

**Phytochemical Screening of Different Eco-types of *Munronia pinnata* (Wall)
Theob. (Bin Kohomba)**

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Binkohomba (*Munronia pinnata*) is a rare medicinal plant naturally found in diverse ecosystems including dry, intermediate and wet zones in Sri Lanka. Its entire plant is extensively used for medicinal purposes in Ayurveda, especially for treating fever including malaria and curing skin diseases. Changes in flower morphology is reported and leaf morphology with four major ecotypes consist of 3, 5, 7 and 9 leaflets have been reported from various regions in Sri Lanka. No records were found on complete phytochemical analysis of different ecotypes of Binkohomba. Present study was performed to investigate the phytochemical composition in all ecotypes to attest any significant differences due to changes in leaf morphology. Leaves of four ecotypes were collected from the plant house and dried at 45°C for 15 hours. The methanol extracts of all ecotypes were prepared and used for screening of antioxidant activity, total polyphenol content and antifungal activity. Results showed that the different ecotypes of Binkohomba exhibit positive biochemical responses but at varying levels. The strongest antioxidant activity and highest polyphenol content was observed in ecotype with 3 leaflets and ecotype with 7 and 9 leaflets showed relatively lower activity. The ecotype with 5 leaflets showed lowest values for both properties. However in this study the plant extracts of all four ecotypes showed mild inhibitory activity for the fungi and ecotype with 7 leaflets was slightly active in suppressing the growth of *Cladosporium cladosporioides*. This study suggests that the changes in phytochemical composition is important factor to be considered when selecting ecotypes for different uses and in promotion of commercial cultivations for effective usage of the plant.

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