



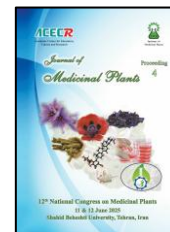
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An Ethnobotanical Study of Indigenous Knowledge and Multipurpose Plant Use among Seven Ethnic Groups in Northeastern Iran

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ABSTRACT

Ethnobotanical studies in border areas and among different ethnicities are crucial in documenting traditional knowledge and plant resource utilization [1]. The present research aims to document local knowledge in the border regions of NE Iran (Khorassan-e Razavi province) and explore the various factors influencing the evolution of this knowledge. Seventy-four border villages and towns were visited from 2019 to 2022. Using snowball and convenience sampling methods, interviews were conducted with 97 individuals from Afghan, Baloch, Fars, Kurd (Kurmanj), Lak, Turk, and Turkmen ethnicities. The interviews were semi-structured and also included group discussions. The Jaccard index and Venn diagram were employed for quantitative analysis. Two hundred twenty-seven plant species belonging to 170 genera and 68 families were identified. The collected plants have applications in the fields of medicine (171 species), food (86), industrial (26), ethnoveterinary medicine (19), food-medicine (16), economic (4), ritual (4). Reported common diseases included stomach aches, internal infections, constipation, colds, and diabetes. Some species such as *Ziziphora clinopodioides*, *Teucrium polium*, and *Achillea wilhelmsii*, were most frequently reported for disease treatment. The use of 33 plant species and the new uses of 133 species were recorded for the first time by the present study. Results of this study unravels exciting connections between geography, culture, and traditions. These different ethnic groups, such as the Fars, Turk, Kurmanj, and Lak, each have unique traditions regarding using local plants. However, they also share the use of certain plant species, suggesting a more profound cultural connection between these groups. The present research shows how environmental factors and ethnic backgrounds influence the way people use plants. This study enhances our understanding of the region's ethnobotanical heritage and highlights the importance of conservation and ethical considerations in utilizing and commercializing plant knowledge. The findings also highlight a diverse list of plants used for treatments and a wide range of applications. Phytochemical and pharmacological studies are recommended to determine the efficacy and safety of the plant species used.

References

1. Mir, T.A., Jan, M., Jan, H.A., Bussmann, R.W., Sisto, F., Fadlalla, I.M.T., 2022. A cross-cultural analysis of medicinal plant utilization among the four ethnic communities in Northern regions of Jammu and Kashmir, India. *Biology* 11(11), 1578. <https://doi.org/10.3390/biology11111578>.