عنوان مقاله:

Taxonomic significance of anatomical characters in some species of Caryophyllaceae Family in Iraq

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نویسندگان:

Sadeq Sabeeh Kareem Al-taie - Department of Biology, College of Science, University of Misan, Iraq

Sahar A. A. Malik Al-Saadi - Department of Biology, College of Science, University of Basrah, Iraq

خلاصه مقاله:

The anatomical characters of the leaves, trichomes and stems of ۱۲ species of Caryophyllaceae family were studied. The results showed that the average of epidermal cells length in the adaxial surface ranged between ۹۵.۰۰ μm in Agrostemma githago and ۲۹.۵ μm in Agrostemma gracile, while in the abaxial surface, it ranged between ۹۲.۵ μm in A. githago and ۳۵.۶۲ μm in A. gracile. Stomatal complex was circular and elliptic-shaped. All species have four types of stomata : diacytic, anomocytic, paracytic and hemiparacytic. Trichome and their distribution does play significant role in the taxonomic delimitation, A. gracile trichomes have non-glandular hairs, while Arenaria balansae has non-glandular and glandular hairs. Two types of mesophyll appear to be a good diagnostic characteristic isobilateral in the Agrostemma species and dorsiventral (bifacial) in the remaining species as well as several sclerenchyma layers including thick and thin-walled cells that surrounded vascular bundle and also the petiole contains many layers of sclerenchyma cells. Stem shape and size were different between species. The stems had the greatest size (۱۰۶۴.۵۰ μm) in Acanthophyllum bracteatum, while the smallest stem cross section (۴۵۰.۴۶ μm) in A. balansae. Cells were rich in druses crystals. Sclerenchymatous layers were observed in all species. The number of sclerenchyma was different between the species, so that, ۱۲-۲۳ layers in A. gracile and ۴-۷ in A. crassifolium. Size of pith was different. The greatest was ۲۸۰.۲۲ mm in Agrostemma githago, while no pith was found in Polycarpon tetraphyllum and Arenaria balansae.

کلمات کلیدی:

Anatomical characters, Leaf, Stem, Caryophyllaceae Family