

## The Comparative Pollen Morphological Characters of Selected *Brownlowia*, *Jarandersonia* and *Schoutenia* Species (*Tiliaceae*) from Peninsular Malaysia and Borneo

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The pollen grains of nine species of *Brownlowia*, four species of *Jarandersonia* and four species of *Schoutenia* from Peninsular Malaysia and Borneo were studied using light and scanning electron microscopy. The pollen morphology of *Brownlowia* and *Jarandersonia* are very closely related while pollen grains of *Schoutenia* are distinctly different from the other two genera. The mean polar length and equatorial diameter as well as the shape of the pollen grains could distinguish *Brownlowia* from *Jarandersonia*. In *Brownlowia* the shape of the pollen grains ranges from peroblate, oblate to suboblate whereas it is oblate in *Jarandersonia*. Pollen grains of *Brownlowia* [P = (13-) 17 - 28. (-41.6  $\mu$ ), E = (26-) 29 - 48 (-49  $\mu$ )] are generally larger than those of *Jarandersonia* [P = (16) 19 - 25 (-39  $\mu$ ), E = (29-) 31 -36 (-39  $\mu$ )]. The pollen morphology characters that differentiate *Brownlowia* and *Jarandersonia* from *Schoutenia* are sculpture pattern and the type of apertures. Pollen grains of *Schoutenia* are tetrapantoporate and reticulate with spinules. *Brownlowia* and *Jarandersonia* have pollen morphological characters belonging to the 'Tilia type' and *Schoutenia* belonging to 'other types' and did not conform well to 'tribe Tiliaceae' and 'tribe Brownlowieae'.