

Survey of wild food plants for human consumption in Geçitli (Hakkari, Turkey)

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This study aims to record accumulation of knowledge on plants which are used as food by native people of Geçitli (Hakkari, Turkey) that has a rich culture and a very natural environment. In addition, the medical uses of these plants were compiled from the literature. Study area was located on the East of Anatolian diagonal, in the Eastern Anatolia region. Field study was carried out over a period of approximately two years (2008-2010). During this period, 84 vascular plant taxa were collected. The plants were pressed in the field and prepared for identification. A total of 84 food plants belonging to 30 families were identified in the region. In the study being conducted, use of wild plants as food points out interest of people in Geçitli in wild plants. The fact that a large proportion of edible plants are also being used for medicinal purposes indicates that the use of wild plants has a high potential in the region. The present study shows that further ethnobotanical investigations are worthy to be carried out in Turkey, where most of knowledge on popular food plants are still to discover. In Turkey, the number of ethnobotanic studies is ever-increasing. However, traditional uses of many wild plants have not been recorded yet. In terms of food safety, the adverse effects that may arise due to the use of wild plants without sufficient knowledge must be reported to the native people.

Keywords: Traditional uses, Wild food plants, Medicinal plants, Geçitli, Hakkari-Turkey

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Medicinal plant studies have increased in recent years¹⁻⁵. As well as use for medicinal purposes, wild plants can also be used as food. In particular, wild plants growing in spring when vegetables are rare are commonly used in Turkey, notably in the Aegean and Eastern Anatolia Regions³. When plants are used as food, they are eaten raw, or they are boiled, drained and then rice is added. They are eaten with or without eggs or with garlic yoghurt. Alternatively, they are stuffed. Some research has been conducted on some edible wild plants^{4,5}.

Documentation of indigenous knowledge through ethnobotanical studies is important for the conservation and utilization of biological resources⁶. Therefore, establishment of the local names and indigenous uses of plants has significant potential societal benefits⁷.

This study was conducted in and around Geçitli (Hakkari), which has a rich cultural heritage and natural environment in order to research and record

the accumulation of knowledge of native people concerning wild plants used as food for human nutrition. Another aim was to raise awareness with regard to the direct effects of these plants, many of which are also used as an economic way to feed animals. This study was also conducted to serve as a source for scientists for the purpose of determining the nutritional value of edible wild plants by comparing information obtained in previous laboratory and ethnobotanical studies.

Methodology

Study area

Our research was conducted in Geçitli and its vicinity, i.e. Üzümcü, Olgunlar, Kaval, Elmacık, Cevizdibi, Kamışlı and Işık villages. Geçitli (Fig. 1) is located in the South-East of Turkey. Geçitli belongs to the Iran-Turan Plant Geography Region and falls within the C-9 grid square according to the Grid classification system developed by Davis. It is at the South-East of the Anatolian Diagonal, which is one of the main endemism centers in Turkey⁸.

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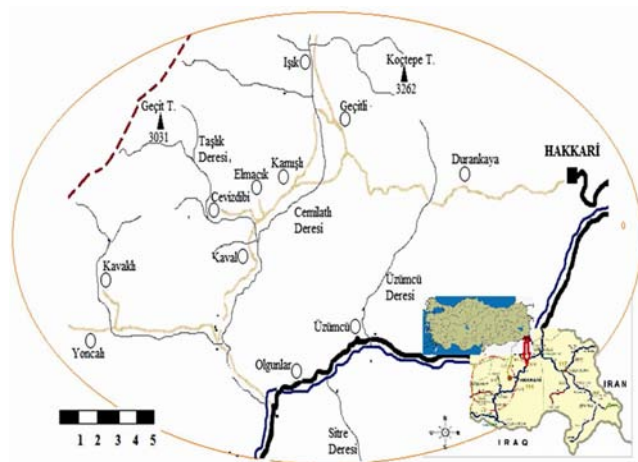


Fig. 1—Geographical location of the study area

According to the data obtained from the website of Hakkari Province Administration, documents found during research and the names of rocks in the area, it has been determined that the region had been a settlement area in prehistoric ages (<http://hakkari.bel.tr/>, <http://www.hakkari.gov.tr/>).

During the Çaldıran War in 1514, the region that also contains Hakkari was conquered by the Ottoman Empire.

Hakkari Province is a border province in the South-Eastern most part of the Eastern Anatolian Region, surrounded by Iraqi and Iranian territories. The surface area of the province is 9521 km² and is 1720 m high from sea level. It is very difficult to access the villages. In the region, where the altitude is mostly between 1500 and 2000 m, over 30 peaks exceed 3000 m. The economy of the sub-province is based on stockbreeding to a great extent.

According to the address-based population census results conducted in 2010, (<http://tuikapp.tuik.gov.tr/adnksdagitapp/adnks.zul>) the total population of Hakkari is 251.302.

Plant materials

A field study was carried out over a period of approximately two years (2008-2010). During this period, 84 plants taxa were collected. The plants were pressed in the field and prepared for identification. These specimens were initially identified with the help of the Flora of Turkey⁸⁻¹⁰ and were later compared with specimens in the Herbarium of Yuzuncu Yıl University Van, Turkey (VANF).

These plants are being kept in the VANF. The names of plant families were listed in alphabetic

order. Scientific names of plant species were identified according to the International Plant Name Index (IPNI: <http://www.ipni.org>).

Interviews with native people

A questionnaire was administered to the native people, through face-to-face interviews (Appendix A). Interviews were conducted on 'common' areas (fields, gardens, tea houses, village squares etc.) during the busiest hours of the day. In Geçitli, people we selected from the city centers, towns, and villages were first informed about our research and the interviews took place only upon their consent. The local languages in the region are Turkish and Kurdish, with most of the interviews being conducted in Kurdish.

As a consequence of these interviews, only those persons who were observed to have knowledge regarding food plants were invited to a survey study. Those selected were then visited in order to obtain detailed information regarding their knowledge of plants. During the interviews, demographic characteristics of the study participants, and local names, utilized parts and preparation methods of the plants were recorded.

Demographic characteristics of the respondents

Demographic characteristics of the respondents were determined and recorded through face-to-face interviews. 146 persons above the age of 31 were interviewed. The mean age of the respondents was 52 yrs. All female users were housewives whereas 41.2% of male users were farmers, 17.6% were unemployed and others engaged with various occupations. Of the participants who took part in the questionnaire, 60 were between the ages of 31 and 49, and 86 were over the age of 50. A total of 95 were living in villages and 51 were living in township. Of the participants, 103 were male, 43 were female.

Calculations

The use value¹¹, a quantitative method that demonstrates the relative importance of species known locally, was also calculated according to the following formula: $UV = U/N$, where UV refers to the use value of a species; U to the number of citations per species; and N to the number of informants.

Knowing the use value of a taxa may be useful in determining the use reliability of the related plant.

Results and discussion

Use of wild plants as food

In the study conducted in Geçitli, recorded uses of wild plants as food are given in Table 1, as is information regarding family, scientific name, edible parts, utilization methods, and medicinal uses stated in the literature. Aerial parts, branches, floral receptacle, flowers, fruits, latex, leaves, matured fruits, petal, petiole, roots, seeds, and tubers are used as food.

This study reveals that, in general, wild plants are used fresh, uncooked and without any processing. They are also used to give aroma to cheese as well as in the process of making jam and coffee. They can be used as fruit, spice, rice, salads and stuffing or as a filling ingredient for pies. They are also stuffed or soups are made from them (Fig. 2).

Interviews with the native people living in Geçitli and villages in the study area indicated that 84 taxa were used for food purposes. The most common families are: Amaryllidaceae (6 plants), Apiaceae (18 plants), Asteraceae (9 plants), Rosaceae (8 plants), Lamiaceae (6 plants), Fabaceae (4 plants), Polygonaceae (4 plants). The overall number of taxa cited from the most used botanical families can be seen in Fig. 3.

Vitamins and minerals

Approximately, 10,000 species are determined to be currently used as food and the number of plants cultivated in order to obtain food is around 3,000. Plant components display rich minerals, vitamins, and fiber variety^{12,13}.

Other than uses of many edible wild plants in treating illnesses as well as interesting local elements,



Fig. 2—Collection of plants and their preparation as food

some of them (*Glycyrrhiza glabra* L. var. *glandulifera* (Waldst. & Kit.) Boiss., *Juglans regia* L., *Morus alba* L., *Pistacia khinjuk* Stocks, *Rheum ribes* L., *Rosa canina* L., *Rubus caesius* L., *Rubus sanctus* Schreber) are also used as a source of vitamins and minerals.

Spices

The plants are used as spices since they give smell and flavor. This type of use is very common in Anatolia¹³. Species of *Allium akaka* S.G.Gmel. ex Schult. & Schult.f., *Allium ampeloprasum* L., *Allium giganteum* Regel, *Allium longicuspis* Regel, *Centranthus longiflorus* Stev. subsp. *longiflorus*, *Filipendula ulmaria* (L.) Maxim, *Foeniculum vulgare* Mill., *Mentha longifolia* (L.) Huds. subsp. *longifolia*, *Mentha longifolia* (L.) Huds. subsp. *typhoides* (Briq.) Harley, *Ocimum basilicum* L., *Pimpinella anthriscoides* Boiss. var. *anthriscoides*, *Rhus coriaria* L., *Rumex alpinus* L., *Scilla persica* Hausskn., *Thymus kotschyanus* Boiss. & Hohen. var. *kotschyanus*, are used as spice in Geçitli.

Teas

It is very common to consume wild plants as tea¹⁴⁻¹⁸. Species of *Mentha longifolia* subsp. *typhoides*, *Mentha longifolia* subsp. *longifolia*, *Rosa canina*, *Thymus kotschyanus* var. *kotschyanus* are consumed as herbal tea in Geçitli. Besides, wild plants are commonly eaten fresh (*Amygdalus communis*, *Cerasus microcarpa* subsp. *tortuosa*, *Celtis glabrata*, *Chaerophyllum macropodum*, *Crataegus pontica*, *Cirsium pubigerum* var. *spinsum*, *Echinops heterophyllus*, *Echinops orientalis*, *Eryngium billardieri*, *Grammosciadium platycarpum*, *Helianthus tuberosus*, *Hordeum bulbosum*, *Malus sylvestris* subsp. *orientalis*, *Morus alba*, *Nonea pulla*, *Pistacia khinjuk*, *Quercus brantii*, *Rheum ribes*, *Pyrus syriaca* var. *syriaca*, *Rhus coriaria*, *Rubus caesius*, *Rubus sanctus*, *Rumex alpinus*, *Scorzonera mollis*

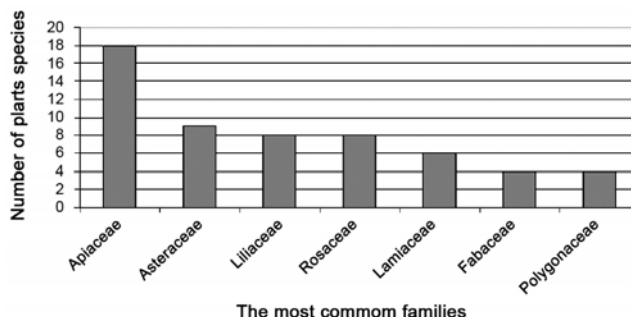


Fig. 3—Most representative families

Table 1—Wild food plants in Geçitli and around

Family	Plant species, voucher specimen, and endemism	Vernacular name of Geçitli	Edible parts ^a	Utilization method	UV
Amaryllidaceae	<i>Allium akaka</i> S.G.Gmel. ex Schult. & Schult.f. IK-212	<i>Guhbızın</i>	Lea	As spice	0.12
	<i>Allium ampeloprasum</i> L. IK-227	<i>Sir</i>	Lea	As spice	0.41
	<i>Allium giganteum</i> Regel IK-134	<i>Lüş</i>	Aer	As spice; used in cheese production	0.02
	<i>Allium longicuspis</i> Regel IK-36	<i>Sirik</i>	Lea	As spice	0.02
	<i>Allium scorodoprasum</i> L. subsp. <i>rotundum</i> (L.) Stearn IK-117	<i>Kurat</i>	Aer	Used in cheese production	0.01
	<i>Allium trachycoleum</i> Wendelbo IK-137	<i>Sirpehn</i>	Aer	Used in cheese production	0.05
Anacardiaceae	<i>Pistacia khinjuk</i> Stocks IK-52	<i>Gezan</i>	Fru, Mat	Consumed as coffee; eaten fresh	0.08
	<i>Rhus coriaria</i> L. IK-176	<i>Simak</i>	Mat	As spice; eaten fresh	0.28
Apiaceae	<i>Anethum graveolens</i> L. IK-12	<i>Sıbit</i>	Aer	Plant is with yogurt	0.04
	<i>Chaerophyllum macropodium</i> Boiss. IK-59	<i>Zırbendok</i>	Aer	Eaten fresh	0.03
	<i>Chaerophyllum macrospermum</i> (Sprengel) Fisch. & C.A.Mey. IK-197	<i>Mendi</i>	Aer	Cooked as a stew or egg-vegetable dish; used in cheese production	0.02
	<i>Coriandrum sativum</i> L. IK-24	<i>Gişniş</i>	Lea, See	Cooked as a stew or rice-vegetable dish; pie is made from its seeds	0.06
	<i>Diplotaenia cachrydifolia</i> Boiss. IK-196 Vulnerable (VU.)	<i>Siyabu</i>	Aer	Cooked as a stew or egg-vegetable dish; used in brine and cheese production	0.04
	<i>Eryngium billardieri</i> Delar. IK-187	<i>Tüsü</i>	Roo	Eaten fresh	0.10
	<i>Falcaria vulgaris</i> Bernh. IK-13	<i>Bagelaşık</i>	Aer, Lea	Aerial parts cooked as vegetable; leaves eaten in salads	0.02
	<i>Ferula orientalis</i> L. IK-67	<i>Heliz-Kevk</i>	Aer	Cooked plant is with yogurt; used in brine and cheese production	0.06
	<i>Ferulago angulata</i> (Schlecht.) Boiss. subsp. <i>angulata</i> (VU). IK-235	<i>Cevri</i>	Aer	Used in cheese production	0.02
	<i>Ferulago angulata</i> (Schlecht.) Boiss. subsp. <i>carduchorum</i> (Boiss. & Hausskn.) Chamberlain. Least concern (LC). IK-198	<i>Cevri</i>	Aer	Used in cheese production	0.02
	<i>Ferulago stellata</i> Boiss. IK-205	<i>Büg</i>	Aer, Lea	Cooked as a stew or egg-vegetable dish; used in brine and cheese production	0.05
	<i>Foeniculum vulgare</i> Mill. IK-96	<i>Rizyane</i>	Aer	As spice	0.04
	<i>Grammosciadium platycarpum</i> Boiss. & Hausskn. IK-19	<i>Rizyane</i>	Aer	Eaten fresh	0.03
	<i>Heracleum persicum</i> Desf. IK-140	<i>So</i>	Bra, Pet	Used in cheese production	0.12
	<i>Pimpinella anthriscoides</i> Boiss. var. <i>anthriscoides</i> Alo IK-152		Lea	As spice; cooked as a stew or egg-vegetable dish	0.08
	<i>Pimpinella kotschyana</i> Boiss. IK-238	<i>Giyahevin</i>	Aer	Used in rennet production	0.06
	<i>Sium sisarum</i> L. var. <i>lancifolium</i> (M.Bieb.) Thell. IK-271	<i>Bentkaavi, Serbendık</i>	Lea	Used in cheese production	0.04
	<i>Smyrnium olusatrum</i> L. IK-100	<i>Gelendor</i>	Aer	Eaten fresh	0.02
Araceae	<i>Arum conophalloides</i> Kotschy ex Schott var. <i>conophalloides</i> IK-125	<i>Kahri</i>	Aer	Cooked as a stew or rice-vegetable dish	0.04
Asteraceae	<i>Cirsium pubigerum</i> (Desf.) DC. var. <i>spinusum</i> Pet. Kivari avi IK-139		Aer	Eaten fresh	0.04
	<i>Echinops heterophyllus</i> P.H. Davis (VU). IK-188	<i>Bağuşe</i>	Aer, Frp	Eaten fresh; fresh plant is eaten after peeling off the outer part	0.05
	<i>Echinops orientalis</i> Trautv. IK-44	<i>Givar</i>	Frp	Eaten fresh	0.04

(Contd.)

Table 1—Wild food plants in Geçitli and around (*Contd.*)

Family	Plant species, voucher specimen, and endemism	Vernacular name of Geçitli	Edible parts	Utilization method	UV
	<i>Gundelia tournefortii</i> L. var. <i>tournefortii</i> IK-150	<i>Kenger zer</i>	Lat, Lea, See	Consumed as coffee; cooked plant is with yogurt; obtained gum is chewed; used in cheese production	0.38
	<i>Helianthus annuus</i> L. IK-288	<i>Gülberoj</i>	See	Eaten as dried nuts	0.08
	<i>Helianthus tuberosus</i> L. IK-110	<i>Sevka ağı</i>	Tub	Eaten fresh	0.06
	<i>Scorzonera mollis</i> M. Bieb. subsp. <i>mollis</i> IK-219	<i>Palumink</i>	Lea, Tub	Eaten fresh; leaves cooked as vegetable	0.10
	<i>Tragopogon buphthalmoides</i> (DC.) Boiss. var. <i>buphthalmoides</i> IK-112	<i>Sıpınk</i>	Lea	Eaten fresh; leaves eaten in salads	0.14
	<i>Tragopogon buphthalmoides</i> (DC.) Boiss. var. <i>latifolius</i> Boiss. IK-82	<i>Şironuk</i>	Aer	Eaten fresh	0.05
Boraginaceae	<i>Alkanna froedinii</i> Rech. f. Endemic. IK-142	<i>Güzrik</i>	Aer	Cooked as a stew or rice-vegetable dish	0.08
	<i>Anchusa azurea</i> Mill. var. <i>azurea</i> IK-41	<i>Mijmejok</i>	Flo	Fresh flower is suck	0.24
Boraginaceae	<i>Nonea pulla</i> (L.) DC. IK-160	<i>Güzrik</i>	Lea, Roo	Cooked as a stew or rice-vegetable dish; eaten fresh	0.05
	<i>Symphytum kurdicum</i> Boiss. & Hausskn. IK-135	<i>Ezmangag</i>	Lea	Used as stuffing leaves from fresh leaves	0.02
Brassicaceae	<i>Cardamine uliginosa</i> M. Bieb. IK-189	<i>Püz</i>	Aer	Aerial parts eaten in salads	0.01
Campanulaceae	<i>Campanula sclerotricha</i> Boiss. IK-170	<i>Nermedenk</i>	Lea	Used as stuffing leaves from fresh leaves	0.02
	<i>Michauxia laevigata</i> Vent. (VU). IK-121	<i>Silgivir</i>		Fresh plant is eaten after peeling off the outer part	0.02
Convulvulaceae	<i>Convolvulus arvensis</i> L. IK-47	<i>Lavlavk</i>	Lea	Cooked as a stew or rice-vegetable dish	0.15
	<i>Convolvulus betonicifolius</i> Mill. subsp. <i>peduncularis</i> (Boiss.) Parris IK-34	<i>Lavlavk</i>	Lea	Cooked as a stew or rice-vegetable dish	0.04
Euphorbiaceae	<i>Ricinus communis</i> L. IK-294	<i>Kahve</i>	See	Consumed as coffee	0.09
Fabaceae	<i>Medicago sativa</i> L. subsp. <i>sativa</i> IK-72	<i>Hespist</i>	Roo	Used in rennet production	0.17
	<i>Ononis spinosa</i> L. subsp. <i>leiosperma</i> (Boiss.) Sirj. IK-35	<i>Semisk</i>	Lea	Ayran is made by mixing fresh leaves	0.23
	<i>Vicia alpestris</i> Stev. subsp. <i>alpestris</i> IK-256	<i>Gelgireş</i>	See	Eaten fresh	0.04
	<i>Vicia cracca</i> L. subsp. <i>tenuifolia</i> (Roth.) Gaudin IK-95	<i>Gıyarok</i>	See	Eaten fresh	0.05
Fagaceae	<i>Quercus brantii</i> Lindley IK-242	<i>Berü</i>	Fru	Eaten fresh	0.13
Geraniaceae	<i>Pelargonium quercetorum</i> Agnew (VU). IK-151	<i>Tolk</i>	Lea	Used as stuffing leaves from fresh leaves	0.06
Juglandaceae	<i>Juglans regia</i> L. IK-143	<i>Güz</i>	See	Eaten as dried nuts	0.38
Lamiaceae	<i>Mentha longifolia</i> (L.) Huds. subsp. <i>typhoides</i> (Briq.) Harley IK-268	<i>Pungasor</i>	Lea	As herbal tea; as spice	0.23
	<i>Mentha longifolia</i> (L.) Huds. subsp. <i>longifolia</i> IK-138	<i>Püng</i>	Lea	As herbal tea; as spice	0.42
	<i>Ocimum basilicum</i> L. IK-179	<i>Rıhan</i>	Lea	As spice	0.20
	<i>Prunella vulgaris</i> L. IK-274	<i>Sosın,</i> <i>Belgsesing</i>	Lea	Cooked vegetable dish; used in cheese production	0.02
	<i>Salvia pocolata</i> Náb. IK-177	<i>Ezmangag</i>	Lea	Used as stuffing leaves from fresh leaves	0.04
	<i>Thymus kotschyanus</i> Boiss. & Hohen. var. <i>kotschyanus</i> IK-182	<i>Çatıra kuvi</i>	Lea	As herbal tea; as spice	0.39
Liliaceae	<i>Scilla persica</i> Hausskn. IK-222	<i>Cavşink</i>	Lea	As spice	0.07
Malvaceae	<i>Alcea flavovirens</i> (Boiss. & Buhse) Iljin Critically endangered (CR). IK-22	<i>Hero</i>	Lea	Used as stuffing leaves from fresh leaves	0.11

(Contd.)

Table 1—Wild food plants in Geçitli and around (Contd.)

Family	Plant species, voucher specimen, and endemism	Vernacular name of Geçitli	Edible parts	Utilization method	UV
Moraceae	<i>Morus alba</i> L. IK-90	<i>Düreş</i>	Fru	Eaten fresh	0.25
Portulacaceae	<i>Portulaca oleracea</i> L. IK-173	<i>Porpine</i>	Aer	Aerial parts cooked as vegetable; aerial parts eaten in salads; used in cheese production	0.31
Polygonaceae	<i>Rheum ribes</i> L. IK-214	<i>Revas</i>	Aer	Eaten fresh	0.36
	<i>Rumex alpinus</i> L. IK-277	<i>Tırşoktırş</i>	Lea	As spice, eaten fresh	0.18
	<i>Rumex tuberosus</i> L. subsp. <i>horizontalis</i> (Koch) Rech. IK-128	<i>Tırsoka kera</i>	Lea	Used as stuffing leaves from fresh leaves	0.07
Poaceae	<i>Hordeum bulbosum</i> L. IK-105	<i>Pivok</i>	Bulb	Eaten fresh	0.11
	<i>Zea mays</i> L. IK-289	<i>Germuk</i>	Fru	Eaten fresh	0.08
Primulaceae	<i>Primula auriculata</i> Lam. IK-180	<i>Belsesing</i>	Aer	Aerial parts cooked as vegetable; used in cheese production	0.02
Ranunculaceae	<i>Ranunculus kotschyi</i> Boiss. IK-74	<i>Cüngk</i>	Lea	Cooked as a stew or rice-vegetable dish	0.09
Rosaceae	<i>Amygdalus communis</i> L. IK-91	<i>Bahiv</i>	Fru, See	Eaten fresh	0.26
	<i>Cerasus microcarpa</i> (C.A. Mey.) Boiss. subsp. <i>tortuosa</i> (Boiss. & Hausskn.) Browicz IK-92	<i>Helhelok</i>	Fru	Eaten fresh	0.07
	<i>Crataegus pontica</i> C. Koch IK-93	<i>Gühüj</i>	Fru	Eaten fresh	0.04
	<i>Filipendula ulmaria</i> (L.) Maxim IK-262	<i>Rihana kuvi</i>	Aer	As spice	0.02
	<i>Malus sylvestris</i> Mill. subsp. <i>orientalis</i> (A. Uglitzkick) Browicz var. <i>orientalis</i> IK-291	<i>Sev</i>	Fru	Eaten fresh; syrup is prepared	0.05
	<i>Pyrus syriaca</i> Boiss. var. <i>syriaca</i> IK-292	<i>Gırsık</i>	Fru	Eaten fresh; syrup is prepared	0.11
	<i>Rosa canina</i> L. IK-272	<i>Şilank</i>	Ptl	As herbal tea; jam is made	0.35
	<i>Rubus caesius</i> L. IK-8	<i>Düdirk, Dirne, Mimirk</i>	Fru	Eaten fresh	0.10
	<i>Rubus sanctus</i> Schreb. IK-281	<i>Düdirk</i>	Fru	Eaten fresh	0.21
Ulmaceae	<i>Celtis glabrata</i> Steven ex Planch. IK-107	<i>Tevk</i>	Fru	Eaten fresh; used in halvah production	0.02
Urticaceae	<i>Urtica dioica</i> L. IK-195	<i>Dezınk, Gezınk</i>	Aer	Eaten fresh after washing thoroughly	0.40
Valerianaceae	<i>Centranthus longiflorus</i> Stev. subsp. <i>longiflorus</i> IK-83	<i>Soryaz</i>	Lea	As spice	0.02
Vitaceae	<i>Vitis vinifera</i> L. IK-89	<i>Diri</i>	Fru, Lea	Eaten fresh; used in brine production	0.13
Xanthorrhoeaceae	<i>Eremurus spectabilis</i> M.Bieb. IK-213	<i>Sıtrk</i>	Lea	Cooked as a stew or rice-vegetable dish	0.08

*Edible parts: Aer, aerial parts; Bra, branches; Flo, flowers; Frp, floral receptacle; Fru, fruits; Lat, latex; Lea, leaves; Mat, matured fruits; Ptl, petal; Pet, petiole; Roo, roots; See, seeds; Tub, tuber.

subp. *mollis*, *Smyrniolum olusatrum*, *Tragopogon buphthalmoides* var. *buphthalmoides*, *Tragopogon buphthalmoides* var. *latifolius*, *Urtica dioica*, *Vicia alpestris* subsp. *alpestris*, *Vicia cracca* subsp. *tenuifolia*, *Vitis vinifera*, *Zea mays*), consumed as cooked vegetable dish (*Alkanna froedinii*, *Arum conophalloides* var. *conophalloides*, *Chaerophyllum macrospermum*, *Convolvulus arvensis*, *Convolvulus betonicifolius* subsp. *peduncularis*, *Coriandrum sativum*, *Diplotaenia cachrydifolia*, *Eremurus spectabilis*, *Falcaria vulgaris*, *Ferulago stellata*, *Nonea pulla*, *Pimpinella anthriscoides* var.

anthriscoides, *Pleurotus eryngii* var. *ferulae*, *Portulaca oleracea*, *Primula auriculata*, *Prunella vulgaris*, *Ranunculus kotschyi*, *Scorzonera mollis* subp. *mollis*).

Medicinal plants

The majority of wild plants used in Geçitli for nutritional purposes are also used both in Geçitli and other regions for medicinal purposes. *Allium giganteum* Regel, *Allium longicauspis* Regel, *Allium scorodoprasum* L. subsp. *rotundum* (L.) Stearn, *Allium trachycolum* Wendelbo, *Campanula*

sclerotricha Boiss., *Centranthus longiflorus* Stev. subsp. *longiflorus*, *Chaerophyllum macropodum* Boiss., *Chaerophyllum macrospermum* (Sprengel) Fisch. & C.A.Mey., *Convolvulus betonicifolius* Mill. subsp. *peduncularis* (Boiss.) Parris, *Echinops hetenrophyllus* P.H. Davis, *Echinops orientalis* Trautv., *Ferulago stellata* Boiss., *Michauxia laevigata* Vent., *Pimpinella anthriscoides* Boiss. var. *anthriscoides*, *Pimpinella kotschyana* Boiss., *Salvia poculata*, *Scilla persica* Hausskn., *Symphytum kurdicum* Boiss. & Hausskn., *Vicia alpestris* Stev. subsp. *alpestris*, *Vicia cracca* L. subsp. *tenuifolia* (Roth.) Gaudi, this plants are reported for the first time as being used within the scope of traditional therapies¹⁹.

Data analysis

According to the calculation made on the basis of the use-value UV¹¹; *Mentha longifolia* (L.) Huds. subsp. *longifolia* (0.42), *Allium ampeloprasum* L. (0.41), *Urtica dioica* L. (0.40), *Thymus kotschyanus* Boiss. & Hohen. var. *kotschyanus* (0.39), *Gundelia tournefortii* L. var. *tournefortii* (0.38), *Juglans regia* L. (0.38), *Rheum ribes* L. (0.36), *Rosa canina* L. (0.35), and *Portulaca oleracea* L. (0.31) were reported to be of the highest use value (Table 1).

Conclusion

This study shows the continued interest in the use of wild plants as food by the native people in Gecitli. The fact that a large proportion of edible plants are also being used for medicinal purposes indicates that the use of wild plants has a high potential in the region. The present study shows the value of further ethnobotanical investigations in Turkey, where most of knowledge on popular food plants are still undiscovered.

Within the scope of this study, 30 families of edible plant and 84 plant taxons have been determined. Used parts, preparation and use of those plants are recorded. In the case of food use of those plants, it is found out that they are either used in cooking or consumed without cooking.

It is noteworthy that people of the region who have different ethnicities use different names for the plants. Turkish and Kurdish names are available for the plants that are used for medicinal purposes.

In Turkey, the number of ethnobotanic studies is ever-increasing. However, the traditional uses of

many wild plants have not been recorded yet. In terms of food safety, the adverse effects that may arise due to the use of wild plants without sufficient knowledge must be reported to the native people.

Appendix A; 1. Name and surname of the participant; 2. Age and sex of the participant; 3. Telephone and address of the participant; 4. Educational level of the participant; 5. Date of interview; 6. Place of residence of the participant; 7. Duration of residence of the participant; 8. What is the local name of the plant used?; 9. Which parts of the plant do you use?; 10. How do you prepare the plant for use?

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