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Full Length Research Paper

Comparative morphology, palynology and anatomy of five astraceous species from Pakistan

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Abstract

In this study, *Scorzonera* L. (Asteraceae) collected from Pakistan was investigated by its morphology, leaf epidermal anatomy and pollen grain characteristics. *Scorzonera* is a perennial herb growing in wet nutrient-poor grasslands and wet heathlands. The stem texture is glabrous in *Scorzonera ammophila, Scorzonera picridioides* and *Scorzonera virgata* while tomentose in *Scorzonera hondae* and terete with fine striate above in *Scorzonera laciniata*. The bifacial leaves had anomotetracytic, amphianisocytic, brachyparacytic and staurocytic stomata. The pollen morphology results indicate that pollen grains in *Scorzonera* were lophate. Based on sculpturing, all pollens were echinate in *Scorzonera*. The pollen class was trizonocolporate in all taxa.

Key words: Morphology, palynology, anatomy, *Scorzonera* L., scanning electron micrographs, Pakistan.

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