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ORIGINAL CONTRIBUTION

Medicinal plants of Farashband tribe's winter pastures and their traditional uses

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Abstract. Medicinal plants are a large group of plants used to prevent and or treat human and animal diseases. The World Health Organization (WHO) estimates that 80 percent of some Asian and African countries presently use herbal medicine for some aspect of primary health care. Since migrating nomads have more connection with nature and on many days of the year they are far from the cities, therefore they take medicinal plants more than other people. By several trips to study areas, 134 plant species distributed in 97 genera and 37 families were collected and identified. Based on the exhaustive interviews with indigenous people and medicinal plants, these plants' medicinal plants were listed. Investigations have resulted that 67 species of these plants have medicinal uses. These medicinal species belong to 31 families. Asteraceae with 11 species, Chenopodiaceae with seven species, and Lamiaceae with six species are the most important medicinal plant families. The major life forms of the medicinal plants in this area were annual herbs followed by perennial trees and shrubs with a proportion of 34.32% and 26.86%, respectively. 17.91% of the species are perennial herbs, 14.92% are perennial bushes, and 5.97% are annual bushes. Our results showed leaf and flower have the most traditional uses on the Farashband tribe, with a proportion of 62.69% and 34.33%.

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INTRODUCTION

Plants have been the basis for medical treatments through much of human history, and such traditional medicine is still widely practiced today. Although currently, most of the new medicines are chemicals, approximately 30% of medicinal products have plant origin [1]. The WHO estimates that 80 percent of the populations of some Asian and African countries presently use herbal medicine for some aspect of primary health care [2]. Pharmaceuticals are prohibitively expensive for most of the world's population, half of which lived on less than $2 U.S. per day in 2002 [3]. In comparison, herbal medicines can be grown from seed or gathered from nature for little or no cost. Native Americans medicinally used about 2,500 of the approximately 20,000 plant species that are native to North America [4]. Tribal and folk medicinal practices have medicinal herbs and other forest products as their base and comprise the largest part of primary health care in south Asia even today.

Improvement of technology, civilization and usage of unnatural fast-food caused increase gap of new generation and nature. Hence, uses of knowledge and experience native people that day by day being forgotten is necessary [5]. Looking at the four thou-

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sand years' written history of plants used to treat diseases shows that it has many ups and downs and over the centuries it has evolved. At first, some healers only knew that some leaves can soften the wounds or heal it faster but over the time; they found more information in this case. In fact, knowledge of plants uses is as old as human civilization and culture and almost all groups and tribes benefited from plants which are grown around them [6]. With the advancement of science and new discoveries in biochemistry and physiology of plants components, beauty and health care as well as medical science has gone step by step to the herbalism and medical plant uses. Yineger *et al.* [7] studied traditional medicinal plant knowledge and use by local healers in Sekoru District, Jimma Zone, Southwestern Ethiopia, they were reported that 27 plant species belonging to 27 genera and 18 families were commonly used to treat various human ailments. They found most of studied species (85.71%) were wild and harvested mainly for their leaves (64.52%). The most cited ethno medicinal plant species was Alysicarpus quartinianus [7]. Teklehaymanot *et al.* [9] in a study entitled Ethno botanical study of medicinal plants used by people in Zegie Peninsula, Northwestern Ethiopia reported that sixty-seven medicinal plants used as a cure for 52 ailments. They are distributed across 42 families and 64 genera. They described that the most frequently utilized plant part was the underground part (root/rhizome/bulb) (42%) and the largest number of remedies was used to treat gastrointestinal disorder and parasites infections (22.8%) followed by external injuries and parasites infections (22.1%). They found the administration routes are oral (51.4%), external (38.6%), nasal (7.9%), and ear (2.1%) [9]. Sartavi *et al.* [10] in Bushehr province of Iran collected 70 species of medicinal plants.

They reported: the most important medicinal plants families in the province are: Cruciferae, Umbelliferae, Compositae, and Labiatae [10]. Alavi [11] in a study on the folk uses of wild plants in northern Iran found that 35 species of wild plants used by the people as medicinal plants. In an ethnobotanical study of medicinal plants marketed in La Paz and El Alto cities in the Bolivian Andes, Macía *et al.* [12] reported medicinal information for about 129 species, belonging to 55 vascular plant families and one uncertain lichen family. The most important family was Asteraceae with 22 species, followed by Fabaceae with 11, and Solanaceae with eight. They found most remedies were prepared from a single species, however some applications were always prepared with a mixture of plants, e.g. for abortion, and the complex of luxation and swellings. The part of the plant most frequently used was the aerial part (29.3%) and the leaves (20.7%). The remedies were mainly prepared as a decoction (47.5%) and an infusion (28.6%) [12].

MATERIAL AND METHOD

Study Region

Farashband city is located at 172 km west of Shiraz in Fars province in Iran. The city is limited from north to Koohmareh-Sorkhy, from East to Firooz-abad, from South to Lar and from west to Ahrom of Bushehr province. It is located in a longitude of 51° , 30' to 52°, 31' east and a latitude 28°, 00' to 29°, 28' north, with a surface area of 59455 Hectare. The climate of the study area is hot-arid desert climate. Its average annual temperature of is over 25 and annual precipitation is about 250 to 300 mm. August with an average temperature of 36.7° C is the hottest month and January and February with an average temperature of 13.5° C and 13.7° C are the coldest months of the year. Average of maximum rainfall in the period 27 years occurred in January with 70.1 mm and average of minimum rainfall with zero mm belong to July and August. Kheir-abad, Mongarak, Chah-gezi, Roo-hoony, Bermeh, Khormayek, Pahna-pahn and Balout-abad located on around of Farashband city

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are the Farashband tribe's winter pastures.

Method

To identify the plants species of the study are all species were collected from the area, then transferred to the plant laboratory of Sari agricultural sciences and Natural Resources University and with the flora references and experiences of author were identified accurately.

Sake to introduce medicinal plants species of the study area questionnaire and interviews data were collected from Farashb and tribe. Then common name of plants that people were wrote in the questionnaire form or told in interviews as medicinal plants identified using varying medicinal plants and traditional medicine references. Some of unknown plants that by this method did not identify by help of some experts was collected and compared with the collected plants in the plant laboratory. Also, the sites of species distribution, their medicinal properties, and their useable segments were surveyed using various sources. Ninety seven people-aged between 40 to 70 years-individually and or in groups were interviewed and the questionnaire forms were completed with them or interviewer. Interviews continued until the repetitive response was demonstrated for the researcher and the interviewer will not add anything new.

RESULTS

By several trips to study areas a total of 134 plant species distributed in 97 genera and 37 families were collected and identified. Summing up questionnaire forms and interviews were resulted that 67 species of these plants have medicinal uses. These medicinal species belongs to 58 genera of 31 families. Among the organs, leaves that use as medicine in 47 species have the most consumption. In 32 species flowers, in 21 species stems, in 8 species aerial parts of plant and in 7 species roots have medicinal usages. Gum-that uses in 4 species for medicinal purposes-has the lowest consumption (Figure 1).

These medicinal plants frequently use for treat to stomach disease, colds, digestive disorders, psychiatric disorders, vomiting. The most usage method of these medicinal plants among the native tribes of the study area is decoction and brew. The most frequently of medicinal plants were seen in 3 families Asteraceae (with 11 species), Chenopodiaceae (with 7 species) and Lamiaceae (with 6 species). 27 species of the medicinal plants are annual herbs, 18 species are trees and shrubs, 12 species are perennial herbs and 10 species are forbs (Figure 2).

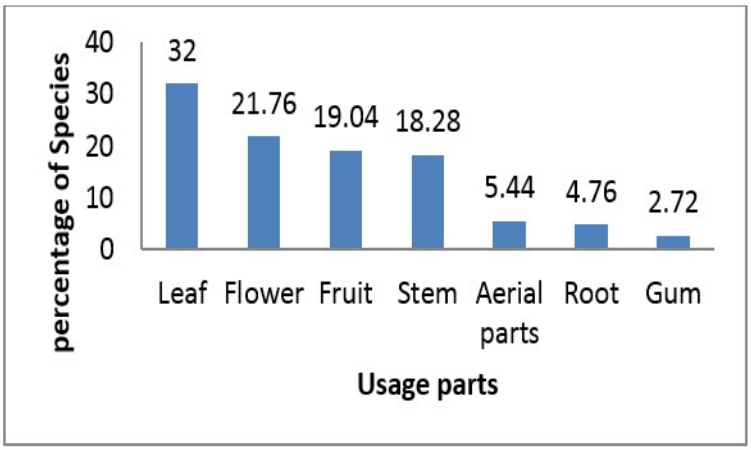

FIGURE 1 . Species frequency with respect to their useable organs

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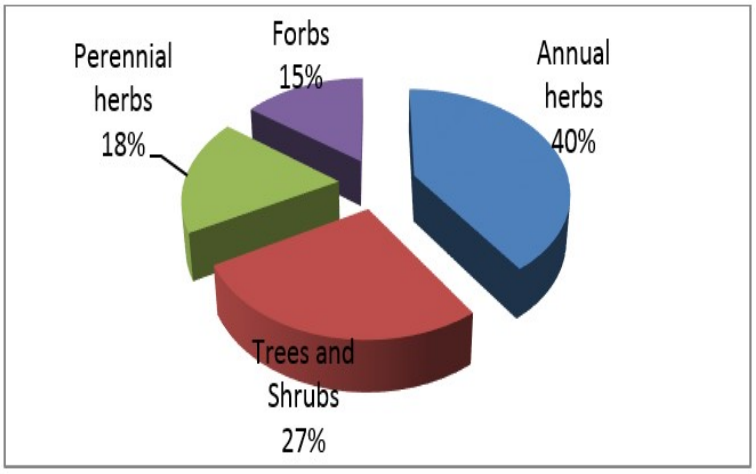

FIGURE 2 . Percentage of the species based on their vegetation period

TABLE 1 . Botanical properties of medicinal plants of Farashband tribe's winter pastures, their usable parts & traditional uses

	Species	Family	Local Name	Persian Name	Useable Parts*	Vegetative Form**	Traditional Uses	Method of Use
1	Acer cinerascens	Acaraceae	Keikoom	Keikom	Fr	T	Memory Booster, Distraction therapy, Intelligence, Performance-enhancing	Orally
2	´ööo Achilla Millefilium	Astraceae	Sari Gool, Berenjas	Boomadarn mahalli	L,F,S	F	Treat to: Diarrhea, Nervous system diseases, Diabetes, Hypertension, Blood fat	Decoction & Brew
3	Achilla santolina	Astraceae	Berenjas	Boomadarn	L,F,S	AH	Bellyache, Diarrhea, Infectious, Anti-stimulation of stomach, Diabetes	Decoction & Brew
4	Alcea aucheri	Malvaceae	-	Gol Khatmi	L,F	PH	Colds, Influenza, Sore throat	Decoction
5	Alyssum Spp	Crucifereae	-	Ghoddomeh Shirazi	Fr,L	AH	Stomachic, Fattening drug	Brew
6	Amygdalus haussknechtii	Rosaceae	Arjeen	Arjanak	L,F	S	Anti-Hair Loss, Hair color	External with Henna
7	Amygdalus Lycioides	Rosaceae	Chali	Tangers	L,F,Fr	S	Anti-Hair Loss, Relieve hoarseness	External with Henna
8	Amygdalus Scoparia	Rosaceae	Berogh	Badam Koohi	Fr,G	T	Toothache, Relieve hoarseness	Fr= Decoction, G=Placed on the tooth
9	Anabasis Aphylla	Chenopodiacea	Oldorok	Shepesho	A	PH	Insect repellent	Hung from the ceiling
10	Anthemis nobilis	Astraceae	Momonak	Babooneh	L,F,S	AH	Psychiatry, Colds, Antidepressants Anorexia Treatment Anti-Fever, Anti-asthma, Tonic	Decoction & Brew
11	Artemisia aucheri	Astraceae	Youshagh	Dermaneh Koohi	L,F,S	PH	Anti-parasitic, Digestive	Decoction & Brew
12	Artemisia sieberi	Astraceae	Youshagh	Dermaneh Dashti	L,F,S	F	Anti-parasitic, Anti-Helminthic	Decoction & Brew
13	Calotropis perocera	Asclepiadacea	Estabragh	Estabragh	R	S	Anti-Fever	Decoction
14	Capparis Capparis var.muronifolia	Capparidacea	Lageji	Kavar	Fr,B	F	Breast-pain, Kidney infection, Anti-anemia	Decoction, Orally
15	Capparis Spinosa	Capparidacea	Lageji	Kavar	Fr	F	Dizziness, Anti-anemia	Orally
16	Cardaria Draba	Crucifereae	Moocheh	Ozmak	A	AH	Astringent, Prevent of stomach and uterus bleeding, Kidney disease	Decoction
17	Chenopodium Album	Chenopodiacea	Salimeh	Salmeh Tareh	L,F,S	AH	Antinausea, Bellyache, Stomach cramps	Orally
18	Chrozophora tinctoria	Euphorbiaceae	Chabla	Goosh bareh	L,F	AH	Earache, Sore throat, Colds	Incense
19	Citrullus schrad	Cucurbitacea	Achi Gharpose	Hendevaneh abujahle	Fr,Se	AH	Hypertension, Anti-parasitic, Hyperlipidemia, Breast-pain Diabetes	Orally, Rub
20	Cotoneaster Persica	Rosaceae	Mordar Aghaji	Shir khesht	L,Fr	S	Baby Jaundice, Anti-Fever	Wash, Incense
21	Cynodon dactylon	Poaceae	Margh	Margh	A	PH	Digestive, Antitussive, Diarrhea, Stomach cramps	Fr= Orally, Other= Decoction
22	Dianthus tabrizianus	Caryophyllaceae	Mikhak	Mikhak	Fr	S	Toothache, Body Perfume, Mouth odor removal, Eyesight Improvement	Placed on the tooth
23	Echinops Aucheri	Astraceae	Shekar tighool	Shekar tighal	L,S	F	Relieve hoarseness, Sore throat, Antitussive	Fr= Orally, Other= Decoction

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TABLE 1. continue.....

24	Ephedra foliata	Ephedraceae	Pazan soghli	Rish boz	L	PH	Bracing, Anti-Fever,	Orally, Brew
25	Ephedra procera	Ephedraceae	Pazan soghli	Ephedra	A	PH	Anti-asthma	Decoction
26	Eruca Sativa	Brassicaceae	Khardel	Mandab	Se	AH	Sexuality enhancement	Orally
27	Eryngium billardieri	Apiacea	Zol	Zool	S	PH	Skin Moisturizer	Smoke
28	Ficus Carica	Moraceae	Anjeal	Anjeer	Fr	T	Memory Improvement, Anti-anemia Intelligence, Increaser	Orally
29	Fraxinus rotundifolia	Oleacea	Ghoosh euzimi	Zaban Gonjeshk	Fr	PH	Anti-Caries	Placed on the tooth
30	Frulago angulata	Umbelliferae	Chool	Chovile	L,F,S	AH	Digestive diseases, Home Perfume, Anti-stimulation of stomach	Orally
31	Fumaria asepala	Fumariaceae	Shatareh	Shah Tareh	A	AH	Treat of Itching, Hyperlipidemia, Jaundice,	Decoction
32	Glycyrrhiza glabra	Fabaceae	Pian(Mag)	Shirin bayan	R	F	Colds, Sore throat, Antitussive, Psychiatry Anti-asthma, Banged remediation	R= Decoction, Orally
33	Gundelia tournefortii	Astraceae	Kangar	Kangar	L,R	F	Stomach booster, Heartache, Jaundice, Digestive, Colds	R= Orally, L= Brew
34	Halocnemum strobilaceum	Chenopodiacea	Shoora	Alaf shoor	A	F	Digestive, Anti-Headache, Expectorants	Decoction & Brew
35	Hypericum Perforatum	Clusiaceae	Hoolileh	Chayeh koohi	L,F,S	AH	Dizziness, Psychiatry	Decoction & Brew
36	Lactuca ativa	Astraceae	Aghja ghoyogh	Kahoyeh vahshi	L,G	F	Stomachic, Sedative, Earache,	L= Orally, G=Rub
37	Malva parvilflora	Malvaceae	Toola	Panirak	L,Fr	AH	Kidney pain, Infectious, Colds, Earache, Anti-inflammation, Relieve hoarseness, Digestive	Brew, Incense
38	Matricaria chamomilla	Astraceae	Moomoonak	Babooneh	L,F,S	AH	Anti-parasitic, Hyperlipidemia, Hypertension, Diabetes, Menstrual stimulant, Tonic, Psychiatry	Decoction & Brew
39	Menta longifolia	Lamiaceae	Yarpose	Pooneh	L,F	PH	Antitussive, Anti-heartburn, Bellyache, Anti-Vomiting, Sore throat, Carminative	́o Orally, Decoction
40	Mentha spicata	Lamiaceae	Dagh Yarposi	Pooneh kohi	L,F	AH	Diarrhea, Mouth odor removal, Anti-Vomiting, Bellyache	Orally, Decoction, Hung from the ceiling
41	Myrtus communis	Myrtaceae	Moord	Moord	S,L	S	Foot	Body & Mouth odor removal & Gargle, Wash
42	Nerium indicu	Apocynaceae	Khar zahleh	Khar zahreh	L	S	Anti-Dandruff, Heartache	Decoction
43	Oliveria decumbens	Umbelliferae	-	Dan danak	A	AH	Stomachache, Digestive, Carminative	Decoction & Brew
44	Papaver tenuifolium	Papaveraceae	Norooz gooli	Shaghayegh vahshi	L	AH	Bracing, Psychiatry	Brew
45	peganum harmala	Zygophyllaceae	Euzerlik	Esfand	L,F,S,Fr	F	Disinfectants	Smoke
46	Perosopis Fracta	Papilionaceae	-	Kahoorak	R,L	T	Diuretics, laxative, Lowering blood	viscosity Brew
47	phlomis aucheri	Lamiaceae	Ghoozi ghoolag	Goosh bareh	L,F	PH	Acne Removal, Anti-Fever, Colds	Incense
48	Pistacia atlantica	Anacardiaceae	Ban	Pesteh vahshi	R,Fr,G	T	Antitussive, Colds, Sore throat, Relieve hoarseness, Knee Pain remediation, Jaundice, Toothache, Anti-Caries, Treat of feet or hand Cracking, Expectorants, Digestive	Decoction, External, Chew
49	Pistacia Khynjuk	Anacardiaceae	Koolookhoon	Kal khonak	L,Fr,R,G,B	T	Antitussive, Colds, Sore throat, Relieve hoarseness, Knee Pain remediation, Menstrual stimulant, Toothache	L= Incense, B=Decoction, Fr=Orally, G=Poultice
50	Rumex chalepensis Miller	Polygonaceae	Toroshak	Torshak	L,F,S	AH	Antinausea, Expectorants	Orally
51	Rumex deritatus	Polygonaceae	Toroshak	Torshak dandanehdar	L,F,S	AH	Antinausea, Vomiting of Pregnancy period, Colds, Stomachic, Bracing	L= Brew, Other= Orally
52	Salsola Crassa	Chenopodiacea	-	Shoor alvan	A	F	laxative, Bladder disease	Orally, Decoction
53	Scariola orientalis	Astraceae	-	Gav chagh kon	L	AH	Diabetes, Hyperlipidemia	Orally
54	secal montanum	Poaceae	-	Chavdar	Fr	PH	Hypertension, Diabetes, Heart Strengthen	Orally
55	Seidlitzia rosmarinus	Chenopodiacea	Chaghan	Oshnian	L,F	S	Anti-Dandruff, Anti-Hair Loss	Decoction
56	Spinacia oleracea	Chenopdiaceae	Esfenaj	Esfenaj	L,S	AH	Stomach booster, Digestive	Orally
57	Suaeda aegiptica	Chenopodiacea	-	Siah shooreh mesri	L	F	Sedative, Expectorants	Brew
58	Tanacetum parthenium	Astraceae	Sighirmomonaki	Babooneh gavi	L,F,S	AH	Psychiatry, Sedative, Digestive	Decoction & Brew

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TABLE 1. continue....

59	Teucrium Polium	Lamiaceae	Halpeh	Kalpooreh	L,F	F	Stomachic, Colds, Hypertension, Heartache Anti-Headache, Anti-Fever	Decoction & Powder
60	Thymus Vugaris	Lamiaceae	Oshom	Avishan	L,F,S	F	Digestive, Colds, Psychiatry Anti-Vomiting, Anti-poisoning	Decoction, Brew, Orally
61	Tribulus trrestris	Zygophylaceae	-	Khar khasak	L,Fr	AH	Hypertension, Hyperlipidemia, Diabetes	Fr=Orally, L=Brew
62	Urtica Dioica	Urticaceae	Gazgazak	Gazaneh	L,S	AH	Foot & Body odor removal	Fresh or Decoction into the shoes
63	Vitex psedo – negundo	Verbenaceae	Beniroo	Bengro	Fr	S	Anti-heartburn	Orally
64	Zataria multiflora	Lamiaceae	Oshom	Avishan Shirazi	L,F,S	F	Distraction therapy, Intelligence Increaser, Sedative, Menstrual stimulant, Stomachic, Carminative	Decoction & Powder
65	Ziziphus nummularia	Rhamnaceae	Rimlik	Remlik	L,Fr,R	S	Digestive, Anti-heartburn, Antinausea, Anti-gastritis, Anti-Hair Loss, Anti-Dandruff	R=Decoction, Other= Orally
66	Ziziphus Spinachriti i	Rhamnaceae	Koonar	Konar	L,Fr,R	S	Digestive, Anti-heartburn, Antinausea, Anti-gastritis, Hair-Strengthen, Anti-Dandruff , Anti-Hair Loss	R=Decoction, L & Fr= with Henna, Orally
67	Zygophyllum propinguum	Zygophyllaceae	-	Gheech	S	S	Anti-Stomach worm	Decoction

* Fr=Fruit, L=Leaf, F=Flower, R= Root, S=Stem, G=Gum, B=Bark, A=Aerial parts, Se=Seed

** S= Shrub, T= Tree, AH= Annual Herb, F= Forb

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