can be divided into two major categories: those bearing 5 leaflets and other leaflet types (i.e.3, 7, 9 and 11). Therefore, it is possible to place 5-leaflet populations in a separate taxon. The level of taxon has to be decided after numerical analysis of combined taxonomic evidence of different disciplines. In addition, the populations collected from Ritigala and Mathurata exhibited several unique characters and therefore, reconsideration of their taxonomic status is suggested. This study reveals that the anatomical traits can be used as an additional taxonomic tool for *M. pinnata*. Further studies of micromolecules, isozyme polymorphism and DNA finger printing of the studied populations are needed to get the above findings clarified and the exact taxonomic status of *M. pinnata* populations in Sri Lanka confirmed.

Keywords: *Anatomy, Medicinal Plant, Meliaceae, Munronia pinnata, Taxonomic Tool*