

Pollen Morphology of the Genus *Thottea*

P.N. Shaiju*

Department of Botany, University of Kerala, Kariavattom Campus, Thiruvananthapuram- 695 581, Kerala, India

**Present Address: Department of Botany, Fatima Mata National College, Kollam- 691 001, Kerala, India*

ABSTRACT

Pollen morphology was analyzed for elucidating taxonomic relationships in the genus *Thottea* (Aristolochiaceae) from the Western Ghats, India. Morphometric tools such as UPGMA clustering, PCA and PCoA were used for species delimitation, and also for exploring inter-relationships. Palynologically, boat shaped and one aperturate monads placed the genus very close to the ranalean complex. Qualitative characters of the pollen were found more reliable for infrageneric relationships in *Thottea*. Based on the pollen characteristics, it is difficult to distinguish *T. abrahamii* from *T. dinghoui*, and *T. duchartrei* from *T. idukkiana*. Occasional distribution of trichotomosulcate grains made *T. ponmudiana* evolutionarily distinct. The PCoA scatter plot revealed two distinct sub-generic lineages in *Thottea*, with sound individuality for *T. barberi*. A taxonomic key is proposed for characterizing *Thottea* spp.

Key words: Morphometric analysis, pollen, systematics, *Thottea*

Author for correspondence: P.N. Shaiju, e-mail: shaijukvm@gmail.com