

Abstract

The comparative anatomy studies on leaf of three genera and 10 species of Lecythidaceae in Thailand, including eight species in *Barringtonia*, one each in *Careya* and *Couroupita* were investigated by epidermal peeling and paraffin method. The results showed that some anatomical characters of leaf and petiole are taxonomically useful for generic delimitation viz. presence stomatal upper epidermis contains *Careya arborea* only, stomatal types and number of cortical vascular bundles. The anatomical characters of leaf and petiole are taxonomically useful for species delimitation of *Barringtonia* viz. presence or absence lower epidermis appendage, epidermal cell shapes, stomatal position, number of palisade layers and vascular bundle shape of petiole and type of secretion.