

An Ethnobotanical Field Survey in the Kadınhanı District of Konya in Turkey

Yavuz BAĞCI^{1*}, Levent KESKİN²

¹University of Selcuk, Faculty of Pharmacy, Department of Pharmaceutical Botanic, 42250 Kampüs / KONYA, ²University of Selcuk, Faculty of Biology, Department of Biology Botanic, 42250 Kampüs / KONYA

¹<https://orcid.org/0000-0002-2343-3672>, ²<https://orcid.org/0000-0001-8711-1763>

✉: ybagci@selcuk.edu.tr

ABSTRACT

The Kadınhanı district (Konya) is located in the Central Anatolia of Turkey. The objective of this study was to record the traditional knowledge of wild edible plants used by indigenous people in Kadınhanı, where no ethnobotanical studies have been conducted previously. This study was carried out in Kadınhanı district in April 2009-October 2011 to document the traditional knowledge of wild edible plants. Overall, 153 people who live or have lived in 4 towns, 37 villages and 9 neighborhoods were interviewed. Among the plants in the research area, it was determined that 108 species belonging to 39 families were used for food (75 uses), treatment (56 uses), feed (22 uses), materials (13 uses), ornaments (2 uses), fuel (9 uses) and for various purposes (2 uses) were used.

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Türkiye'de Konya İli Kadınhanı İlçesi'nde Bir Etnobotanik Alan Çalışması

ÖZET

Kadınhanı ilçesi (Konya) Türkiye'nin Merkez Anadolu bölgesinde yer almaktadır. Bu çalışmanın amacı, daha önce etnobotanik çalışmaların yapılmadığı Kadınhanı'nda yerli halk tarafından kullanılan yabani yenilebilir bitkilere ilişkin geleneksel bilgileri kayıt altına almaktır. Bu çalışma, yabani yenilebilir bitkilerin geleneksel bilgisini belgelemek amacıyla Nisan 2009-Ekim 2011 tarihleri arasında Kadınhanı ilçesinde yapılmıştır. 4 kasaba, 37 köy ve 9 mahallede yaşayan ya da yaşamış olan 153 kişi ile görüşülmüştür. Araştırma alanındaki bitkilerden toplamda 39 familyaya ait 107 türün gıda (75 kullanım), tedavi (56 kullanım), yem (22 kullanım) eşya (13 kullanım), süs (2 kullanım), yakacak (9 kullanım) ve çeşitli amaçlar için (2 kullanım) kullanıldığı tespit edilmiştir.

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INTRODUCTION

Traditional knowledge of plants and their uses is the result of thousands of years of experience (Addis et al. 2005). Interest in the use of wild food sources has increased in recent years. Valuable nutritional supplements, including trace elements, vitamins and minerals, are acquired from many wild plants (Łukasz 2012; Lev and Amar 2000; Sezik et al. 2001; Ertug et al. 2003; Ghorbani 2005; Baytop 2007; Teklehaymanot et al., 2007; Kargioğlu et al. 2008, 2010; Uğulu et al. 2009; Sarper et al. 2009; Öztürk and Ölçülü 2011; Demirci and Özhatay 2012; Sağıroğlu et al. 2012; Sargın et al. 2013; İnan et al. 2012; Arı et al. 2014, 2015; Hayta et al. 2014; Güler et al. 2015). Like in many other fields, the uses of wild plants are not transmitted to young generations and are forgotten in time. Unfortunately, in a country with a rich flora like

Turkey, since young people lack the desire to acquire this knowledge, ethnobotanical studies are of great importance to prevent loss of knowledge. Kadınhanı is important in terms of its location in the center of Central Anatolia Region at an altitude of 1128 m, surrounded by forest and mountainous areas to the south. A lot of floristic studies have been done in recent years and previous studies in the literature analyzed traditional ethnobotanical knowledge and herbs in various regions of Turkey (Baytop 1984, 1999; Honda et al 1996; Tuzlacı 1999; Sezik et al. 2001; Tuzlacı and Aymaz 2001; Yeşilada et al. 1995, 1999, 2001; Ertuğ 2000, 2004; Malyer et al. 2004; Özgen et al. 2004; Şimşek et al. 2004; Everest and Öztürk 2005; Ezer and Arısan 2006; Kargioğlu et al. 2008; Akan et al. 2008; Uğulu et al. 2009; Polat and Satıl 2011; Çakılcıoğlu et al. 2011; Durmuşkahya and Özhatay 2013), and reveal that there is not published data on the region studied.

Therefore, ethnobotanics of Kadınhanı (Konya) region will be reported for the first time in the present study. The aim of this study is to reveal the ethnobotanical characteristics of the plants that spread around Kadınhanı (Konya) and its surroundings.

MATERIAL and METHOD

Kadınhanı is a district of Konya city, which is located in the Central Anatolia region of Turkey (Fig. 1). This area lies at an altitude of approximately 1128 m a.s.l. Kadınhanı district consists of 4 towns, 37 villages and 9 neighborhoods settlements.

Kadınhanı has a continental climate. The summers are hot, and the winters are cold. This area belongs to the Irano-Turanian Plant Geography Region and falls within the C4 grid square according to the grid classification system developed by Davis (Davis 1965-1985).

The study area is covered with mixed forests (*Quercus cerris* L., *Quercus pubescens* Wild., *Quercus robur* L., *Pinus nigra* J. F. Arnold subsp. *pallasiana* (Lamb.) Holmboe, *Cistus laurifolius* L.) and a variety of plants (*Sinapis arvensis* L., *Echium italicum* L., *Chenopodium album* L., *Achillea arabica* Kotschy., *Achillea santolinoides* subsp. *wilhelmsii* (K. Koch) Greuter v.s.). Continental climate prevails in the region. The region has an annual average precipitation of 320- 431 mm with Mediterranean precipitation regime. Annual average temperature varies between 11-11.4 °C.

A questionnaire was utilized in the study and was administered to local people living in Kadınhanı center and its environs containing 37 villages (Figure 1).

To collect data for the present study, the questionnaire was administered to a total of 153 individuals residing in district center and 37 villages area, where plants are frequently used, between 2009 and 2011 years.

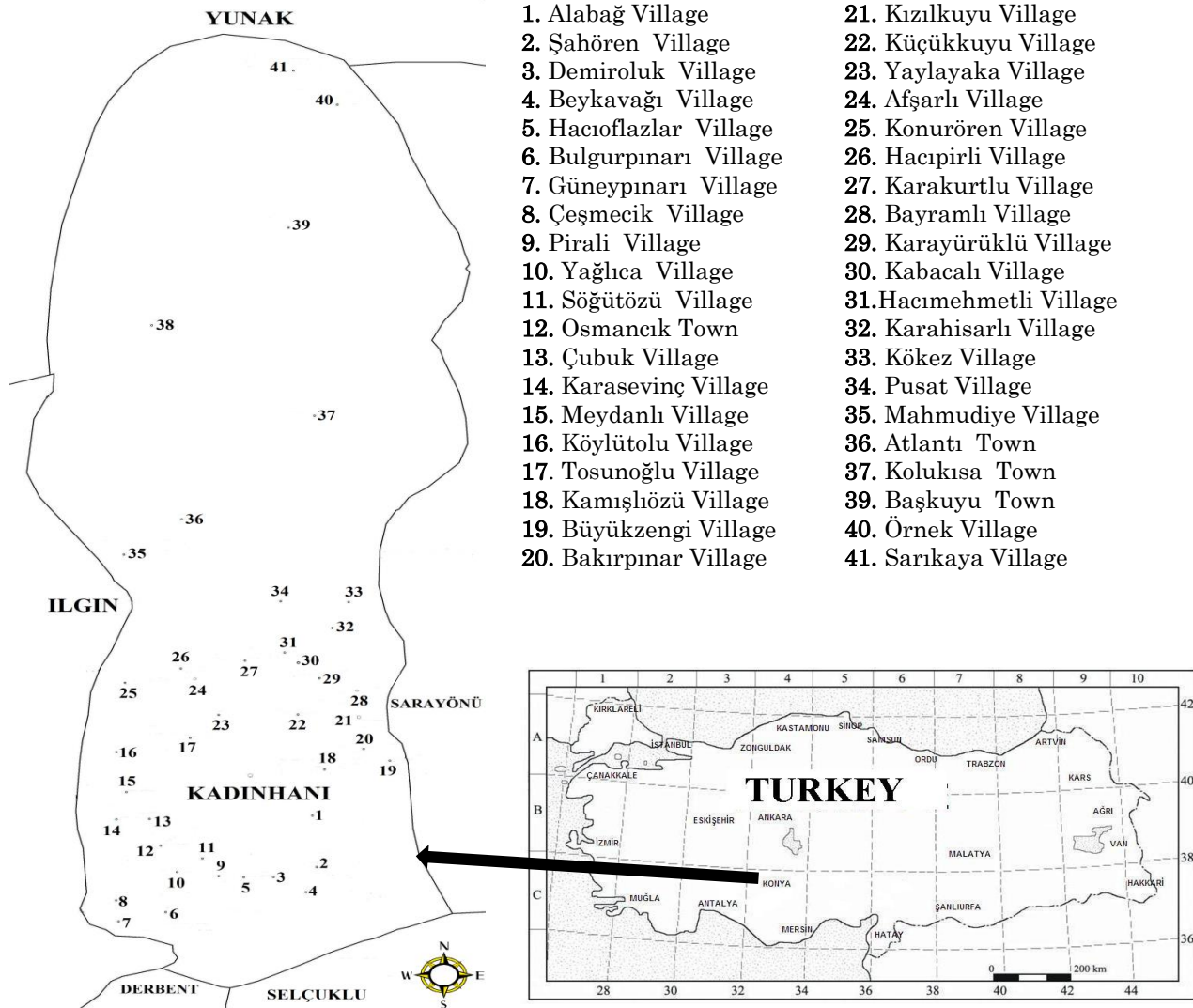


Figure 1. Map of information sources and study area
Şekil 1. Bilgi kaynakları ve çalışma alanı haritası

The participants' gender, age, profession and educational status were recorded. The individuals who participated in questionnaire were asked questions such as local names of the plants they use; usage type of the plants such as food, drug, decorative item, fuel, animal food, belief, and used parts of the plants; method of preparation and application of them and from whom they acquired knowledge about plants.

The interviews conducted in villages and data were collected from men during conversations particularly in village coffee houses or village houses in this locality. The women were also interviewed, and they were asked in their houses and gardens. Collected data were also recorded. The data collected from women mostly consisted of uses of the plants used as food, women's and children's ailments. It was found that a significant portion of the ethnobotanical knowledge in villages was acquired from Yörüks, old people, and shepherds. Data on animals, animal diseases and food plants specified by the shepherds were also recorded.

An ethnobotanical study was carried out between April 2009 and October 2011 to collect the knowledge of wild edible plant species being used by the local people in Kadınhanı district and the surrounding areas. During

this time, 107 plant specimens were collected. The collected plants were identified by the authors using 'Flora of Turkey (Davis 1965-1985), 'A Checklist of the Flora of Turkey (Vascular Plants) (Güner et al. 2012), 'Illustrated Flora of Turkey Vol 1 (Güner 2014) and 'Illustrated Flora of Turkey Vol 2 (Güner et al. 2018). Voucher specimens were deposited at the Herbarium of Faculty of Science, University of Selçuk (KNYA). The scientific names of the plant taxa were identified according to 'A Checklist of the Flora of Turkey (Vascular Plants) (Davis 1985-1985) and The Plant List (2013).

Field studies were performed in first shoot development, efflorescence, fructification and seed periods. Harvesting, pressing and drying processes of these plants were photographed. Approximately 3000 photographs were taken during the study.

RESULTS and DISCUSSION

A total of 153 individuals participated in the study during the mentioned period above. Of the participants, 101 were male within the age range of 15-98; 52 were female within the age range of 23-88 (Figure 2).

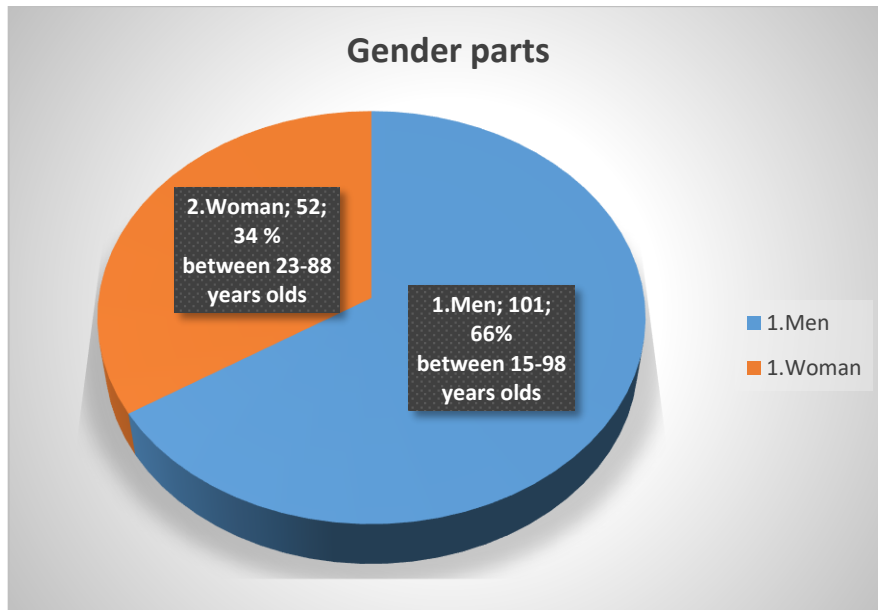


Figure 2. Age and gender distribution of the participants
Şekil 2. Katılımcıların yaş ve cinsiyet dağılımı

Of these participants, 3 (4.59%) held licence degrees; 8 (5.22%) were high school graduates; 2 (1.30%) were secondary school graduates; 99 (64.70%) were primary school graduates; 23 (15.03%) were literate and 18 (11.76%) were illiterate (Figure 3).

It is observed during the questionnaire work in villages that population of the villages dropped due to economic reasons since young population migrated to large cities to find jobs. Another reason for the decrease in

population in the village is scarce agricultural lands in mountain villages and inadequate economic gain from agricultural in plain villages. For these reasons, young population prefers to work in organized industrial zones in Konya city center. In addition to these negative situations, the death of aged people, reduction in a number of shepherds caused young people to forget ethnobotanical knowledge they have learned from their elders and applied so far. Although young people

in the locality did not use them frequently, when ethnobotanical plants are sold in city bazaars, they

supply and use these plants under the light of their old knowledge even when they are far from their villages.

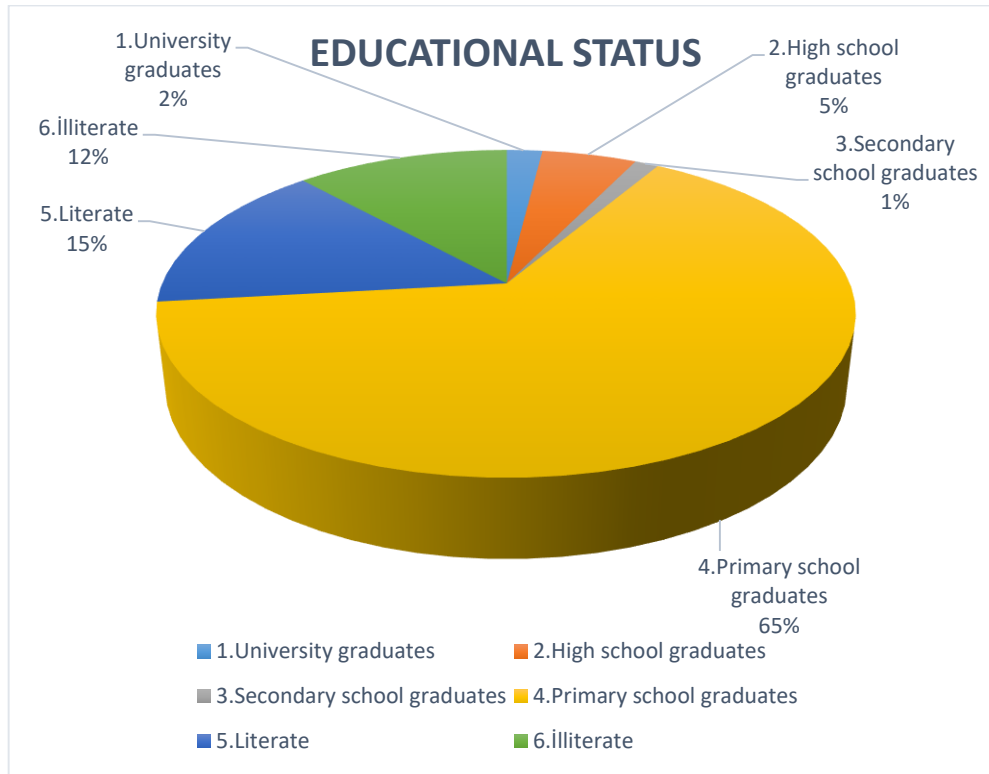


Figure 3. Educational status of 153 individuals participated in the questionnaire

Şekil 3. Ankete katılan 153 kişinin eğitim durumu

The plants identified in the study are presented in a table specifying family name, their general name, local name, used part, and usages. A total of 107 plants with different uses are identified in the study (Table 1). Of 88 genus belonging to 39 families were identified: Amaranthaceae (1), Anacardiaceae (1), Apiaceae (2), Asparagaceae 1, Asteraceae (22), Berberidaceae (1), Boraginaceae (1), Brassicaceae (6), Caryophyllaceae (3), , Cistaceae (1), Convolvulaceae (1), Cupressaceae (2), Elaeagnaceae (1), Euphorbiaceae (1), Fabaceae (8), Fagaceae (3), Geraniaceae (1), Juglandaceae (1), Lamiaceae (12), Malvaceae (2), Moraceae (1), Nitrariaceae (1), Papaveraceae (2), Pinaceae (1), Plantaginaceae (2), Plumbaginaceae (2), Poaceae (3), Polygonaceae (4), Portulacaceae (1), Ranunculaceae (1), Rhamnaceae (1), Rosaceae (8), Salicaceae (3), Santalaceae (1), Scrophulariaceae (1), Solanaceae (1), Thymelaeaceae (1), Urticaceae (1), Verbenaceae (1), (Figure 4).

It is observed that 56 of these plants are used for medicinal purposes; 75 for food purposes; 13 for manufacturing different materials; 9 for fuel; 2 for belief practice and 2 as decorative items. Used parts of the plants identified in our study can be listed as follows: root, stem, basal leaves and leaves, tubers, flower, seeds, fresh shoots, fruits, thin branch barks (Table 2, Fig. 5; Fig. 7 a-g; Fig. 7 h-k; Fig. 8 a-u; Fig. 9 a-s).

It is also observed that the plants are used as food in 10 different ways; while the plants are used for medicinal purposes in 30 different ailments. Others are used as fuel, materials, for belief and as decorative plants (Table 3). In the study, it is noticed that folk medicine did not lose its popularity. It is found that 56 plants with different pharmacological effects have been used in folk medicine, to treat various ailments such as infections, diabetes, diarrhea, and hemorrhoids (Table 4). They are also used in different parts of the body for various symptoms such as pain relief, antypretic, abdominal pain (Table 5).

The findings of the present study are not in agreement from those of previous ethnobotanical studies conducted in Turkey.

In a study carried out by Saday (2009) titled as "Ethnobotanical Properties of Güzeloluk Village and its Surrounding (Erdemli/MERSİN)" the plant *Dianthus zonatus* Fenzl. was named as "Karanfil" and it was reported that this plant was used for medicinal purposes to relieve common cold and that it was also used as a spice. However, in our study, the same plant was called a different name "Çingene kızı, Siğil otu" and it was observed that this plant was used in dermatological disorders particularly to treat warts. In the study of Saday, (2009) *Juniperus oxycedrus* L. was called "Yaban ardıç", and it was reported that the plant

Table 1. Plants in Kadınhanı and its vicinity and their uses

Tablo 1. Kadınhanı ve çevresinde bitkiler ve kullanımları

Family name (<i>Familya adı</i>)	Latin name (<i>Latince adı</i>)	Local name (<i>Yerel adı</i>)	Used part (<i>Kullanılan kısmı</i>)	Uses (<i>Kullanım amacı</i>)	Preparation (<i>Hazırlanması</i>)
Amaranthaceae	<i>Chenopodium album</i> L. var. <i>album</i>	Sirken	Leaf	Food	Fresh leaves are used as filling ingredients in pastry.
Anacardiaceae	<i>Rhus coriaria</i> L.	Sumak	Fruit	Food	Dried fruits are grinded and used as spice.
Apiaceae	<i>Anethum graveolens</i> L.	Dereotu	Leaf	Food	Dried leaves are used as spice.
Apiaceae	<i>Petroselinum crispum</i> (Mill.) A. W. Hill.	Maydanoz	Leaf, Stem	Food, Medicinal	Raw leaves are used in salads, dried plant is used as spice. Decoction of leaf stems is consumed to relieve rheumatic pains and for the fragmentation of kidney stones.
Asparagaceae	<i>Ornithogalum orthophyllum</i> Ten.	Kedi soğanı	Bulb	Medicinal	Fresh and cooked bulbs are used to remove boils.
Asteraceae	<i>Achillea biebersteinii</i> Afan.	Arı çiçeği	Flower	Food	Fresh flowers are meshed in press and eaten raw to treat abdominal pain. Decoction of dried flowers is used to treat abdominal pain, stomach pain and as antidiabetic and to lower cholesterol.
Asteraceae	<i>Achillea millefolium</i> L. subsp. <i>millefolium</i> L.	Arı çiçeği	Flower	Medicinal	Fresh flowers are meshed in press and eaten raw to treat abdominal pain. Decoction of dried flowers is used to treat abdominal pain, stomach pain and as antidiabetic and to lower cholesterol
Asteraceae	<i>Achillea wilhelmsii</i> C. Koch	Dingildana	Stem, Leaf, Flower	Food	Whole of the raw plant is used as animal food.
Asteraceae	<i>Anthemis austriaca</i> Jacq	Papatya	Flower, Leaf	Food, Medicinal	Basal leaves which are collected before efflorescence are eaten raw. Tea made of its dried flowers is used to ease breathing in dyspnea; as painkiller in urinary tract infections and stomach pain; tea made with the mixture of this plant and ebegümeçi has antipyretic, anti-inflammatory effects while tea made with the mixture of this plant with thyme has antidiabetic effect.
Asteraceae	<i>Artemisia santonicum</i> L.	Acı Yavşan	Leaf, Stem	Medicinal	It is used to make incense (burning of dried leaves and stem) to ease breathing of sick animals.
Asteraceae	<i>Carduus nutans</i> L.	Keçi kangalı	Leaf, Flower	Food	Small ruminants eat this plant raw.
Asteraceae	<i>Centaurea depressa</i> Bieb.	Gökbaş	Leaf,	Food	It fresh and dried plant is used as animal food.
Asteraceae	<i>Centaurea solstitialis</i> L. subsp. <i>solstitialis</i> L.	Su dikeneni, Saribaş dikeneni	Stem, Leaf, Flower	Food, Medicinal	Hay of the dried whole plant is used as animal food. Fresh flowers are eaten raw as a painkiller to treat abdominal pain.
Asteraceae	<i>Chondrilla juncea</i> L. var. <i>juncea</i> L.	Çıtlık	Stem, Aerial parts, Fresh root	Food	Fresh basal leaves are eaten raw.
Asteraceae	<i>Cichorium intybus</i> L.	Çöplü Güneyik	Root, end of fresh sprouts, Leaf, stem	Food	Fresh basal leaves are eaten raw. In addition, decoction of dried fresh root and shoots are consumed as tea.
Asteraceae	<i>Eryngium campestre</i> L. var. <i>virens</i> Link	Boğa dikeneni, Yelkovdu dikeneni	Root, Leaf, Flower	Medicinal	Fresh leaves are wrapped on the wound in snake bites; leaves and flowers are boiled and wrapped on the bite as a mash to remove the poison. Decoction of dried leaves and flowers is consumed as tea to treat gynecological diseases and body wounds.
Asteraceae	<i>Helichrysum plicatum</i> DC. subsp. <i>plicatum</i> DC.	Şeker otu	Flower, Leaf, Root	Medicinal	Fresh flowers and decoction of dried roots and leaves as tea are consumed as antidiabetic in diabetes.
Asteraceae	<i>Inula montbretiana</i> DC.	Şalba	Stem, Leaf, Flower	Medicinal	Whole plant is boiled in water, applied on the wound and used as antiseptics in animals.

Table 1. (continued) Plants in Kadınhanı and its vicinity and their uses

Tablo 1. Kadınhanı ve çevresinde bitkiler ve kullanımları

Family (<i>Familiya adı</i>)	name (<i>Latince adı</i>)	Latin name (<i>Latince adı</i>)	Local name (<i>Yerel adı</i>)	Used part (<i>Kullanılan kısmı</i>)	Uses (<i>Kullanım amacı</i>)	Preparation (<i>Hazırlanması</i>)
Asteraceae		<i>Lactuca serriola</i> L.	Acı marul, mikirge	Leaf	Food	Fresh leaves are consumed raw.
Asteraceae		<i>Lapsana communis</i> L. subsp. <i>pisidica</i> (Boiss. & Heldr.) Rech. Fil.	Kaba ot	Leaf , Flower, Stem	Food	Whole fresh plant is used as animal food.
Asteraceae		<i>Onopordum bracteatum</i> Boiss. & Heldr. var. <i>bracteatum</i> Boiss. & Heldr.	Deve dikenini	Stem, Leaf	Medicinal	Decoction of freshly collected stem and leaves is consumed to treat cardiac disorders.
Asteraceae		<i>Scorzonera cana</i> (C. A. Meyer) Hoffm. var. <i>cana</i> (C. A. Meyer) Hoffm.	Tekesakalı Dedesakalı	Leaf, Stem	Food	Fresh leaves are used in salads and wraps.
Asteraceae		<i>Taraxacum macrolepium</i> Schischkin	Keklik otu, karlan kavuk	Leaf	Medicinal	Fresh leaves are eaten raw in salads and in wraps. Decoction of dried flowers is consumed to clean blood.
Asteraceae		<i>Taraxacum officinale</i> Wiggers.	Güneyik	Leaf, Root, end of fresh sprouts	Food	Fresh basal leaves are eaten raw. In addition, dried fresh root and shoots are consumed as tea.
Asteraceae		<i>Tragopogon buphthalmoides</i> (DC.) Boiss. var. <i>buphthalmoides</i> (DC.) Boiss.	Yemlik	Leaf, Stem, Flower	Food	Fresh leaves are eaten raw in salads and in wraps.
Asteraceae		<i>Tragopogon latifolius</i> Boiss. var. <i>angustifolius</i> Boiss.	Sakız şalbası	Stem	Food	The trunk of the plant is cut at night and a cup is placed beneath. The milk extracted from this cut accumulates here. The milk is collected and gum is made from it in the morning.
Asteraceae		<i>Tragopogon latifolius</i> Boiss. var. <i>latifolius</i> Boiss.	Emlik	Leaf, Stem, Flower	Food	Fresh first growing leaves and thin stem are eaten raw in salads and wraps; flowers are eaten raw.
Berberidaceae		<i>Berberis crataegina</i> DC.	Karamik	Root, Fruit, Leaf	Food , Medicinal	Fresh leaves and fruits are consumed raw and used to make marmalade. Animals are drunk decoction of roots to get rid of parasites in their body.
Boraginaceae		<i>Echium italicum</i> L.	Danadili	Stem, Leaf, Flower	Food	Fresh plant is used as animal food.
Brassicaceae		<i>Brassica oleracea</i> L. var. <i>capitata</i>	Lahana	Leaf	Food, Medicinal	Fresh leaves are used to make pickle; they are boiled and used to cook stuffed cabbage. Boiled leaves are wrapped on the chest to treat coughing in pneumonia. They are wrapped in joints to relieve rheumatic pains.
Brassicaceae		<i>Capsella bursa-pastoris</i> (L.) Medik.	Çircucuva, cıtırcucuva	Leaf	Food	Fresh leaves are used in salads and wraps.
Brassicaceae		<i>Descurainia sophia</i> (L.) Webb ex Prantl	Babatça	Flower	Food	Infusion of dried flowers in boiled water is consumed as tea.
Brassicaceae		<i>Eruca sativa</i> Mill.	Roka	Leaf	Food	Fresh leaves are eaten raw.
Brassicaceae		<i>Lepidium sativum</i> L. subsp. <i>sativum</i>	Tere	Leaf	Food	Fresh leaves are used in salads and wraps.
Brassicaceae		<i>Sinapis arvensis</i> L.	Hardal	Leaf	Food	Basal leaves are eaten raw and used to cook a meal called "Borani".
Caryophyllaceae		<i>Dianthus zonatus</i> Fenzl. var. <i>zonatus</i>	Çingene kızı, Siğil otu	Flower	Medicinal	Raw flowers are meshed and applied on the skin to remove warts.
Caryophyllaceae		<i>Silene conoidea</i> L.	Emzik otu	Seed	Food	Seeds are eaten raw.

Table 1. (continued) Plants in Kadınhanı and its vicinity and their uses

Tablo 1. Kadınhanı ve çevresinde bitkiler ve kullanımları

Family (<i>Familiya adı</i>)	name (<i>Latince adı</i>)	Latin name (<i>Latince adı</i>)	Local name (<i>Yerel adı</i>)	Used part (<i>Kullanılan kısmı</i>)	Uses (<i>Kullanım amacı</i>)	Preparation (<i>Hazırlanması</i>)	
Caryophyllaceae		<i>Silene vulgaris</i> (Moench) Garcke.	Borana, Boramı	Leaf	Food	Basal leaves and fresh leaves are used to cook a meal called Borana .	
Cistaceae		<i>Cistus laurifolius</i> L.	Yavşanak	Flower, Stem	Leaf, Firewood	Medicinal, Firewood	Decoction of first growing flowers is used to treat ulcer; infusion of dried fruits are consumed as tea for cancer treatment. Fresh leaves are boiled, heated and applied on joints to relieve rheumatic pain; application of fresh leaves on boils matures the boils; dried trunk and branches are used as fuel.
Convolvulaceae		<i>Convolvulus arvensis</i> L.	Ulama otu	Leaf , Flower	Food	The plant is used as animal food for small ruminants.	
Cupressaceae		<i>Juniperus excelsa</i> M. Bieb. subsp. <i>excelsa</i>	Gilik Üzüümü	Fruit	Medicinal	Fresh fruits are consumed to remove kidney Stones; decoction of dried fruits is consumed to relieve abdominal gas; and dried fruits are grinded and consumed. The stem of the plant is used as construction material.	
Cupressaceae		<i>Juniperus oxycedrus</i> L. subsp. <i>oxycedrus</i>	Diken Ardiç	Fruit	Medicinal	Raw fruits are consumed to lose weight; decoction of dried fruits is used to relieve abdominal gas and dried fruits are grinded and consumed. The stem of the plant is used as construction material.	
Elaeagnaceae		<i>Elaeagnus angustifolia</i> L.	İğde	Flower, Seed	Fruit, Medicinal, Belief	Food, Fruits of the plant are eaten raw. Infusion of dried first growing flowers is consumed as vasolidator. Since the seeds are believed to protect children from evil eye, amulets are made from the seeds of the plant.	
Euphorbiaceae		<i>Euphorbia kotschyana</i> Fenzl	Sütleğen	Stem	Medicinal	The extract obtained from the cut stem of the plant is applied on the skin to treat hemorrhoids, dermatitis and warts.	
Fabaceae		<i>Astragalus microcephalus</i> Willd.	Geven	Stem, Root	Food	Fresh plant is used as animal food.	
Fabaceae		<i>Medicago sativa</i> L. subsp. <i>sativa</i> L.	Yaban yoncası	Stem, Flower	Leaf, Food	Fresh plant is used as animal food.	
Fabaceae		<i>Melilotus officinalis</i> (L.) Desr.	Yaban yoncası	Stem, Flower	Leaf, Food	Fresh plant is used as animal food.	
Fabaceae		<i>Onobrychis armena</i> Boiss. & Huet.	Tirfil	Stem, Flower	Leaf, Food	Fresh plant is used as animal food..	
Fabaceae		<i>Trifolium repens</i> L. var. <i>giganteum</i> Lag.-Foss.	Yonca	Stem, Flower	Leaf, Food	Fresh plant is used as animal food.	
Fabaceae		<i>Vicia sativa</i> L. subsp. <i>nigra</i> (L.) Ehrh. var. <i>nigra</i> (L.) Ehrh.	Kır fasılı	Stem, Flower	Leaf, Food	Fresh plant is used as animal food.	
Fabaceae		<i>Vicia narbonensis</i> L.	Yılan fasılı	Stem, Flower	Leaf, Food	Fresh plant is used as animal food.	
Fagaceae		<i>Quercus cerris</i> L. var. <i>cerris</i>	Keçi peliti	Leaf, Fruit	Food, Medicinal	Dried leaves and fresh fruits are used as animal food. Fruits are boiled and consumed for antidiabetic purposes. The trunk of the plant is used to produce various tools and as fuel.	
Fagaceae		<i>Quercus pubescens</i> Wild	Pelit	Leaf, Fruit	Food	Dried leaves and fresh fruits are used as animal food. The trunk of the plant is used to produce various tools and as fuel.	
Fagaceae		<i>Quercus robur</i> L. subsp. <i>robur</i>	Pelit (Yenilen)	Fruit	Food	Dried leaves and fresh fruits are used as animal food. Fruits are boiled and consumed as antidiabetic. The trunk of the plant is used to produce various tools and as fuel	

Table 1.(continued) Plants in Kadınhanı and its vicinity and their uses

Tablo 1. Kadınhanı ve çevresinde bitkiler ve kullanımları

Family name (<i>Familiya adı</i>)	Latin name (<i>Latince adı</i>)	Local name (<i>Yerel adı</i>)	Used part (<i>Kullanılan kısım</i>)	Uses (<i>Kullanım amacı</i>)	Preparation (<i>Hazırlanması</i>)
Geraniaceae	<i>Erodium cicutarium</i> (L.) L'Herit subsp. <i>cicutarium</i>	İnnelik	Leaf	Food	Fresh leaves are eaten raw in salads and in wraps.
Juglandaceae	<i>Juglans regia</i> L.	Ceviz	Leaf, the first flowers blooming, Fruit	Food, Medicinal	Fruits are eaten raw. Decoction of dried first growing shoots is consumed for leukemia. Leaves of the plant which are kept in freezer are wrapped on the body to relieve sunburn and to lower temperature in inflammatory diseases. Decoction of fresh leaves is consumed to treat hemorrhoids. The same liquid is used to wash the hemorrhoids areas. Kitchen utensils are made from the stem of the plant.
Lamiaceae	<i>Ajuga chamaepitys</i> (L.) Schreber subsp. <i>chia</i> (Schreber) Arcangelı var. <i>chia</i> (Schreber) Arcangelı	Yer meşesi	Flower	Medicinal	Fresh collected flowers are boiled and wrapped on wounds as mesh to heal wounds.
Lamiaceae	<i>Mentha x piperita</i> L.	Nane	Leaf	Food, Medicinal	Dried leaves are grinded and used as spice. Mint as a spice is boiled and consumed to treat common cold, coughing, heartburn, nausea and pains.
Lamiaceae	<i>Mentha spicata</i> L. subsp. <i>spicata</i> L.	Su nanesi	Leaf	Medicinal	Decoction of dried fruits is used to ease breathing in common cold.
Lamiaceae	<i>Origanum vulgare</i> L. subsp. <i>viride</i> (Boiss.) Hayek	Çay otu, domurcak çayı	Stem, Leaf, Flower	Food	Decoction of dried stem, leaves and flowers is consumed as tea.
Lamiaceae	<i>Phlomis linearis</i> Boiss. & Bal.	Kuş ağzı	Leaf, Flower	Medicinal	Decoction of dried leaves and flowers are consumed as antidiabetic and to relieve abdominal ailments.
Lamiaceae	<i>Salvia verticillata</i> L. subsp. <i>amasiaca</i> (Freyn.&Bornm.) Bornm	Kara şalba	Leaf, Flower	Medicinal	Fresh and dried leaves and flowers are boiled and applied on the wounds of animals as antiseptic.
Lamiaceae	<i>Satureja cuneifolia</i> Ten.	Kara kekik	Stem, Leaf, Flower	Food, Medicinal	Dried parts are used as spice and consumed as tea. Decoction of the plant is consumed to treat abdominal pain. Infusion of the plant with daisy has antidiabetic effect.
Lamiaceae	<i>Sideritis libanotica</i> Labill. subsp. <i>linearis</i> (Bentham) Bornm.	Dağ çayı, çay otu	Stem, Leaf, Flower	Food	Infusion of dried parts is consumed as tea.
Lamiaceae	<i>Stachys cretica</i> L. subsp. <i>anatolica</i> Rech. fil.	Çay otu	Leaf, Flower	Food	Decoction of dried parts is consumed as tea.
Lamiaceae	<i>Teucrium chamaedrys</i> L. subsp. <i>chamaedrys</i> L.	Kısacık Mahmut, Bodur can Mahmut,	Stem, Leaf, Flower	Medicinal	Fresh and raw plant is consumed to relieve abdominal pain. Dried parts are grinded and eaten for rheumatism and eye tumors and decoction is consumed. The same liquid is also used as a painkiller for abdominal pain.
Lamiaceae	<i>Teucrium polium</i> L.	Tatarca otu Koyun otu, Meryem otu, Boz ot	Leaf, Flower	Food, Medicinal	Tea is made from dried parts. The plant is consumed raw and in the form of decoction to relieve abdominal pain. Tea of the plant is used as myorelaxant, to relieve rash and hemorrhoids. Bathing with the water of boiled plant is used for sunburn. In addition, fresh leaves are wrapped on pustules to mature them.

Table 1.(continued) Plants in Kadınhanı and its vicinity and their uses

Tablo 1. Kadınhanı ve çevresinde bitkiler ve kullanımları

Family name (<i>Familiya adı</i>)	Latin name (<i>Latince adı</i>)	Local name (<i>Yerel adı</i>)	Used part (<i>Kullanılan kısım</i>)	Uses (<i>Kullanım amacı</i>)	Preparation (<i>Hazırlanması</i>)
Lamiaceae	<i>Thymus zygoides</i> Griseb. var. <i>lycaonicus</i> (Celak.) Ronniger	Kekik	Stem, Leaf, Flower	Food	Dried parts are used as spice and consumed as tea. Decoction of the plant is consumed to relieve abdominal pain.
Malvaceae	<i>Alcea pallida</i> Waldst. & Kit.	Fatma gülü	Flower	Medicinal, Ornamentalplant	Tea made of dried flowers is used to treat coughing in respiratory diseases. The plant is grown in gardens as a decorative plant.
Malvaceae	<i>Malva neglecta</i> Wallr.	Ebegümeçi	Leaf, Flower	Food, Medicinal	Fresh leaves are consumed as meal, filling ingredients in pastry, salads and wraps. Decoction of fresh leaves is drunk for headache; decoction of dried roots is consumed as tea for common cold; dried leaves and flowers are mixed with daisy and decoction is consumed as tea to treat body inflammations.
Nitrariaceae	<i>Peganum harmala</i> L.	Üzerlik	Seed	Medicinal, Decoration Belief	Roasted seeds are grinded and consumed in the form of powder. Various decorative items are made from the seeds. Burning dried seeds and stem as incense is believed to protect from evil eye.
Moraceae	<i>Morus alba</i> L.	Dut	Fruit	Food	Fresh fruit is eaten raw; jam is made from fresh fruits. Compote is made from dried fruits.
Papaveraceae	<i>Glaucium leiocarpum</i> Boiss.	Köpek lalesi	Leaf, Flower	Medicinal	Fresh leaves and flowers are eaten as raw and infusion of dried leaves and fruits is consumed as tea to treat wounds in internal organs
Papaveraceae	<i>Papaver glaucum</i> Boiss. & Hausskn.	Yaban haşhaşı, gelineşi	Leaf, Stem, Bud	Food	Fresh leaves and buds are eaten as raw. Before the flowering period, the leaves of the plant are rolled into bread and eaten.
Pinaceae	<i>Pinus nigra</i> J. F. Arnold subsp. <i>nigra</i> var. <i>caramanica</i> (Loudon) Rehder	Çam	Resin, Stem, Leaf, end of fresh sprouts, Fruit	Medicinal, Firewood	Resin is used to mature boils, to ease breathing, to heal skin cracks; shoots are used to ease breathing, tar extracted from the cones are used for dyspnea. Trunk and branches are used as fuel and to make various house, agricultural and construction materials.
Plantaginaceae	<i>Plantago lanceolata</i> L.	Yara otu	Leaf	Medicinal	Fresh leaves are used to mature boils and to treat the wound. Tea made of dried leaves is used for lung diseases and children with bedwetting problem.
Plantaginaceae	<i>Plantago major</i> L. subsp. <i>major</i>	Yara otu	Leaf	Medicinal	Fresh leaves are used to mature boils and to treat the wound. Tea made of dried leaves is used for lung diseases and children with bedwetting problem.
Plumbaginaceae	<i>Acantholimon acerosum</i> (Willd.) Boiss. var. <i>acerosum</i> (Willd.) Boiss.	Geven	Stem, Root	Food	Fresh plant is used as animal food.
Plumbaginaceae	<i>Acantholimon venustum</i> Boiss. var. <i>venustum</i> Boiss.	Geven	Stem, Root	Food	Fresh plant is used as animal food.
Poaceae	<i>Agropyron cristatum</i> L. (Gaertn)	Ayrık Otu	Leaf	Medicinal	Decoction of dried leaves is consumed for urinary tract inflammations. Fresh plant is boiled with corn silk and consumed to break up kidney stones.
Poaceae	<i>Hordeum vulgare</i> L.	Arpa	Seed	Food, Medicinal	The plant is used as animal food. The flour of the plant is cooked as a paste and applied in abdominal area to relieve abdominal pain in babies.
Poaceae	<i>Zea mays</i> L. subsp. <i>mays</i>	Mısır	Tassel	Medicinal	Fresh seeds are consumed by boiling; dried seeds are consumed as popcorn. In addition, dried plant is used as animal food. The plant is boiled with fresh ayırık otu and consumed to fragment kidney stone.
Polygonaceae	<i>Polygonum cognatum</i> Meissn.	Madımak	Leaf, Fresh Stem	Food	Fresh leaves are eaten raw in salads and wraps.

Table 1.(continued) Plants in Kadınhanı and its vicinity and their uses

Tablo 1. Kadınhanı ve çevresinde bitkiler ve kullanımları

Family (<i>Familiya adı</i>)	name (<i>Latince adı</i>)	Latin name (<i>Latince adı</i>)	Local name (<i>Yerel adı</i>)	Used part (<i>Kullanılan kısım</i>)	Uses (<i>Kullanım amacı</i>)	Preparation (<i>Hazırlanması</i>)
Polygonaceae		<i>Polygonum lapathifolium</i> L.	Süpürge otu	Stem, Leaf	Goods	Fresh plants are bundled and hang on a high place to dry. They are used as garden broom in dried form.
Polygonaceae		<i>Polygonum persicaria</i> L.	Sıçandışi	Stem, Leaf	Goods	Fresh plants are bundled and hang on a high place to dry. They are used as garden broom in dried form.
Polygonaceae		<i>Rumex patientia</i> L.	İlibada, evelik	Leaf	Food	Fresh leaves are boiled and used as stuffed leaves, filling ingredient for pastry and cooked as a meal called Borani.
Portulacaceae		<i>Portulaca oleracea</i> L.	Bostan güzeli, semiz otu	Leaf	Food	Fresh leaves are eaten raw; Tzatziki is made with yoghurt and cooked as a meal.
Ranunculaceae		<i>Ranunculus arvensis</i> L.	Su pıtrağı	Stem, Leaf	Medicinal	Fresh stem and leaves are meshed press and applied on swellings in knees due to rheumatism. The area is then wrapped with a cloth.
Rhamnaceae		<i>Rhamnus oleoides</i> L. subsp. <i>graecus</i> (Boiss. & Ruet.) Holmboe	Gövem	Fruit	Food, Medicinal	Fresh fruits are eaten raw. In winter, compote is made with dried fruits. Fresh fruits are used as antidiabetic.
Rosaceae		<i>Cotoneaster nummularia</i> Fisch. & Mey.	Kürt ağacı	Fruit, Stem, Leaf	Food, Medicinal, Firewood, Goods	Fresh fruits are eaten raw. Fresh fruits are consumed for antidiabetic effects; infusion of dried leaves is consumed as tea. Oil extracted from the burning of the wood of the plants Kürt and Alıç are applied on dermatitis on the skin. Trunk and branches are used as fuel. It is also used to make various house and agricultural tools.
Rosaceae		<i>Crataegus monogyna</i> Jacq. subsp. <i>monogyna</i> Jacq.	Kızılıcak, Kırmızı alıç	Fruit	Food	Fresh fruits are eaten raw.
Rosaceae		<i>Crataegus orientalis</i> Pallas Ex Bieb. var. <i>orientalis</i> Pallas Ex Bieb.	Alıç	Root, Flower, Fruit	Food, Medicinal, Goods	Fresh fruits are eaten raw. Infusion of dried flower buds is consumed as tea for heart disorders. Decoction of the roots of the plant is consumed to treat kidney disorders. Oil extracted from the burning of the wood of the plants Alıç and kürt are applied on dermatitis on the skin. Kitchen utensils are made from the trunk of the plant.
Rosaceae		<i>Cydonia oblonga</i> Mill.	Ayva	Leaf, Fruit, Seed	Food, Medicinal	Fresh fruits are eaten raw. Compote is made from its fruits and the fruits are cooked in the oven. Decoction of dried leaves is consumed to relieve coughing. Decoction of the seeds of the fruit is consumed to treat common cold. Fresh seeds of the fruit are mixed with rose water and kept in a cup for one day. The obtained emulsion is applied on nipple cracks in women.
Rosaceae		<i>Fragaria vesca</i> L.	Çilek	Fruit	Food	Fresh fruits are eaten raw; they are also used to make jam.
Rosaceae		<i>Pyrus elaeagnifolia</i> Pallas. subsp. <i>elaegnifolia</i>	Dağ armudu, Yaban armudu	Fruit	Food, Medicinal	Fresh fruits are eaten raw and used to make pickles. Fresh fruits are eaten to treat diarrhea.
Rosaceae		<i>Rubus idaeus</i> L.	Çitir, Temel üzümü	Leaf, Fruit, Root	Food, Medicinal	Fresh fruits are eaten raw. Decoction of dried roots is consumed for heart disorders. Fresh fruits of the plant are recommended to prevent cancer.
Rosaceae		<i>Rosa canina</i> L.	Kuşburnu, İtburnu, öküzgözü	Fruit	Food, Medicinal	Fresh fruits are used to make compote and marmalade. Infusion of dried fruits is consumed as tea. Tea made of the plant is used as a painkiller in common cold. Fresh fruits are consumed to relieve abdominal pain. Its marmalade is used to treat diarrhea.

Table 1.(continued) Plants in Kadınhanı and its vicinity and their uses

Tablo 1. Kadınhanı ve çevresinde bitkiler ve kullanımları

Family name (<i>Familiya adı</i>)	Latin name (<i>Latince adı</i>)	Local name (<i>Yerel adı</i>)	Used part (<i>Kullanılan kısım</i>)	Uses (<i>Kullanım amacı</i>)	Preparation (<i>Hazırlanması</i>)
Salicaceae	<i>Populus alba</i> L.	Selvi	Stem	Firewood, Building Materials	Trunk, lateral branches and barks are used as fuel. Particularly the trunk is used as construction material.
Salicaceae	<i>Populus nigra</i> L.	Karakavak	Stem	Firewood, Building Materials	Trunk, lateral branches and barks are used as fuel. Particularly the trunk is used as construction material.
Salicaceae	<i>Salix babylonica</i> L.	Salkım söğüt	Leaf and shells thin branches	Medicinal	Infusion of dried leaves and barks of thin stems are consumed as tea.
Santalaceae	<i>Viscum album</i> L. subsp. <i>album</i> L.	Büvelek otu, böğürtlen	Leaf, Flower	Food, Medicinal	Fresh leaves are eaten by humans and animals. Dried parts are used as animal food. Tea is made from dried parts to ease breathing and to relieve abdominal pain. Dried leaves are kept in water for one day and the liquid is drunk for antidiabetic effects in liver cancer.
Scrophulariaceae	<i>Verbascum cheiranthifolium</i> var. <i>cheiranthifolium</i>	Sığır kuyruğu	Thin sprout, Flower, Leaf, Fresh root	Food, Medicinal	Decoction of dried parts is consumed in hemorrhoids, prostate, dyspnea and renal disorders as diuretic. Leaves are boiled and meshed. The obtained emulsion is applied on the boil. Dried plants are used as fuel.
Solanaceae	<i>Solanum tuberosum</i> L.	Gumpir	Stem	Food, Medicinal	Various meals are cooked by frying, roasting and boiling the plant. Peeled potato is wrapped on the forehead to relieve headache.
Thymelaeaceae	<i>Daphne oleoides</i> Schreber subsp. <i>oleoides</i>	Çöpleme	Stem, Leaf, Flower	Medicinal	Fresh plant is boiled in a cup and the sick person sits in this cup for a while. Leaves and thin stems of the plant are cut and meshed in press, the mesh is then cooked with some wheat and milk and the obtained mixture is applied on joints.
Urticaceae	<i>Urtica dioica</i> L.	Isırgan	Stem ve Leaf	Food, Medicinal	Leaves of the plant are used as filling material in pastry and cooked as meal. Decoction of the stem and leaves is consumed to treat renal inflammations. Infusion of dried leaves is consumed as tea to treat goiter and dyspnea. The leaves are boiled and wrapped on joints to relieve rheumatic pain.
Verbenaceae	<i>Verbena officinalis</i> L.	Basır otu	Stem, Leaf, Flower	Medicinal	Dried parts of the plant are dried and grinded and tea is made from this powder. Fresh plant is used as a plaster and applied on the wound to treat hemorrhoids. Fresh parts of the plant are eaten raw.

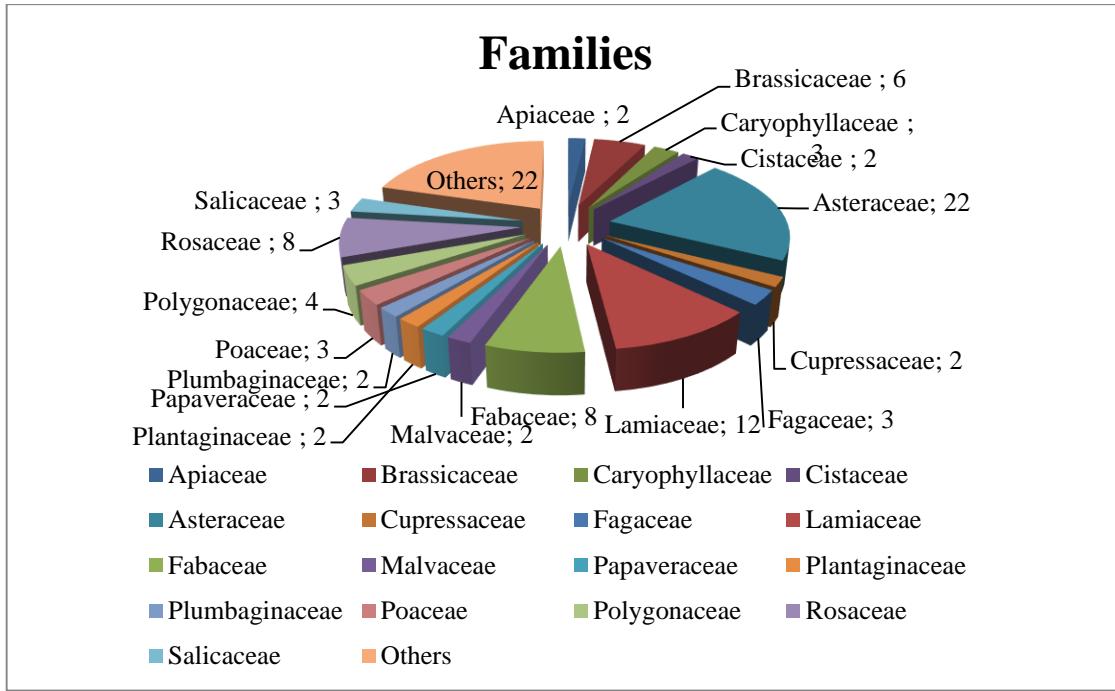


Figure 4. Pie Chart of the Plant Families in the Study Area

Şekil 4. Çalışma Alanındaki Bitki Familyalarının Pasta Grafiği

Table 2. Number of plants used in the study

Tablo 2. Çalışmada kullanılan bitki sayısı

Used part	Number of plants
Root	12
Stem	43
Aerial parts, Leaf	75
Flower	45
Basal shoot	6
Fruit	21
Seed	5
Other	4

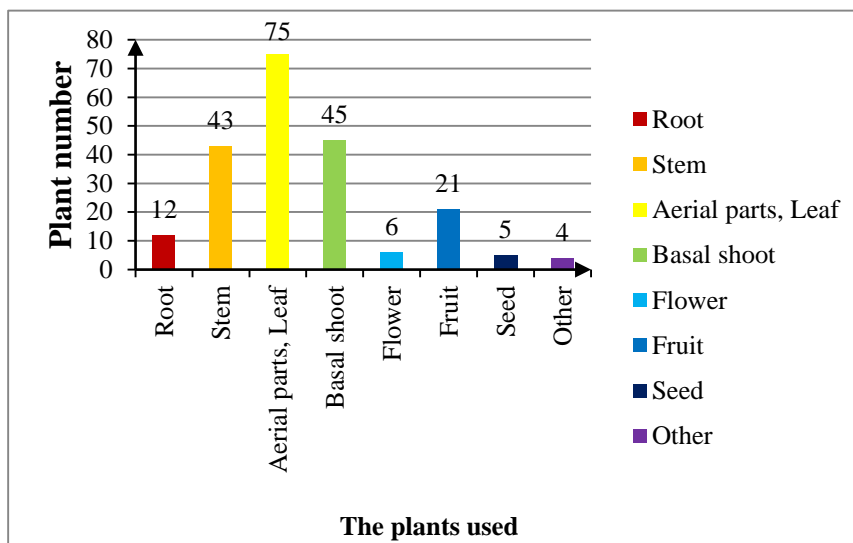


Figure 5. Used parts of the plants identified in the study

Şekil 5. Çalışmada belirlenen bitkilerin kullanılmış kısımları

Table 3. Uses of the plants analyzed in the study and number of plants

Tablo 3. Çalışmada incelenen bitkilerin kullanımları ve bitki sayısı

Intended use (Kullanım amacı)	Number of plants (Bitki sayısı)	Intended use (Kullanım amacı)	Number of plants (Bitki sayısı)
MEDICINAL	Antirheumatic	7	MEDICINAL
	Antinephritic	9	
	Stomach diseases	6	
	Anti-asthmatic	14	
	Antiphlogistic	6	
	Antidiabetic	11	
	Abdominal pain	10	
	Cardiac	3	
	Anti-dermatitis	5	
	Anticarcinogen	4	
	For boil treatment (antiphlogistic)	7	FOOD
	For sunburn	2	
	Vasodilator	1	
	Anti-hemorrhoidal	5	
	Antihistaminic	1	
	For eye tumor	1	
	For headache	1	
	Analgesic	5	
	Internal organ injuries	1	
	Antidiarrhetic	2	
Plants used to treat prostate disease	1	Fuel	
Plants used to treat goiter	1		
		Material	9
		Belief	10
		Decorative Item	2
		Astringent & Laxative	1
		Animal diseases	4
		Cholesterol	2
		Blood Cleansing	1
		Gynecological diseases	1
		Snake bite	1
		Weight loss	1
		Antinephritic for children	1
		Plants used as filling ingredient for pastry	5
		Plants cooked as a meal	7
		Plants used to make stuffed vegetables	2
		Plants which are consumed raw	23
		Plants which are used to make pickle	2
		Plants whose fruits are eaten	13
		Plants consumed as infusion	11
		Plants consumed as spice	6
		Animal food	22
		Used plants as ash	3

Table 4. Medicinal uses of plant species for different types of ailments

Tablo 4. Bitki türlerinin farklı hastalık türleri için tıbbi kullanımları

No	Ailment (<i>Hastalık</i>)	Medicinal Plants (<i>Bitki ismi</i>)
1	Rheumatism	<i>Petroselinum crispum</i> , <i>Cistus laurifolius</i> , <i>Brassica oleracea</i> var. <i>capitata</i> , <i>Teucrium polium</i> , <i>Teucrium chamaedrys</i> , <i>Ranunculus arvensis</i> , <i>Daphne oleoides</i>
2	Stomach	<i>Cistus laurifolius</i> , <i>Cota austriaca</i> , <i>Achillea arabica</i> , <i>Achillea millefolium</i> ,
3	Asthmatic	<i>Cota austriaca</i> , <i>Brassica oleracea</i> , <i>Mentha x piperita</i> , <i>Mentha spicata</i> , <i>Alcea pallida</i> , <i>Malva neglecta</i> , <i>Pinus nigra</i> subsp. <i>pallasiana</i> , <i>Plantago major</i> , <i>Plantago lanceolata</i> , <i>Rosa canina</i> , <i>Cydonia oblonga</i> , <i>Verbascum cheiranthifolium</i> , <i>Urtica dioica</i> , <i>Viscum album</i>
4	Cardiac	<i>Onopordum bracteatum</i> , <i>Rubus idaeus</i> , <i>Crataegus orientalis</i>
5	Lösemi	<i>Juglans regia</i> ,
6	Boil	<i>Plantago major</i> , <i>Verbascum cheiranthifolium</i> , <i>Cistus laurifolius</i> , <i>Ornithogalum orthophyllum</i> , <i>Pinus nigra</i> subsp. <i>pallasiana</i> , <i>Plantago lanceolata</i> , <i>Teucrium polium</i>
7	Liver cancer	<i>Viscum album</i>
8	Hemorrhoids	<i>Juglans regia</i> , <i>Teucrium polium</i> , <i>Verbascum cheiranthifolium</i> , <i>Verbena officinalis</i> , <i>Peganum harmala</i>
9	Eye tumor	<i>Teucrium chamaedrys</i>
10	Diarrhea	<i>Rosa canina</i> , <i>Pyrus elaeagnifolia</i>
11	Prostate	<i>Verbascum cheiranthifolium</i>
12	Goiter	<i>Urtica dioica</i>
13	Animal diseases	<i>Berberis crataegina</i> , <i>Inula montbretiana</i> , <i>Artemisia santonicum</i> , <i>Salvia verticillata</i> subsp. <i>amasiaca</i>
14	Peptic Ulser	<i>Juniperus oxycedrus</i> ,
15	Urinary calculus	<i>Petroselinum crispum</i>
16	Ulcer	<i>Cistus laurifolius</i>
17	Papilloma	<i>Dianthus zonatus</i> , <i>Euphorbia kotschyana</i> , <i>Pinus nigra</i> subsp. <i>pallasiana</i>
18	Temriye	<i>Crataegus orientalis</i> , <i>Cotoneaster nummularia</i>
19	Sunburn	<i>Juglans regia</i> , <i>Teucrium polium</i>
20	Hemorrhoids	<i>Juglans regia</i> , <i>Teucrium polium</i> , <i>Verbascum cheiranthifolium</i> , <i>Verbena officinalis</i> , <i>Peganum harmala</i>
21	Gynecological diseases	<i>Eryngium campestre</i>

Table 5. Medicinal uses of plant species for different symptoms

Tablo 5. Bitki türlerinin farklı semptomlar için tıbbi kullanımları

No	Symptom (<i>Belirti</i>)	Plant name (<i>Bitki ismi</i>)
1	Antiphritic	<i>Petroselinum crispum</i> , <i>Cota austriaca</i> , <i>Plantago major</i> subsp. <i>major</i> , <i>Plantago lanceolata</i> , <i>Agropyron cristatum</i> , <i>Zea mays</i> , <i>Crataegus orientalis</i> , <i>Verbascum cheiranthifolium</i> , <i>Juniperus excelsa</i>
2	Abdominal pain	<i>Achillea arabica</i> , <i>Achillea millefolium</i> , <i>Centaurea solstitialis</i> , <i>Teucrium polium</i> , <i>Teucrium chamaedrys</i> , <i>Satureja cuneifolia</i> , <i>Thymus zygoides</i> , <i>Hordeum vulgare</i> , <i>Rosa canina</i> <i>Viscum album</i> ,
3	Antidiabetic	<i>Cota austriaca</i> , <i>Achillea biebersteinii</i> , <i>Achillea millefolium</i> L., <i>Helichrysum plicatum</i> , <i>Quercus cerris</i> , <i>Quercus robur</i> , <i>Satureja cuneifolia</i> , <i>Phlomis linearis</i> , <i>Rhamnus oleoides</i> , <i>Cotoneaster nummularia</i> , <i>Viscum album</i>
4	Anti-dermatic	<i>Dianthus zonatus</i> , <i>Euphorbia kotschyana</i> , <i>Pinus nigra</i> subsp. <i>pallasiana</i> , <i>Crataegus orientalis</i> , <i>Cotoneaster nummularia</i>
5	Vasolidator	<i>Elaeagnus angustifolia</i>
6	Antihistaminic	<i>Teucrium polium</i>
7	Headache	<i>Solanum tuberosum</i>
8	Analgesic	<i>Daphne oleoides</i> , <i>Malva neglecta</i> , <i>Rosa canina</i> , <i>Salix babylonica</i> , <i>Urtica dioica</i>
9	Interior organ injuries	<i>Glaucium leiocarpum</i>
10	Laxative	<i>Peganum harmala</i>
11	Cholesterol	<i>Achillea arabica</i> , <i>Achillea millefolium</i>
12	Blood Cleansing	<i>Taraxacum acroterium</i>
13	Snake bite	<i>Eryngium campestre</i>
14	Weight loss	<i>Juniperus oxycedrus</i>
15	Antipyretic for children	<i>Juglans regia</i>
16	Anticarcinogen	<i>Cistus laurifolius</i> , <i>Rubus idaeus</i>
17	Antiphlogistic	<i>Anthemis austriaca</i> , <i>Eryngium campestre</i> var. <i>virens</i> , <i>Euphorbia kotschyana</i> , <i>Malva neglecta</i> , <i>Plantago major</i> subsp. <i>major</i> , <i>Plantago lanceolata</i>
18	Stomach Gas	<i>Juniperus excelsa</i>
19	Shortness Of Breath	<i>Pinus nigra</i> subsp. <i>pallasiana</i>
20	Vasolidator	<i>Elaeagnus angustifolia</i>
21	Antihistaminic	<i>Teucrium polium</i>
22	Headache	<i>Solanum tuberosum</i>
23	Interior organ injuries	<i>Glaucium leiocarpum</i>

was used to relieve snake bites, bee sting, eczema and allergic reactions. However, in our study the same plant was known as “Diken ardıç” and it was found that the plant was used as anti-flatulent in abdominal ailments and to treat an ulcer. Saday (2009) reported that the plant named *Glaucium leiocarpum* Boiss. known as “Kuşekmeği” was only used as filling ingredient in pastry. However, in our study, the same plant is known as “Köpek lalesi” and it was observed that the plant was used to treat internal organs injuries. The plant named *Daphne oleoides* was known as “Develik otu” was reported to be used only as a decorative plant. However, in our study, this plant was called “Çöpleme”. It was also reported that the plant was used to treat rheumatic pain.

In a study carried out by Çimen (2007) titled as “Ethnobotanical Studies on Folk Medicines used in Konya”, it was reported that the plant *Berberis crataegina* DC. known as “Karamık ağacı” was used for medicinal purposes for eye ache. However, in the present study, the same plant was called “Karamık” and it was found that this plant had medicinal uses to remove internal parasites of animals. Çimen (2007) reported that the plant was also used as a food and the fruits of the plant were eaten and used to make marmalade; fresh leaves of the plant were also consumed. Furthermore, it was reported that *Echium italicum* L. “Topalomar otu” plant was medicinally used to treat wounds. However, in the present study, the same plant was known as “Danadili” and had a different use as animal food. Çimen (2007) reported that *Urtica dioica* L. “Isırgan” plant was medicinally used for rheumatism. However, in the present study different preparations of the same plant were reported. We found that this plant was used as food; as filling ingredient in pastry and was cooked as a meal. As for the medicinal uses, it was found that this plant was used for kidney, goiter.

In a study carried out by Öztürk (2005) titled as “Ethnobotanical features of Nizip (Aksaray) district” it was reported that the plant *Cota austriaca* (Jacq.) Sch.Bip. “Papatya” was used for medicinal purposes and that decoction of its flowers relieved abdominal pain and was used as a diuretic, anti-inflammatory, and antiseptics. However, in the present study, it was found that the same plant was known with the same name and that it was used for medicinal purposes in abdominal ailments, to ease breathing in dyspnea, to treat ailments of kidney and urinary tract, inflammations and for antidiabetic effects. It was reported that the leaves of daisy, which are collected before efflorescence, are eaten in salads or wraps. It was reported that the plant *Chondrilla juncea* L. known as “Çengel, Ak hindi bağ” had medicinal uses. Öztürk reported that gum made of this plant was used to heal wounds and to treat stomach ailments. However, in the present study, it was found that the

same plant was known as “Çıtlık” and that the first growing basal leaves of the plant were eaten in salads and wraps. Öztürk reported that *Populus alba* L. was known as “Kavak” had medicinal uses and decoction of trunk, brunch, and barks of the plant had analgesic, anti-inflammatory, sudorific properties in common cold, relaxing, laxative and diuretic properties. In our study, the same plant was called with a different name “Selvi”. It was reported that the trunk and peeled barks of this plant were used as fuel and that it was also used as an item to produce various tools for agricultural and various purposes.

In the study carried out by Ezer and Avcı (2004) titled as “Folk Medicines of Çerkeş (Çankırı) in Turkey” it was reported that the plant *Teucrium polium* L. known as “Mayasıl otu, Yavşan otu” had medicinal uses and that the plant was used to treat hemorrhoids and to wean babies. However, in the present study, the same plant had different names such as “Koyun otu, Meryem otu, Boz ot”. As for the uses of the plant, it was reported that decoction of dried leaves and flowers of the plant were consumed as tea and that it was used medicinally to treat hemorrhoids, to remove rash, to mature boils, to treat abdominal pain, sunburn and as myorelaxant.

In the study carried out by Elçi and Erik (2006) titled as “Ethnobotanical Properties of Güzül (Ankara) and Near Environs” it was reported that the plant *Viscum album* L. was known as “Hurç” and used for medicinal purposes against cancer. However, in the present study, the same plant was known as “Büvelek otu”. As for the uses of this plant, it was reported in the present study that in addition to use as animal food and medicinal use for cancer treatment, the plant was also used to ease breathing in respiratory tract ailments, as anti-hypertension and as a painkiller for abdominal pain.

In the study carried out by Sarper et al., (2009) titled as “An Ethnobotanical Field Survey in the Haymana District of Ankara Province in Turkey” the plant *Echium italicum* L. was known as “Kangal” and it reported that the plant was consumed raw as food. However, in the present study, the same plant was known as “Danadili” and it was found to be used as animal food.

In the study carried out by Yücel et al., (2010) titled as “The wild plants consumed as food in Mihalıççık district (Eskişehir-Turkey) and consumption forms of these plants” the plant *Tragopogon latifolius* Boiss. known as “Yemlik” was reported to be consumed as food in salads. However, in the present study, it is reported that the same plant is known by the same name however with a very different use. We report that the gum extracted from the plant is consumed by children.

In the study carried out by Kargıoğlu et al. (2010) titled as “Traditional Uses of Wild Plants in the Middle

Aegean Region of Turkey” it was reported that the plant *Centaurea solstitialis* L. was known as “Süpürge otu” was only used to make goods and that threshing field and street sweeper was made from the aerial parts of the plant. However, in our study the same plant was known as “Su diken, Sarıbaş diken” and it was reported that the growing thorns of the plant were collected and dried; they were processed as hay and used as animal food. As for medicinal uses, it was found that fresh flowers of the plant were eaten to treat abdominal pain.

Comparison of the present study with international ethnobotanical studies indicates that the literature contains a large body of research on traditional folk remedies.

In their works titled as “Ethnobotanical knowledge of the Istro-Romanians of Z’ ejane in Croatia” Pieroni et al., (2003) reported that decoction made from the flowers of *Achillea millefolium* L. was used for anti-obesity and digestive disorders. However, in the present study, it is observed that fresh flowers of an infusion of dried flowers of the same plant are used for digestive disorders. In addition, tea made from the flowers of this plant is used as antidiabetics and to lower cholesterol.

In a study carried out by Ejaz (2003) titled as “Ethnobotanical Uses of Plants of Lawat District Muzaffarabad Azad Jamnu and Kashmir” it was reported that the leaves of *Plantago lanceolata* L. were used to treat burns and wounds and its seeds were used for constipation. However, in the present study it was found that the same plant was used to treat wounds, to mature boils. In addition, infusion of dried leaves of the plant was used to treat lung disease and to prevent bedwetting.

In the study carried out by Ghorbani et al., (2005) titled as “Lamiaceae Family in Folk Medicine in Iran: from Ethnobotany to Pharmacology” it was reported that *Teucrium chamaedrys* L. was used for medicinal purposes for jaundice, bladder stone, and miscarriage. However, in the present study it is found that the infusion of the dried whole plant is used to treat rheumatic pain and eye tumors. In addition, fresh leaves and flowers are eaten and a decoction of dried leaves and flowers are consumed.

The lists of Jewish pharmacists used by middle age communities in 11th and 14th centuries, which are considered as the oldest ethnobotanical record of the world, can be found in the collection of Genizah T.S. This was uncovered by Lev and Amar (2006). The researchers reported that extracts obtained from flowers, seeds, oil, and fruits of *Rosa canina* L. are used for eye disorders, examples and to lower high fever. According to the present study, only the fruit of this plant is used. Fruits of these plants are used as food and for medicinal purposes; marmalade and tea are

made from these fruits. As for medicinal uses, infusion of fruits of the plant is used to treat common cold; consumption of raw fruits treats abdominal pain, and its marmalade is consumed to treat diarrhea.

In the study carried out by Awan et al., (2011) titled as “Studies on traditional knowledge of economically important plants of Kaghan Valley, Mansehra District, Pakistan” it was reported that the seeds of *Peganum harmalla* L. plant were grinded and used to lower malaria fever. However, in the present study, it was found that the seeds are roasted and grinded and one spoon of this powder is consumed on an empty stomach for hemorrhoids and constipation. Furthermore, the seeds of the plant are used for decorative purposes and as incense to protect from the evil eye.

In the study carried out by Ayyanar and Ignacimuthu (2009) titled as “Herbal medicines for wound healing among tribal people in Southern India” it was reported that the leaves of *Morus alba* L. plant were used to heal wounds. However, in the present study, we found that fruit of this plant was used as food.

In the study carried out by Ahvazi et al., (2012) titled as “Introduction of Medicinal Plants Species with the Most Traditional Usage in Alamut Region” it was reported that flowers, leaves, and roots of *Malva neglecta* Wallr. were eaten and infusion of the plant was used to treat constipation, infected boils and oral fungi in children. However, in the present study, it was found that infusion of leaves of the same plant was consumed for a headache as tea; decoction of dried roots was consumed for common cold and infusion of dried leaves, flowers and daisy were consumed to treat inflammations.

Comparison of our study with recent ethnobotanical studies carried out in near and far regions is presented in the following table. The plants included in the table are the ones identified in the study area of the present study (Table 1). The plants shown with (+) are the ones which are used in the present study and in that locality. On the other hand, the plants shown with (-) are the ones which are included in the present study but not used in that region. The present study was compared with 9 ethnobotanical studies in Figure 6. Previous studies are represented in the table with numbers as their titles were very long (Table 6). These studies are as follows:

1. Keskin. L. (2011) Ethnobotanical Properties of Some Local Plants in Kadınhanı (Konya) and its Surrounding
2. Ezer, N., Avcı K. (2004) Folk Medicines of Çerkeş (Çankırı) in Turkey
3. Oral, Ç.D. (2007) Ethnobotanical Studies on Folk Medicines used in Konya
4. Elçi. B., Erik. S. (2006). Ethnobotanical Properties of Güdül (Ankara) and Near Environs

5. Sarper. F. et al., (2009). An Ethnobotanical Field Survey in the Haymana District of Ankara Province in Turkey
6. Yücel. E. et al., (2010) The wild plants consumed as food in Mihalıççık district (Eskişehir-Turkey) and consumption forms of these plants
7. Metin, A. (2009). Ethnobotanical Properties of Plants in Mut and its Surrounding (Mersin).

8. Öztürk, M., Dinç M. (2005) Nizip (Aksaray) Bölgesinin Etnobotanik Özellikleri
9. Saday, H. (2009) Ethnobotanical Properties of Güzeloluk Village and its Surrounding (Erdeмли/MERSİN)
10. Kargıoğlu et al. (2010) Traditional Uses of Wild Plants in the Middle Aegean Region of Turkey

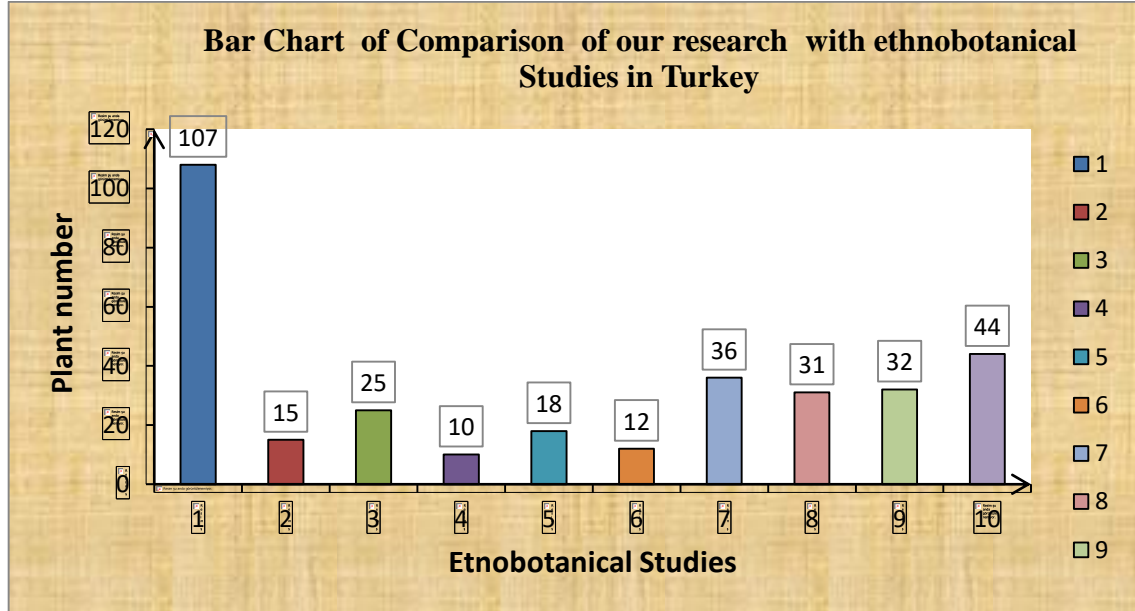


Figure 6. Bar Chart of Comparison of our research with ethnobotanical studies in Turkey
Şekil 6. Araştırmamızın Türkiye'deki etnobotanik çalışmalarla Karşılaştırma Çubuk Grafiği

CONCLUSION

The present study, which was carried out in Kadınhanı and 37 villages, aimed to document and record ethnobotanical uses of wild plants. The uses of these plants were categorized as food, animal food, traditional folk medicine, material (houseware, construction material, various agricultural tools etc.) fuel and belief (Fig. 7-8).

Traditional ethnobotanical data dating back to very old times were obtained and recorded in the present study. It was observed that ethnobotanical knowledge was partially forgotten by the new generation; however local people still made use of this knowledge intensively. Although ethnobotanical plants sold in particularly local bazaars were used by the young generation, as ethnobotanical data is transmitted by word of mouth, they are forgotten and lost quickly. To prevent this loss of ethnobotanical knowledge, this data should be identified by the researchers and thus should be transmitted to future generations. Therefore, ethnobotanical studies should be supported; particularly researchers and the public should be offered encouraging opportunities. In addition, findings in the field of phytotherapy should be supported and collected in a data center. Every individual should fulfill their duties for ethnobotanical

studies.

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Contribution of the Authors as Summary

- 1- Prof.Dr. Yavuz BAĞCI and Uz. Levent KESKİN have designed the study and collected the data.
- 2- Selçuk University, Department of Scientific Research Project Coordination provided the fund support.
- 3- Uz. Levent KESKİN executed the experiment with the help of by Prof. Dr. Yavuz BAĞCI
- 4- Uz. Levent KESKİN wrote the article, which critically reviewed by Prof. Dr. Yavuz BAĞCI

Contribution of the Authors as Summary

Authors declare the contribution of each author is equal.

Table 6. Comparison of our research with ethnobotanical studies in Turkey
Tablo 6. Araştırmamızın Türkiye'deki etnobotanik çalışmalarla karşılaştırılması

No	Latin name (<i>Latince adı</i>)	Turkey General Name (<i>Türkiye genel adı</i>)	Local name (<i>Yerel adı</i>)	1	2	3	4	5	6	7	8	9	10
1	<i>Rhus coriaria</i> L.	Sumak	Sumak	+	-	-	-	-	-	+	-	-	-
2	<i>Anethum graveolens</i> L.	Dereotu	Dereotu	+	-	-	-	-	-	+	+	-	-
3	<i>Petroselinum crispum</i> (Mill.) Fuss	Maydanoz	Maydanoz	+	+	-	-	-	-	+	+	+	-
4	<i>Berberis crataegina</i> DC.	Karamuk	Karamık	+	+	+	+	-	-	+	-	+	+
5	<i>Echium italicum</i> L.	Engerek otu	Danadili	+	-	+	-	+	-	-	-	-	+
6	<i>Brassica oleracea</i> L.	Beyaz Lahana	Lahana	+	-	-	-	-	-	+	-	+	-
7	<i>Capsella bursa-pastoris</i> (L.) Medik.	Kuşkuş otu	Circicuva, bicibici, cırcıcuva	+	-	-	-	+	+	+	+	-	+
8	<i>Descurainia sophia</i> (L.) Webb ex Prantl	Uzun süpürge otu	Babatça	+	-	-	-	-	-	-	-	-	-
9	<i>Eruca vesicaria</i> (L.) Cav.	Roka	Roka	+	-	-	-	-	-	+	+	+	+
10	<i>Lepidium sativum</i> L.	Tere	Tere	+	-	-	-	-	-	+	-	-	-
11	<i>Sinapis arvensis</i> L.	Hardal otu	Hardal	+	-	-	-	+	+	+	-	+	+
12	<i>Dianthus zonatus</i> Fenzl.	Halkalı karanfil	Çingene kızı, Siğilotu	+	-	-	-	-	-	-	-	+	+
13	<i>Silene conoidea</i> L.	Salkım çiçeği	Emzik otu	+	-	-	-	-	-	-	-	-	-
14	<i>Silene vulgaris</i> (Moench) Garcke.	Gıvışgan otu	Borana, Boranı	+	-	-	-	-	-	-	-	+	-
15	<i>Chenopodium album</i> L.	Sirken	Sirken	+	-	-	-	+	+	+	+	+	+
16	<i>Cistus laurifolius</i> L.	Tavşancıl, İldon, İldan	Yavşanak	+	-	+	-	-	-	-	-	-	+
17	<i>Achillea biebersteinii</i> Afan.	Sarı civanperçemi	Arı çiçeği	+	-	+	-	-	-	-	-	-	-
18	<i>Achillea arabica</i> Kotschy	Beyaz civanperçemi	Arı çiçeği	+	-	-	-	-	-	-	+	-	-
19	<i>Achillea santolinoides</i> subsp. <i>wilhelmsii</i> (K.Koch) Greuter	Civanperçemi	Dingil dana	+	-	+	-	+	-	-	+	-	-
20	<i>Cota austriaca</i> (Jacq.) Sch.Bip.	Kelkız çiçeği	Papatya	+	-	-	-	-	+	-	+	-	-
21	<i>Artemisia santonicum</i> L.	Deniz pelini	Acı Yavşan	+	-	+	-	-	-	-	-	-	-
22	<i>Carduus nutans</i> L.	Deve dikenini	Keçi kangalı	+	-	-	-	+	-	-	-	-	-
23	<i>Cyanus depressus</i> (M.Bieb.) Soják	Acımık	Gökbaş	+	-	-	-	-	-	-	-	-	+
24	<i>Centaurea solstitialis</i> L.	Zerdali dikenini	Su dikenini, Sarıbaş dikenini	+	-	+	-	-	-	-	+	-	+
25	<i>Chondrilla juncea</i> L.	Çengel sakızı	Çıtlık	+	-	-	-	-	-	-	+	-	+
26	<i>Cichorium intybus</i> L.	Hindiba	Çöplü Güneyik	+	-	-	-	-	+	-	+	-	+
27	<i>Eryngium campestre</i> L.	Tengel dikenini	Boğadikenini, Yelkovdu dikenini	+	-	-	-	+	-	-	+	-	-
28	<i>Helichrysum plicatum</i> DC.	Ölmez çiçek	Şeker otu	+	-	+	-	-	-	-	-	-	-
29	<i>Inula montbretiana</i> DC	Andız otu	Şalba	+	-	-	-	-	-	-	-	-	-
30	<i>Lactuca serriola</i> L.	Yabani marul	Acı marul, mikirge	+	-	-	-	+	-	+	-	+	+
31	<i>Lapsana communis</i> L. subsp. <i>pisidica</i> (Boiss. & Heldr.) Rech. Fil.	Şebrek	Kaba ot	+	-	-	-	-	-	-	-	-	-
32	<i>Onopordum bracteatum</i> Boiss. & Heldr. var. <i>bracteatum</i>	Kangal dikenini	Deve dikenini	+	-	-	-	-	-	-	-	-	-
33	<i>Podospermum canum</i> C.A.Mey	Dede sakalı	Teke sakalı, Dedesakalı	+	-	-	-	-	-	-	-	-	-
34	<i>Taraxacum macrolepium</i> Schisch.	Karahindiba	Keklik otu, karlan kavuk	+	-	-	-	-	-	-	-	-	-
35	<i>Taraxacum officinale</i> (L.) Weber ex F.H.Wigg.	Karahindiba	Güneyik	+	-	-	-	-	-	-	+	-	-
36	<i>Tragopogon buphthalmoides</i> (DC.) Boiss.	Yemlik	Yemlik	+	-	-	-	-	-	-	-	-	-
37	<i>Tragopogon latifolius</i> Boiss.	Yemlik	Sakız şalbası	+	-	-	-	-	+	-	-	-	-
38	<i>Tragopogon latifolius</i> Boiss.	Yemlik	Emlik	+	-	-	-	-	-	-	-	-	+
39	<i>Convolvulus arvensis</i> L.	Mamıza	Ulama otu	+	-	-	-	-	-	+	-	-	+
40	<i>Juniperus excelsa</i> M. Bieb.	Boylu ardıç, Boz ardıç	Gilik Üzüümü	+	-	-	-	-	-	+	-	-	+
41	<i>Juniperus oxycedrus</i> L.	Katran ardıcı	Diken Ardıç	+	+	+	-	-	-	+	-	+	+

Table 6. Comparison of our research with ethnobotanical studies in Turkey
Tablo 6. Araştırmamızın Türkiye'deki etnobotanik çalışmalarla karşılaştırılması

No	Latin name (<i>Latince adı</i>)	Turkey General Name (<i>Türkiye genel adı</i>)	Local name (<i>Yerel adı</i>)	1	2	3	4	5	6	7	8	9	10
42	<i>Elaeagnus angustifolia</i> L.	İğde	İğde	+	-	-	-	-	-	+	+	-	-
43	<i>Euphorbia kotschyana</i> Fenzl	Sütleğen	Sütleğen	+	-	-	-	-	-	-	-	-	-
44	<i>Quercus cerris</i> L. var. <i>cerris</i>	Saçlı meşe	Keçi peliti	+	-	-	-	-	-	+	-	-	+
45	<i>Quercus pubescens</i> Wild	Meşe	Pelit	+	+	-	+	-	-	-	-	-	+
46	<i>Quercus robur</i> L.	Saplı meşe	Pelit(Yenilen)	+	-	-	-	-	-	-	-	-	-
47	<i>Erodium cicutarium</i> (L.) L'Hér.	İğnelik	İnnelik	+	-	-	-	-	-	+	-	+	+
48	<i>Juglans regia</i> L.	Ceviz	Ceviz	+	+	-	+	+	-	+	+	+	-
49	<i>Ajuga chamaepitys</i> subsp. <i>chia</i> (Schreb.) Arcang.	Yer çamı	Yer meşesi	+	-	-	-	-	-	-	+	+	-
50	<i>Mentha x piperita</i> L.	Nane	Nane	+	-	-	-	-	-	-	-	+	-
51	<i>Mentha spicata</i> L.	Nane	Su nanesi	+	-	+	-	-	-	-	+	-	-
52	<i>Origanum vulgare</i> L.	Mercanköşk	Çay otu, domurcak çayı	+	-	-	-	-	-	-	-	-	-
53	<i>Phlomis linearis</i> Boiss. & Balansa	Çalba	Kuş ağzı	+	-	-	-	-	-	-	-	-	-
54	<i>Salvia verticillata</i> L. subsp. <i>amasiaca</i> (Freyn.&Bornm.) Bornm	Adaçayı	Kara şalba	+	-	-	-	-	-	-	-	-	-
55	<i>Satureja cuneifolia</i> Ten.	Dağ kekiği	Kara kekik	+	-	+	-	-	-	-	-	-	-
56	<i>Sideritis libanotica</i> Labill.	Dağ çayı	Dağ çayı, çay otu	+	-	+	-	-	-	-	-	-	+
57	<i>Stachys cretica</i> L. subsp. <i>anatolica</i> Rech. f.	Dağ çayı	Çay otu	+	-	-	-	-	-	-	-	-	+
58	<i>Teucrium chamaedrys</i> L.	Kısa Mahmut otu	Kısacık Mahmut, Bodur can Mahmut, Tatarca otu	+	-	+	-	+	-	-	-	-	+
59	<i>Teucrium polium</i> L.	Acı yavşan	Koyun otu, Meryem otu, Boz ot	+	+	+	-	+	-	+	+	-	+
60	<i>Thymus zygoides</i> Griseb.	Kekik	Kekik	+	-	+	-	-	-	-	-	-	-
61	<i>Astracantha microcephala</i> (Willd.) Podlech	Geven	Geven	+	-	-	-	-	-	-	+	-	+
62	<i>Medicago sativa</i> L.	Çevrince	Yaban yoncası	+	-	-	-	-	-	-	-	+	+
63	<i>Melilotus officinalis</i> (L.) Pall.	Beyaz yonca	Yaban yoncası	+	-	-	-	-	-	-	-	-	-
64	<i>Onobrychis arenaria</i>	Yabancı korunga	Tirfil	+	-	-	-	-	-	-	-	-	-
65	<i>Trifolium repens</i> L.	Yonca	Yonca	+	-	-	-	-	-	-	-	-	-
66	<i>Trigonella spruneriana</i> Boiss.	Tırtıl	Mal yoncası	+	-	-	-	-	-	-	-	-	-
67	<i>Vicia sativa</i> L.	Burçak	Kır fasılı	+	-	-	-	-	-	-	-	-	-
68	<i>Vicia narbonensis</i> L.	Koca fiğ	Yılan fasılı	+	-	-	-	-	-	-	-	+	+
69	<i>Ornithogalum orthophyllum</i> Ten.	Tükrük otu	Kedi soğanı	+	-	-	-	-	-	-	-	-	-
70	<i>Alcea pallida</i> Waldst. & Kit.	Hatmi	Fatma gülü	+	-	+	-	-	-	-	-	+	+
71	<i>Malva neglecta</i> Wallr.	Ebegümeçi	Ebegümeçi	+	+	+	+	+	+	+	+	+	+
72	<i>Morus alba</i> L.	Akdut	Dut	+	-	-	-	-	-	-	-	+	+
73	<i>Glaucium leiocarpum</i> Boiss.	Boynuzlu gelincik	Köpek lalesi	+	-	+	-	-	-	+	-	+	-
74	<i>Papaver glaucum</i> Boiss. & Hausskn.	Gelincik	Yaban haşhaşı, gelineli	+	-	-	-	-	-	-	-	-	-
75	<i>Pinus nigra</i> J. F. Arnold. subsp. <i>pallasiana</i> (Lamb.) Holmboe	Karaçam	Çam	+	+	-	-	-	-	-	+	-	+
76	<i>Plantago lanceolata</i> L.	Sinir otu	Yara otu	+	+	+	-	-	+	+	-	+	+
77	<i>Plantago major</i> L. subsp. <i>major</i>	Bağa	Yara otu	+	+	+	+	+	+	-	-	-	-
78	<i>Acantholimon acaerosum</i> (Wild.) Boiss.	Pişik geveni	Geven	+	-	-	-	-	-	-	-	-	-
79	<i>Acantholimon venustum</i> Boiss.	Pişik geveni	Geven	+	-	-	-	-	-	-	-	-	-
80	<i>Agropyron cristatum</i> (L.) Gaertn.	Ayrık Otu	Ayrık Otu	+	-	-	-	-	+	+	+	+	-
81	<i>Hordeum vulgare</i> L.	Arpa	Arpa	+	-	-	-	-	-	+	-	+	-
82	<i>Zea mays</i> L.	Mısır	Mısır	+	+	-	-	-	-	+	+	+	-
83	<i>Polygonum cognatum</i> Meissn.	Madımak	Yaban kuzukulağı	+	-	-	-	+	+	+	-	-	+

Table 6. Comparison of our research with ethnobotanical studies in Turkey													
Tablo 6. <i>Araştırmamızın Türkiye'deki etnobotanik çalışmalarla karşılaştırılması</i>													
No	Latin name (<i>Latince adı</i>)	Turkey General Name (<i>Türkiye genel adı</i>)	Local name (<i>Yerel adı</i>)	1	2	3	4	5	6	7	8	9	10
84	<i>Persicaria lapathifolia</i> (L.) Delarbre	Söğüt otu	Süpürge otu	+	-	-	-	-	-	-	-	-	-
85	<i>Persicaria maculosa</i> Gray	Söğüt otu	Sıçandışi	+	-	-	-	-	-	-	-	-	-
86	<i>Rumex patientia</i> L.	Labada	İlibada, evelik	+	-	-	-	-	-	-	-	+	+
87	<i>Portulaca oleracea</i> L.	Semizotu	Bostan güzeli, semiz otu	+	-	-	-	+	-	+	+	+	+
88	<i>Ranunculus arvensis</i> L.	Düğün çiçeği	Su pıtrağı	+	-	-	-	-	-	+	-	-	+
89	<i>Rhamnus lycioides subsp. oleoides</i> (L.) Jahand. & Maire	Kör diken	Gövem	+	-	-	-	-	-	-	-	+	-
90	<i>Cotoneaster nummularia</i> Fisch. & Mey.	Tavşan elması	Kürt ağacı	+	-	-	-	-	-	-	-	-	+
91	<i>Crataegus monogyna</i> Jacq.	Alıç	Kızılçık, Kırmızı alıç	+	-	-	+	-	-	+	-	+	-
92	<i>Crataegus orientalis</i> Pallas ex Bieb.	Alıç	Alıç	+	-	-	+	-	-	-	+	-	-
93	<i>Cydonia oblonga</i> Mill.	Ayva	Ayva	+	+	-	-	-	-	-	+	+	-
94	<i>Fragaria vesca</i> L.	Çilek	Çilek	+	-	-	-	-	-	-	-	-	-
95	<i>Pyrus elaeagnifolia</i> Pallas.	Ahlat	Dağ armudu, Yaban armudu	+	-	-	-	-	-	+	-	+	+
96	<i>Rubus idaeus</i> L.	Ahududu	Çitir, Temel üzümü	+	-	-	-	-	-	+	-	-	-
97	<i>Rosa canina</i> L.	Yabani gül	Kuşburnu, İtburnu, öküzgözü	+	+	+	+	+	+	+	+	+	+
98	<i>Populus alba</i> L.	Akkavak	Selvi	+	-	-	-	-	-	+	+	-	-
99	<i>Populus nigra</i> L.	Karakavak	Karakavak	+	-	-	-	-	-	-	-	+	+
100	<i>Salix babylonica</i> L.	Söğüt	Salkım söğüt	+	-	-	-	+	-	-	-	-	-
101	<i>Verbascum cheiranthifolium</i>	Sığırkuyruğu	Sığırkuyruğu	+	+	-	-	-	-	-	-	+	-
102	<i>Solanum tuberosum</i> L.	Patates	Gumpir	+	-	-	-	-	-	+	+	+	-
103	<i>Daphne oleoides</i> Schreb.	Dafne	Çöpleme	+	-	+	-	-	-	-	-	+	+
104	<i>Urtica dioica</i> L.	Isırgan	Isırgan	+	+	+	+	+	+	-	+	+	+
105	<i>Verbena officinalis</i> L.	Mine çiçeği	Basır otu	+	-	-	-	-	-	-	-	-	-
106	<i>Viscum album</i> L.	Ökse otu	Büvelek otu, böğürtlen	+	-	+	+	-	-	+	+	-	+
107	<i>Peganum harmala</i> L.	Üzerlik	Üzerlik	+	-	+	-	-	-	+	+	-	+



Figure 7. a-f Medicinal, h-k Food plant used. a- *Cistus laurifolius* L., b- *Inula montbretiana* DC., c- *Euphorbia kotschyana* Fenzl., d- *Verbascum cheiranthifolium*, e- *Plantago lanceolata* L., f- *Ornithogalum ortophyllum* Ten., g- *Rubus idaeus* L., h- *Taraxacum officinale* (L.) Weber ex F.H.Wigg., i- *Sinapis arvensis* L., j- *Rosa canina* L., k- *Rhus coriaria* L., l- *Pyrus elaeagnifolia* Pallas.

Şekil 7. a-f Tibbi, h-k Gıda için kullanılan bitkiler a- *Cistus laurifolius* L., b- *Inula montbretiana* DC., c- *Euphorbia kotschyana* Fenzl., d- *Verbascum cheiranthifolium*, e- *Plantago lanceolata* L., f- *Ornithogalum ortophyllum* Ten., g- *Rubus idaeus* L., h- *Taraxacum officinale* (L.) Weber ex F.H.Wigg., i- *Sinapis arvensis* L., j- *Rosa canina* L., k- *Rhus coriaria* L., l- *Pyrus elaeagnifolia* Pallas.



Figure 8. a-u materials. a-Andız, **b-**Cane, **c-**Scythe, **d-**Pitchfork, **e-** Snow shovel, **f-**Atkı, **g-**Grain shovel, **h-**Pişirgeç, **r-** Grain stem scratch **i-**Wine cask boring, **j-**Garden broom, **k-**House broom, **l-** Kirkit, **m-**Wooden mortar, **n-**Senit, **o-**Partridge cage, **ö-**Plane, **p-**Sieve, **r-**Packsaddle, **s-**Kirman (Yün eğirme aleti=Wool spin tool), **ş-**Düven, **t-**Hanger, **u-**Edik (parmak koruyucu=Finger protective used)

Şekil 8. a-u malzemeler. a-Andız, **b-**Baston, **c-**Tırpan, **d-**Dirgen, **e-** Kar küreği, **f-**Atkı, **g-**Tahıl küreği, **h-**Pişirgeç, **r-** Tahıl sap tırnığı **i-**Şarap fıçısı delicisi, **j-**Bahçe süpürgesi, **k-**Ev süpürgesi, **l-** Kirkit, **m-**Dibek, **n-**Senit, **o-**Keklik kafesi, **ö-**Planya, **p-**Elek, **r-**Eğer, **s-**Kirman (Yün eğirme aleti = Yün eğirme aleti), **ş-** Düven, **t-**Askı, **u-**Edik (= Parmak koruyucu), **ü-**Ediğin kullanımı (Parmak koruyucu)

Statement of conflict of interest

Authors have declared no conflict of interest.

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