

## Traditional knowledge of the use of wild medicinal plants in Chupanan rural district, north of Naein county

Sayed Mahmood Tabatabaei<sup>a</sup>, Mohammad Avatefi Hemmat<sup>b</sup>, Sayed Gholamali Jalali<sup>a</sup>, Gholamreza Amin<sup>c\*</sup>

<sup>a</sup>Department of Forestry, Faculty of Natural Resources, Tarbiat Modarres University, Tehran, Iran.

<sup>b</sup>Department of Forestry, Faculty of Natural Resources, University of Tehran, Tehran, Iran

<sup>c</sup>Department of Pharmacognosy, Faculty of Pharmacy, Tehran University of Medical Sciences, Tehran, Iran

### Abstract:

**Background and Purpose:** The use of traditional knowledge in the use of plants is a way of identifying plants and their properties which can be suitable in new drugs' formulation. Since traditional knowledge is being eroded with the loss of local informants, the study presents local communities' traditional knowledge of wild plants in Chupanan rural district, Isfahan Province, Iran.

**Methods and Materials:** The ethnobotanical information from the region' wild vegetation was obtained through participatory observation, semi-structured and open interviews with 114 informants. Classification was used to analyze the data. Indicators of Informants Consensus Factor (ICF), Cultural Importance (CI), Relative Frequency of Citation (RFC), and Use Value (UV) were also used to quantitatively analyze the plant species uses and importance.

**Results:** A total number of 114 plant species were recorded in 36 families. They were categorized in 13 classes including medicinal, food, toxic, instrumental, handicraft, construction, forage, fuel, washing, ornamental, religious, pesticide, and others. The plants of Asteraceae and Chenopodiaceae families were most used in the region. The highest level of informant consensus factor (ICF) was in the class of endocrine and metabolic diseases that were treated or alleviated using plants. The most important medicinal plants in the region were *Amygdalus lycioides*, *Zataria multiflora* Boiss, *Teucrium polium*, *Alyssum meniocoides* Boiss., *Ziziphora tenuior*, *Echinops ilicifolius* Bunge, *Amygdalus scoparia* Spach and *Ferula assafoetida* which had the highest CI and RFC among the medicinal plants in the region.

**Conclusion:** Findings showed the richness of indigenous knowledge and ethnological indices indicate the relationship between the importance of plant species and sharing of medical knowledge with plants among local people. They are more likely to use herbs to treat digestive disorders. One of the most important properties of wild plants is the nature of plants. Further research is needed to identify this aspect of plants' properties in ethnopharmacology and disease treatment.

**Keywords:** Ethnobotany, Ethnopharmacology, Traditional Ecological Knowledge, Indigenous Knowledge, Naein

Corresponding Author: amin@tums.ac.ir