

## Exploration of Medicinal Species of *Lamiaceae* family in Ilkhji and Sharafaldin Regions of Esat Azarbaijan in Iran

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**Abstract:** In this research medicinal species of *Lamiaceae* family were detected. As medicinal plants are suitable alternatives for synthetic and chemical drugs (Idu and Osemwegie) also because of medical and nutritional importance and valuable protein contents of *Lamiaceae* sp., all plants of *Lamiaceae* family are collected in Ilkhji and sharafaldin regions during growth seasons of 2007-2009. Plants were collected in 2 regions according to the classical method of regional floristical studies. Collected plants were recognized by valid references (Parsa 1943-1950; Reshinger, 1963-1990). Then medical species are chosen by using pharmacopeias. The results of the current study demonstrated that at Ilkhji region 16 species belong to 8 genres and at Sharafaldin region 4 species belong to 4 genres that all of them belong to *Lamiaceae* family. Among these species, 18 species at Ilkhji and sharafaldin region had medicinal properties. Medicinal species of these 2 regions consist of: *Marrubium vulgare*, *Mentha longifolia*, *Nepeta meyeri*, *Nepeta persica*, *Nepeta racemosa*, *Phlomis olivieri*, *Salvia nemorasa*, *Salvia sahendica*, *Salvia spinosa*, *Stachys virgata*, *Stachys inflata*, *Stachys lavandifolia*, *Stachys turcomanica*, *Stachys persica*, *Thymus cotschyanus*, *Thymus pubescens*, *Ziziphora tenuior* *Lamium amplexicaule*. The results of this study showed that the region has a great potential for producing respective medicinal plants species belong to those families. Medicinal plants recently become more important because of their medicinal uses and in addition they are valuable source of protein.

**Key words:** Family, medicinal plant, pharmacopeia

### INTRODUCTION

Medicinal plants obtained from wild habitats are found in different natural ecosystems of the forests, grasslands, woodlands, wetlands, in field margins and garden fences, as weeds and in many other microhabitats from where they are harvested when the need arises. These are free access resources to all who want to use them for the family for practicing traditional medicine or for sales. As the treatment of specific disease involves numerous plants and different house holds use different plant mix and there are variation across households in preferences, the cultural set up promotes not only conservation but also diversification of these resources. Today according to the World Health Organization, as many as 80% of the world's people depend on traditional medicine for their primary health care needs. There are considerable economic benefits in the development of indigenous medicines and in the use of medicinal plants for the treatment of various diseases (Azaizeh *et al.*, 2003). Plants have been used in traditional medicine for several thousand years (Abu-Rabia, 2005). The traditional culture worldwide are more or less endangered as a result

of increasing legislative and moral supports accorded orthodox practice over native medicine (Idu and Osemwegie, 2007). Legumes are considered to be a very good source of polyphenolic compounds that may act as chemo preventive agents, especially by their antioxidant properties (Dulger and Gonuz, 2004). With attention to exploration of important medicinal species of *Fabaceae* family in two regions (Joudi and Habibi Bibalani, 2010). Aim of this study was to introduce of medicinal species of *Lamiaceae* family in Ilkhji and Sharafaldin regions, Eastern Azerbaijan province-Iran.

### MATERIALS AND METHODS

All the plant samples in this research, belong to *Lamiaceae* family, were gathered from Ilkhji and Sharafeddin areas which is located in East Azerbaijan province in Iran. Ilkhji area is located in 25 km south west of Tabriz and the geographic coordinates 45.59 to 12 and 46.3 Eastern longitudes and 37.55 to 37.57 North latitude and Shabestar city is located in the north-west of Tabriz and the geographic coordinates 37°42' of North latitude and 45°5' and 46°9' East longitude. Plant samples belong

to *Lamiaceae* family from Yal, Khaselar, Kordlar and Chaman areas and from Sharafaddin area of Shabestar city as well, were obtained during winter of year 2007 to fall year 2009. All the plant samples were pressed according to standard guides. If the plant samples were too long, then they were cut from several areas, so the sample contained the complete plant. At the next stage, samples were stick to the herbarium Cardboards and then were identified using floras, keys, illustrations and explanations which are available for different sources of plant Species. Finally, the medicinal species belong to this family were introduced using valid standard pharmacological sources.

### RESULTS AND DISCUSSION

Result of survey show that 16 species belong to 8 genera (Table 1) and 4 species with 4 genera are in common practice in the traditional system of health care of 2 regions. From this study 18 species were introduces as a medicinal plants. Results showed in Table 1, 2 and 3.

This report is based on the survey of medicinal plants from different communities in east Azerbaijan State, Iran. The present study documents data regarding the availability of ethno medicinal plant resources, which have various potential uses. All the plants mentioned in this study are very popular among the communities of east Azerbaijan and enjoys a good reputation in Tradomedical practice in the areas. From this study, it was found that plants are used to treat mostly as Laxative, Anti bacterial, Antioxidant, Sedative, Diuretique, Cholagoge and Cardio tunica. We suggest a detail

Table 1: Plant species in *Lamiaceae* in Ilkhji region

Family	Genus	Species	Growth form
<i>Lamiaceae</i>	Marrubium	<i>M. vulgare</i>	Therophite
	Mentha	<i>M. longifolia</i>	Hemicriptophite
	Nepeta	<i>N. meyeri</i>	Geophite
	Nepeta	<i>N. persica</i>	Geophite
	Nepeta	<i>N. racemosa</i>	Geophite
	Phlomis	<i>Ph. olivieri</i>	Hemicriptophite
	Salvia	<i>S. nemorosa</i>	Hemicriptophite
	Salvia	<i>S. sahendica</i>	Hemicriptophite
	Salvia	<i>S. spinosa</i>	Hemicriptophite
	Salvia	<i>S. virgata</i>	Hemicriptophite
	Stachys	<i>S. inflata</i>	Hemicriptophite
	Stachys	<i>S. lavandifolia</i>	Hemicriptophite
	Stachys	<i>S. turcomanica</i>	Hemicriptophite
	Thymus	<i>Th. cotschyanus</i>	Hemicriptophite
	Thymus	<i>Th. pubescens</i>	Hemicriptophite
	Ziziphora	<i>Z. tenuior</i>	Hemicriptophite

Table 2: Plant species in *Lamiaceae* in Sharafaldin region

Family	Genus	species	Growth form
<i>Lamiaceae</i>	Lamium	<i>L. amplexicaule</i>	Therophite
	Mentha	<i>M. longifolia</i>	Hemicriptophite
	Salvia	<i>S. nemorosa</i> L.	Hemicriptophite
	Stachys	<i>S. persica</i>	Hemicriptophite

assessment of resource quantities productivity potential, sustainable harvesting methods, domestication possibilities, market value of potentially promising species and importantly, equitable benefit sharing regiments, this view is also shared by Shrestha and Dhillion (2003). Bhat (1997) recently reviewed diverse sources of such information in traditional abstracting services as well as in a variety of online electronic databases. One hundred and sixty-one species out of 1132 are new records for the square B6 and 95 are new for C6. These new records have been published previously

Table 3: Medical species in *Lamiaceae* in Ilkhji and Sharafaldin regions

Region	Genus	species	Medical property
Sharafaldin	Lamium	<i>L. amplexicaule</i>	antirheumatic, excitant, fever-reducing, laxative, stimulant, and has agents that induce sweating.
Ilkhji	Marrubium	<i>M. vulgare</i>	Vermifuge- respiratory- purgative
Ilkhji and Sharafaldin	Mentha	<i>M. longifolia</i>	For the treatment of colic, menstrual disorders, indigestion, flatulence, pulmonary infection and congestion, headache, fever, cough, colds and urinary tract infections
Ilkhji	Nepeta	<i>N. meyeri</i>	Antimicrobial
Ilkhji	Nepeta	<i>N. persica</i>	Anxiolytic
Ilkhji	Nepeta	<i>N. racemosa</i>	Carminative- tonic- diaphoretic, refrigerant and slightlyemmenagogue and mildly timulating
Ilkhji	Phlomis	<i>Ph. olivieri</i>	Antimicrobial- Antinociceptive- Antioxidant
Ilkhji and Sharafaldin	Salvia	<i>S. nemorosa</i>	Antinociceptive -antioxidant
Ilkhji	Salvia	<i>S. sahendica</i>	Antioxidant-antibacterial-anti-inflammatory-anti infection
Ilkhji	Salvia	<i>S. spinosa</i>	Anti stomach disturbance-Anti inflammatory gargle- Antiseptic-Anti tussive- Anti haemorrhoid pain- Anti rheumaticastringent-carminative and hypertensive
Ilkhji	Stachys	<i>S. virgata</i>	Antioxidant
Ilkhji	Stachys	<i>S. inflata</i>	Anti inflammatory
Ilkhji	Stachys	<i>S. lavandifolia</i>	Anxiolytic
Ilkhji	Stachys	<i>S. turcomanica</i>	Antioxidant
Sharafaldin	Stachys	<i>S. persica</i>	anti-inflammatory
Ilkhji	Thymus	<i>Th. cotschyanus</i>	Cardiotonic- Hypotensive- Antibacterial
Ilkhji	Thymus	<i>Th. pubescens</i>	Antibacterial
Ilkhji	Ziziphora	<i>Z. tenuior</i>	Anti diarrhea, febrifuge and pectoral effects

(Ekim *et al.*, 1986). Properly studied and recorded, this traditional knowledge could revolutionize the world of medicine.

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