

Systematic significance of stipe anatomy of Selaginella (Selaginellaceae) in Peninsular Malaysia.

ABSTRACT

An anatomical study was carried out on 14 taxa belonging to Selaginellaceae in an attempt to study their stipe anatomical characteristics and to provide anatomical data for the selected taxa in Selaginellaceae. Out of 29 taxa of Selaginellaceae recorded in Peninsular Malaysia, 14 taxa have been selected namely *Selaginella alutacia*, *S. argentea*, *S. frondosa*, *S. intermedia* var. *intermedia*, *S. intermedia* var. *dolichocentrus*, *S. mayeri*, *S. morganii*, *S. ornata*, *S. plana*, *S. polita*, *S. roxburghii* var. *roxburghii*, *S. stipulata*, *S. wallichii* and *S. willdenowii*. Method used in this study was sectioning using sliding microtome. Findings in this study have shown that Selaginellaceae species studied can be clustered into two groups based on the stipe stellar systems, which are monostelic and tristelic groups. There are some variations exist in the cross sections of the stipes of the same species due to the presence and absence of the leaf trace. Each species is proved to have distinct stipe anatomical characteristics that can be used to differentiate species in Selaginellaceae

Keyword: Anatomy; Peninsular Malaysia; Selaginellaceae; Stele; Stipe.