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LEAF ANATOMICAL CHARACTERISTICS OF IRANIAN  
*JUNIPERUS L.*

Memarian, Hamidreza,<sup>1</sup> Hamidipour, Assiyeh,<sup>2,\*</sup> Radjabian, Tayebbeh<sup>2</sup>

<sup>1</sup>Department of Social Medicine, Medical University of Vienna, Vienna, Austria

<sup>2</sup>Department of Biology, Faculty of Science, Shahed University of Tehran, Tehran, Iran

E-mail: ashamidipour@gmail.com

*Juniperus L.*, is composed of six species with heterogeneous geographical distribution and morphological variations in Iran. Anatomical and morphological investigations of different species of Iranian *Juniperus* are performed in this study [1, 5]. Transverse sections of leaves (needle-like or scales) were studied with a light microscope. Great anatomical variation exists between the species. The palisade parenchyma and joining fiber were observed in all of the species except *Juniperus excelsa*. In *Juniperus foetidissima* with elliptic outline, stomata are present only in the upper epidermis of scale-like leaves. Stomata are present on lateral faces of needle-like leaves in *Juniperus excelsa*, *J. sabina*, *J. communis* and *J. oblonga*. In these species, stomata are present only in the abaxial epidermis where there are no fibers underneath the epidermis. The number of secretory cells in *J. excelsa* was 4-5 layers, although *J. Sabina* and *J. foetidissima* have 2 and 3 secretory cells respectively. *Juniperus communis* and *J. oblonga* have stomata that are distributed uniformly in the lower epidermis, except under the midrib of *J. oblonga*, which is covered with fibers instead of stomata. *Juniperus communis* had two numbers of transfusion tracheids whereas there were four transfusion tracheids in *J. oblonga*. The results confirm the taxonomical treatment of Gymnosperms in "Flora of Iran" by Assadi [2].

**References**

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