

An ethnobotanical research of the Kalecik mountain area (Şanlıurfa, South-East Anatolia)

Hasan AKAN^{*1}, Mahmut AYDOĞDU², M.Mustafa KORKUT³, M.Maruf BALOS⁴

¹Harran University, Science And Arts Faculty, Biology Department, 63200, Şanlıurfa-Turkey

²Mehmet Güneş Anadolu Öğretmen Lisesi, Karaköprü, 63100, Şanlıurfa

³Şanlıurfa Balıklıgöl Devlet Hastanesi Eczane deposu, 6100, Şanlıurfa

⁴Sabiha Özlek Lisesi, Yunus Emre Caddesi, 63100, Şanlıurfa

Abstract

This research was carried out to reveal the ethnobotanical characteristics of the settlements and the floristic composition of Kalecik Mountain area, between the years 2002 and 2003. The research area is located within the boundaries of Şanlıurfa in south-east Anatolia, and in the C7 square of the Grid system of *Flora of Turkey*. During the study, interviews were applied at different times to different people in five rural settlements of the region. Interviews were conducted with 15 boys, 51 men and 29 women, totally 95 informants, by showing them the gathered plants. 516 plant specimens belonged to 39 families, and 238 taxa were determined within the research area. Among these, 126 taxa gathered within the research area had local names and were known as useful to the villagers. It was determined that 38 of these plants were used as food, 37 for medicinal purposes, 32 as fodder plants and 5 as ornamental plants, 5 in producing broom, 5 for fuel, 4 in dying, 3 in children's games, and 3 were used as indicator plants. Moreover, according to the survey results, 11 of these plants were determined to have harmful effects on animals. As a result, the percentage of the usefuls within the total is 48.3%.

Key words: Flora, Ethnobotany, Kalecik mountain, Şanlıurfa.

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Kalecik dağı alanında etnobotanik bir araştırma (Şanlıurfa, Güneydoğu Anadolu)

Özet

Bu araştırmada 2002-2003 yılları arasında florası tespit edilen Kalecik Dağının etnobotanik özelliklerinin ortaya çıkarılması amaçlanmıştır. Araştırma alanı Şanlıurfa il sınırları içerisinde ve Grid sistemine göre C7 karesindedir. Araştırma bölgesinde 39 familyaya bağlı 140 cins ve 238 takson tespit edilmiştir. Çalışma sırasında bölgeden tespit edilen 5 ayrı yerleşim birimine farklı zamanlarda gidilerek önceden hazırlanmış anketler farklı kişiler üzerinde uygulandı. Anketler, 4'ü çocuk, 25 erkek ve 9 kadın olmak üzere toplam 34 denek üzerinde, toplanmış bitkilerin gösterilmesi şeklinde yapıldı. Araştırma alanından toplanan 238 taksondan yalnızca 126 tanesinin yöresel isimlerinin bulunduğu tespit edildi. Bu bitkilerin 38 tanesinin yiyecek olarak, 37 tanesinin tedavi amaçlı, 32 tanesinin yem bitkisi olarak, 5 tanesinin süs bitkisi olarak, 5 tanesinin süpürge yapımında, 5 tanesinin yakacak olarak, 4 tanesinin boyama amaçlı, 3 tanesinin çocuklar tarafından oyun amaçlı, 3 tanesinin de indikatör bitki olarak kullanıldığı tespit edilmiştir. Ayrıca bu bitkilerden 11 tanesinin zararlı etkilerinin olduğu anketler sonucu tespit edilmiştir.

Anahtar kelimeler: Flora, etnobotanik, Kalecik dağı, Şanlıurfa

1. Introduction

The research area, Kalecik mountain, is located in the Irano-Turanian phytogeographic region and is situated in the C7 square and completely located within the province of Şanlıurfa. Kalecik mountain is located in the north-west of

* Corresponding author / Haberleşmeden sorumlu yazar: Tel.: +904143183557; Fax.: +904143183541; E-mail: hakan@harran.edu.tr

Şanlıurfa province, and it consists of 3 hills. It is very close to the Euphrates, and is an important region representing the floristic composition of the province. The altitude varies between 500 and 905 m. There are 4 villages and a town in and around the research area. Generally settlements are dense at the foot of the mountain. The town is Bozova; the villages in and around the research area are Kalecik, Kırkpınar, Korukezen and Yarımtepe (Figure 1). There are some cultivated fields around the mountain where mainly pistachios, olives, grapes and walnuts are grown. The agriculture is based on cereals, essentially wheat and lentils. However, some vegetables are also grown, such as tomatoes, peppers, and ambergine. At the same time, pistachios are widely cultivated. In the research area, ethnobotanical study has not been carried out up to date. However, some studies related on medicinal and aromatic plants are carried out by Anonymous (2001), Özel (1999), Yağmur et al. (1991), Aksoy et al. (1988), Ersin & Aksoy (2004) and Nahya (1983), Yıldız (1997, 2000) and Polat et al. (2012).

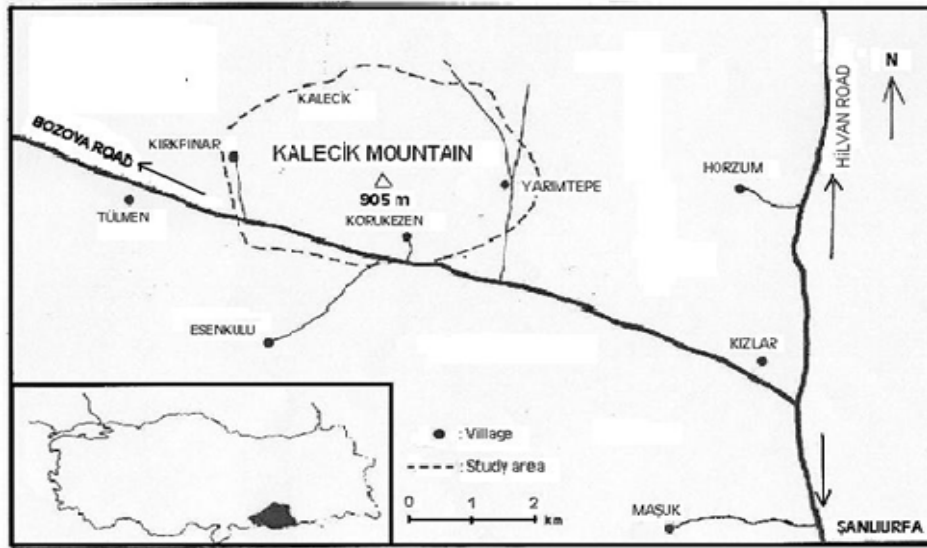


Figure 1. The map of research area, Kalecik mountain and its surrounding.

Şekil 1. Araştırma alanı, Kalecik dağı ve çevresinin haritası..

2. Materials and methods

To constitute the research material, 516 plant specimens were collected from Kalecik mountain in 2002 and 2003 in different vegetation seasons. A collector number was given, and the specimens were dried according to the standard herbarium methods. The “Flora of Turkey and the East Aegean Islands” (Davis, 1965-1985; Davis et al, 1988) was used to identify the plant samples. The widespread name of plant is given according to Baytop (1997, 1999). The plant samples collected from the region are kept in the herbarium of Harran University, Şanlıurfa. During the study, interviews were applied at different times to different people in five rural settlements of the region. Interviews were conducted with 15 boys, 51 men and 29 women, totally 95 informants, by showing them the gathered plants. With the interviews, it is determined the local names, the using purpose, using manner, and using part of plant species. The following details are given: family name, species name and the author(s), local names, the using purpose, using manner, using part, and collection number of plant which is belong to M. Aydoğdu..

3. Results

Table 1. Useful Species of the Kalecik Mountain, Şanlıurfa, South-East Anatolia

Tablo 1. Kalecik Dağı'nın faydalı bitki türleri, Şanlıurfa, Güneydoğu Anadolu

Plant name	Local name (s)	Used part	The purpose of using/using manner	Voucher specimen no
<i>Acanthus syriacus</i> Boiss.	Kerengi Deva, Çiçegey Deva	aboveground	Fodder of camels. Hanging as ornamental	1405
<i>Achillea aleppica</i> DC. subsp. <i>aleppica</i>	Çiçege Mara	-	-	1357
<i>Aegilops triuncialis</i> L. subsp. <i>triuncialis</i>	Gihaye Reş	-	-	1362
<i>Alcea apterocarpa</i> (Fenzl) Boiss.	Hiro	Corolla	For asthma and coughing	1300

Table 1. (Continued)

Alhagi pseudalhagi (M.Bieb.) Desv.	Hurnif	Fruit, aboveground	For asthma and diarrhoea. It is also used for broom.	1516
Alkanna hirsutissima (Bertol.) DC.	Havaco	root	Dying and ointment	1337
Alkanna megacarpa DC.	Havaco	root	Dying and ointment	1252
Allium scorodoprasum L. subsp. rotundum (L.) Stearn	Sirim	aboveground	Pastry and using as vegetables.Sold in weekly markets	1149
Althaea armeniaca Ten.	Hiro	flowers	For asthma and coughing	1477/a
Anchusa azurea Mill. var. azurea	Guriz	aboveground	food	1305
Anthemis hyalina DC.	Yoğurt Çiçeği.	stem	food.	1415
Anthemis altissima L.	Yoğurt Çiçeği.	-	-	1314
Astragalus aleppicus Boiss.	Gunpisik	-	-	1443
Astragalus russelii Banks & Sol.	Guni	root and aboveground	Root as fodder. aboveground as fuel.	1099
Astragalus xylobasis Freyn & Bornm. var. angustus (Freyn & Sint.) Freyn & Bornm.	Colbaney deva	aboveground	fodder	1369
Asyneuma filipes (Nábělek) Damboldt	Ariy Şevey.		Indicator for firefly	1087
Avena sterilis L. subsp. sterilis	Yulaf, Luf	aboveground	fodder	1119
Bifora testiculata (L.) Spreng. ex Schult.	Öğlük otu	aboveground	stomachache and fear /infusion	1068
Bunium paucifolium DC. var. paucifolium	Çiçegey gevr	aboveground	fodder	1366
Capparis ovata Desf. var. palaestina D.Zohary	Keber	buds & fruit	Food/pickle	1504
Cardaria draba (L.) Desv.		aboveground	fuel	1315/a
Carduus nutans L. subsp. nutans	Kerbeş	stem	Food/ fresh.	1166
Carduus pycnocephalus L. subsp. albidus (M.Bieb.) Kazmi	Kerbeş	stem	Food/fresh	1241
Centaurea depressa M.Bieb.	Mıtemor	aboveground	for prevent fear on kids/infusion	1115
Centaurea solstitialis L. subsp. solstitialis	Çakırdikenı.	aboveground	food/pastry	1159
Centaurea triumfettii All.	Oğlak Sakızı	Aboveground	as a fresh/ chew gum	1506
Cirsium vulgare (Savi) Ten.	Istriye mışk	stem	as a fresh/food	1503
Convolvulus arvensis L.	Peyçek, Sarmaşık	aboveground	fodder	1432
Coronilla scorpioides (L.) C.Koch	Çıgrik	aboveground	fodder	1077
Crocus cancellatus Herb. subsp. damascenus (Herb.) B.Mathew	Pivokey Hespa	tuber	additive to foods	1183
Crocus pallasii Goldb. subsp. turcicus B.Mathew	Pivokey Kuçıka, Pivokey Hespa	-	-	1056
Daucus broteri Ten.	Meyane, Daruk, Gihaye Gevrik.	aboveground	fodder	1481
Echinophora tenuifolia L. subsp. sibthorpiana (Guss.) Tutin	Mellik, Bıbal, Dereotu	aboveground	food	1178
Echinops orientalis Trautv.	Istriy Devan Kurindor	flowers	Flowers on the capitulum are removed and the rest is for eating	1511
Eminium rauwolfii (Blume) Schott var. rauwolfii	Karriy, Zillikey Eraba	aboveground	dye as a sign on the animals	1054
Eminium spiculatum (Blume) Schott var. spiculatum	Zillikey Eraba	aboveground	dye as a sign on the animals. Harmful for animals	1044

Table 1. (Continued)

Eremopyrum bonaepartis (Spreng.) Nevski subsp. bonaepartis	Şafir	aboveground	fodder	1347/b
Erodium cicutarium (L.) L'Hér. subsp. cutarium	Gihaye Seet, Pincar, Kurincok	Fruit	Child's play	1063/b
Erophila verna (L.) Chevall. subsp. verna	Şimilik	leaves	food	1203
Euphorbia macroclada Boiss.	Heşula Deva	aboveground	Fluid of plant for cease of pain. Clean the dirty waters.	1489
Euphorbia macrostegia Boiss.	Heşul	aboveground	Valuable plant for additive of grape molasses.	1515
Euphorbia microsphaera Boiss.	Heşula Deva	aboveground	fodder for camels in the past	1124
Ficus carica L. subsp. rupestris (Hauskn.) Browicz	Hejir. İncir	branch of stem	to remove the aches of face.	1050
Filago pyramidata L.	Çiçege Mast.			1338/b.
Fumaria asepalata Boiss.	Eğli otu	flowers	to remove the injuries on the face/infusion	1111
Geranium tuberosum L. subsp. tuberosum	Helilok	Tuber, aboveground	Fodder/ tubers are edible	1312
Gladiolus micranthus Stapf	Çiçege Beriyan	aboveground	ornamental on the head of young females	1257
Glaucium corniculatum (L.) Rudolph subsp. corniculatum	Şakşako	flowers	to release pains/infusion	1490
Glycyrrhiza glabra L. var. glabra	Sus, Meyan	root	to release the pains of kidneys and stomach/ sweetened fruit juice	1473
Gundelia tournefortii L. var. armata Freyn & Sint.	Kenger, Kereng	root	food/gum	1171
Gypsophila viscosa Murray	Çirçirik	aboveground	fodder/	1425
Hedysarum pannosum (Boiss.) Boiss.	Yonca	aboveground	Fodder	1395
Helianthemum salicifolium (L.) Mill.	Gihaye kimiya.		Indicator of mushroom	1354
Hippocrepis unisiliquosa L. subsp. unisiliquosa	Yonca	aboveground	fodder	1500/a
Hordeum spontaneum C.Koch.	Kılçık	aboveground	fodder	1298/b
Hordeum murinum L. subsp. leporinum (Link) Archer var. leporinum	Kılçık	aboveground	fodder	1118/a
Hyacinthella nervosa (Bertol.) Chouard	İsalan	aboveground	food	1197
Hypocoum procumbens L.	Gurnikey bistan	-	-	1123
Hypericum capitatum Choisy var. luteum N.Robson	Aringe zer	aboveground	pain releases for animals	1390
Hypericum capitatum Choisy var. capitatum	Aringe sor	aboveground	pain releases for animals	1364
Hypericum retusum Aucher	Behtof.	aboveground	pain releases for animals	1180
Hypericum triquetrifolium Turra	Behtof	aboveground	pain releases for animals	1514
Iberis acutiloba Bertol.	Sipirgeye Teel Acı Süpürge	aboveground	broom	1187
Iris persica L.	Soğan Çiçeği	flowers	Ornamental	1185
Ixiolirion tataricum (Pall.) Herb. subsp. tataricum	Ancurok	flowers	food/ornamental	1307
Lactuca serriola Boiss.	Kajo	aboveground	Food	1505

Table 1. (Continued)

Lathyrus aphaca L. var. modestus P.H.Davis	Collikey Çiçirk	aboveground	Fodder	1078
Lathyrus sativus L.	Collikey Cotkarey	aboveground	Food/fodder	1326
Linum mucronatum Bertol. subsp. mucronatum	Çiçege zer	flowers	for sterility in womens/infusion	1327
Marrubium parviflorum A.Fisch. & C.A.Mey. subsp. parviflorum		aboveground	to release stomachache	1434
Medicago minima (L.) Bartal. var. minima	Yonca	aboveground	Fodder	1469
Medicago noeana Boiss.	Guharey guhan, Kundırkoşk.	aboveground	Child's play	1229/b
Medicago orbicularis (L.) Bartal.	Yonca	aboveground	Increase the milk of cow	1109
Medicago polymorpha L. var. vulgaris (Benth.) Shinnars	Yonca	aboveground	fodder	1464
Medicago radiata L.	Yonca	aboveground	fodder	1168/b
Medicago rigidula (L.) All. var. rigidula	Yonca	aboveground	fodder	1484
Melica ciliata L. subsp. ciliata	Gennimok	aboveground	fodder	1501
Muscari neglectum Guss.	Sirime Şivana, Çoban Sarımsağı	aboveground	additive of pastry	1090
Notobasis syriaca (L.) Cass.		stem	food	1174
Ononis spinosa L. subsp. leiosperma (Boiss.) Širj.	Lavlavik	aboveground	Additive to pastry	1435
Onorbrychis altissima Grossh.	Yonca	seed	Fodder	1157
Onorbrychis armena Boiss. & A.Huet	Collikey Pisika	aboveground	Fodder	1407
Onorbrychis kotschyana Fenzl	Yonca	aboveground	Fodder	1275
Onorbrychis megataphros Boiss. var. podperae Širj. & Nábělek	Yonca	aboveground	Fodder	1493
Onosma isauricum Boiss. & Heldr.	Guriz			1456
Onosma sericeum Willd.	Beniştay Karika	aboveground	gum	1491
Ornithogalum oligophyllum E.D.Clarke	Sire Kuçika			1055
Orobanche mutellii F.J.Schultz	Hillik		Harmful to melon field.	1438
Papaver arenarium M.Bieb.	Şakşako	flowers	To release the pains	1331
Phleum pratense L.	Kamir		Indicator for the Well.	1317
Phlomis bruguieri Desf.	Guhbellik	aboveground	Fodder	1475
Phlomis kurdica Rech.f.	Guhbellik	aboveground	Fodder	1474
Pimpinella corymbosa Boiss.	Gihaye Porik, Çiçege Gevrik.			1164
Pimpinella eriocarpa Banks & Sol.	Kıneyber	aboveground	Food	1315/b
Pisum sativum L. subsp. elatius (M.Bieb.) Asch. & Graebn. var. pumilio Meikle	Colhatun, Collik	aboveground	Food and fodder	1088
Prangos peucedanifolia Fenzl		flowers	to prevent itch.	1167
Salvia multicaulis Vahl	Çobandöşeği	aboveground	to release stomachache	154

Table 1. (Continued)

<i>Salvia syriaca</i> L.	Seyvenok	aboveground	Fodder/child's play	1429
<i>Salvia virgata</i> Jacq.	Seyvenok	aboveground	Facilitate the digestion	1427
<i>Scabiosa argentea</i> L.	Sipergeye Zer, Dağ Süpürgesi	aboveground	broom	1391
<i>Scabiosa rotata</i> M.Bieb.	Zivan		Harmful to crops	1423
<i>Scandix stellata</i> Banks & Sol.	Reşreşik, Sepij.	aboveground	Fodder	1125
<i>Scorpiurus muricatus</i> L. var. <i>subvillosus</i> (L.) Fiori	Yonca	aboveground	Fodder	1416/b
<i>Scorzonera kotschyi</i> Boiss.	Galınç, Gizerok, Dağ Havucu	aboveground	Fodder	1419
<i>Scutellaria tomentosa</i> Bertol.	Adaçayı	aboveground	Herbal tea	1497
<i>Silene coniflora</i> Nees	Dımısok	flowers	food	1289
<i>Sinapis arvensis</i> L.	Herdal	leaves	Food	1130
<i>Tanacetum argenteum</i> (Lam.) Willd. subsp. <i>argenteum</i>	Çiçegey Mast	flowers	to release pains/infusion.	1373
<i>Taraxacum phaleratum</i> G.E.Haglund ex Rech.	Kajo			1224
<i>Taraxacum sintenisii</i> Dahlst.	Kajo, Gihaye Şir	aboveground	fodder. Increase the milk of cow.	1295
<i>Teucrium polium</i> L.	Talik, Meyremhort.	flowers	Herbal tea. Pain releavers for the babies.	1495
<i>Torilis leptophylla</i> (L.) Rchb.	Gurnik, Devedikeni	Fruit & leaves	for the kidney disorders	1141
<i>Trifolium campestre</i> Schreb.	Yonca	aboveground	Fodder	1134
<i>Trifolium dasyurum</i> C.Presl	Yonca	aboveground	Fodder	1451
<i>Trifolium echinatum</i> M.Bieb. var. <i>echinatum</i>	Yonca	aboveground	Fodder	1165
<i>Trifolium leucanthum</i> M.Bieb.	Yonca	aboveground	Fodder	1114
<i>Trifolium pilulare</i> Boiss.	Yonca	aboveground	Fodder	1302/a.
<i>Trifolium resupinatum</i> L. var. <i>resupinatum</i>	Yonca	aboveground	Fodder	1107
<i>Trifolium spumosum</i> L.	Yonca	aboveground	Fodder	1302/b
<i>Trifolium tomentosum</i> L. var. <i>tomentosum</i>	Yonca	aboveground	Fodder	1344
<i>Trigonella coelesyriaca</i> Boiss.	Andeko	aboveground	Pain releavers for the eye. Fodder.	1081
<i>Trigonella filipes</i> Boiss.	Yonca	aboveground	Fodder	1351
<i>Trigonella mesopotamica</i> Hub.-Mor.	Andeko	aboveground	Pain releavers for the eye/fodder	1350
<i>Trigonella monantha</i> C.A.Mey. subsp. <i>monantha</i>	Yonca	aboveground	Fodder	1080
<i>Trigonella monspeliaca</i> L.	Yonca	aboveground	Fodder	1352
<i>Trigonella spruneriana</i> Boiss. var. <i>spruneriana</i>	Yonca	aboveground	Fodder	1073
<i>Triticum dicoccoides</i> (Koern.) Koern.	Ceheyte Reş	aboveground	Fodder	1118/b
<i>Turgenia latifolia</i> (L.) Hoffm.	Çeplik, Karaheci	fruit & leaves	Fodder/ release the pains on the babies	1455

Table 1. (Continued)

Vaccaria pyramidata Medik. var. oxyodonta (Boiss.) D.Zohary	Reşreşik	aboveground	fodder	1137
Vicia anatolica Turrill	Collikey Kuçika Colpisik	aboveground	Fodder	1083/a.
Vicia sativa L. subsp. nigra (L.) Ehrh. var. segetalis (Thuill.) Ser. ex DC.	Collikey Risey	aboveground	Fodder	1084/a
Vicia sativa L. subsp. nigra (L.) Ehrh. var. nigra	Collikey Maran	aboveground	Fodder	1269/b
Vicia sativa L. subsp. sativa	Collikey Hespa	aboveground	Fodder	1328
Ziziphora tenuior L.	Hırpkesen	aboveground	Food	1378

4. Conclusions

The uses of plants among rural area are inevitable because it is traditional way from past. In the region, the ethnobotanical knowledge has not been recorded properly up to date and by the time it has been disappear. We have observed that the elder people has valuable information on the uses of plants. With the accurate ethnobotanical surveys, each of the plant species should be studied in detail.

It is observed that the uses of plants among people is obtained by try-mistake methods. Therefore, the interaction of people with the plants has been increasing over time. The new generations are not interested to plants as elder people. According to survey results, the uses of plants can be categorised as follows (Table 2).

Table 2. The uses manner of plants of Kalecik mountain, Şanlıurfa, SE Anatolia
Tablo 2. Kalecik Dağı bitkilerinin kullanım şekilleri, Şanlıurfa, GD Anadolu

Uses of plant (category)	The number of plants	%
food	38	16
medicinal	37	16
fodder	32	13
ornamental	5	2
broom	5	2
fuel	5	2
dying	4	2
child's play	3	1
indicator	3	1
harmful	11	5
others	95	40
Total	238	100

Acknowledgements

We would like to thank to the villagers of Kalecik, Kırkpınar, Korukezen and Yarıntepe for sharing their knowledge, to Dr. Füsün Ertuğ for useful discussion and to Harran University for financial support.

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(Received for publication 13 December 201; The date of publication 15 August 2013)