



## Systematic significance of morphological and foliar epidermal characters in six species of *Pancovia* Willd (Family: Sapindaceae Juss)

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### Abstract

The genus *Pancovia* comprises economically important plants native to Africa. Here, a systematic study was carried out on six species of *Pancovia* with a view to elucidate the significance of their characters for identification purposes. Morphological and leaf epidermis characters of the plants were assessed based on herbarium specimens. Useful diagnostic morphological features observed include leaf size, inflorescence length and fruit size. Variations also exist in the leaf epidermis characters examined. Polygonal cells and straight anticlinal wall were observed on the adaxial surface while the abaxial comprises irregular cells with undulate walls; exception is seen in *P. atroviolaceus* and *P. harmsiana* where the cells are irregular on both surfaces. The frequency of epidermal cells was higher on the adaxial compared to the abaxial surface and there is wide variation in the number of stomata recorded in each species. Stomata are anomocytic, sunken or raised with characteristic staining subsidiary cells and are restricted to the abaxial surface of the leaf. Based on the observed characters, a description of taxa studied and a dichotomous key is presented for their identification. This study can be seen as a contribution to the systematic literature available for the delimitation of *Pancovia* species in Africa.

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