

WILD EDIBLE PLANTS IN KARAMAN (SOUTHERN TURKEY)

S. KOÇAK, N. ÖZHATAY*

Istanbul University, Faculty of Pharmacy, Department of Pharmaceutical Botany,
34116 İstanbul-TURKEY

SUMMARY

An ethnobotanical study was carried out in Karaman province (South of Central Anatolia) and wild edible species were identified used as food, spice, pickle, appetizer, mastic, tea and coffee. Identified 61 wild edible plant species belonging to 20 families of the 57 flowering plants, 2 fungi and 1 lichen species were collected from different localities in Karaman. The highest species number is found for Labiatae family (19 species) is followed by Compositae (8 species), Rosaceae (5 species), Caryophyllaceae, Polygonaceae (3 species) and Anacardiaceae, Malvaceae, Chenopodiaceae and Urticaceae (2 species). The rest of the 11 families represented by only 1 species.

ÖZET

Karaman ilinde (Güney Anadolu) yapılan bir etnobotanik çalışmada 61 yenen doğal türün gıda, baharat, turşu, çerez, sakız, çay ve kahve olarak kullanıldığı saptanmıştır. Doğal olarak yetişen yenen 61 tür ki bunlar 20 familyaya ait 57 çiçekli bitki türü, 2 mantar ve 1 liken türüdür, Karaman ilinde farklı lokalitelerden toplanmıştır. En çok türün bulunduğu familya Labiatae'dir (19 tür). Labiatae'nin ardından, Compositae (8 tür), Rosaceae (5 tür), Caryophyllaceae ve Polygonaceae (3 tür) ve Anacardiaceae, Malvaceae, Chenopodiaceae ve Urticaceae (2 tür) familyaları takip etmektedir. Geri kalan 11 familya sadece tek tür ile temsil edilmektedir.

Key words: Turkey, Karaman, Edible wild plants, Ethnobotany.

INTRODUCTION

The plants have been used as food, dye and ornamental by people since old-ages. The human population has been increased day by day and as a result of this people has faced with poverty problem. Humans have used plants in different ways to satisfy their basic needs for food from the very beginning of humankind. Food practices and food habits are developed according to social groups and communities that develop them. Selected plants for use as food depend on available plant diversity resources.

Many local wild plants have been used as salad and vegetable dishes prepared in traditional recipes in Turkish cuisine. This study complies and evaluates the edible plants in Karaman province, located Southern Anatolia Region of Turkey (Fig.1). The research area is distributed in 108 settlements (94 village, 3 district, 8 town) and has a population of 235,400 in habitants. Irano-Turanian phytogeographic region are largely represented in the area.

This is part of master thesis entitled “Ethnobotanical investigation of Karaman province” (1). The other part of this master thesis, which deals with the medicinal plants of Karaman, has been recently published (2).

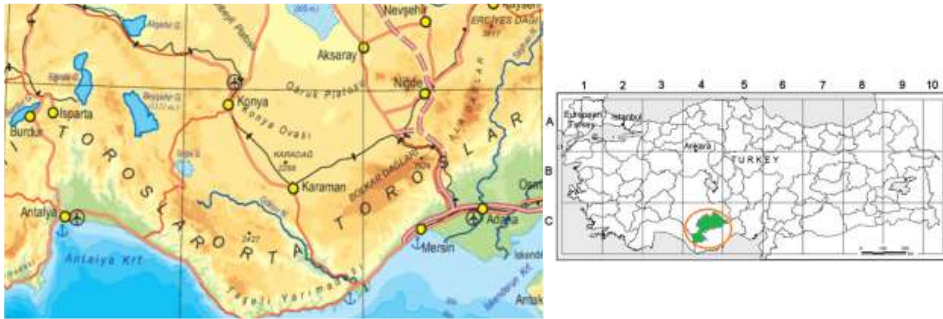


Figure 1: The map of the Karaman province and its location.

MATERIAL AND METHOD

This study was carried out between 1998-1999 years in Karaman province which has a great diversity of wild edible plants and people have been consumed as food and used them for some medicinal purposes due to economical and geographical reasons. During the study period, plant specimens collected from several localities and interviewed with local people

most of them are middle aged or older. So the preparation and usage ways of wild edible plants for consumption were determined.

The Flora of Turkey and the East Aegean Islands (3, 4, 5), Flora Iranica (6) and Flora URSS (7) were mainly used for the identification of research material. Identified specimens were compared with the specimens kept in the ISTE herbarium. Voucher specimens numbered and were deposited in the Herbarium of Istanbul University, Faculty of Pharmacy, (ISTE)

RESULTS AND DISCUSSION

The botanical families with the highest number of utilized plant species were the Labiatae (19 species), Compositae (8 species) and Rosaceae (6 species). These families were followed by Caryophyllaceae (3 species) and Polygonaceae (3 species).

The list of used plants in the area is arranged in alphabetical order of their families and scientific names along with voucher and local name, used part and uses in Tables 1 & 2.

Tubers of Orchidaceae are collected by local people as sahlepe around Dumlugöze village and dried then they are sold to middle man of the trader.

Mostly aerial parts are used in the receipts. Percentage of used part as follows: 36% aerial part, 25% leaf, 16% fruit, 10% whole plant, 5% underground part, 3% stem, 3% latex and 2% seed (Fig. 2).

For the preparation methods, the plants mainly are roasted or cooked (Fig. 3).

Malva sylvestris, *M. neglecta*, *Polygonum cognatum*, *Rumex crispus* and *Rosa canina* species are the common edible species in the area.

Stems of *Cirsium vulgare*, *Onopordum bracteatum*, *Salvia sclarea*, *Eryngium campestre* var. *virens* and tuber of *Anemone blanda* peeled off and freshly eaten.

Green salads are prepared using the leaves of *Crepis reuterana* subsp. *reuterana*, *Capsella bursa-pastoris*, *Melissa officinalis* subsp. *officinalis*, *Portulaca oleracea*, *Rumex scutatus*, *Tragopogon latifolius* var. *angustifolius*. Generally plant used as spice after drying.

Leaves of *Rumex crispus* using for making 'dolma', prepared mixture is wrapped by leaves.

Bulbs of *Crocus kotschyanus* subsp. *kotschyanus* using for making dessert with milk.

Aerial parts of *Origanum majorana* used both as tea and as spices, leaves of *Tragopogon latifolius* var. *angustifolius* uses roasted or freshly eaten.

According to the results of that study wild edible plants have been widely consumed in Karaman and fortunately ethnobotanical knowledge are still alive like other parts of Turkey. However, the use of wild edible plants is generally widespread among elderly people traditionally and in danger of vanishing in the future. In addition to this, natural vegetation is widely distributed due to anthropogenic factors mainly grazing, fire, urbanization, use of pesticides and herbicides etc. So that local and government authorities should be make effort to protect traditional folk medicine and biological diversity. Although there are many choices of vegetables sources, today many of them are neglected because of the preference towards uniform characteristic in modern agricultural technology and marketing.

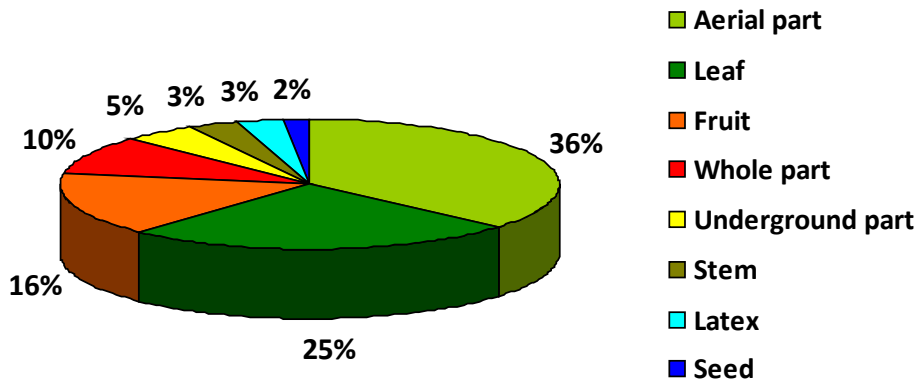


Figure 2: The graphic of used plant parts.

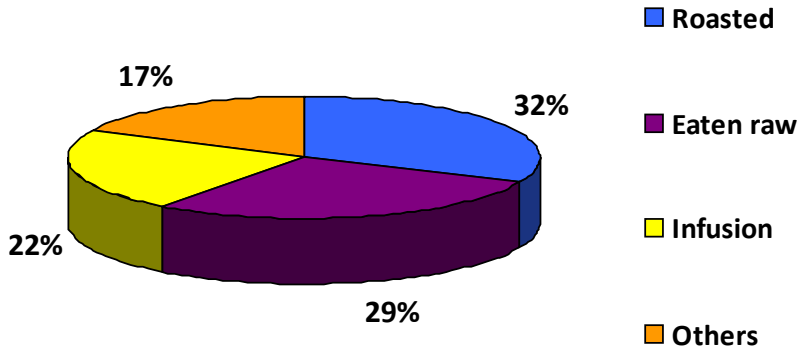


Figure 3: The graphic of preparations.



Figure 4: *Rhus coriaria*, sumak used as spice.



Figure 5: Some wild edible plants from Karaman.
1. *Papaver macrostomum* 2. *Capparis spinosa* var. *spinosa* 3. *Salvia sclerea*
4. *Silene vulgaris* var. *vulgaris* Photos A.Ö.Erdem.

Table 1. Wild Edible Flowering Plants in Karaman Province

Family <i>Plant scientific name</i> Plant voucher (ISTE)number	Local name	Used Parts	Preparation
Anacardiaceae			
<i>Pistacia terebinthus</i> L. subsp. <i>palaestina</i> (Boiss.) Engler (ISTE 76390)	Melengiç, Menengiç	fruit	as coffee, appetizer
<i>Rhus coriaria</i> L. (Fig.4) (ISTE 75938)	Sumak	fruit	as spices
Berberidaceae			
<i>Berberis crataegina</i> D.C. (ISTE 76069)	Karamık	fruit	eaten raw
Capparaceae			
<i>Capparis spinosa</i> L. (Fig.5) var. <i>spinosa</i> (ISTE 76038)	Kebere, Gevil	fruit	as pickle
Caryophyllaceae			
<i>Silene longipetala</i> Vent. (ISTE 76411)	Akkıvşak, Ballı süpürge	leaf	roasted
<i>Silene vulgaris</i> (Moench) Garcke var. <i>vulgaris</i> (Fig.5) (ISTE 76360)	Kıvışkan	leaf	roasted
<i>Stellaria media</i> (L.) Vill. subsp. <i>media</i> (ISTE 76363)	Gündegüzel	aerial part	roasted
Chenopodiaceae			
<i>Chenopodium album</i> L. subsp. <i>album</i> var. <i>album</i> (ISTE 76397)	Sirken	aerial part	roasted
<i>Chenopodium opulifolium</i> Schrud. ex DC. (ISTE 76032)	Sirken	aerial part	roasted
Compositae			
<i>Chondrilla juncea</i> L. var. <i>juncea</i> (ISTE 76404)	Çitlik, Karagavuk, Sakızlık	latex	as mastic
<i>Cichorium intybus</i> L. (ISTE 76603)	Acıgıcı, Çiniçiçeği, Gıcibıcı	leaf	roasted

Table 1. (cont.)

<i>Cirsium vulgare</i> (Savi) Ten. (ISTE 75987)	Su dikenii	aerial part	eaten raw
<i>Crepis reuterana</i> Boiss. subsp. <i>reuterana</i> (ISTE 76361)	Keklik otu	leaf	eaten raw
<i>Gundelia tournefortii</i> L. var. <i>armata</i> Freyn & Sint. (ISTE 76002)	Kenger Keven	underground part seed	as mastic as coffee
<i>Onopordum bracteatum</i> Boiss. et Heldr. (ISTE 76602)	Kangal dikenii	stem	eaten raw
<i>Scorzonera laciniata</i> L. subsp. <i>laciniata</i> (ISTE 76377)	Teke sakalı	aerial part	roasted
<i>Tragopogon latifolius</i> Boiss. var. <i>angustifolius</i> Boiss. (ISTE 76420)	Yemlik	leaf	roasted eaten raw
Convolvulaceae			
<i>Convolvulus arvensis</i> L. (ISTE 75936)	Kedi barsağı	leaf	roasted
Cruciferae			
<i>Capsella bursa-pastoris</i> (L.) Medik. (ISTE 76362)	Deve mercimeği Kuş gözü Kuş yemliği Serçe gözü	leaf	eaten raw
Cuscutaceae			
<i>Cuscuta europaea</i> L. (ISTE 76568)	Isırgan	whole	as tea
Geraniaceae			
<i>Erodium cicutarium</i> (L.) L'Her. ex Aiton subsp. <i>cutarium</i> (ISTE 75801)	İğnelik İnnelik	leaf	roasted
Iridaceae			
<i>Crocus kotschyanus</i> C.Koch subsp. <i>kotschyanus</i> (ISTE 76413)	Çiğdem	underground part	eaten raw
Juglandaceae			
<i>Juglans regia</i> L. (ISTE 76365)	Ceviz	fruit	appetizer
Labiatae			

Table 1. (cont.)

<i>Cyclotrichium origanifolium</i> (Labill.) Manden. et Scheng. (ISTE 76578)	Dağ çayı, Kokar ot	leaf	as spices
<i>Melissa officinalis</i> L. subsp. <i>officinalis</i> (ISTE 76043)	Mum otu	leaf	roasted
<i>Mentha longifolia</i> (L.) Hudson subsp. <i>typhoides</i> (Briq.) Harley var. <i>typhoides</i> (ISTE 75985)	Yarpız	leaf	as spices
<i>Mentha piperita</i> L. (ISTE 75991)	Nane	leaf	as spices
<i>Mentha spicata</i> L. subsp. <i>spicata</i> (ISTE 75997)	Nane, Yarpuz	leaf	as spices
<i>Micromeria myrtifolia</i> Boiss. et Hohen. (ISTE 76061)	Dağ çayı, Kokarot	aerial part	as spices
<i>Origanum majorana</i> L. (ISTE 76580)	Guy otu	aerial part	as spices as tea
<i>Salvia aucheri</i> Bentham var. <i>canescens</i> Boiss. et Heldr. (ISTE 76024)	Dağ çayı	leaf	as tea
<i>Salvia sclarea</i> L. (Fig.5) (ISTE 76567)	Hürtmek	stem	eaten raw
<i>Satureja cuneifolia</i> Ten. (ISTE 76017)	Boncuklu çay, Dağ kekiği, Kekik	aerial part	as tea
<i>Sideritis arguta</i> Boiss. et Heldr. (ISTE 76020)	Dağ çayı	aerial part	as tea
<i>Sideritis bilgerana</i> P. H. Davis (ISTE 76040)	Dağ çayı	aerial part	as tea
<i>Sideritis condensata</i> Boiss. et Heldr. (ISTE 76018)	Dağ çayı	aerial part	as tea
<i>Sideritis congesta</i> P. H. Davis et Hub.- Mor. (ISTE 76051)	Dağ çayı	aerial part	as tea
<i>Sideritis hispida</i> P. H. Davis (ISTE 76039)	Dağ çayı, Hava otu	aerial part	as tea
<i>Sideritis libanotica</i> Labill. subsp. <i>linearis</i> (Bentham) Bornm. (ISTE 75984)	Dağ çayı	aerial part	as tea

Table 1. (cont.)

<i>Sideritis libanotica</i> Labill. subsp. <i>violascens</i> (P.H.Davis) P.H. Davis (ISTE 76625)	Dağ çayı	aerial part	as tea
<i>Stachys lavandulifolia</i> Vahl var. <i>lavandulifolia</i> (ISTE 76050)	Tilki kuyruğu	aerial part	as tea
<i>Thymbra spicata</i> L. var. <i>spicata</i> (ISTE 76019)	Kekik	aerial part	as tea
<i>Thymus cilicicus</i> Boiss. et Bal. (ISTE 76012)	Kekik	aerial part	as tea
Malvaceae			
<i>Malva neglecta</i> Wallr. (ISTE 76060)	Develik	whole part	roasted
<i>Malva sylvestris</i> L. (ISTE 76045)	Ebegümeçi, Gömeç	whole part	roasted
Papaveraceae			
<i>Papaver macrostomum</i> Boiss. et Huet ex Boiss. (Fig.5) (ISTE 76380)	Gelincik, Minimitçe Ülubitçe Pıtçık	whole part	roasted
Polygonaceae			
<i>Polygonum cognatum</i> Meissn. (ISTE 75961)	Madımak	aerial part	roasted
<i>Rumex crispus</i> L. (ISTE 75777)	Labada	leaf	roasted
<i>Rumex scutatus</i> L. (ISTE 76371)	Ekşikulak	leaf	eaten raw
Portulacaceae			
<i>Portulaca oleracea</i> L. (ISTE 76056)	Madımak, Semizotu Töhmeken	aerial part	eaten raw
Ranunculaceae			
<i>Anemone blanda</i> Schott et Kotschy (ISTE 76373)	Topalak	underground part	eaten raw
Rosaceae			

Table 1. (cont.)

<i>Amelanchier parviflora</i> Boiss. var. <i>parviflora</i> (ISTE 76416)	Yemişen	fruit	eaten raw
<i>Crataegus monogyna</i> Jacq. subsp. <i>monogyna</i> (ISTE 75784)	Kızılalıç	fruit	eaten raw
<i>Crataegus orientalis</i> Pallas ex Bieb. var. <i>orientalis</i> (ISTE 76415)	Alıç	fruit	eaten raw
<i>Crataegus szovitsii</i> Pojark. (ISTE 76364)	Alıç	fruit	eaten raw
<i>Orthurus heterocarpus</i> (Boiss.) Juz. (ISTE 76424)	Karanfil çayı	underground part	as tea
<i>Rosa canina</i> L. (ISTE 75986)	İtburnu, İtgülü, Kuşburnu	fruit	eaten raw
Umbelliferae			
<i>Eryngium campestre</i> L. var. <i>virens</i> Link (ISTE 76640)	Boğa dikenini, Tavuk götü Ürtmeği	aerial part	eaten raw
Urticaceae			
<i>Urtica dioica</i> L. (ISTE 75764)	Iskırdan	aerial part	roasted
<i>Urtica urens</i> L. (ISTE 75781)	Isırğan	aerial part	roasted

Table 2. Wild Edible Nonflowering Plants in Karaman Province

FUNGI			
<i>Morchella conica</i> Persoon (S-258)	Kuzu göbeği	underground and aerial parts	roasted
<i>Terfesia</i> sp.	Domalan Dolaman	whole part	roasted
LICHENES Lecanoraceae			
<i>Lecanora esculenta</i> (Pall.) Eversm. (ISTE 76410)	Allah kavurgası, Çoban kavurgası	whole part	eaten raw

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