

İran'ın Komican İlçesi Bitkilerinin Etnobotanik Araştırması

Ethnobotanical Investigation of the Plants of Komijan County, Iran

Tahereh GHASEMKHANI¹  - Tayebbeh GHASEMKHANI² 

1. Uzman, tahereh.ghasemkhani@gmail.com

2. Uzman, tayebbehghasemkhani1@gmail.com

Araştırma Makalesi Research Article



10.5281/

zenodo.12626994

Geliş/Received: 15.05.2024

Kabul/Accepted: 26.06.2024

Yayım/Published: 30.06.2024



buranadergisi.com

Öz

Etnobotanik; botanik ve halk biliminin keşiştiği disiplinler arası bir bilim dalıdır. Bu araştırmanın ana amacı İran'ın Merkezi ilinin batısında yer alan Komican ilçesini etnobotanik açıdan araştırmaktır. Bu bölgede etnobotanik üzerine bir çalışma yapılmadığı göz önüne alındığında, mevcut araştırmada bu konunun yapılmasının temel nedeni yerli bilgilerin unutulmasını önlemektir. Bu amaçla, 121 bitkinin bilgileri 2023-2024 yıllarında sözlü kaynaklardan (50-90 yaş arası kadın ve erkek katılımcılar) ve aynı zamanda bazı bilimsel kaynaklardan derlenmiştir. Makalede her bitkinin yöresel ve bilimsel adı ile cinsi ve familyası yazılırken bölgede kullanılan tıbbi özellikleri, uygulama yöntemi ve kullanılan bitki organı da kaydedilmiştir. Sonuç olarak üç büyüme formu; ağaç, çalı ve bitki olduğu bildirilmiştir. Sonuçlara göre, toplanan veriler arasında en yüksek yüzdeyi otsu bitkiler (%66.1), en düşük yüzdeyi ise ağaç türlerinin (%16.5) oluşturduğu görülmüştür. Kullanım türüne göre yapılan gruplandırma ise türlerin çoğunluğunun yenilebilir (%54.5) olduğu ve %32.2'inin diğer uygulamalar grubunda yer aldığı görülmektedir. Bitki türlerinin önemli bir yüzdesinin (%47.1) çok çeşitli tedavi edici özelliklere sahip olduğunu belirtmekte fayda vardır. Bitki adları incelendiğinde, bölgedeki bitki adlarının hayvan adları, hayvan vücut kısımları, bitki rengi, habitat, koku, yerel inançlar vb. ilkelere göre adlandırıldığı görülmektedir. Komican ilçesindeki önemli bitki çeşitliliği, kimyasal ilaçların yan etkileri, biyoçeşitliliğin korunması ihtiyacı ve istihdam yaratılması dikkate alındığında bölgede etnobotanik çalışmaların geliştirilmesi ihtiyacı derinden hissedilmektedir.

Anahtar Kelimeler: İran, Komican, Etnobotanik, Şifalı Bitkiler

Abstract

Ethnobotany is a branch of interdisciplinary science that is result of botany and folklore intersection. In this research, our aim is to investigate ethnobotanical studies in Komijan County, located in the west of Markazi province, Iran. Given that no ethnobotanical study has been done here, the main reason caused this topic to be done in the present research is preventing the native knowledge from forgetting. During 2023-2024, the information around 140 plants was collected through oral sources (elderly men and women at the age of 50-90) as well as some scientific and specialized books. The local name, scientific name, genus and family name are mentioned in the article, also the medicinal properties, method of application and plant organ used in the region were recorded. Eventually, three growth form; tree, shrub and herb were reported. According to the results, among the collected data, the highest percentage was allocated to herbaceous plants (66.1%) and the lowest percentage to shrub species (16.5%). On the other hand, the grouping based on the type of application showed that most species were edible (54.5%) and 32.2% of them were in the other applications group. It is worth noting that a significant percentage of plant species (47.1%) possess a wide range of therapeutic properties. Investigating the names of plants showed that the plants naming in the region is following principles such as animal names, animal body parts, plant color, habitat, smell, local beliefs, etc. Due to the significant plant diversity in Komijan County, high side effects caused by chemical drugs and the need to preserve biodiversity, and considering job creation, developing ethnobotanical studies in the region is deeply felt.

Keywords: Iran, Komijan, Ethnobotany, Medicinal Plants

Introduction

Nowadays, ethnobotany is a diverse and multidisciplinary subject used in agriculture, botany, ethnology, anthropology, and linguistics fields. In fact, ethnobotany is combination of two words “ethno”; means the study of people and “botany” the study of plants. There are considerable economic benefits in development and use of local medicines and medicinal plants for treatment of various diseases (Neelam etc., 2018, p. 1550).

The earliest historical records of medicinal herbs belong to Sumerian civilization, where hundreds of medicinal herbs such as opium are listed on the clay tablets (Awuchi, 2019, p. 221).

Methods of treatment used for different diseases based on local plants is called folklore method (Ramesh Singh etc., 2019, p. 614). Action should be taken as soon as possible to preserve existing traditional knowledge and to ensure about its conveying to future generations (Karakose, 2022, p. 577). Traditional plant medicines still play an important role in the modern drug industries due to the minor side effects as well as the synergistic action of compounds (Ahmad Dar etc., 2017, p. 350).

These days, different regions of the world such as, Brazil (Nascimento, 2020), Norway (Teixidor-toneu, 2020), and many other countries are using this knowledge. Generally, ethnic people possess a deep and universal knowledge about the traditional knowledge system as a gift dedicated to civilized population (Dixit, 2019, p. 122).

Recently, many ethnobotanical surveys from different regions of Iran has been done. For example, some of them include surveys on areas of Lar (Zolfaghari Baghersad etc., 2024), and Baluchestan (Didehvar etc., 2021). Also, using folk medicine in Turkish-speaking regions of Iran is really significant. For instance, some of researches has been done in Ahar-Arasbaran (Ebadi etc., 2019, p. 212) and Zanjan County (Moghanloo etc., 2019, p. 121).

According to the latest official census reports of Iran, Komijan County, centered in Komijan region, located in the west of Markazi province, has a population of about 36,441 (URL-1).

Majority of people language in this county is Azerbaijan Turkish (Komijani Bozcheloei etc., 2022, p. 205). Komijan County consists of two mountainous and plain sections. On one hand, this subject has led to the plant diversity in this County, and on the other hand, it has caused expanding plants uses in the culture of people region.

The significant note is that the reflection of the name and using plants in Komijan County Turkish culture was not only limited to some matters such as nutrition and medicine, but also its effect can be seen in oral literature (Ghasemkhani, 2018, p. 137), the toponyms, and religious beliefs of people of this County, that separately, each of these topics are worthy for an independent research.

For example, Ghasemkhani and Karimi have mentioned the significant number of phytotoponyms such as *Kəklikote Dərəse*, *Sare Tikannik*, *Boyanne*, *Üzəllikər*, *Ulğun Çay*, *Bostan Çayur*, *Uşqunne Dərə*, *Yannaxluq*, *Yovşanle*, *Vərəkzar*, *Qəmişle*, *Qinnirqəlik*, *Qiyaxle*, *Göbələkle*, *Qazyaglə*, *Yannaxluq*, *Süpürgəlik*, etc. in their research on toponyms of Komijan County (Ghasemkhani and Bagherzadeh Karimi, 2023, p. 86-100).

Also, studies show that in various region of Komijan County, some trees such as plane and ash are considered as sacred trees (Gün and Kasımhanı, 2023, p. 133-135). It should be mentioned that although the using plants in people lives in this region is significant, no comprehensive research related to the ethnobotanical view has been done in Komijan County so far. If local knowledge about plants of this region is not transferred to young generation, these valuable oral sources can be forgotten. Therefore, the mentioned cases indicate the necessity of doing this survey.

1. Methods

The current research is the result of a field study carried out in some of cities and villages of Komijan County in (2023-2024). For this purpose, both men and women who generally were illiterate or had primary education were interviewed which were totally 10 people. They were between 50 and 90. And necessary information about the names and application of 121 plants in Komijan region was collected and recorded with local pronunciation and alphabet of Azerbaijan Turkish. In addition, in order to get more useful data for the article, reference sites (URL-2) were used to extract the scientific and family names of the plants too. Finally, for comparing the local names and plants used in Komijan County with other regions of Iran related to this region culturally and linguistically, the information collected from other regions was matched with the data of Komijan region.

2. Results and Discussion

2.1. General Analysis of the Studied Plants

Based on the information of Table 1, the investigated plants can be divided into three categories based on their growth form: herb, tree, and shrub, and the share of each category is 66.1%, 17.4%, and 16.5%.

The plants of Komijan region are classified into 4 different group medical, edible, cattle nutrition, and other applications, in this respect, the use of edible and medical plants with 66 and 57 items have the most frequency and the application of cattle nutrition with 18 items has the lowest frequency. And also, for 3 plants, any usage is not mentioned by the sources. In addition, among the studied plants, 51 plants have only one application and 67 have more than one usage.

It should be noted that the word “other application” in the table below shows that some applications which have diversity are located in one group. These applications include dyeing (women’s hair, carpet fibers, calligraphy ink and Iranian NEW YEAR eggs), making tools (for example, carpet tools for weaving, brooms, calligraphy pens, tools to keep away from evil eyes, plectrum, etc.), preparation of fuel, cosmetics, skin tanning, space disinfectant, extraction of alkaline materials for the production of raisins or welding, glue, decorative use, etc.

All among the plants which their names are listed in the table, although *Ostoqoddus*, *Balənge*, *Zəncəfil*, *Səna*, and *Gəzəngüme* are not generally native in this region or do not have a significant distribution in the region, their names are mentioned in the table due to their importance in traditional medicine of Komijan people.

It should also be mentioned that although this article is limited to the introduction of wild herbaceous plants and *Kəvər* and *Qarakurra* are not wild plants, their names and uses are mentioned in the article due to the special usage of these two plants in ethnobotany of Komijan region.

In this research, in addition to plants, interesting information regarding the diversity and naming method of mushrooms was also collected in the region. According to the findings, mushrooms can be grouped into three types: *Ağgöbələk* (white mushroom), *Qaragöbələk* (black mushroom) and *Ağacgöbələge* (tree mushroom) (OS-2 and OS-3). In terms of the place of growth, *Ağacgöbələge* grows on the trunk or below the tree and other mushrooms grow on the ground (OS-1, OS-2, OS-3, OS-5 and OS-7). Therefore, mushrooms are classified into three groups based on color: white (edible), black (non-edible) and *chil-chil* (spotted), which is non-edible (OS-2 and OS-3). Also, there is another division indicating whether mushrooms are poisonous or not. Based on this grouping, *Cingöbələge* is called a poisonous mushroom or *Dəligöbələk* (OS-5, OS-7, OS-8, OS-9, and OS-10), and edible type is called *Əqillegöbələk* which is non-toxic (OS-8).

Table 1: General Classification of Plants in Komijan County Based on the Growth Habit and Application of the Plants

Row	Local Name	Scientific Name	Habit	Application
1	Acceboyan	<i>Sophora sp.</i> (Fabaceae)	herb	-
2	Ağüzüm	<i>Vitis sp.</i> (Vitaceae)	shrub	edible, other applications
3	Alma	<i>Malus domestica</i> (Rosaceae)	tree	edible, medical
4	Armud	<i>pyrus communis</i> (Rosaceae)	tree	edible, medical
5	Atquyruğe	<i>Equisetum arvense</i> (Equisetaceae)	herb	other applications
6	Badam	<i>Prunus amygdalus</i> (Rosaceae)	tree	edible, medical, other applications
7	Balənge	<i>Lallemantia sp.</i> (Lamiaceae)	herb	medical

8	Barhəng	<i>Plantago major</i> (Plantaginaceae)	herb	medical
9	Beyramnuxude	-	herb	medical
10	Bıtrax	<i>Xanthium strumarium</i> (Asteraceae)	herb	cattle nutrition
11	Boyax	<i>Rubia tinctorum</i> (Rubiaceae)	herb	other applications
12	Bulaqote	<i>Nasturtium officinale</i> (Brassicaceae)	herb	edible, medical
13	Burğartikane / Tuluqtikane / Tuluqote / Süzmətikane	<i>Echinophora sibthorpiana</i> (Apiaceae)	herb	medical, other applications
14	Cacuc	<i>Trachyspermum ammi</i> (Apiaceae)	herb	edible, medical
15	Çayur	<i>Elymus repens</i> (Poaceae)	herb	cattle nutrition
16	Cingöbələge / Dəligöbələk	-	-	-
17	Çanaxsinnirən / Çanaxgülə / Çanaqote	<i>Papaver sp.</i> (Papaveraceae)	herb	cattle nutrition, other applications
18	Çiriş / Siriş / Ziriş	<i>Eremurus spectabilis</i> (Asphodelaceae)	herb	edible, other applications
19	Çobanyastuğə	<i>Acantholimon pterostegium</i> (Plumbaginaceae)	shrub	cattle nutrition
20	Dağlaləse	<i>Tulipa montana</i> (Liliaceae)	herb	other applications
21	Dağmərzəse	<i>Satureja hortensis</i> (Lamiaceae)	herb	medical
22	Dağsoğane	<i>Allium schoenoprasum</i> (Amaryllidaceae)	herb	edible
23	Dəleşəbdər / Əşşəkşəbdərə	-	herb	cattle nutrition
24	Dəleyarpuz / Əşşəkypuzə	-	herb	cattle nutrition
25	Dəleyonca / Əşşəkyoncase / Qarayonca	<i>Medicago sativa</i> (Fabaceae)	herb	cattle nutrition
26	Dəvədobane	<i>Bupleurum rotundifolium</i> (Brassicaceae)	herb	edible
27	Dolaşxan	<i>Convolvulus sp.</i> (Convolvulaceae)	herb	edible
28	Dolaşxangülə	<i>Convolvulus sp.</i> (Convolvulaceae)	herb	other applications
29	Dovşanalmasə	<i>Cotoneaster nummularioides</i> (Rosaceae)	herb	cattle nutrition

30	Əncir	<i>Ficus carica</i> (Moraceae)	tree	edible, medical
31	Ənikgüle	<i>Mirabilis jalapa</i> (Nyctaginaceae)	herb	other applications
32	Ənnab	<i>Ziziphus jujube</i> (Rhamnaceae)	tree	edible, medical
33	Ər / Çatlanquş	<i>Pistacia atlantica</i> (Anacardiaceae)	tree	edible, medical
34	Ərcinək / Ərcin	<i>Amygdalus scoparia</i> (Rosaceae)	tree	edible, other applications
35	Ərik	<i>Prunus armeniaca</i> (Rosaceae)	tree	edible, medical
36	Ərvanagüle	<i>Salvia hydrangea</i> (Lamiaceae)	shrub	cattle nutrition, medical
37	Gavale	<i>Prunus sp.</i> (Rosaceae)	tree	edible
38	Geççegəvəne / Toppalagövən	-	shrub	cattle nutrition
39	Gəlinbarmağə	<i>Ononis spinose</i> (Fabaceae)	herb	-
40	Gəvən	<i>Astragalus gossypinus</i> (Fabaceae)	shrub	edible, other applications
41	Gəzəngüme	<i>Astragalus adscendens</i> (Fabaceae)	shrub	medical
42	Gilas	<i>Prunus avium</i> (Rosaceae)	tree	edible, other applications
43	Göbələk	-	-	edible
44	Gögüzüm	<i>Vitis sp.</i> (Vitaceae)	shrub	edible, medical
45	Gül Ağacə / Qızılgül	<i>Rosa damascene</i> (Rosaceae)	shrub	edible, medical, other applications
46	Xakeşir	<i>Descurainia sophia</i> (Brassicaceae)	herb	edible, medical
47	Xərçəmbər	<i>Orchis mascula</i> (Orchidaceae)	herb	edible, cattle nutrition
48	Xərmənəte / Qırxyaşar	<i>Polygonum aviculare</i>) Polygonaceae(herb	other applications
49	Xeyrigüle	<i>Althaea officinalis</i> (Malvaceae)	herb	medical, edible, other applications
50	Xülfa	<i>Portulaca oleracea</i> (Portulacaceae)	herb	edible, medical
51	Hamamküməce / Əmənüküməce	<i>Malva sylvestris</i> (Malvaceae)	herb	medical
52	Həsərətgüle	<i>Colchicum speciosum</i> (Colchicaceae)	herb	other applications
53	Heyva	<i>Cydonia oblonga</i> (Rosaceae)	tree	edible, medical

54	Hule	<i>Prunus persica</i> (Rosaceae)	tree	edible
55	İdə	<i>Elaeagnus angustifolia</i> (Elaeagnaceae)	tree	medical, edible, other applications
56	İlançığe	<i>Achillea millefolium</i> (Asteraceae)	herb	medical, edible
57	İnəgəmcəge	<i>Vitis sp.</i> (Vitaceae)	shrub	edible
58	İtgüle / İtburne	<i>Rosa canina</i> (Rosaceae)	shrub	edible, medical
59	Kasne	<i>Cichorium intybus</i> (Asteraceae)	herb	medical
60	Kəkkiz	<i>Eruca vesicaria</i> (Brassicaceae)	herb	edible
61	Kəkkikote	<i>Thymus vulgaris</i> (Lamiaceae)	Shrub	edible, medical
62	Kəngər	<i>Cirsium vulgare</i> (Asteraceae)	herb	edible, medical, cattle nutrition
63	Kərçəng	<i>Ricinus communis</i> (Euphorbiaceae)	herb	medical, other applications
64	Kəvər	<i>Allium ampeloprasum</i> (Alliaceae)	herb	edible, medical
65	Qanqal / Məryəmgüle	<i>Salvia officinalis</i> (Lamiaceae)	herb	medical
66	Qara / Qaral	<i>Ulmus glabra</i> (Ulmaceae)	tree	other applications
67	Qara Ale	<i>Prunus domestica</i> (Rosaceae)	tree	edible, medical
68	Qarakurra / Kurra	-	herb	edible, cattle nutrition
69	Qaradömmül	<i>Vitis vinifera</i> (Vitaceae)	shrub	edible
70	Qarğaçoğəndəre / Qallaxçoğəndəre	-	herb	edible
71	Qarğadaşsağə	<i>Muscari neglectum</i> (Asparagaceae)	herb	other applications
72	Qazyagə	<i>Falcaria vulgaris</i> (Apiaceae)	herb	edible, medical
73	Qəmiş / Qarğə	<i>Phragmites australis</i> (Poaceae)	herb	other applications
74	Qinnirğə	<i>Juncus acutus</i> (Juncaceae)	herb	other applications
75	Qıyaq	<i>Hordeum murinum</i> (Poaceae)	herb	cattle nutrition
76	Qocabaşə	<i>Echinops sp.</i> (Asteraceae)	herb	edible, medical, other applications

77	Qoxağan	<i>Lepidium draba sp.</i> (Brassicaceae)	herb	-
78	Qoz	<i>Juglans regia</i> (Juglandaceae)	tree	edible, medical, other applications
79	Quşüzüme	<i>Solanum nigrum</i> (Solanaceae)	herb	edible, medical
80	Quzequlağə	-	herb	cattle nutrition, edible
81	Mayana	<i>Foeniculum vulgare</i> (Apiaceae)	herb	edible, medical
82	Murçalux	-	herb	edible
83	Murvar	-	tree	other applications
84	Nar	<i>Punica granatum</i> (Lythraceae)	tree	edible, medical
85	Ostoqoddus	<i>Lavandula angustifolia</i> (Lamiaceae)	herb	medical
86	Payızquşə / Qış Xəbər Eliyən	<i>Taraxacum officinale</i> (Asteraceae)	herb	edible, medical, cattle nutrition
87	Pişigdırnağə / Pişigcırmağə	<i>Capsella bursa-pastoris</i> (Brassicaceae)	herb	edible, cattle nutrition
88	Saregül	<i>Rosa canina</i> (Rosaceae)	shrub	edible
89	Saretikan	<i>Carthamus tinctorius</i> (Asteraceae)	herb	cattle nutrition, other applications
90	Səna	<i>Cassia abbreviate</i> (Fabaceae)	herb	medical
91	Sığırdile	<i>Echium amoenum</i> (Boraginaceae)	herb	medical
92	Sığırquyuğu	<i>Verbascum thapsus</i> (Scrophulariaceae)	herb	other applications, medical
93	Söğüd	<i>Salix alba</i> (Salicaceae)	tree	medical, other applications
94	Süpürgə	<i>Bassia scoparia</i> (Amaranthaceae)	herb	other applications
95	Sütlügən	<i>Euphorbia sp.</i> (Euphorbiaceae)	herb	cattle nutrition
96	Şaxşax	<i>Vitis sp.</i> (vitaceae)	shrub	edible
97	Şaxşaqan / Geççəosturdan	-	herb	other applications
98	Şəbdər	<i>Trifolium sp.</i> (Fabaceae)	herb	cattle nutrition, edible
99	Şətərə	<i>Fumaria officinalis</i> (Papaveraceae)	herb	edible, medical

100	Şirinboyan	<i>Glycyrrhiza glabra</i> (Fabaceae)	herb	medical, other applications
101	Təgəsəqqələ	-	herb	edible, cattle nutrition
102	Təlxə	<i>Acroptilon repens</i> (Asteraceae)	herb	medical, cattle nutrition
103	Turşək	<i>Rumex acetosella</i> (Polygonaceae)	herb	edible, cattle nutrition
104	Tut	<i>Morus alba</i> (Moraceae)	tree	edible, medical
105	Tüklüçə	<i>Stachys lavandulifolia</i> (Lamiaceae)	herb	medical
106	Tülkequyruğə	<i>Alopecurus sp.</i> (Gramineae)	herb	cattle nutrition
107	Ulğun	<i>Tamarix sp.</i> (Tamaricaceae)	shrub	other applications
108	Üşdü / Quşdili	<i>Fraxinus excelsior</i> (Oleaceae)	tree	other applications
109	Uşqun	<i>Rheum sp.</i> (Polygonaceae)	herb	edible, medical
110	Üzekülle / İmamöldürən / İmamzəhrəliyən	<i>Vitis sp.</i> (Vitaceae)	shrub	edible
111	Üzəllik	<i>Peganum harmala</i> (Nitrariaceae)	herb	edible, medical, other applications
112	Üzükgülə	<i>Maticaria chamomile</i> (Asteraceae)	herb	medical,
113	Vərək	<i>Rosa persica</i> (Rosaceae)	shrub	medical, cattle nutrition, edible, other applications
114	Vərkivaz	<i>Allium ampeloprasum</i> (Amaryllidaceae)	herb	edible
115	Yağluca	<i>Chenopodium album</i> (Chenopodiaceae)	herb	edible
116	Yannaq	<i>Alhagi maurorum</i> (Fabaceae)	shrub	medical, cattle nutrition, other applications
117	Yarpuz	<i>Mentha pulegium</i> (Lamiaceae)	herb	edible, medical
118	Yazeyelmige	-	herb	other applications
119	Yelqovan / Yelaparan	-	shrub	other applications
120	Yelmik	<i>Tragopogon dubius</i> (Asteraceae)	herb	medical, edible
121	Yemişan	<i>Crataegus sp.</i> (Rosaceae)	shrub	edible
122	Yonca	<i>Medicago sativa</i> (Fabaceae)	herb	edible, medical, cattle nutrition
123	Zəncəfil	<i>Zingiber officinale</i> (Zingiberaceae)	herb	edible, medical

2.2. Application of the Studied Plants

2.2.1. Herb

Acceboyan

This plant grows in the region, but no practical application has been mentioned for it. It's for consumption of cattle (OS-9). It grows mainly along the water streams. They use it to heal wounds (OS-7).

Atquyrüğe

Because the string of the plant is strong, children used it as *Çöğür* wire (OS-2). Ethnobotanical study of some medicinal plants of Abhar County shows that this plant is known as *Atquyrüği*, *Qırxboğum*, *Atgüli*, that all parts of the plant, especially the aerial part (stem), is healing and curing many diseases, including rheumatism and arthritis, treatment of kidney ailments (Vafadar etc., 2019, p. 40).

Balänge

At first, pour hot water in a glass, then add some Baleng, put a saucer on it to get brewed. It is anti-cough herbs and it cause soothing throat inflammation in colds (OS-1).

Barhəng

It is boiled with dry oregano or mint juice and water, and it is used for the therapeutic use (treatment of stomach problems such as stomach ulcers) (OS-1). It is also laxative (OS-2). In local communities of *Qaradağ* region, its leaves and seeds are used for healing the digestive system problems and chest pain with the local name of *Bizovşa* (Sabzinojedeh etc., 2019, p. 3375).

Beyramnuxude

It grows in mountainous areas and is used to relieve stomachache (OS-2).

Bitırax

It is a kind of weed, and cattle nutrition (OS-1 and OS-2).

Boyax

It is applied in carpet wool dyeing by its plant roots (OS-1 and OS-2). Roots of this plant were used to dye carpet fibers. At first, they cut the root, then dried and made it powder, at the end made a red color for coloring. It is used to make calligraphy ink (OS-3).

Bulaqote

It is similar to Taratuza and has a spicy taste and it is used as herbal tea to treat the colds (OS-1 and OS-2). Local people used it in preparation of various pottages (OS-1). It is useful for those who have a cold temperament (OS-2).

Burğartikane / Tuluqtikane / Tuluqote / Süzmətikane

Its powder is used to flavor buttermilk, yogurt, and cheese. Sometimes they tied a bunch of it with a string and put it in a jar of buttermilk for its aroma. Today, it is brewed and used as diabetes reducer (OS-1 and OS-2).

Cacuq

Its decoction was used for heartache (OS-1). It is found together with a plant called *Zəringə* in the nature and they grow together. *Zəringə* grows in mountainous areas next to *Cacuq*. It is used as Burani and stew. *Zəringə* starts to grow 20 days after iranian new year, it is generally in mountainous areas (It grows together with *Cacuq*) (OS-2).

Çanaxsinnirən / Çanaxgüle / Çanaqote

It is as sheep feed. The old belief says that the bowl breaks when the flower is placed in a breakable bowl (OS-1). When they were a child, they were told not to pick this flower, if you pick it, your bowl will break (OS-5). In Ahar region, the sap, seeds, and fruit of this plant have been introduced as a pain reliever with the local name of *Xaşxaş* (Sabzinojedeh etc., 2019, p. 3374).

Çayur

It grows in the meadow. It is used as fodder (OS-1, OS-2, OS-6, OS-8, and OS-9). It is mostly consumed by donkeys (OS-2). It has an invasive root and if it grows somewhere, it will spread everywhere (OS-9). It grows in gardens. If you find its root somewhere, it will spread everywhere (OS-8). It is very nutritious for cattle. It is used instead of hay as cattle nutrition (OS-6).

Çiriş / Siriş / Ziriş

It is a type of *Dəliçiriş* from which paper glue is made (OS-2 and OS-9). One type of it is called Əqilleçiriş, which is used to make pottage from its leaves (OS-9).

Dağlaləse

It is so beautiful, ornamental and rare (OS-1 and OS-2).

Dağmərzəse

It is used as herbal tea (OS-2). The investigation of native knowledge and therapeutic properties of medicinal plants of Meshkinshahr region showed that the decoction, essence, and hot infusion of *Dağmərzəse* are used as anti-flatulence, strengthening digestion and healing number of other diseases (Sabzi etc., 2021, p. 536).

Dağsoğane

It is edible for humans (OS-1 and OS-2). It has a strong essence, so it is dried as an aromatic vegetable for *avalət*¹ (OS-1). They add it into rice and pour the dried plant into buttermilk (OS-2).

Dələşəbdər / Əşşəkşəbdərə

In terms of size, they are bigger than the normal type. It is not suitable for humans and cannot be eaten, but it is eaten by cattle (OS-2).

Dəleyarpuz / Əşşekyarpuze

It is very smelly. It is similar to Oregano but with green fluff. Oregano has white fluff. It is as cattle nutrition (OS-1, OS-5, and OS-7). Indeed, he doubts whether it is Cattle food or not (OS-2).

Dəliyonca / Əşşəkyonca / Qarayonca

Cattle eats it (OS-2, OS-5, and OS-7). It grows at the river side (OS-10).

Dəvədobane

They made pottage like *Əriştə aşı*² and *Jovov aşı*³ with it in spring. It is similar to dill. Its root is like a potato and is also edible (OS-2).

Dolaşxan

The fresh leaves are put into pottage like *Əriştə aşı* and *Jovov aşı* (OS-1 and OS-2). Fresh leaves are added to the stew (big leaves are bitter) (OS-2). In the study of the traditional therapeutic effects of medicinal plants in Abhar region with the local name of *Salmaşix*, showed that boiled and extracts and ointments of leaves, roots and seeds are anti-constipating, laxative, choleric, and it heals wounds (Vafadar etc., 2019, p. 40).

Dolaşxangüle

It is used as ornamental flower. It is purple and pink (OS-1).

Ənikgüle

To create multi-colored flowers, the seeds are soaked in milk (OS-1). It is used for decoration (OS-1 and OS-5).

Geççegəvəne / Toppalagövən

They pick its branches and then take it on the fire and burn it and then beat it to remove the horns and then add it to cattle nutrition, which is very nutritious (OS-5 and OS-7).

1 Salt is added to aromatic vegetables (parsley, coriander, and chives) and they are scrubbed by hand.

2 It is a combination of chickpeas, pottage vegetables (leek, parsley, coriander, and spinach), curd, onion, garlic, mint, and soup noodles.

3 It is the result of cooking barley, beans, vegetables (leek, parsley, coriander, and spinach), curd or yogurt, onion, garlic, and mint.

Gəlinbarməğə

It has many thorns and it is hard for animals to eat it (OS-2).

Göbələk

It grows after thunder and rain (OS-1, OS-2, and OS-3). *Dəligöbələk* has a thin cap that collapses with the touch of the fingers (OS-1). There is a white type that is edible and a black type that is *Deli Göbələk* (OS-3). There is an *Ağacgöbələge*, which grows on the the grooves of the trees and is poisonous. *Ağacgöbələge* is polka dot or *chil chil*. In general, there are three types of *Göbələk*, white and black, and *ağacgöbələge* in the region (OS-2). Its poisonous type is called *Cingöbələge* (OS-5, OS-9, and OS-10) and its poisonous type is called *Dəligöbələk* (OS-7, OS-8, and OS-9). The edible mushroom is *Quzubudu* means thigh of lamb. And also the edible one is called *Aqillegöbələk* (OS-8). Some mushrooms grow near trees like plantains, which are poisonous. Some mushrooms grow in the plains, which are edible (OS-7). Its edible type is used both raw and in stew, which is found in the plains. There is also a type that rarely grows once every few years (OS-5).

Xakeşir

Its syrup is used to treat constipation and quench thirst (OS-1 and OS-2). It is used by native communities in Qaradağ region named locally *Şivərən* for treatment of diabetes and allergies (Sabzinojedeh etc., 2019, p. 3374).

Xərçəmbər

Its root is edible (OS-1 and OS-2). It is cattle nutrition (OS-1).

Xərmənə / Qırxyaşar

Xərmənə means meadow, which helps wheat not contaminate with soil (OS-6). It is similar to grass and grows sparsely in the threshing (OS-7).

Xeyrigüle

They wash newborn baby's body with the water obtained from soaking its flowers in water or its flower paste and, especially the baby who was born in the summer to reduce the body temperature (OS-1). They dry it and pour it into tea as a laxative, relief of constipation and also it has an ornamental use (OS-2). In the past, its flowers were used as a detergent, because they smell good and clean greasy hair (OS-7).

Xülfa

Its habitat is the garden. It is eaten as vegetable and it is poured into *Jovov aşı* because of its extract (OS-1 and OS-2). Xülfa and almond extract are used to strengthen the body (OS-1). It is laxative (OS-2).

Hamamküməce / Əmənüküməce

It mostly grows on the ceiling of old public bathrooms. Fruit and herbal tea used to treat lung infection (OS-1), relieve constipation, and reduce blood sugar (OS-2). According to the findings, the essence of the medicinal plant *Hamamküməce* has good antimicrobial effects against common oral infection bacteria. Examining the antibacterial properties of the *Hamamküməce* essence of in Meshkinshahr region on common oral infection bacteria shows that the *Hamamküməce* essence of this plant with different concentrations can be a suitable alternative for drugs and chemical mouthwashes in treatment of common oral infection bacteria (Eghbal etc., 2019, p. 2872).

Həsərətgülə

It is seen twice in a year in Yasbolaq. One during iranian new year and the other at the beginning of autumn. It is similar to saffron flower and can be seen in white and pink color. It is also decorative (OS-5).

İlançığə

It is used for stomach bloating. It is used as a decoction or fresh to remove the flatulence of stomach. Cooking its fresh and small leaves with eggs is used for breakfast. Its decoction is anti-microbial and cleans the intestines (OS-1), reduces blood sugar, and is very bitter (OS-2). Its decoction is given to children to treat nocturnal enuresis. They cook its fresh leaves to make *Qayqanaq*⁴ to cure stomachache (OS-7). Today, it is used to treat diabetes (OS-10). The local people of Arasbaran region believe that flowery branches of this plant have properties such as lowering blood pressure, antiseptic and known by the local name of *Isseot* (Zolfeghari etc., 2011, p. 538). In Ahar County, it is called *Sancıgülü* and it is used as anti-parasitic and stomach tonic (Sabzinojedeh etc., 2019, p. 3375).

⁴ It is a combination of milk, flour, eggs, and turmeric.

Kasne

It reduces body heat (OS-1). It is used to relieve stomachache (OS-2). In the past, it was used to treat typhoid. They put its root in water and then put it on the lips of someone who had typhoid. Its extract is also useful. It grows by streams (OS-7). Native communities in Qaradağ region use the stem of *Çatdanguş* (Kasne) in treatment of fatty liver (Sabzinojedeh etc., 2019, p. 3375). In Abhar County, it is known with the local names *Çittikan* and *Çitdax*. It is used as appetizer, stomach booster, etc. (Vafadar etc., 2019, p. 38).

Kəkkiz

It grows in fields of clover, beans and gardens and is used as pickle (OS-1 and OS-7).

Kəngər

The root is used to prepare stew (OS-1 and OS-2). It is cattle nutrition (OS-2). Its water is poured into the nose of a person with a nosebleed to stop the bleeding (OS-8).

Kərçəng

In the past, it was used as lamp fuel (OS-1 and OS-2). Its oil is rubbed on the body to relieve hand and foot pain (OS-2).

Kəvər

Leek is a hot temperament vegetable. It is used raw or cooked and roasted together with other vegetables in preparing vegetable cutlet or vegetable stew (OS-1). If we pour fresh leek extract into the nose of a person with a nosebleed, it will stop (OS-1 and OS-3).

Qəmiş / Qarğə

Thick reeds have been used to make carpet tools for weaving (OS-1 and OS-2). Mullahs used it to make calligraphy pens (OS-2). It is used in the construction of rural houses roofs (OS-7).

Qanqal / Məryəmgüle

Today, it is used to treat diabetes (OS-9).

Qarakurra / Kurra

It is similar to green peas, it is used by livestock, and it is grilled on fire and poured into salty water, and then eaten (OS-1). It is cultivated and eaten fresh. It is also cattle nutrition (OS-2). In the old days, they were mostly used as horse feed (OS-8).

Qarğaçoğəndərə / Qallaxçoğəndərə

From the point of view of (OS-3), its correct name is Qalax choğəndərə. They prepare pottage from it, and it is used in *Jovov aşı* (OS-3).

Qarğadaşsağə

Its flower is used to create a purple color for coloring eggs in Iranian new year (OS-1 and OS-2). It is bitter. It is not edible. It is also used for carpet fiber dyeing (OS-2).

Qazyəğə

It is used to make a dish called *Çörəkqatuğə*⁵, which is a dish with high nutritional value (OS-1). It relieves constipation (OS-3). They make pottage with it (OS-6).

Qinnirğə

It is used only as fuel (OS-2).

Qıyaq

It grows in the grass, and it is used as cattle nutrition. (OS-1 and OS-2).

Qocabaşə

The nut inside the fruit is edible (OS-1, OS-2, and OS-5). When the plant is completely dry, it is used for fuel (OS-2). It is consumed by cattle (OS-9 and OS-10). To treat colds, boil the ball-shaped part of it and breathe it into your nose (OS-7). Also, this plant nut is used as herbal tea during colds (OS-5).

⁵ Lentils, flour, onion, aromatic herbs, turmeric, local vegetable called ghaziaghi, and egg are used to make it.

Qoxağan

The herb is very smelly and has no properties or uses (OS-1, OS-2, and OS-9). It is a plant that has a bad smell and grows in the hay field (OS-6).

Quşüzümə

Small red fruits that are smaller than peas and are edible. Its decoction added to jujube and violet flowers is used to cure child's fever (OS-1). It has oral and medicinal use. It is used for sore throat. At first, dry it and add it to donkey butter waste, which is locally called *qodux mamuze*, and tie to the throat of a person who has a sore throat (OS-3).

Quzequlağə

It's a non-edible vegetable for sheep (OS-1). It was also eaten by humans and cattle (OS-2).

Mayana

Its grinded seeds with candy are used to relieve stomachache and flatulence (OS-1 and OS-3). In Ahar region, it is used with the local name *Sariot* as menstruation stimulant and milk booster (Sabzinojedeh etc., 2019, p. 3374).

Murçalux

It is poured into *Tərxənə aşı*⁶ (OS-1 and OS-8), it gives a similar rumen smell *Sirabi* to pottage (OS-1). It grows in the spring. Its root is edible. It has a turnip-like root that is edible (OS-2 and OS-6). In ancient times, it was used as a meal during times of famine and scarcity (OS-8). When

it is fresh, its green part is used (OS-7). They use it in *Omac aşı*⁷ (OS-5). They are used in cooking pottage and bread (OS-10).

Ostoqoddus

Although this plant does not grow in this region, it is used in the region. It was used as a decoction in winter, it has a warm nature, and they brewed it with plants called *Seləncan* and *Qoləncan*. It is soothing and a treatment of hands and feet pains (OS-1). It is tranquilizer and has warm nature. It is for those who have a cold nature (OS-8).

Payizquşə / Qış Xəbər Eliyən

Its fresh is used by cattle (OS-2). It has edible seeds. A decoction of the seeds is good for chest pain (OS-8). It is consumed orally (OS-5). In the study of medicinal plants of Ahar County, with the local name of *Papangülü*, it is used as releasing menstruation cycle, and moving urea (Sabzinojedeh etc., 2019, p. 3375).

Pişigdırnağə / Pişigcırmağə

It is as weed for livestock use and is consumed by cattle (OS-1 and OS-2). Its seeds are edible for human (OS-2).

Saretikan

It is eaten fresh by animals and dry as firewood (OS-2).

Səna

It is found in mountainous environment. This plant is helpful to cure constipation. There is a folkloric belief that if we cut this plant leaves from the bottom to top, it will cause inflammation, but if we cut it from top to bottom, it will cure constipation. To cure the constipation, leaves are soaked in warm water and then the patient will drink the liquid, finally his problem will be solved (OS-2, OS-5, and OS-6).

Sığirdile

It is soothing (OS-1). It is grown in the region and is still being cultivated (OS-2). Native communities in Qaradağ region use it as a nerve pain reliever (Sabzinojedeh etc., 2019, p. 3374).

Sığırquyruğə

When they want to make musk and peel the sheep skin off, they soak the rumen in this plant to make its color light brown. The next use is to burn it and its smoke is used to treat hemorrhoids (OS-1). Like a sunflower, it has big yellow flowers (OS-2).

6 Ingredients of this food are as follows: chickpeas, pottage vegetables, tarkhana, onion, garlic, mint, and rumen. To prepare Eirantarkhana, uncooked wheat is cooked with buttermilk.

7 This food is made of beans, pottage vegetables, special dough, onion, and mint. To prepare dough, turmeric and salt are added to the flour and then water is added slowly and after that small balls of dough will be made, at the end those are added to pottage.

Süpürğə

There are three types of brooms. The plain and desert broom, which is short in height, which is used to sweep the threshing floor. A kind of long broom for cleaning the yard. The city broom that they sew the parts together. They called a type, *Nərməsüpürğə* (OS-1). It has four models. One model was growing in the yard and was a wild one (green and long). Other types of brooms are also planted in the area. A threshing model has a horn. A soft model is a thresher that grows next to the reeds. All four are different (OS-2).

Sütlügən

It is used as sheep feed. When you touch it, white juice comes out (OS-1). Its gum is used as a pain reliever for toothache, but it also causes tooth decay (OS-9). Colorful flowers have an ornamental use (OS-1).

Şaxsaqqan / Geçceosturdan

It is a plant with balloons that children love to kick and they like the sound of it (OS-6). In its structure, there are spaces where the wind gathers, and when it is pressed, a sound is produced. That's why they call it *Şaxsaqqan*. If cattle eat it, it causes them to be bloated (OS-8).

Şəbdər

It is planted and consumed once, but the type of *Həftçin* can be harvested seven times, *Dələşəbdər* is wild (OS-1). It is consumed by humans with pickles and *Sekəncəbin* (OS-1 and OS-2). It is also cattle nutrition (OS-1 and OS-2). They boil it and pour its extract into the nose of a person who has a nosebleed to stop bleeding (OS-8).

Şətərə

They dried it and put it into yogurt and put it on the wound to heal skin wounds and dry skin and eczema (OS-1).

Şirinboyan

It grows in the garden and its root decoction is useful for stomach ulcers (OS-1, OS-2, OS-4, OS-5, and OS-9). They use it as fuel (OS-2). Its decoction and seeds are good for heartburn. It is also appetizer (OS-7). The native people of Qaradağ use the root of the plant to strengthen the stomach and its decoction to treat stomach ulcers (Sabzinojedeh etc., 2019, p. 3374).

Təgəsəqqələ

It is cattle nutrition (OS-7, OS-8, and OS-9). It is eaten with pickles (OS-5 and OS-9).

Təlxə

It has a very bitter essence, and it is used as cattle nutrition (OS-1 and OS-8). Today, it is useful for diabetes (OS-10).

Turşək

It is used as human and animal food (OS-1 and OS-8).

Tüklüçə

Its herbal tea is suitable for the lungs (OS-1 and OS-2).

Tülkequyrugə

It is cattle nutrition (OS-5).

Uşqun

They are stewed like celery and artichoke stew and it is also used raw (OS-1). Purifying the digestive system (OS-2). Uşqun root strengthens the digestive system, heart tonic, etc. (Sabzi etc., 2021, p. 537).

Üzəllik

It is thrown into the fire to get rid of negative energies as preventing evil eye effect (OS-1 and OS-5). It is used for disinfection. The old belief says that if this plant grows near a residential house, the sound of a rooster will prevent forming seeds in this plant (OS-1). It is used to cure bloody diarrhea. They grind the seeds by hand, it gives a bitter taste and they eat it with water as a medicine (OS-2). A decorative pendant is made from it. Also people who have diabetes eat a few seeds with water (OS-5).

Üzükgüle

It is used as a decoction for curing colds (OS-1). It mainly grows on roadsides (OS-2). It has two types, sweet and bitter. The sweet type is brewed as an infusion for relaxation and the bitter type is used as incense for colds (OS-5).

Varkivaz

It grows in gardens; it is used to prepare pottage⁸ with bulgur (OS-1 and OS-2). They use it in baking bread⁹. It has a warm nature and is very fragrant (OS-1, OS-2, and OS-6).

Yağluca

It is a vegetable for pottage, it has seeds in autumn. It has a flower like rooster tail. It has oily leaves and that is why it is named Yağluca. It is eaten raw as a vegetable (OS-1). It is used in the preparation of *Omac aşı* (OS-3).

Yarpuz

Its dried form is used in buttermilk or mix of hot oil and mint for pottage. It's fresh or dried and brewed or extract form is used. It has a warm nature (OS-1). It is against intestinal and stomach infection (OS-1 and OS-2) and eliminates diarrhea (OS-2).

Yazeyelmige

It is different from *Yelmik*. Its gum is used to make chewing gum, which is dark and bitter. They remove its bitter taste with water and when it comes out of the mouth it hardens again (OS-1)

Yelmik

If the hair gets stuck in the intestine, *Yelmik*¹⁰ brings it out. It is consumed with *sekəncəbin*¹¹ and pickle (OS-1). Gums is prepared from the root of *Yelmik* and it is eaten as a vegetable with pickle (OS-2). There are several types. One type grows in plowed land and has broad leaves. Another model grows in the garden and farm. There is also a type that spreads more on the ground. It is also eaten with pickles and as *Burani*. It also used in *Səbzi xürüş*. To prepare gum from *Yelmik*, they cut its root and collect the resulting milk. This type of milk is called *saqquz*, which is white in color. There is another type, which is observed as a protrusion between the leaf and the root, which is called *saqquz*, which is usually dusty and brown in color (OS-5).

Yonca

It is used as cattle nutrition, human consumption (OS-1), preparation of pottage (OS-1 and OS-6) and reducing sugar and fat (OS-1 and OS-3). It has a warm nature and is hematopoietic. It is also used in *Burani* form (OS-6).

Zəncəfil

It is used for Sweets, *Abghusht*, pickles, and stew, prevention of nausea in pregnant women. It can be used in brewed, fresh or dry form for herbal tea (OS-1). It is eaten fresh, wet and dry and it has a warm nature (OS-1 and OS-2).

2.2.2. Shurb

Ağüzüm

Light green grape with large and juicy seeds, it ripens in autumn, they use it as grape¹²syrup, pickle it, and pick it in a room on grape leaves to consume it gradually (OS-1 and OS-2). Based on the local belief, it is called *İmamöldürən*, because it was used to kill "Imam Reza" (OS-2). It should be mentioned that in Khenejin located in Markazi province, on last Wednesday night of Hijri year women tie piece of their hair and men tie a piece of their shirt fibers to vine branches to fulfill their dreams (Gün and Kasimhani, 2023, p. 133).

Çobanyastuğ

It is used as cattle nutrition (OS-9).

⁸ It is prepared from verkevazas (local plant), beans, patla, flour, onion, and pepper. Patla is wheat cooked properly, dried or half pounded.

⁹ Verkevaz is scrubbed with salt and is added to the dough when baking bread.

¹⁰ They eat it, wrap it around the hair and brings it out.

¹¹ It is composed of mint, sugar, and vinegar.

¹² For more detailed information, see (Javid Rad, 2018, p. 63-68).

Dovşanalmasə

It is used as fodder (OS-5 and OS-8). Its local name is Çaleqi (Khaleghi etc., 2015, p. 96).

Ərvanagüle

It is used as herbal tea or incense to cure colds (OS-1 and OS-7) and it also is used as fodder (OS-8).

Gəvən

A gum called *kətira* extracted from it and it is used for hair styling (OS-1). The root and its calyx are boiled and eaten (OS-2, OS-3, OS-5, and OS-8). In the past, the landlord used to rent the land and some people came from Shiraz and rented the lands to extract *kətira* (OS-5 and OS-7).

Gəzəngüme

This plant grows in the mountainous and rocky environment, and it is given to the child to relieve bloating and colic (OS-1, OS-2, OS-5, and OS-8).

Gögüzüm

It ripens in autumn. It has seeds with thick skin used to prepare grape syrup, which is effective in relieving constipation in addition to its nutritional value (OS-1 and OS-2).

Gül Ağace / Qızılgül

Qızılgül has an ornamental use and is used to make jam, and its powder is added to yogurt and buttermilk (OS-1) its dry petals are laxative served as tea (OS-2). In Chaqer village, Farahan County, Markazi province, people tie a cloth to this plant to fulfill their dreams on the last Wednesday of the solar year and they wish they could get all their dreams until the flowers of this plant open (Gün and Kasimhani, 2023, p. 133).

İnəgəmcəge

The seeds are large. It becomes grainy quickly. It is edible (OS-1).

İtgüle / İtburne

It has edible petals (OS-1 and OS-2). It is also used as herbal tea (OS-2).

Kəklükote

It is used with eggs as food (*Kəklükote numurtase*) (OS-1 and OS-3). Its herbal tea (fresh or dry) is used for respiratory problems such as colds (OS-1). It is used as herbal tea (OS-2). It cures back and stomach pain (OS-3).

Qaradömmül

It has large seeds used to prepare grape syrup. Its syrup is so bright. In some areas around Komijan region, it is called *Qorov*¹³, and in other areas, it is called *Evinava*. Grape syrup is used as juice (OS-1).

Saregül

It is used to make jam (OS-1).

Şaxşax

It makes a special sound, while eating its seeds (OS-1 and OS-7). Grapes with large seeds that make a sound when eaten.

Ulğun

It is a tree that grows by the river. Because it has strong branches, it is used as a mortar. The height of the tree is less than one meter. There is a lot in Saveh region (OS-2).

Üzekülle

It is an edible grape, which has a matte appearance similar to being covered with ash (OS-1 and OS-2). It is similar to *Ağüzüm* (OS-2).

Vərək

The flower base is filled with seeds, they pound and infuse it to get rid of the bad smell in the stomach, they pound it with candy, and use it like fennel, if the animals chew it, they'll have delicious meat (OS-1). It is helpful for hand

¹³ Vinegar is added to red grape juice when making grape syrup.

and feet pains. *Vərək* seeds are eaten like nuts (OS-2). Its leaves are fodder for sheep (OS-6). And the bush was burned as fuel, and they also produced charcoal for the winter seat (OS-2 and OS-6).

Yannaq

Its decoction is used to remove kidney stones (OS-2), to relieve cough (OS-8), and also to cure headache (OS-7). In the past, its wood was used to cook grape syrup. Its fresh plant is suitable for cattle nutrition (OS-5). It grows a lot in ruins (OS-10).

Yelaparan / Yelqovan

Yelqovan is a dry grass that moves with the autumn wind. It is used for burning in the oven, because it catches fire quickly. It is used to light up the oven. After applying tractors in the region, the growth of this plant has decreased. In autumn, human used the light thorns from the plain to make fire for the oven (OS-1).

Yemişan

Its fruit is edible (OS-7).

2.2.3. Tree

Alma

It is eaten as a fruit. They also dry them and consume them as snacks (OS-1). It treats diarrhea (OS-1 and OS-2).

Armud

They were putting it in wheat to get ripen sooner. They use it to relieve constipation (OS-1).

Badam

It's for food consumption and making *Çağala* stew. They extract its oil to cure diarrhea (OS-5). Its nut is used as nuts and is used to prepare *Badam şorbə* (OS-1). It is also used in the preparation of *sürmə* that is helpful for eyesight and beauty (OS-1 and OS-5).

Əncir

It is used in raw and jam forms (OS-1 and OS-5). Figs are used as a decoction with jujube (*ənnab*) and hollyhocks (*xeyrigüle*) for chest pain. (OS-5). It is also used to prevent constipation (OS-1).

Ənnab

It is also used as nuts (OS-1 and OS-5). They make herbal tea with the mixture of *Ənnab*, *Xeyrigüle*, *Barhəng*, and *Qocabaşı* are used for blood purification (OS-5). Mixture of *Ənnab* and violets is harmless for curing children's colds (OS-1).

Ər / Çatlanquş

The fruit is pickled. It is good for treating diabetes. It's a kind of wild Pistachio (OS-9).

Ərcinək / Ərcin

It is used as nuts (OS-1). In the past, it was believed that if someone holds a stick made of this tree, it will bring good luck to him (OS-7). In Khenejin region of Markazi province, this plant is considered as one of the sacred trees, and people tie piece of their cloth and fibers to its branches to fulfill their dreams (Gün and Kasımhane, 2023, p. 133).

Ərik

It is used for preparation of *lavaşək* (fruit leather). Firstly, dry apricots, then soak them in water and eat it to cure constipation. It is also used in *Türşə aşı*¹⁴. Its core was roasted and used as nuts. They made *Basluq*¹⁵ with grape syrup and starch with a nut inside (OS-1).

Gavale

It is used to prepare food (OS-1 and OS-2).

¹⁴ It is prepared with beans, pottage vegetables (leek, parsley, coriander, and spinach), sugar, pickles, beetroot, dried apricot and, mint or onion.

¹⁵ A local sweet made from grape syrup, starch, water and, flour.

Gilas

The bark of this tree was used as a *Çöğür* plectrum. Its gum is edible (OS-2).

Heyva

It is eaten raw or in a jam form. Its seeds are boiled, which is good for chest pain (OS-1 and OS-2).

Hule

It is edible, it is used in the form of *lavashək* (fruit leather) and jam. It is also dried and added to snacks (OS-1 and OS-5).

İdə

Its fruit is edible (OS-1 and OS-2). Its leaves were used to wash hands. Its branches are hanging over the buttermilk musk, it is believed that it is good for increasing butter in musk (OS-1). It is used for bone and joint pains. Consuming unripe *İdə* leads to urinary retention (OS-2).

Qara / Qaral

Due to the strength of its wood, it is used to make the shovel handle (OS-1 and OS-2). It is also used in construction (Khaleghi etc., 2015, p. 96).

Qara Ale

It is used as a fruit. It is also used to make *lavaşək* (fruit leather) and jam. It is also used to make pottage. Ale sauce is also made as a food flavor. In terms of therapy, it is also used for treatment of constipation (OS-1 and OS-5).

Qoz

Walnut shell and leaves are used for hair coloring (OS-1 and OS-2). Its core is used as nuts and its leaves are used for dyeing carpet fibers and for women's hair color due to its high brown pigment. According to the old belief, you should not sleep under this tree at night because it causes shortness of breath (OS-1). Fresh leaves are brewed to reduce sugar (OS-1).

Murvar

It is used in making shovel handles and pickaxe handles (OS-1, OS-2, and OS-7). It is used to cover wooden beam (OS-5).

Nar

Thus, fruit is edible and its shell is used to open the tooth cocoon (OS-1). The study of local knowledge of native people in Arasbaran region showed that this fruit is anti-cancer (Zolfeghari etc., 2010, p. 542).

Söğüd

There is an old belief that if we sleep under this tree during the day, it will absorb all the pain and disease in our body and expel it into space at night. Some use it for its wood (OS-1), the old belief says that sleeping under the shade of this tree reduces the patient's fever (OS-2). It is used in construction (OS-7).

Tut

It was used as a fruit and in the form of jam, red one is used in preparation of juice, and Tut syrup is made from white tut, and dried tut is used as nuts. It relieves constipation (OS-1 and OS-5).

Üşdül / Quşdili

It has strong wood for lumber and is used in carpentry (OS-1 and OS-7). Leaf and bark decoction is laxative, diuretic and so on (Sabzi etc., 2021, p. 536). The traditional knowledge of Arasbaran forest dwellers shows that they use the wood of this tree with the local name of Van to make tools (Khaleghi etc., 2015, p. 96). In the village of Khomarbaghi in Komijan region, there are legendary stories about this tree, and it is considered sacred by the people of that village (Gün and Kasımhiani, 2023, p. 133-135).

2.3 Semantic Study of the Studied Plants

As mentioned, the ethno-ecological study of medicinal plants is a very precious indigenous knowledge originating from specific geographical regions with ancient history. Hence, collection of rural areas, medicinal plants, and people attitude toward classification and naming of plants, organizes the basis of botanical thinking.

Therefore, the native communities of these regions are the first botanists in history. In this regard, Komijan County is not an exception. So, the knowledge hidden in the memories and past lives of the rural people can definitely cause progress in modern medicine. This research shows that the knowledge of local communities about the nature of their surroundings is very wide and includes various aspects.

Based on the taste criterion in nomenclature, *Təlxə*, *Şirinboyan* and *Acceboyan* can be mentioned. In the meantime, *Acceboyan*, which somehow refers to the specific compounds of the essential oil or secondary metabolites of this plant, is a very important medicinal plant. Nowadays, many research have been done on the mentioned medicinal plant in pharmacognosy and ethno-pharmacological research groups. Similarly, the reflection of the naming based on the physiological properties of the plant can be seen in the name *Sütlügən*, due to having a milky gum.

Regarding naming based on plant morphology, it can be referred to *Burğartikane*. A plant which blade is the most prominent and obvious feature for naming it. In another example, *Yağluca* can be mentioned, a plant which its name is based on having oily leaves. In fact, this property has been an obvious trait of this plant.

In this regard, color issue as a visual feature has been very important in the knowledge of local people for naming plants. For example, *Saregül* and *Saretikan* plants are named based on having yellow flowers.

The significant note is that, today considering the plant appearance is the first feature in systematic investigations noted by botanists.

In another example, plants such as *Dələşəbdər* and *Dəleyarpuz* can be indicated, which naming is based its usability and non-usability by humans. The prefix *Dəle*, “crazy” shows the inedibility of the plant for humans. Conversely, *Şəbdər* and *Yarpuz* are edible plants.

Also, local naming of local plants in Komijan County, especially those related to herbaceous plants, contain valuable notes showing that if they were considered carefully, one could understand some useful information about each plant, such as its habitat, growing time, morphological similarities to other things, application, etc. This issue is one of the most fundamental issues of ethnobotanical knowledge. Following that, it will be tried to indicate some of the most important ways of naming the investigated plants.

Among the habitats that can see their names in the naming of investigated plants, spring (*Bulaqote*), mountain (*Dağsoğane*), desert (*Yazeyelmige*), threshing (*Xərmənote*) and bath (*Hamamküməce*) are seen. Also, in terms of growing time, the words winter (*Qış Xəbər Eliyən*), autumn (*Payızquşe*) and New Year (*Beyramnuxude*) can be encountered in naming of these plants in the region. Referring to the growth form of plants can be seen in the names of the investigated plants and in two forms. In the first category, plants are likened to inanimate or human elements such as shepherd's pillow (*Çobanyastuğə*), bowl (*Çanaqote*), bride's finger (*Gəlinbarmağə*), etc. But in the second category, this analogy is only made with the parts of animal body. These organs are nose (*İtburne*), ear (*Quzequlağə*), tongue (*Sığirdile*), beard (*Təgəsəqqəle*), breast (*İnəgəmcəge*), abdomen (*Dəvəqarne*), testicles, (*Qarğadaşsağə*), tail (*Atquyruğə*), foot (*Qazyəğə*), paw (*Pişigcırmağə*), and heel (*Dəvədobane*).

In this category, we also encounter with plants that their naming is based on the description of their appearance, like *Dolaşxan* means a plant wrapping around the objects, *Tüklücə* means a plant producing hair-like products, *Qocabaşə* means a plant with a big head, *Toppalağövən* means a plant that is spherical and, so on.

Conclusion

The current research is an ethnobotanical study of some plants of Komijan County. Such studies are useful in many aspects, one of which can be the importance of protecting the flora of the region, especially its medicinal types. Studies have shown that native people have significant knowledge about the medicinal plants all around this region, and they use them in curing a wide range of diseases.

In this study, based on growth forms, 121 plants were investigated, and they were divided into three categories of herb, tree, and shrub. Investigations showed that in Komijan region, local plants are placed in 4 groups according to their usage: human food, cattle nutrition, medicine, and other uses. People of the region consume plants either raw or in a combination of dishes such as *Çörəkqatuğə*, *Omac Aşə*, *Türşə aşə*, *Vərkivaz aşə*, etc. In terms of therapy, the known species are used in treatment of a wide range of diseases, including reducing fever, treating stomach ulcers, stopping nosebleeds, removing kidney stones, etc.

In other applications section, you can see many different applications of the identified species, which include general categories such as coloring, tool making, leather tanning, ornamental use, etc. Also, the reflection of some religious and folkloric beliefs of the people of the studied area in the names of some plants is one of the interesting points of the current research. Investigating the plants of Komijan County from the point of view of onomastique also resulted in interesting results, among which we can refer to the habitat, growth form, growing season, and morphology of the plants in their names. Also, the attention of local people to visual characteristics, taste, smell, and taste of plants in naming some other plants is one of the most important points in naming the local plants of Komijan County.

Considering the high biological diversity or in other words, the richness of plant species in the studied area, it is expected that botanical research in this area can be continued on a larger scale in order to obtain better and more useful results to take an important step in the medicinal plant production industry. It is worth noting that since ethnobotanical knowledge is one of the basic foundations of medicinal plants application and the urban and rural elderly have important information about it, the death of these people causes losing this traditional knowledge, so the need to speed up wider researches to preserve this information and also to introduce medicinal plants of Komijan region is felt to be useful.

References

- Ahmad Dar, R., Shah Nawaz, M., and Hassan Qazi, P. (2017). General overview of medicinal plants: a review. *Journal of Phytopharmacology*, (6), 349-351.
- Awuchi, C. G. (2019). Medicinal plants: the medical, food, and nutritional biochemistry and uses. *Journal of Advanced Academic Research*, (11), 220-241.
- Dixit, G. (2019). Ethnobotanical studies in India on the medicinal and aromatic plants. *Journal of Bioanalysis & Biomedicine*, (1), 122-123. DOI: 10.4172/1948-593X.1000e161
- Ebadi, M., and Eftekharian, R. (2019). Ethnobotanical study of medicinal plants used in Ahar-Arasbaran (protected area in East Azerbaijan province of Iran). *Journal of Mediterranean Botany*, (2), 209-214. DOI: 10.5209/mbot.62985
- Eghbal, H., Mohammadi, A., Mohammad, N. K., and Jahani, N. (2020). Barresi-ye khasiyat-e antibakteriyal-e esans-e giyahan-e darooei-e malva sylvestris jam avari shode-e az Meshkin Shahr bar ruy-e bacteriha-ye shay-e dahani va moghayes-e an ba dahansu-ye kolorhegzidin. *Majale-ye Zist Pezeshki-ye Pishraft-e*, (4), 2872-2882.
- Ghasemkhani, E., and Bagherzadeh Karimi, N. (2023). A general overview of the toponyms of komijan county, Iran. *BURANA - Türkoloji Araştırmaları Dergisi*, 1(2), 75-100. DOI: 10.5281/zenodo.10429162
- Ghasemkhani, T. (2018). Giyahan-e mantaghe-ye borchalu. *Elbilimi*, (101), 136-142.
- Gün, F., and Kasımhanı, İ. (2023). İran Merkezi bölgesinde Türklerinde ağaç kültürü. *Motif Akademi Halkbilimi Dergisi*, (41), 123-140. DOI: 10.12981/mahder.1225908
- Javid Rad, F. (2018). Shirepazan va mahsulat-e toliidi az shire-ye angur dar Komijan. *Elbilimi*, (101), 63-68.
- Karakose, M. (2022). An ethnobotanical study of medicinal plants in guce district, north-eastern Turkey. *Journal of Plant Diversity*, (44), 577-597. DOI: 10.1016/j.pld.2022.03.005
- Khaleghi, B., Awatafi Hemmat, M., Shamekhi, T., and Shirvani, A. (2015). Danesh-e ekolozhik-e sonnati-ye mardom-e mahalli az khavas-e darooei-e giyahan-e alafi va buteie-e dar hoze ilange chay-e Sabalan. *Faslname-ye Daneshha-ye Bumi-ye Iran*, (4), 204-234.
- Komijani Bozcheloei, Z. A., Ghiasian, M. S., and Taheri Ardali, M. (2022). Parakandegi-ye zabani dar ostan-e Markazi. *Nashriye-ye Elmi-ye Zaban-e Farsi va Guyeshha-ye Irani*, (13), 201-216. DOI: 10.22124/PLID.2023.22965.1615
- Moghanloo, L., Ghahremaninejad, F., and Vafadar, M. (2019). Ethnobotanical study of medicinal plants in the central district of the Zanjan county, Zanjan province, Iran. *Journal of Herbal Drugs*, (3), 121-131.
- Neelam, B., Poonam, V., and Chandranandani, N. (2018). A review on some traditional medicinal plants. *Int. J. Life. Sci. Scienti. Res*, (1), 1550-1556. DOI: 10.21276/ijlssr.2018.4.1.7
- Sabzi Nojadedh, M., Amani, M., and Younessi-Hamzekhanlu, M. (2021). Estefadehha-ye darooei az giyahan-e martaei tavasot-e mardom-e javam-e bumi dar mantagh-e Garedagh. *Motaleat-e Olum-e Zist*, (1), 3370-3382.

Sabzi nojedeh, M., Amani, M., Unesi Hmze-khanloo, M., Badri, L., Fathizadeh, O., and Sheiday Karkaj, E. (2021). Giyahan-e darooei-e daray-e karbordha-ye darmani dar javame-e bumi-ye mostaghar dar damane-e Sabalan (motale'e-ye moredi shahrestan-e Meshkinshahr, ostan-e Ardebil. *Majale-ye Manabe-e Tabiee-ye Iran*, (3), 529-542.

Singh, R., and Kmranjalkar, R. (2019). A study on folklore medicinal plants in chitrakootdham, region of uttar pradesh, India. *Journal of Interdisciplinary Cycle Research*, (10), 614-623.

Teixidor-Toneu, I., Kjesrud, K., Bjerke, E., Parekh, K., and Kool, A. (2020). From the Norwegian flora (eighteenth century) to "plants and tradition" (twentieth century): 200 years of Norwegian knowledge about wild plants. *Economic Botany*, (10), 1-13. DOI: 10.1007/s12231-020-09507

URL-1: Dargah-e Melli-ye Amar. Retrieved on 05 May 2024 from <https://www.amar.org.ir/>

URL-2: International Plant Names Index. Retrieved on 05 May 2024 from <https://www.ipni.org/> and <https://www.kew.org/>

Zolfaghari Baghersad, R., Piri, K., Abdoli, A., Mehrabian, A. R., and Abdoli, S. (2024). Importance of using ethnobiological knowledge for the conservation of medicinal plants biodiversity in the Lar region (Iran). *Journal of Medicinal Plants and By-products*, (1), 21-30. DOI: 10.22092/jmpb.2022.357916.1457

Zolfeghari, E., Adeli, I., Mozafarian, V., Babaiy, S., and Habibi Bibalan, G. (2011). Shenasaee-ye giyahan-e daruyi-ye mantagh-e Arasbaran va motale'e-ye danesh-e bumi-ye mardom-e mahali. *Faslname-ye Elmi-Pazhuheshi-ye Tahghight-e Giyahan-e Darooei va Moattar-e Iran*, (3), 534-550. DOI: 10.22092/ijmapr.2012.2971

Oral Sources

Oral Source-1: Maryam Ghasemkhani, Fazlabad 1959, Primary School Graduate, Housewife. (Interview: 23.08.2023).

Oral Source-2: Valiyollah Khosrobeygi, Emamzadeh Abbas 1950, Primary School Graduate, Ashik. (Interview: 05.04.2024).

Oral Source-3: Mahiyeh Khosrobeygi, Samghavor 1959, Illiterate, Ashik. (Interview: 05.04.2024).

Oral Source-4: Sakineh Isaabadi, Isaabad 1959, Illiterate, Housewife. (Interview: 05.04.2024).

Oral Source-5: Batool Yasbolaghi, Yasbolagh 1954, Primary School Graduate, Housewife. (Interview: 01.05.2024).

Oral Source-6: Mohammad Jaluli, Milajerd 1943, High School Graduate, Retired. (Interview: 01.05.2024).

Oral Source-7: Mosayyeb Javidrad Rad, Komijan 1933, Primary School Graduate, Freelance Job. (Interview: 01.04.2024).

Oral Source-8: Ali Famarini, Milajerd 1964, Bachelor's Degree, Retired. (Interview: 01.04.2024).

Oral Source-9: Gholamhosein Salari Shayesteh, Chal Mian 1966, Primary School Graduate, Farmer. (Interview: 02.05.2024).

Oral Source-10: Alireza Atabaki, Milajerd 1969, Primary School Graduate, Ashik. (Interview: 01.05.2024).

Çalışmanın yazarları “COPE-Dergi Editörleri İçin Davranış Kuralları ve En İyi Uygulama İlkeleri” çerçevesinde aşağıdaki hususları beyan etmişlerdir:

Etik Kurul Belgesi: Bu çalışma için etik kurul belgesi gerekmemektedir. / **Ethics Committee Approval:** Ethics committee approval is not required for this study.

Finansman: Bu çalışma için herhangi bir kurum veya kuruluştan destek alınmamıştır. / **Funding:** No support was received from any institution or organization for this study.

Destek ve Teşekkür: Bu araştırmada Mohammad Komijani (Javid Rad) ve Abbas Aghamohammadi'ye gösterdikleri iş birliği için en derin şükranlarımı sunarım. / **Support and Acknowledgments:** In this research, I would like to express our deepest appreciations to Mohammad Komijani (Javid Rad) and Abbas Aghamohammadi for their cooperation.

Çıkar Çatışması Beyanı: Bu makalenin araştırması, yazarlığı veya yayınlanmasıyla ilgili olarak yazarların potansiyel bir çıkar çatışması yoktur. / **Declaration of Conflicting Interests:** The authors has no potential conflict of interest regarding research, authorship or publication of this article.

Yazarın Notu: Bu çalışma herhangi bir bildiri veya tezden üretilmemiştir. / **Author's Note:** This study was not produced from any report or thesis.

Katkı Oranı Beyanı: Bu makalenin tüm bölümleri iki yazar tarafından hazırlanmıştır. / **Author Contributions:** All sections of this article have been prepared by two authors.