



(RESEARCH ARTICLE)



## Ethnobotanical therapeutic features of some plants of the vicinity of Bahçesaray (Müküs) in the province of Van/Turkey #

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### Abstract

The aim of this study is to determine the natural and cultivated plants that the locals living in the villages and bushes of Bahçesaray's center have traditionally benefited from and determine the diversity of use of these plants and reveal their significance in terms of ethnobotany.

This work is given with, usage forms, used parts and local names of medicines, food, fuel, stain, economic value of plants and feedstuffs used by the public for handicrafts.

Between, 2016-2018, interviews and survey studies were made with Bahçesaray (Müküs) and people living in the vicinity of it. 57% of the 185 informants were female and 43% were male. Female users are all homemakers and male users are engaged in different occupational groups.

As a result of the research, 76 plants taxa belonging to 28 families used for different purposes and their local knowledge related to them were given. It was determined that 46 of the collected plants were treated as food, 24 as treatment, 10 as feed, 10 as fire, 3 as handicrafts, 2 as economical and 2 as used as stain. In addition, the uses of 5 plants in different areas (ornament, poison, toy, etc.) were determined.

It has been determined that 29 taxa have been used in our research area for purposes that are totally or partially different from their known use. The first five families containing the highest number of taxa from the plants determined to be used in the research field were determined in order Rosaceae 17 (%22,4), Asteraceae 13 (%17,10), Lamiaceae 7 (%9,21), Fabaceae 4 (%5,26) and Apiaceae 3 (%3,95).

**Keywords:** Ethnobotany; Bahçesaray; Müküs; Van; Turkey

### 1. Introduction

The term ethnobotany was first used by Professor John W. Harshberger in 1896 and was simply described as, the use of plants by the local population (Cotton, 1996). The relationship between humans and plants has continued since humanity has existed. Ertuğ; "Etnobotanik describes the interaction, use, production and consumption arising from the relationship between human and plant" (Ertuğ 2004a, b, c).

In planting of plant species, which are superior in terms of resistance to diseases, it can also be the source of determination of new plant species in which paints with more permanent colors will be obtained (Özhatay, N. et al. 1997; Sadıkoğlu, N. 1998). People and some animals meet most of their needs through plants. Animals use plants that

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exist in nature for food and instinctive treatment (to heal injured parts). The human being uses the existing plants not only for food and medicine but also for different purposes such as fuel, building material, ornaments, paint, poison, religious items and cosmetics. Of course, plants have an indispensable place in people's lives.

Researches on the plants used by the public in the treatment of diseases are of great importance. The discovery of such substances as efederin, quinine, papaverine, reserpine, strofanthine, vinblastine and vincristine, which are used today for treatment, have been derived from the results of ethnobotanical studies.

Turkey's geographical location and landforms caused the formation of different climate types. Because of these characteristics, it has a wide variety of plants. Turkey has a very rich flora; numerous researchers are conducting many ethnobotanical studies. 9,000 species of 163 families in Turkey has been reported to be approximately 12,000 taxa (Akman, 1993). According to "Flora of Turkey and The East Aegean Islands" (1965-1988), approximately 500 of 9000 plants are used for medical purposes (Baytop 1994).

The reasons for choosing the research area is the lack of any previous ethnobotanical studies. Access to the drug is due to insufficient transportation. In addition, due to the fact that the area has important biodiversity and in some regions the population has a poor economic condition, it is used intensively for the treatment of crops and as food.

## 2. Material and methods

The material of the work consists of plant samples and ethnobotanical properties, survey study forms and face-to-face interview notes collected in 2016-2018 and used by Bahçesaray (Müküs) and the people around them for different purposes.

### 2.1. Geographical Structure of the Research Area

Our research area is located within the boundaries of Bahçesaray district of Van province in Eastern Anatolia region. Bahçesaray is located between Pervari (Siirt) in the south, Gevaş (Van) in the north, Çatak (Van) in the east and Hizan (Bitlis) in the west.

Bahçesaray district which has 179 km<sup>2</sup> face measurement is 110 km away from Van. There are 17 villages in the district and 35 hamlets attached to these villages. Müküs Stream, which starts 7 km north of the district, joins with Botan Stream as it progresses. The town center is at an altitude of 1600 m above sea level. The surrounding area is surrounded by mountains. Important mountains and highlands around it; Kavuşşahap Mountains, Mount Arnos, Heso- Başir Mountain, Vankin Mountain, Beyaz Kavak Tree Mountain, Vari Krapit Pass, Sündüs Plateau (Firat, 2002).

### 2.2. Climate of the work area

Annual average temperature (°C); Bahçesaray 10.4, Gevaş 7,44, Pervari 12,41, Van is 12,09. Average high temperature; Bahçesaray 22.7, Gevaş 15.39, Pervari 23.94 and Van 20.14. Average low temperatures; Bahçesaray -0.8, Gevaş -1,52, Pervari 3,73 and Van -1,97. Total annual rainfall (mm); Gevaş 36,61, Pervari 56,55 and Van 14,57. Annual relative humidity (%); Gevas 47,87, Pervari 42,21 and Van 53,75.

The Mediterranean climate type affects the working area climate.

### 2.3. Methods

Our works were carried out in and around Bahçesaray district of Van in 2016-2018. In this study, both folklorism and botanical methods are used.

The studies were carried out with the residents of Bahçesaray center, villages and hamlets. Visits were made to the towns and villages to determine the plants and usage areas of the people. First, we told about the researches to be made to the people living in the region. Later, field trips were made with the people who met to get to know the land. Information about the plants was obtained by the person's own request. Information about the purpose of use of plants and the places where they are used were obtained. With person's request, address, name and surname were taken. Information and location of the plants shown were taken and photographed. Study sites were visited several times. In all seasons, the effects of seasons on plants were examined.

Surveys were distributed to primary schools in the study areas. TÜBA'S Medicinal Plants "(Annex 4) and "Eaten Plants "(Annex 5) were replicated 250 from each questionnaire. The students were asked to fill these questionnaires with their

families. Information such as usage areas and local names of the plants were obtained from the questionnaires. Of the surveys distributed, feedback was received from 185. These surveys, were guided our studies.

### 3. Results and discussion

#### 3.1. Determined plants and their uses in the research area

##### 3.1.1. Asteraceae

The scientific name of the plant: *Achillea vermicularis* Trin.;

- Local name of the plant: Bovijan;
- Other names of the plant in the literature: Bumarar, Buyucan, Gulemeş, Gulhesil, Gulika maran, Giyabujane, Hezarbelg, Kilkor, Marsima, Pujang, Punga maran, Xezelok, Xirtkesan, Zerdeşabeng, Ağrı otu, Amel otu, Arı çiçeği, Ayvadana, Bal otu, Bayır pelini, Civan perçemi, Hazanabel, Kabe fesleğeni, Kedi tırnağı, Kılıç otu, Pazıma, Pazvanat, Teleme otu;
- Month / months of plant collection: May;
- Part of the plant used: Aboveground part;
- Intended use of the plant: Treatment;
- How to use the plant: When a fly enters the human mouth, this plant is chewed and spit, or boiled and drunk. Used in rheumatism pain;
- Plant locality: Van / Bahçesaray, After the Kerapet Tunnel, 03 ° 12'310"N 42 ° 23'567" E, 2412m, EK1212;
- TÜBA-TÜKSEK code of use: IIA1;
- Other uses of the plant in the literature: For colds and intestinal pains; tea of the above ground part of the plant is drunk. For the relief of abdominal pain; above ground part of the plant is eaten raw. The tea obtained by boiling the flowers is used to relieve abdominal pain (Mükemre, 2013).

The scientific name of the plant: *Cichorium intybus* L.;

- Local name of the plant: Talişk;
- Other names of the plant in the literature: Çekçekon, Hindiba, Karakavuk, Gıncıbcı, Çini çiçeği, Acıgıcı, Çatlangaç süpürgesi, Güneyik, Acı marul, Badik otu, Çitlek otu, Çatlak otu, Çıtlık, Sakızlık otu, Eşek sakızı, Yabani hindiba, Yer sakızı, Ayakçak otu, Acı hindibağ, Sakızotu, Mavihindiba, Ham sütlüvan, Çukur otu, Eşek karakavuşu, Kaniş;
- month / months of plant collection: May, August;
- Part of the plant used: Aboveground part;
- Intended use of the plant: Treatment;
- How to use the plant: Milk in the root and stem; is applied on wounds.;
- Plant locality: Van / Bahcesaray neighborhood, between Kerapet Tunnel, 03 ° 08'566"N 42 ° 19'156" E, 1606m, EK1230;
- TÜBA-TÜKSEK code of use: IIA1;
- Other uses of the plant in the literature: The extract obtained by boiling the roots is used in the treatment of asthma and ulcers. A chewing gum called "Dağsakızı" is prepared from the plant's own water (Özçelik et al., 1990). Urine-enhancing, laxative, diaphoretic, appetizing, strengthening and bile remover are used internally in the form of 1-5% infusion. The product obtained by dusting roasted roots is used instead of coffee in Europe (Baytop, 1994; Türkoğlu et al., 2006). The roots are boiled and used in internal epilepsy (Tabata et al., 1994).

**The scientific name of the plant:** *Cirsium simplex* C.A Mey. subsp. *armenum* (DC.) Petr.;

- Local name of the plant: Kiyar;
- Other names of the plant in the literature: Kerbeş, Medik, Stirik, Vergvaş, Kobuk, Gotel, Kelendor, Sitirme, Kivar, Kelem, Kefik, Stiri miska, Istriye karan, Bodur kangal, Köy göçüren, Eşek otu, Çahor, Hamurkesen, Kara süpürge, Küsemen, Kazan kulpu, Kuşkonmaz, Deve dikenli, Dikenli yaprak, Mantik, Kör kenger.;
- Month / months of plant collection: May, September;
- Part of the plant used: Flowers;
- Intended use of the plant: Treatment;
- How to use the plant: The flowers are dried and thrown into the honey. Good for shortness of breath;
- Plant locality: Van / Bahçesaray, Güneyyamaç village, Özbekli hamlet, 03 ° 11'080 "N 42 ° 09'942" E, 2355m, EK1012;
- TÜBA-TÜKSEK code of use: IIA1;

- Other uses of the plant in the literature: No use was found in the literature review.

**The scientific name of the plant:** *Helichrysum plicatum* DC. subsp. *plicatum*;

- **Local name of the plant:** Herdem taze;
- **Other names of the plant in the literature:** Yayla çiçeği, Altın çiçeği, Arı çiçeği, Yılan çiçeği, Ölmez çiçek, Pire çiçeği, Mantuvar otu, Altın otu, Gula zar, Sarıçiçek, Ölmez otu, Süs bitkisi, Herdem güzeli, Solmaz çiçek, Gülülga zer.;
- **Month / months of plant collection:** June, July;
- **Part of the plant used:** Aboveground parts;
- **Intended use of the plant:** Treatment;
- **How to use the plant:** The flowers are mixed with other plants, boiled with water and used to treat cough by drinking;
- **Plant locality:** Van / Bahçesaray, Around the Red Bridge, 03 ° 14'799 "N 42 ° 17'765" E, 1993m, EK1173,1218;
- **TÜBA-TÜKSEK code of use:** IIA1;
- **Other uses of the plant in the literature:** Flowering branches are used to reduce urine, bile expectorant and sand (Evren, 1991; Baytop, 1999; Türkoğlu et al., 2006). Flowers are used for wounds on the hands and feet and hemorrhoid treatments. This plant has many common uses.

**The scientific name of the plant:** *Tanacetum zahlbruckneri* (Náb.) Grierson;

- **Local name of the plant:** Papatya;
- **Other names of the plant in the literature:** Biringiya, Giyaye birinan, Giyaye kirman, Gulemeş, Bilaçequer, Guleşexan, Kulilka gawane, Marşivan, Çiçekmast, Dawudi, Gule keran, Atroke, Kulilka baye, Eqhiwan, Gula hingiwin, Özge pireotu, Solucan otu, Acı çiçekli margrit, Beyaz papatya.;
- **Month / months of plant collection:** May, July;
- **Part of the plant used:** Aboveground parts;
- **Intended use of the plant:** Food, Treatment;
- **How to use the plant:** The common cold is made by drinking tea;
- **Plant locality:** Van; Bahçesaray, After the Kerapet tunnel, 03 ° 12'310 "N 42 ° 23'567" E, 2412m, EK1211, Ir.-Tur. Elm., Endemic.;
- **TÜBA-TÜKSEK code of use:** IA7, IIA1;
- **Other uses of the plant in the literature:** The above-ground part is drunk for colds and shortness of breath. The leaves are crushed and left on the wound and used as blood stopper (Mükemre, 2013).

### 3.1.2. Brassicaceae (Cruciferae)

The scientific name of the plant: *Cardamine uliginosa* M.Bieb.; local name of the plant: Puz; other names of the plant in the literature: Püz, Su kerdimesi.; month / months of plant collection: May, June; part of the plant used: Aboveground parts; intended use of the plant: Treatment; how to use the plant: Used for the treatment of hemorrhoids; plant locality: Van; Bahcesaray, the village of Cevzilbelen, 03 ° 08'974 "N 42 ° 15'705"E, 1738m, EK1113.; TÜBA-TÜKSEK code of use: IIA1; other uses of the plant in the literature: Leaves are consumed as vegetables (Ertug, 2003b). The young and fresh aboveground portion of the plant is eaten as a salad besides the meals (Kaval, 2011).

### 3.1.3. Euphorbiaceae

The scientific name of the plant: *Euphorbia grisophylla* M.L.S.Khan; local name of the plant: Şilşilank; other names of the plant in the literature: Şiroke, Şilik, Şilgan, Şaleme, Sütleşen, Süt otu, Saçkıran otu, Sütlice.; month / months of plant collection: May, September; part of the plant used: The whole plant.; intended use of the plant: Treatment; how to use the plant: The milk of the plant is used as wound healing.; plant locality: Van: Bahçesaray, Cuma hamlet of Elmayaka village, 03 ° 02'379 "N 42 ° 18'528" E, 1654m, EK1165, 1246. TÜBA-TÜKSEK code of use: IIA1; other uses of the plant in the literature: The milk of the plant (flowing through the trunk) is used externally for the treatment of skin wounds. The milk of the plant is used externally to treat wounds. The milk of the plant is used to treat external burns. The milk of the plant is used externally for the treatment of hand and lip cracks. The milk of the plant is used externally to eliminate warts. The milk of the plant is used externally to treat fungal disease. The milk of the plant is used externally to treat ringworm. The milk of the plant is used externally (by dropping on the callus) to destroy the callus. The milk of the plant is used to treat stomach ulcers after being condensed into pills (the size of rice grain) and internally (swallowed once a day). The milk of the plant is used for the relief of toothache by dropping it on the aching tooth. The milk of the plant is used against the scorpion sting by dropping it to the place where the scorpion stings. It is used externally (wrapped

with a cloth) against scorpion sting after the surface parts are crushed. The milk of the plant is used as a disinfectant by dropping it into water (Şenkardeş, 2014). Milk is extracted from the stem of the plant. The liquid is dropped into the bread and swallowed. It is stated that the liquid part is used in the treatment of malaria (Arı, 2014).

### 3.1.4. Fagaceae

The scientific name of the plant: *Quercus brantii* Lindl.; local name of the plant: Meşe; other names of the plant in the literature: Kara Meşesi, Palamut.; month / months of plant collection: May, September; part of the plant used: Whole Plant-Fruit.; intended use of the plant: Firewood-Treatment-Toy.; how to use the plant: 1.The plant is used as fuel in some regions. 2. Oak gall (*Andricus sternlichti*) is used in toothache. The powder of Oak gall is poured over the aching tooth and the pain ceases after 20 minutes. 3. Oak gall (*Andricus curtisii*) is used by children as toys.; plant locality: Van: Bahcesaray, Çömlekçi village, Mengen hamlet, 03 ° 04'585 "N 42 ° 16'603" E, 1611m, EK1051,1238, 1240. TÜBA-TÜKSEK code of use: IIA1, IIIA, VA5; other uses of the plant in the literature: Slime is used in circumcision wounds. Its fruit is used to whiten teeth. The fruit is boiled together with sugar and drunk against cough. It is also used in plant dyeing (Tonbul and Altan, 1989). After peeling the roasted acorn powder is obtained by powdering the bonito coffee.15 g of acorn coffee boiled in 1 liter of water extracted with honey and sugar after flavoring, stomach and constipation is used (Baytop, 1999). Used in basket production (Ertuğ, 2006). Fruits are eaten peeled against sugar and blood pressure. Its leaves and fruits are considered animal feed. Leaves are boiled in water to obtain black paint (Gencay, 2007). For diabetes, the fruit is eaten raw one or two on an empty stomach (Akgül, 2008). Fruit is eaten raw. The fruit portion of the acorn is eaten by cooking. Children play by turning acorns as spinning top.

The scientific name of the plant: *Quercus petraea* (Matt.) Liebl. subsp. *pinnatiloba* (K.Koch) Menitsky; local name of the plant: Meşe; other names of the plant in the literature: Kara Meşesi, Palamut.; month / months of plant collection: May, September; part of the plant used: Whole Plant-Fruit.; Intended use of the plant: Firewood-Treatment.; how to use the plant: .The plant is used as firewood. 2. The fruits are used by diabetics.; plant locality: Van: Bahcesaray, Çömlekçi Village, Mengen hamlet, 03 ° 14'676 "N 42 ° 16'593" E, 1621m, EK1050,1237,1242. TÜBA-TÜKSEK code of use: IIA1, IIIA; other uses of the plant in the literature: No use was found in the literature review.

### 3.1.5. Lamiaceae (Labiatae):

The scientific name of the plant: *Prunella vulgaris* L.;

- **Local name of the plant:** Belgesing;
- **Other names of the plant in the literature:** Sosin, Heleza dermani, Saxker, Belgesing, Giyazufe, Acı fesleğen, Yara otu, Gelincikleme otu, Kara gelincik, Şifa otu.;
- **Month / months of plant collection:** May;
- **Part of the plant used:** Above ground.;
- **Intended use of the plant:**Treatment.;
- **How to use the plant:** The plant is boiled in water, boiled water is consumed for the treatment of diabetes.;
- **Plant locality:** Van: Bahçesaray, Elmayaka village, Cuma hamlet, 03 ° 07'989"N 42 ° 26'580" E, 1774m, EK1267,127.
- **TÜBA-TÜKSEK code of use:** IIA1;
- **Other uses of the plant in the literature:** Flowering branches are used as expectorant (Baytop, 1999). The leaves are added to the food stuffing as smell and flavor (Bulut, 2008). Leaf is used as wound healing (Koyuncu et al., 2006). Above ground part is boiled in water, drinking water to relieve abdominal pains. The young shoots of the plant gathered in spring participate in cheese and meals (Kaval, 2011).

**The scientific name of the plant:** *Salvia verticillata* L. subsp. *verticillata*;

- **Local name of the plant:** Bareş;
- **Other names of the plant in the literature:** Çeqlet, Guhbel, Guhbele pelpahn, Guhbele pelzirav, Kaşgatenik, Mercanok, Kuncibeşk, Patpatik, Çaya çıyan, Rihana beji, Rihana kovi, Bareş, Giyareşik, Gula mirov, Çewrek, Dadırak, Ada çayı.;
- **Month / months of plant collection:** May;
- **Part of the plant used:** Leaf.; **intended use of the plant:**Treatment.;
- **How to use the plant:** In abdominal pain, the leaves of the plant are boiled and drunk.;
- **Plant locality:** Van: Bahçesaray, Elmayaka village, Cuma hamlet, 03 ° 02'375"N 42 ° 18'526" E, 1956m, EK1250.
- **TÜBA-TÜKSEK code of use:** IIA1;

- **Other uses of the plant in the literature:** Black dye is obtained from the root parts of the plant (Kaval, 2011). The above ground part of the plant (fresh) is dried and pulverized and sprinkled to the wounds of the animals (Mükemre, 2013).

The scientific name of the plant: *Salvia virgata* Jacq.;

- **Local name of the plant:** Ada çayı;
- **Other names of the plant in the literature:** Çeqlet, Guhbel, Guhbele pelpahn, Guhbele pelzirav, Kaşgatenik, Mercanok, Kuncibeşk, Patpatik, Çaya çıyan, Rihana beji, Rihana kovi, Bareş, Giyareşik, Gula mirov, Çewrek, Fatma ana otu, Ada çayı, Çapra, Ellikirgıran, Yılandık;
- **Month / months of plant collection:** May;
- **Part of the plant used:** aboveground.;
- **Intended use of the plant:**Treatment.;
- **How to use the plant:** For the treatment of colds, the plant is boiled and drunk; **plant locality:** Van: Bahcesaray, Şişli village, 03 ° 04'216 "N 42 ° 19'085" E, 1635m, EK1281.
- **TÜBA-TÜKSEK code of use:** IIA1;
- **Other uses of the plant in the literature:** Leaves are used in respiratory diseases (Sayar et al., 1995). The leaves are used as wound healing (Baytop, 1999; Ozturk and Dinc, 2005). The tea of the plant is made (Ertug, 2004c; Bulut, 2006). The plant is used in the treatment of hemorrhoids by boiling (Gürhan and Ezer, 2004; Ezer and Arısan, 2006). Fresh leaves participate in the meal (Koçyiğit, 2005). Fresh body is peeled and eaten . Bees benefit from the nectar and pollen of the plant (Karaca, 2008). The whole plant is used as animal feed (Kızılarıslan, 2008). Above-ground parts of the plant are drunk tea boiled method (Vural, 2008). It is used in the treatment of colds and hemorrhoids by making the above-ground tea (Koyuncu, 2005). The root part of the plant is boiled in water and thrown into the rope. Thus, the rope is painted in black color (Kaval, 2011). Dried flowers are used as spices by joining tarhana (Arı 2014). Tea is made from above ground parts (Şenkardeş 2014). It is used for colds (Furkan, 2016).

### 3.1.6. Malvaceae

The scientific name of the plant: *Malva neglecta* Wallr.;

- **Local name of the plant:** Nankıçuki, Tulik;
- **Other names of the plant in the literature:** Tarek, Vase veroc, Xamazek, Toleke, Tolik, Pike, Meliçikane, Çoban çöreği, Ebegümeçi, Çoban yatağı, Develik, Yastıman.;
- **Month / months of plant collection:** May, August;
- **Part of the plant used:** aboveground.;
- **Intended use of the plant:**Treatment.;
- **How to use the plant:** To stop the menstrual pains, the plant is boiled in water and drunk. Women who do not have children boil this plant in water and drink water to have children.
- **Plant locality:** Van: Bahcesaray, Cevizlibelen village, Şerefhan neighborhood, 03 ° 07'482"N 42 ° 17'971" E, 1654m, EK1031,1034.
- **TÜBA-TÜKSEK code of use:** IIA1;
- **Other uses of the plant in the literature:** Leaves and flowers are used in the treatment of skin diseases (Sezik et al., 1991; Fujita et al., 1995; Ozgokce and Ozcelik, 2004). Seeds of the plant are used as blood coagulant. Fresh leaves are consumed as vegetables. After the roots are dusted, it is used as a mouth healing. It is also boiled with milk and is then used to treat swelling in the body. Leaves and seeds are used as food and treatment (Öztürk and Özçelik, 1991). It is also used as a boil outside (Tabata et al., 1994). It is used internally for abdominal pain. The plant is roasted with the root portion and left on mature boils. The plant is crushed and applied to the abscess area. For hemorrhoids, the plant is used as a decoction (Yesilada et al., 1995). The plant is consumed as a vegetable (Işık et al., 1995; Ertuğ 2004c). The leaves of the plant are used in tea as a decoction for abdominal pain. The leaves are applied to the bruised area as mush (Honda et al., 1996). As a plant decoction for abdominal pain; leaves externally to inflamed wounds; ulcer is used internally within the soil parts (Sezik 1991). Respiratory and digestive system irritation and inflammation is used as a protective. The porridge prepared from fresh leaves is left on the skin between cheesecloth to relieve the pain of boils and wounds on the skin (Baytop, 1999; Öztürk and Dinc, 2005). The porridge of the above-ground parts is applied to the painful places in rheumatism. The plant is boiled and drink as a breast softener. The plant is boiled and used as a therapeutic for shortness of breath. The root is beaten and chewed to relieve stomach pain. Above ground parts are pounded and cooked with inflamed wounds or barley flour and cow's milk and then wrapped while warm. Deconstruction of the above-ground portion is used to relieve gastrointestinal gas. The leaves are cooked and

eaten (Koçak, 1999). Fruits are eaten raw. The above ground part of the plant is used for coughing by boiling (Bağcı, 2000). Stem and leaves are used as food. It is also used in abdominal pain (Donmez, 2000). Young leaves are used for wounds. Used in plant abscess treatments. It is used in the form of plant decompression for the secretion of bile in the liver (Sezik et al., 2001). The leaves of the plant are used in the treatment of rheumatism by boiling and drinking with water. It is used for the treatment of stomach pain (Turkoglu et al., 2006; Cakircioglu et al., 2007). Abdominal bloating, boiled and drink water. In abdominal pain, hibiscus leaves are also added to the patches. Tarhana and ash is mixed with moxibustion (Ertuğ et al., 2004). The porridge of the leaves is used externally against muscle pain. Leaves bloating, abdominal pain, cough, menstrual pains, hemorrhoids, postpartum inflammation, infants are eaten by boiling against belly drop. The whole plant is roasted with onions and made a watery meal (Simsek et al., 2004). The plant is eaten raw or after cooking (Korkut, 2006, Akan et al., 2008; Satil et al., 2008; Yapici et al., 2009;). Above ground part of the plant is used in the treatment of rheumatism pains, abdominal pain, bloating and abscess in the form of decompression (Özkan and Koyuncu, 2005). Leaf is boiled, used against abdominal pain and acts as a menstrual regulator (Ezer and Arisan, 2006). Leaf is boiled and the water is drunk as a diuretic.

### 3.1.7. *Plantaginaceae*

The scientific name of the plant: *Plantago lanceolata* L.;

- **Local name of the plant:** Giyamembel;
- **Other names of the plant in the literature:** İlandilan, Boduk kulağı, Pağa yaprağı, Sinir otu, Kırk sinir, Uzun damar otu, Kesik otu, Yilandili, Dar yapraklı sinirotu, Demra otu, Sinirli ot, Gelinparmağı, Damar otu, Bağcı yaprağı, Bağa, İtdili, Beşparmak otu, Bağayaprağı, Giyamembel, Giyabironug, Damarlıca, Belgpanık;
- **Month / months of plant collection:** April, September;
- **Part of the plant used:** Leaf.; **intended use of the plant:** Treatment.;
- **How to use the plant:** The leaf is wrapped over the inflamed area and this process is continued until the inflammation flows.
- **Plant locality:** Van: Bahcesaray, Elmayaka village, Cuma hamlet, 03 ° 02'401"N 42 ° 18'591" E, 1925m, EK1249.
- **TÜBA-TÜKSEK code of use:** IIA1;
- **Other uses of the plant in the literature:** The leaves are used as a softener and cough suppressant in the respiratory tract as well as wounds and boils (Yıldırım, 1991). Fresh leaves are used for newly matured inflammatory wounds (Tabata et al., 1994; Gümüş, 1994; Yeşilada et al., 1995; Vural et al., 1997; Bağcı, 2000; Ertuğ, 2000; Sezik et al., 2001; Özgökçe ve Özçelik, 2004; Türkoğlu et al., 2006; Onar, 2006; Koçyiğit ve Özhatay 2006; Çakılcıoğlu et al., 2007; Eşen, 2008; Yapıcı et al., 2009). Leaf is used as a diuretic (Sayar et al., 1995). Internally effective as constipation, breast softener, phlegm and urine enhancer. Externally, especially fresh leaves are used as wound healing and boils (Baytop, 1999). Roots boiled for half an hour after asthma disease, drink water three times a day (Saçlı and Akalın, 2001). The leaves of the plant are used for wart treatment by wrapping 12-24 hours on the warts at hand. The leaves of the plant are boiled in water and filtered and the filtrate is used for the treatment of inflammatory rheumatism by cooling and drinking 1 cup a day. The leaves of the plant are used for the elimination of inflammation by wrapping the inflamed areas. After the leaves are boiled for 24 hours after boiling the plant is used in the treatment of hemorrhoids by drinking 1 cup a day (Koyuncu, 2005). The leaves are kept on a light fire, pressed hot on the wound, fresh skin to come. Fruits are kept in olive oil, when it comes to the consistency of paste, externally used as wound healing (Koçyiğit, 2005). For the treatment of hemorrhoids, abdominal pain and shortness of breath, the leaf part of the plant is crushed and mixed with honey. It is also used in the treatment of diabetes in the form of leaf decoction (Özkan and Koyuncu, 2005). If the leaves are beaten, wound on the wound and boiled and drunk water is good for inflammation. It is good for stress and fatigue (Bulut, 2006). It is used as an abscess and boil dispenser against asthma and nervous diseases. Leaves are used against boils, decoction and infusion against asthma and nerve diseases are prepared (Oral, 2007). Infusions prepared from inflorescences are used in the treatment of hemorrhoids by drinking like tea. Fresh leaves are crushed and placed in the region of hair rotation two hours later leaves are taken (Sarıkan, 2007). It is used for relieving fungal and itchy feet. The leaves are crushed and wrapped in a problematic area with the help of a cloth (Kazan, 2007). Roots are used to treat asthma (Bulut, 2008). The juice of the leaves has antibacterial effect. Mouth is used as mouthwash in upper respiratory tract infection and as drops in eye inflammation. Seeds are a good laxative. For stomach pains 3-5 flowers are boiled, drink as tea (Uysal et al., 2008). In patients with lung disease to remove shortness of breath and inflammation, prepared in the form of decoction 3 cups of tea a day to drink (Vural, 2008). The green leaves are boiled in water and the resulting liquid is drunk on an empty stomach to treat stomach pains. It is used for the treatment of respiratory diseases by brewing tea (Metin, 2009).

**The scientific name of the plant:** *Plantago major* L. var. *intermedia* (Gilib.) Lange;

- **Local name of the plant:** Belgbrin;
- **Other names of the plant in the literature:** Guleşexan, Kersim, Mamiran, Maxlıvaş, Melvaş, Mirdvaş, Uminvaş, Peleves, Pelçimhewez, Rikeşe, Uminvaş, Vaş derbün, Düvika mişke, Giyakavir, Giyaperasik, Giyakeç, Giyaşutik, Gule şexan, Belgibrin, Brindarok, Belghewez, Giyaye erne, Gafış cahawez, Giyamambel, Giyabronug, Pakerşile, Pakleşile, Yedi damarotu, Sinir otu, Horozibiği, Pisi otu, Altıparmak, Bağ yaprağı, İt dili, Kara ot, Kesik ot, Maya yaprağı, Taç çiçeği, Yara otu, Yulan dili, Bağa, Keşik otu, Siğil otu.;
- **Month / months of plant collection:** April, September;
- **Part of the plant used:** Leaf.;
- **Intended use of the plant:** Treatment;
- **How to use the plant:** The leaves of the plant are wrapped on the inflammation and the inflammation is drained.
- **Plant locality:** Van: Bahcesaray, Akyayla village, 03 ° 02'008"N 42 ° 10'739" E, 1792m, EK1038.
- **TÜBA-TÜKSEK code of use:** IIA1;
- **Other uses of the plant in the literature:** The wide leaves of the plant are wrapped in inflamed areas and the inflammation is drained (Mükemre, 2013). The leaves are used externally (wrapped with a cloth) for the treatment of inflammatory wounds (Şenkardeş, 2014). The leaves are prepared in the form of decoction, mixed with ginger, expectorant, drink 1 cup a day (Uzun, 2015).
- **The scientific name of the plant:** *Plantago major* L. Subsp. *Major*;

**Local name of the plant:** Belgheviz, Belghevizar;

- **Other names of the plant in the literature:** Guleşexan, Kersim, Mamiran, Maxlıvaş, Melvaş, Mirdvaş, Uminvaş, Peleves, Pelçimhewez, Rikeşe, Uminvaş, Vaş derbün, Düvika mişke, Giyakavir, Giyaperasik, Giyakeç, Giyaşutik, Gule şexan, Belgibrin, Brindarok, Belghewez, Giyaye erne, Gafış cahawez, Giyamambel, Giyabronug, Pakerşile, Pakleşile, Yedi damarotu, Sinir otu, Horozibiği, Pisi otu, Altıparmak, Bağ yaprağı, İt dili, Kara ot, Kesik ot, Maya yaprağı, Taç çiçeği, Yara otu, Yulan dili, Bağa, Keşik otu, Siğil otu.;
- **Month / months of plant collection:** April, September;
- **Part of the plant used:** Leaf.;
- **Intended use of the plant:** Treatment.;
- **How to use the plant:** Fresh leaves are wound on the wounds.
- **Plant locality:** Van: Bahcesaray, Akyayla village, 03 ° 02'008"N 42 ° 10'739" E, 1792m, EK1038.
- **TÜBA-TÜKSEK code of use:** IIA1;
- **Other uses of the plant in the literature:** After the leaf is fresh or dried, it is put on the wound (Kaval, 2011). Large leaves of the plant, wrapped in inflamed areas, is used in the flow of inflammation (Mükemre, 2013).

### 3.1.8. Polygonaceae

The scientific name of the plant: *Rheum ribes* L.;

- **Local name of the plant:** Revas;
- **Other names of the plant in the literature:** Işgın, Işkın otu, Uşkun, Eşgin, Ribes, Rimbez, Rubes, Revas, Rewas, Revam, Şıngı, Binbereqı, Binberdeqı, Tuletirş, Rış.;
- **Month / months of plant collection:** May;
- **Part of the plant used:** Body-Root.;
- **Intended use of the plant:** Food-Treatment.;
- **How to use the plant:** After the body is peeled, it is eaten raw. Used for diabetes. The root is dried. Then boiled, drinking water and root eaten. It's good for diabetes.
- **Plant locality:** Van: Bahçesaray, After Kerapet tunnel, Mira Mahmut Mountain, 03 ° 12'460"N 42 ° 23'252" E, 2293m, EK1127.
- **TÜBA-TÜKSEK code of use:** IA2, IIA1;
- **Other uses of the plant in the literature:** The body and leaf stems of the plant relieve stomach indigestion and increase appetite and are used in fresh state. It also peels the body and uses it as food. The root is boiled in water and uses water for the treatment of diabetes. Fresh shoots are eaten raw and used in food as food. Leaves and roots are boiled and the first juice is poured. Drinking or boiling of boiled parts after boiling for the second time; asthma and shortness of breath and is good for treating ulcerated stomach and kidney diseases and is a treatment method applied to relieve urinary tract disorders (Tonbul and Altan, 1989). A blue wool dye is obtained from its roots in Hakkari. Drug is also obtained from rhizomes. Its roots are used as a decoction against



ulcers, diarrhea, parasites, lung diseases and hemorrhoids (Tabata et al., 1994). Its roots are used as parasitic lowering in animals (Ertuğ 1999). Rhizomes are kept in water. Then, wool is added to the material in water and boiled for three hours to obtain a dark beige color. After the roots are pulverized, this powder is used to treat the lungs of animals by feeding them with a spoon, or by mixing and drinking into water. It is used for the treatment of hemorrhoids including decoction of the roots prepared after powdering and sieving. Treatment lasts 15-20 days, a glass full of drink is a day. It is used against plant vomiting, constipation, digestion facilitator, against diabetes, shortness of breath, ulcers and kidney diseases. The body is eaten to reduce high blood pressure and relieve stomach discomfort (Gencay, 2007). After the root is dried, powdered and then boiled in water, for high sugar treatment; drink a tea cup in the morning-evening for a month. After the root is mixed with henna, it is applied to the hair to eliminate the headache (Mükemre, 2013).

### 3.1.9. Rosaceae

The scientific name of the plant: *Cydania oblonga* Mill.; local name of the plant: Ayva; other names of the plant in the literature: Behe, Be, Beyok, Behnok, Bih, Bihi, Bihok, Binok, Biyok, Meleysi, Behi.; month / months of plant collection: April-September; part of the plant used: Leaves - Fruit.; intended use of the plant: Food-Treatment.; how to use the plant: When the leaves are boiled and the water is drunk, diarrhea is good. In colds, the fruits of the plant are consumed. Plant locality: Van: Bahcesaray, Cevizlibelen village, Şerefhan hamlet, 03 ° 07'482"N 42 ° 17'971" E, 1654m, EK1032. TÜBA-TÜKSEK code of use: IA4, IIA1; other uses of the plant in the literature: Leaves are boiled in water; cold, cough and bronchitis to drink water to treat. The water obtained by boiling the leaves has a soothing and diarrhea effect (Vural et al., 1997). Quince seed, internally decocted; against diarrhea in children, externally as a mouthwash in the throat diseases and is used on the skin as a softener. Quince leaf decoction is used as a sedative in cases of insomnia and irritability (Baytop, 1999). The leaves are used as a decoction for the treatment of diarrhea. The fruit is boiled and brought into a mush and put on the wound site. The leaves are mixed with Gülhatmi (*Althea rosea*) and used in the treatment of sore throats in the form of decoction (Sezik et al., 2001). The infusion prepared from fresh leaves is used internally as a breast softener. Dried leaves are kept in water and then boiled with wool to obtain a yellow color. Leaves are also used in the treatment of abdominal pain and cough, including decoction (Ezer and Avcı, 2004). Decoction prepared by boiling leaves and seeds in water is used in the treatment of diarrhea (Kazan, 2007). Boiled water of leaves; chest emollient and used as a cough suppressant (Kızıllarslan, 2008). Leaves are boiled in water and drunk for treatment of hemorrhoids. The leaves are dried and prepared as a decoction, and 2-3 cups of tea are drunk as a cough suppressant. The decoction of the leaves is also prepared and 2-3 tea cups are used as expectorant and mouthwash is also made. Preparing the decoction of the leaves; Drink 3 tea cups a day for the treatment of shortness of breath, asthma and bronchitis. Dried leaves are prepared in the form of decoction in the cold drink 2-3 cups of tea a day. In order to prevent cancer, the leaves are prepared as a decoction and drink 2-3 glasses a week. In anemia, the leaves are prepared as a decoction and drink 1 cup of tea a day. Quince leaves, *Tilia* sp (linden) and *Mentha* sp (mint) leaves together with the form of decoction; As a cold and cough suppressant, drink 1-2 cups a day. The seeds are boiled and kept closed in a container; After 5-6 days, gelling cream is applied externally by applying it on acne and herpes before going to bed once a day. Compote made from fruit is drunk as a cough suppressant. Compote lohus made from fruit is drunk to increase milk. Fruits are consumed because it is useful when pregnant. The seeds are boiled and used for dyeing, a dark blue color is obtained. It is used for dyeing by boiling the leaves, a dark brown color is obtained (Uzun, 2015).

The scientific name of the plant: *Malus sylvestris* Mill. subsp. *mitis* (Wallr.) Mansf.; local name of the plant: Seva çale; other names of the plant in the literature: Bodur elma, Elma; month / months of plant collection: September; part of the plant used: Fruit.; intended use of the plant: Food-Treatment.; how to use the plant: 1. Eating fruits. 2. Good for diabetes. 3. The juice of the fruit in the ear pain is dropped. Plant locality: Van: Bahcesaray, Akyayla village, 03 ° 01'976"N 42 ° 10'733" E, 1783m, EK1027,1040, 1048, 1070. TÜBA-TÜKSEK code of use: IA4, IIA1; other uses of the plant in the literature: It is used in the treatment of burns. The fruit is eaten directly as a blood pressure reducer (Şenkardeş, 2014).

The scientific name of the plant: *Rosa canina* L.; local name of the plant: Şilank; other names of the plant in the literature: Kuşburnu, Yabani gül, Purç, İtgülü, İtburnu, Köpek gülü, Şilanik, Deli gül, Öküz gülü, Şeytan gülü, Yaban gülü, Gülburnu, Gül çalısı, İtüzümü, Çalı gülü, Köpek dikenini.; month / months of plant collection: June- September; part of the plant used: Fruit.; intended use of the plant: Treatment.; how to use the plant: Fruits are boiled against colds and then the juice is drunk. Plant locality: Van: Bahcesaray, Southern slope village, Özbeyli hamlet, 03 ° 11'093 "N 42 ° 09'809" E, 2311m, EK1009. TÜBA-TÜKSEK code of use: IIA1; other uses of the plant in the literature: Fruits are used to give red color. Fruits are boiled, water cuts diarrhea and cough, hemorrhoids and cancer is good, and also reduces kidney stones (Tonbul and Altan, 1989). Fruits are used as urine enhancers and are used for the treatment of stomach disorders. Its leaves are used against constipation and malaria. The extract obtained by boiling the roots and fruits is drunk as a booster in the treatment of diabetes. Fruit parts other than seeds are boiled and drunk against cough. Fruit rich in vitamin C is used as antiseptic (Yıldırım, 1991). Fruits, the bark of the roots against hemorrhoids, headaches and

stomach pain is used in children (Tabata et al., 1994). Root decoction, kidney stones and women infertility, fruit juice for cancer, for heart and psoriasis, fruits are used in beating bronchitis. Fruits and young sprouts: used in the treatment of coughs and colds, in the form of decoction. Leaves are used internally to treat burns (Yeşilada et al., 1995). The leaf is used for the treatment of diabetes. Fruit is used as a force (Sayar et al., 1995). Fruit is used as a decoction against hemorrhoids, bronchitis and kidney disorders (Yeşilada et al., 1999). Water is prepared by decoction in the roots is used as a lowering stone by drinking plenty of hair (Hair, 1996). Fruits, roots, flowers and leaves are used against hemorrhoids, headaches, bronchitis and high fever. Fruits are used as food. Tea is made from fruits. The tea is drunk against the common cold (Sezik et al., 1991). Fruits are boiled and drink as tea. It is used for people with discomfort such as influenza or flu (Duran, 1998; Duran et al., 2001; Doğan et al., 2004; Bulut, 2008; Deniz, 2008). It is known that the marmalade of the ripe fruit is made and eaten and that the marmalade improves hemorrhoids (Altan et al., 1999). Infusion of fruits is used against constipation, strengthening, diabetes (Baytop, 1999; Öztürk and Dinç, 2005). Fruits are used in the form of decoction, for kidney treatments. Fruits are boiled, mush, put into the wound. The branches are used in the treatment of warts in the form of decoction. Fruits are used in the form of decoction for the treatment of bronchitis, hemorrhoids, asthma, diabetes, cancer, internal diseases and abdominal pains. Young roots are used in rheumatic diseases (Sezik et al., 2001). Fruit decoction; influenza, cough, diabetes, kidney inflammation, rheumatism, heart disease, shortness of breath, colds, blood pressure, allergies, hemorrhoids, cough, asthma, indigestion and bronchitis are used for diseases such as. Fruit: constipation, strengthening, used against diabetes and as a urine enhancer. It is used as infusion (5%) or as a powder (0.5-1 g per day). Fruits are rich in vitamin C. Drink cold and flu tea. In addition, jam is also made (Türkoğlu et al., 2006). Fruits are boiled and used in the treatment of hemorrhoids, cough and abdominal pain (Ezer and Arısan, 2006)

The scientific name of the plant: *Rosa heckeliana* Tratt. subsp. *vanheurckiana* (Crép.) Ö.Nilsson; local name of the plant: Masür; other names of the plant in the literature:: Şilanik, Kuşburnu.; month / months of plant collection: May-September; part of the plant used: Fruit-Above Ground.; intended use of the plant: Food-Treatment-Firewood.; how to use the plant: Fruits are eaten. Fruits, boiled for abdominal pain and drink water. Dried stems and branches are used as firewood.. Plant locality: Van: Bahçesaray, the village of Yaşlıkavak, 03 ° 05'167"N 42 ° 11'570" E, 1878m EK1049. TÜBA-TÜKSEK code of use: IA4, IIA1, IIIA; other uses of the plant in the literature: Fruit is dried and tea is made. This tea is used for the treatment of colds and cough (Kaval, 2011). Tea obtained by boiling the fruit, cold and used to soften the throat (Mükemre, 2013).

The scientific name of the plant: *Rosa hemisphaerica* Herrm; local name of the plant: Şilanok; other names of the plant in the literature:: Gulahırçe, Gulnaz, Gulçiçek, Gulşilan, Gulbej, Nasrin, Sorgul, Şilan, Şilavk, Kuşburnu, Yabani gül.; month / months of plant collection: August-September; part of the plant used: Fruit; intended use of the plant: Treatment; how to use the plant: Fruits are collected in autumn. Boiled in water and drink. Good for bronchitis and colds. Plant locality: Van: Bahcesaray, Kartal village, 03 ° 06'896"N 42 ° 18'393" E, 1566m, EK1205. TÜBA-TÜKSEK code of use: IIA1; other uses of the plant in the literature: It is used in the treatment of bronchitis, as a cough suppressant, in the treatment of colds. (Şimşek et al., 2004). The decoction prepared from the fruit is used as internal strengthening and to give the body vigor (Şenkardeş, 2014).

### 3.1.10. Caprifoliaceae

The scientific name of the plant: *Sambucus nigra* L.; local name of the plant: Meran; other names of the plant in the literature: Behok.; month / months of plant collection: August-October; part of the plant used: Fruit; intended use of the plant: Treatment; how to use the plant: Fruits are used as medicine and overweight people consume fruits to lose weight. Plant locality: Van: Bahçesaray, Elmayaka village, 03°08'566" N 42°19'156"E, 1606m, EK1006. TÜBA-TÜKSEK code of use: IIA1; other uses of the plant in the literature: The ripening fruit is eaten raw (Mükemre, 2013).

### 3.1.11. Urticaceae

The scientific name of the plant: *Urtica dioica* L.;

- **Local name of the plant:** Gezing;
- **Other names of the plant in the literature::** Gezgezk, Isırgan, İstırgan, Cızlagan, Iskıdan, Dalağaz otu, Ağdalak, Cıncar, Cincar, Dakırdalak, Erinç, Geznik, Gıcıkdan otu, Gidişgen, Isırgı, Sırgan otu, Yığınç, Bırkı, Dalan, Daladiken, Büyük ısırgan otu, Dızlağan, Dalağan, Bısırga, Gezik, Dezink,;
- **Month / months of plant collection:** May;
- **Part of the plant used:** Aboveground;
- **Intended use of the plant:** Food-Treatment;

- **How to use the plant:** It is good for stains on the skin. 2. It is boiled and drunk for cleaning the inflammation in the urinary tract. 3. Bulgur pilaf, joins 4. In diseases of the stomach and intestines, after the plant is cleaned and boiled, milk is eaten by pouring. 5. Drinking boiling water for rheumatism.
- **Plant locality:** Van: Bahcesaray, Doğanyayla village, 03 ° 04'176"N 42 ° 19'166" E, 1650m, EK1200, 1107.
- **TÜBA-TÜKSEK code of use:** IA1,IA2,IIA1;
- **Other uses of the plant in the literature:** The leaves are known as blood coagulants and painkillers. Also the leaves are used in the treatment of rheumatism and skin diseases. Boiled fresh body and leaves are consumed as vegetables (Ozturk and Ozcelik, 1991; Baytop, 1994). It is used in the treatment of bronchitis in the case of root decoction (Tabata et al., 1994). Decomposition of the roots, hemorrhoids are used internally. It is used in the treatment of rheumatism, prostate, hyperplasia, eczema, cancer, diabetes and in the treatment of hemorrhoids in the soil parts of Kahramanmaraş region, but it is known that the plant causes edema and inflammation (Akbay and Başaran, 1997). Fresh shoots are cooked and consumed as vegetables. In recent years, seeds have been used as a treatment against cancer disease (Duran, 1998). Leaves and roots are used against snake bites (Ertug 1999). For hemorrhoids and stomach ailments, the seeds are mixed with honey and butter and taken on an empty stomach every morning. Boiled with blackberry leaves for cancer and eczema treatment and drunk in the morning. For the treatment of breast cancer and stomach pain, the root part of the plant is made by making tea with blackberry" (Rubus sanctus Schreb .; root) and " kaldırık "(Trachystemmon orientale (L.) G. Don; root). For hemorrhoids, the plant is eaten by cooking. For cancer, fresh shoots are eaten. It is used in the form of decoction to lower the kidney stone. For rheumatic pains, fresh plant can be used as a decoction as applied to the painful area (Yeşilada et al. 1999). The leaves and roots are used internally as blood cleansers, urine enhancers and appetites. It is used as antipyretic. Infusion prepared from leaves (2-5%) or root decoction (3-4%), 2-3 cups are drunk between meals. It is good for diabetes and urinary tract disorders (Türkoğlu et al. 2006; Çakılcıoğlu et al. 2007). It is used as a very good diuretic and liver cleanser. Seeds are used for cancer, hemorrhoids, ulcers, diuretic, prostate, urinary diseases and eczema (Koçyiğit and Özhatay, 2006). For cancer and tuberculosis young leaves are boiled, water is drunk (Akgül, 2008). Aboveground parts and seeds; rheumatism, arthritis, digestion facilitator, urine enhancer, hemorrhoids, hepatitis, cancer, kidney stone, hair oil, such as infusion, scald, seed paste + honey is used as. It is used in cancer treatment, especially in the treatment of blood cancer (leukemia). Used in salads. Cleans the liver and kidney. Strengthens the immune system. It is a diuretic used in the treatment of urinary tract infections.

### Symbols

- km: kilometer;
- m: meter;
- mm: millimeter;
- MP: megapixel;
- °C: Celsius degree

### Abbreviations

- E: East;
- END. Endemic;
- Ir.-Tur. elm.;
- Iran-Turan element;
- EK: Esra KORKMAZ;
- N: North;
- S: South;
- subsp.: Subspecies;
- TÜBA-TÜKSEK:
- Academy of Sciences of Turkey -Turkey Culture Sector;
- VANF: Van Yüzüncü Yıl University Herbarium;
- var.: Variety;
- W: West;
- YYÜ: Van Yüzüncü Yıl University.

#### 4. Conclusion

In this study, it has been determined how 24 plant taxa are used for therapeutic purposes among the public. The local, scientific names and distribution areas of these taxa were presented to the scientific community.

#### Compliance with ethical standards

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The authors declared that they have no competing interests.

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