

Anatomical Characters of Endemic *Astragalus stenosemioides* in TurkeyBayram ATASAGUN¹, Ahmet AKSOY²¹Biology Department/Faculty of Science, Erciyes University, Turkey²Biology Department/Faculty of Science, Akdeniz University, Turkey

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Aim of the study: *Astragalus* L. (Fabaceae), is one of the largest genera of vascular plants in the world, with an estimated number of 3000 species. Many species are narrow endemics. It is also the largest genus in Turkey, where it is represented by nearly 476 taxa including 203 endemic in 64 sections. *Astragalus stenosemioides* D.F. Chamb and V. A. Matthews is very local endemic species growing only Erciyes Mountain in Kayseri and at a low population density. The main aim of this study is to investigate anatomical features which are used for systematics purpose of *A. stenosemioides*.

Material and Methods: The plant samples collected from B5 Kayseri from the Erciyes Mountain. For anatomical investigations, specimens were kept in 70% ethanol. The paraffin method was used for cross-sections. The sections were taken by microtome and stained with safranin and fast green.

Results: In this study, *A. stenosemioides* was examined anatomically. Anatomical studies were carried out on sections of root, stem, leaflets. In root anatomy, as a protective tissue, the periderm which has 7-10 layers was located in the outermost layer. Under the periderm, there were cortex parenchyma in different sizes, including starch granules. The centre of roots in transverse sections was covered with xylem. In the cross section of the leaflet, it was possible to observe a single layer of regular and rectangular epidermal cells on both the upper and lower sides. The leaflet was isobilateral and palisade parenchyma was two layered. A xerophytic stoma was placed on both sides of the leaves (amphistomatic).

Keywords: *A. stenosemioides*, Anatomy, Endemic, Erciyes.