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# Abstract eBook

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**Comperative Anatomy of Genus *Rubus* Subsection *Glandulosi***Gülçin IŞIK<sup>1</sup>, Ersin YÜCEL<sup>1</sup>, Sema LEBLEBİCİ<sup>2</sup><sup>1</sup>Biology Department, Faculty of Sciences, Anadolu University, Eskişehir, Turkey<sup>2</sup> Horticulture Department, Faculty of Agriculture Sciences and Technology, Bilecik Seyh Edebali University, Bilecik, Turkey  
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**Aim of the study:** The purpose of this study is to describe the anatomical features of the subsection *Glandulosi* taxa.

**Material and Methods:** The samples belonging to the taxa of *Rubus tereticaulis*, *R. hirtus*, *R. platyphyllos* and *R. caucasicus*, which constitute the material of the study, were collected by field studies carried out between May-September 2009 and May-September 2010, when the plant was flowering. For anatomical studies, specimens from leaves, stems and roots were taken and stored in 70% ethanol and brought to the laboratory. Before the sections were taken, the stock samples were removed from the alcohols and separated into pieces 1 'cm long. In order to perform dehydration of the root, the following process sequence was followed: Root, stem and leaf fragments were stored in Safranin 0 for 18-24 hours. Plant parts taken from the safranin dye were kept in the 70, 80, 90, 95% alcohol series for 18-24 hours. After 2-3 hours of storage in absolute alcohol, the samples were left in the xylol-2 alcohol, 1 xylol-1 alcohol and 2 xylol-1 alcohol series for 24 hours. Finally, the cut pieces were kept in pure xylol for 4 hours. Root, stem and leaf material removed from the xyloid were taken into liquid paraffin. Root, stem and leaf specimens taken into paraffin were placed in a 60-65°C setting for 5-7 days.

**Results:** When the root cross sections of the taxa were examined, the presence of exodermis from the outermost 4-5 rows of rectangular cells is observed. In the stem cross sections of the specimens, the outermost periphery is present. The cortex, which consists of parenchymal cells with 8-10 cell rows underneath the peridermis, has little intercellular space between the cortical cells. At the top and bottom of the lamina, there are single row, regularly arranged and no intercellular spaces, rectangular shaped epiderma cells. Lower epidermal cells were found to be smaller when compared to upper epidermal cells. The root, stem and leaf anatomies of the four taxa in the study were examined in cross sections and there was no anatomical difference between species.

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**Keywords:** Rosaceae, *Rubus*, *Glandulosi*, Anatomy, Turkey.