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Taxonomy and Phylogeny of Genus *Boehmeria* Jacq. in South Asia

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Genus *Boehmeria* Jacq. (Urticaceae) is widely distributed in the tropical, subtropical and occasionally in the temperate regions of Asia, Oceania, America and Africa. It includes herbs, shrubs and small trees and is growing on the marginal forest along the banks of stream or as roadside thickets. It forms one of the understorey components in the tropical and subtropical forest. Better understandings of this genus will be helpful in the management, conservation and improvements of tropical and subtropical forest. The taxonomy of *Boehmeria* is still unclear. Controversial generic and specific circumscription resulted unstable nomenclature. Intricate speciation due to the agamospermy polyploidy and hybridization in East Asia posed further challenge to the taxonomist in treating the species of *Boehmeria*. South Asia is very rich in its overall diversity and endemic taxa. Limited and fragmented knowledge in absence of a complete revision of this genus in South Asia resulted several nomenclatural and taxonomic problems. There is no phylogenetic study of this group, in absence of which it lacks a unanimous infrageneric classification. On the basis of present study 33 species and 13 varieties were recognized in South Asia. Among which 3 new species and 3 new varieties are described. 1 new combination is proposed. 1 new section based on the phylogenetic topology and distinct vegetative characters is recognized. Cytological study revealed that polyploidy and agamospermy has not played any role in the diversification of this genus in South Asia. Present study analysed DNA sequences of ITS 2 region to resolve the phylogenetic relationship in *Boehmeria*. 40 taxa including Asian, Oceanian American and African species are analysed. Monophyly of the currently recognized *Boehmeria* is not supported, as one of the *Boehmeria* species is associated with *Pouzolzia* species in a separate monophyletic clade. Rest of the *Boehmeria* except *B. rugulosa* formed a monophyletic group. The topology of phylogenetic tree supports six distinct monophyletic clades. Morphological studies revealed that these six monophyletic groups can be distinguished on the basis of certain morphological features, hence these six groups are recognised as sections. Phylogenetic analyses support a common origin of Old and New World *Boehmeria* species and are related through South Asia.