

Wild Edible Plants of the Bodrum Area (Muğla, Turkey)

Füsün ERTUĞ
Rıdvan Paşa Sok. Refik Bey Apt. 13/14 Göztepe 81080 İstanbul - TURKEY
fertug@attglobal.net

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Abstract: The town of Bodrum is situated on a peninsula in south-western Turkey in the province of Muğla. The research project on the Useful Plants of the Bodrum Area has been collecting data since October 1999 on the traditional uses of plants for food, medicine, fodder, fuel, handicrafts and other purposes. The information was collected over a two-and-a-half-year period from informants of various ages and background categories in Bodrum and the surrounding villages, with the help of about 25 volunteers. In addition to the informant-based research, year-round surveys of weekly markets in Bodrum, Milas and Muğla have been carried out to check the availability of the locally known edibles in these markets.

Over 770 plant samples were collected and about 400 species identified. The information on each species is entered into a database. The highest percentage of useful plants was of natural or so-called "wild" edibles. A total of 179 species (143 natural and 36 cultivar and introduced) are recorded in the food and beverage category. Some edible plants are no longer collected by local people, some others are known only by certain villagers, and some species are under the threat of over collection.

Key Words: Ethnobotany, wild edibles, Bodrum (Halicarnassos), Muğla, C1 square, Turkey.

Bodrum Yöresinin Yeneni Yabani Bitkileri (Muğla, Türkiye)

Özet: Bodrum, güneybatı Anadolu'da Muğla ili sınırları içindeki bir yarımada üzerinde yer alır. Bodrum Yararlı Bitkiler Araştırma Merkezi Projesi Ekim 1999'dan beri gıda, ilaç, yem, yakacak, el sanatları ve diğer geleneksel bitki kullanımları ile ilgili verileri toplamaktadır. Elde edilen veriler iki buçuk yılı aşkın bu süre içinde 25 gönüllünün katkılarıyla Bodrum ilçesi ve köylerinde farklı yaş ve sosyal kategorilerden kaynak kişilerden sağlanmıştır. Kaynak kişilerle görüşmelerin yanı sıra Bodrum, Milas ve Muğla pazarlarına haftalık ziyaretlerle pazarlara getirilen yabani ve tarımı yapılan bitkiler kaydedilmiştir.

Bu süre içinde 770'i aşkın bitki örneği toplanmış ve bunlardan 400'e yakın türün saptaması yapılmış ve bir veri tabanına aktarılmıştır. Yararlı bitkiler arasında en önemli kategori toplam 179 tür (143 doğal/"yabani" ve 36 tarımı yapılan) ile yeneni içilenler grubudur. Yenildiği saptandığı halde bazı bitkilerin artık toplanmadığı, bazılarının sadece belirli bölgelerde bilindiği, bir kısmının da aşırı toplanma tehdidi altında olduğu gözlenmiştir.

Anahtar Sözcükler: Etnobotanik, yeneni yabani bitkiler, Bodrum, Muğla, C1 karesi, Türkiye

Introduction

In Turkey, the Aegean coast is believed to have an outstanding plant gathering tradition incomparable with any other area in Anatolia. Some people even argue that the Cretan Turks brought this tradition to the region when they immigrated in the 19th and early 20th century. Lyle-Kalças (1974) wrote that plant gathering for food is limited to an area "from the Dardanelles south along the

Aegean coast to the Mediterranean", and cannot be found more than 100 km inland. However, our research in Central Anatolia and various scattered records has indicated that this belief has no foundation, and wild plant gathering for food and other needs is an ongoing tradition and a customary practice throughout Anatolia (e.g., Baytop, 1994; Ertuğ-Yaraş, 1996; Ertuğ, 2000). The research project on the Useful Plants of Bodrum was

designed with this in mind, and especially to determine if there is a significant difference between the information collected here and that of other areas, particularly with regard to wild edibles. The town of Bodrum is well known for the richness of its greens, which are brought to market throughout the year, and the whole area of Muğla is famous for its variety of wild orchids used to make salep (Sezik, 1969, 1984).

There are a limited number of ethnobotanical studies on the Muğla area, and the Aegean region in general. These are primarily related to medicinals (e.g. Honda et al., 1996; Sayar et al., 1995; Sucu, 1983, 1989; Tanker & Sucu, 1983), and a few related to wild edibles (Çolakoğlu & Bilgir, 1977; Çolakoğlu & Tömek, 1975; Lyle- Kalças, 1974; Siyamoğlu, 1984; Tuzlacı, 2000). Among these Tuzlacı's floristic and ethnobotanical study has the widest scope; he listed 346 species in 72 families on the Bodrum Peninsula, of which 43 species were given as useful in various categories (2000). Our research project hypothesised that in a long-term, systematic

ethnobotanical study focused on a relatively limited area, the number of useful plants would be much higher and more detailed information on their various uses would be available.

Research Area and the background for research

Bodrum is situated on a peninsula in south-western Turkey in the province of Muğla and in the C1 square of the *Flora of Turkey*. The Bodrum peninsula covers 650 km² and is surrounded in the north by the Gulf of Mandalya, in the west by the Aegean Sea, and in the south by the Gulf of Gökova (Fig. 1). It is on the 37th parallel and has a temperate Mediterranean climate, with warm, rainy winters, and hot, dry summers. The annual precipitation is about 750 mm, and the highest point of the peninsula is less than 800 m. The majority of the flora consists of Mediterranean elements.

In antiquity, Bodrum was called Halicarnassus, where, in the fourth century B.C., King Mausolos reigned from the capital of Caria. It was then a very prosperous Aegean



Figure 1. Map of the Bodrum Peninsula; some of the selected villages and towns which are mentioned in the text and tables are shown, drawing: Ayşe Tunçay

town. The Mausoleum, one of the Seven Wonders of the Ancient World, was built in Bodrum by Mausolos' successors (Alpözen, 2000). However, for most of its recent history Bodrum has been a small port, inhabited by a mixed population of Greeks and Turks. After the 1922 population exchange, the Greeks were replaced by Cretan Turks. Today, the town of Bodrum has a population of about 25,000, and the whole peninsula has about 80,000 inhabitants. In the summer tourists swell the population to 250,000.

The research project on the Useful Plants of Bodrum was started in October 1999 with the support of the Academia Mediterranea Halicarnassensis Foundation, with the aim of setting up an international institute in Bodrum. However, due to the Turkish economic crisis the Foundation's support ceased after 7 months. The project continued with private donations, and the support of volunteers and scientists from various institutions, especially Gazi and İstanbul universities (see Acknowledgements).

Materials and Methods

The research project on the Useful Plants of Bodrum was developed as a multi-disciplinary project to gather data on the traditional uses of plants for food, medicine, fodder, fuel and handicrafts. The documentation of local natural and cultural heritage was believed to be useful for local development projects and in training programmes. It was designed as a long-term study, and in the first few months 20 volunteers were trained to collect data. In addition to interviews with people who had a knowledge of plants, we performed market surveys in and around Bodrum.

The Friday markets in Bodrum were our main focus for this research (Fig. 2), while other markets were only surveyed for comparisons. The Friday markets in Bodrum are a magnet for numerous villagers from the surrounding area. Samples of wild edibles, herbs, medicinal plants and ethnographic objects made from plant materials, such as baskets, spoons and amulets, were collected and recorded. While the plants and the related information were entered into a database, plant-based ethnographic materials were recorded on a separate card file. A total of 60 forms were completed, and about 30 objects such as brooms, spoons, baskets, amulets, spinning tools and mats were collected.



Figure 2. Friday Market of Bodrum, May 25, 2001, photo: F. Ertuğ

On many visits to the Friday markets, the team was fortunate to be invited to the homes of some of the villagers, who were knowledgeable, and who not only gave information, but allowed the team to go with them to collect plants (Fig. 3). From them it was learnt that half the known edibles, most of the medicinals, fodder and fuel plants, as well as many handicraft plants, were not brought to the market.



Figure 3. Naime Genç gathering *Salvia fruticosa*, Gököy, May 29, 2001, photo: F. Ertuğ

Table 1. Bodrum preliminary results, October 1999- June 2002.

Number of specimens collected:	774			
Number of identified species:	390 (in 89 families)			
Number of useful species with sufficient data and samples:	355			
Number of species with insufficient information:	35			
Endemics:	21			
CATEGORIES	NATIVE SPECIES 338	PERCENTAGE WITHIN NATIVE %	CULTIVARS & INTRODUCED PLANTS 52	TOTAL 390
Edibles	143	42	36	179
Medicinals	92	27.2	24	116
Fodder	55	16.2	5	60
Handicrafts	34	10.05	6	40
Fuel	6	1.77	1	7
Miscellaneous uses	67	19.8	11	78

Note: Due to the overlapping uses of plants these numbers and percentages should not added up for a total sum. See Tables 3 and 4 for plant categories and multi-uses.

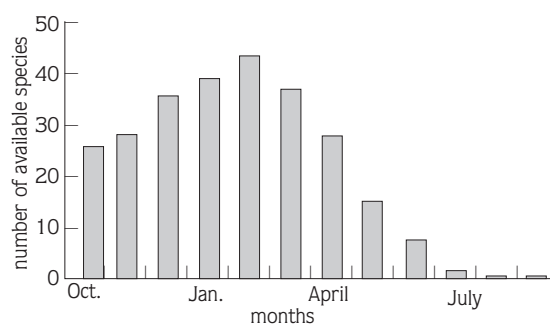
EDIBLES (IA & IB)

SUB CATEGORIES	NATIVE (IA) 143	CULTIVARS & INTRODUCED PLANTS (IB) 36
Leaves and shoots	63	12
Stems and roots	7	2
Bulbs	25	3
Fruit	16	24
Mushrooms	7	-
Flowers	5	1
Tea plants	17	-
Spices	13	4
Others (e.g. gum, starter)	6	1

The number of informants in this project was 109, of which 68 were women (62.3 %) and 41 men (37.6 %), between the ages of 11 and 88, with a mean age of 53. Kızılağaç, Yalçıftlık, Çömlekçi, Sazköy, Mumcular and Ekinambarı were the main villages outside the Bodrum Peninsula, 8-60 km from the town of Bodrum, where we collected samples or where our informants were from (see Fig.1).

A programme in two local village elementary schools, one in the peninsula, in Gündoğan, and the other outside the peninsula, in Yalçıftlık, was also conducted. First, a talk with slides on local useful plants, and then questionnaires on edible and medicinal plants were given to the students. A total of 51 forms were returned by students in the two schools, with information on edibles and medicinals. After the forms were evaluated, some of the families were visited and detailed information was obtained.

Table 2. Availability of Bodrum's edible wild green throughout the year.



Herbarium specimens are given to the İstanbul University and Gazi University herbariums.

Edible Plants Evaluation and some examples

A total of 143 edibles (136 natural plants and seven mushrooms) in 42 families are in the wild food and

beverage category, and this group constitutes about 42% of all natural useful plants (Tables 2 & 3). Within the edibles category, leaves and shoots are the most widely consumed. Among all natural edibles, 63 leaves and shoots, 17 tea plants, 16 fruit, 13 spice plants, seven mushrooms, seven roots and rhizomes, six gum and starter plants and five flowers were recorded, in addition to 25 species of orchid bulbs for salep. Some of these species have two or more uses, and they appear in different categories. For example, *Mentha pulegium* L., *Origanum onites* L., *O. vulgare* L. subsp. *hirtum* (Link) letsw. and *Thymbra spicata* L. are considered both as herbal teas and spices; *Salvia fruticosa* Mill. is considered in two edible categories as a fruit and a herbal tea (for overlaps see Table 3, Plant Categories).

Care was taken to document all the orchids that were sold as flowers and bulbs in Bodrum market in order to obtain information on local bulb collection and trade. However, in Gündoğan only one woman was found, who collected orchid bulbs for home consumption as salep, and only two women collected bulbs to sell to middlemen.



Figure 4. *Cytinus hypocistis* on the roots of *Cistus monspeliensis*, Gündoğan- April 19, 2001, photo: F. Ertuğ

Although all orchids are considered edible in our lists, their role in local diets should be viewed with caution. There are other plants that the villagers know as edible, but are rarely used now in the local diet, for example, a parasite plant *Cytinus hypocistis*, which we found on the roots of *Cistus monspeliensis*, the rock-rose bush (Fig. 4). Some of the villagers remembered it as a very good sweet and 20-25 years ago they also used it as glue. The fleshy and scaly red and yellow flower heads of this parasite are known as edible in Greece, and have been used as a medicinal (Baumann, 1996).

At this point it should be noted that over a quarter (35 or 25 %) of all edibles are also considered medicinals. This overlap indicates the close relationship between health and food. A good example of this is *Urtica dioica* L. This stinging nettle (Fig. 5), locally called dalan, is one of the most commonly used greens, and many recipes were recorded for its use in soups, breads, pies and omelets. It is also considered one of the most commonly used medicinals with about 11 different recipes.



Figure 5. *Urtica dioica*, bought from Bodrum market, March 23, 2001, photo: F. Ertuğ

Table 3. Wild edibles of the Bodrum area.

Family Name	Species Name	Local Name	Plant Category	Specimen no.	Dry sample no.
AGARICACEAE	<i>Agericus campestris</i> L.	çimenmantarı	IA5		
AMARANTHACEAE	<i>Amaranthus viridis</i> L.	delisirkən	IA1	706	356, 712
ANACARDIACEAE	<i>Pistacia lentiscus</i> L.	sakızgacı/sakızlık/sakızlım/kündük/kündük/dağçalısı	IA9, IIA1, VA3	56, 178, 204, 282	46
	<i>Pistacia terebinthus</i> L. subsp. <i>palaestina</i> (Boiss.) Engl.	çitemi/çitemi/çitemi/çitemi	IA4, IA9, IIA1, VA1, VIA1	359, 405, 437	200
	<i>Rhus coriaria</i> L.	sumak/somak	IA8, IIA1		
APIACEAE	<i>Berula erecta</i> (Huds.) Coville	sukazyığı	IA1	6, 108	116 a, 440, 446
	<i>Cribthum maritimum</i> L.	denizmarulu/kayakorluğu	IA1	116	
	<i>Daucus carota</i> L. group C	daraklık	IA1, IA2, IIA1	565, 620	
	<i>Echinophora tenuifolia</i> L. subsp. <i>sibthorpiana</i> (Guss.) Tutin	tarhanaotu	IA8		436
	<i>Eryngium carpestre</i> L. var. <i>virens</i> Link	devetabani	IA1	770	
	<i>Eryngium creticum</i> Lam.	devetabani	IA1	40, 76, 724	732
	<i>Falcaria</i> sp.	snırgezayığı	IA1	4	
	<i>Foeniculum vulgare</i> Mill.	arapsaçı/sırtaç/sıra	IA1	8, 42, 85, 96, 136, 196	
	<i>Hippomarathrum cristatum</i> (DC.) Boiss.	çaşamba	IA2	773	730
	<i>Lagoecia cuminoides</i> L.	peynirçiği	IA8	370, 587	
	<i>Oenanthe pimpinelloides</i> L.	kazyığı/kazyak	IA1	30, 109, 131, 498, 588	
	<i>Opopanax hispidus</i> (Friv.) Griseb.	sanot	IA1	93, 133, 616	
	<i>Scandix pecten-venensis</i> L.	kışkış	IA1	111, 172, 189, 294, 318, 551	
	<i>Smyrniolum comatum</i> Boiss. et Kotschy	sarıkönek	IA1		691
	<i>Smyrniolum olusatrum</i> L.	baldiran	IA1	28, 29, 75, 94?, 120, 124, 166, 243	
ARECACEAE/PALMAE	<i>Phoenix theophrasti</i> Greuter	gököyürması	IA4, VA5, VIA1		
ASTERACEAE	<i>Centaurea solstitialis</i> L. subsp. <i>solstitialis</i>	çakırdikeni/kababgöğdikeni	IA1, IA2	320?, 703, 768	
	<i>Centaurea unvilliei</i> DC. (END.)	çobankaldiran/yığıltide	IA1	719, 721	
	<i>Chondrilla juncea</i> L. var. <i>juncea</i>	sakızotu	IA9	664, 702	
	<i>Chrysanthemum coronarium</i> L.	dallama	IA1, IIA1	43, 238, 246, 314, 324, 520	
	<i>Chrysanthemum segetum</i> L.	alagöme/aleğümeçi	IA1, IIA1	291, 482, 571	
	<i>Cynara cardunculus</i> L.	enginar diken	IA4/6?, IA9	771	729
	<i>Echinops viscosus</i> DC. ssp. <i>bithynicus</i> (Boiss.) Rech.f.	sakız diken	IA9		690
	<i>Notobasis syriaca</i> (L.) Cass.	yavankenker	IA2	772	731
	<i>Onopordum illyricum</i> L.	deliken/şevketibostan	IA2	382b, 674, 681, 728	677
	<i>Scolymus hispanicus</i> L.	kenker/ıslukenker	IA2, IIA1	32, 77, 134, 382a, 687, 727	733
	<i>Scorzonera cana</i> (C.A.Mey.) Hoffm.	tekesakal	IA1	145, 164	
	<i>Scorzonera elata</i> Boiss.	tekesakal	IA1	103, 175, 336	
	<i>Sonchus asper</i> (L.) Hill subsp. <i>glaucescens</i> (Jord.) Ball	sütüo/şütten/hindiba (İslamhaneleri)/bodan (Muğla)	IA2	285, 508, 769	
	<i>Sonchus cf. oleraceus</i> L.	eşekhalvesi/halveçik/aiadiken	IA2	3, 110, 147	
	<i>Taraxacum officinale</i> Weber	hindiba/kaymak	IA1, IIA1	21, 141, 176, 195	
	<i>Tragopogon longirostris</i> Bischof, ex Sch.Bip. var. <i>longirostris</i>	keçisakal/tekesakal	IA1, VA1	373, 639	
BORAGINACEAE	<i>Anchusa undulata</i> L. subsp. <i>hybrida</i> (Ten.) Cout.	ballıkotu/beneklio/şigirdili	IA1	114, 146, 511, 720?	
	<i>Cerintho major</i> L.	alacakız/börekotu	IA1	197, 298, 449	
BRASSICACEAE	<i>Brassica nigra</i> (L.) Koch	karahardal	IA1	748	
	<i>Caposella bursa-pastoris</i> (L.) Medik.	dağmarulu/kayamarulu	IA1, IIA1	25, 26, 48, 64?, 65?, 95, 117, 184, 193, 726	
	<i>Cardamine cf. uliginosa</i> M.Bleb.	sukerdimesi	IA1	100	
	<i>Lepidium spinosum</i> Ard.	kerdimi?	IA1	322	
	<i>Lepidium sativum</i> L.	tere	IA1	67	
	<i>Raphanus raphanistrum</i> L.	turpotu	IA1	7, 130, 174, 274a, 274b, 480	
	<i>Sinapis arvensis</i> L.	hardal/akhardal/delhardal	IA1	20, 696, 697, 751, 752	
CAMPANULACEAE	<i>Campanula lyrata</i> Lam. subsp. <i>lyrata</i> (END.)	inekmemesi (Muğla)/dağdıveleği (Gündoğlan)	IA1	142, 304, 503, 722	
CAPPARACEAE	<i>Capparis spinosa</i> L. var. <i>inermis</i> Turra	tavukyağı (Muğla)	IA1	577	
CARYOPHYLLACEAE	<i>Silene cf. italica</i> (L.) Pers.	gebre otu/kebere	IA1	112, 143, 466	
	<i>Silene vulgaris</i> (Moench) Garcke var. <i>vulgaris</i>	yüksüregi/kuyseyik	IA1	295, 321, 505	
		kuşşak/kışgak	IA1		

Table 3. Continued

51	CARYOPHYLLACEAE	<i>Stellaria media</i> (L.) Vill.	Kuşyüreği/urganlık denizbörülcesi	IA1	27, 50, 183	
52	CENOPODIACEAE	<i>Salicornia europaea</i> L.	kayazüümü	IA1	31, 429	
53	CRASSULACEAE	<i>Sedum rubens</i> L.	acrot	IA1, IIA1	555, 598	644
54	DIOSCOREACEAE	<i>Tamus communis</i> L. subsp. <i>cretica</i> (L.) Kt Tan	kocayemiş/dagçiteği	IA4, VIA13	215, 217, 286, 323, 358, 523	22, 125
55	ERICACEAE	<i>Arbutus unedo</i> L.	harup/harp/harnup	IA4, IIA1, IVA, VIA1	125, 160	11, 420
56	FABACEAE	<i>Ceratonia siliqua</i> L.	domuzbaklası/cavurbaklası	IA4?, IVA	58, 59, 350, 420	582
57		<i>Lupinus micranthus</i> Guss.	meşepiilit	IA4, IIA	236	38, 45, 55, 98a, 442
58	FAGACEAE	<i>Quercus coccifera</i> L.			98, 281, 345, 409	
59		<i>Quercus ithabensis</i> Decne subsp. <i>macrolepis</i> (Kotschy) Hedge et Vait.			408, 601, 685	601
60	GERANIACEAE	<i>Erodium cicutarium</i> (L.) L'Hér.	ıgnelik	IA1	66	
61		<i>Erodium hoeflianum</i> C.A.Mey.	kuzugöbeği	IA1	140	
62		<i>Erodium moschatum</i> (L.) L'Hér.	ıgnelik	IA1	129, 186, 225	
63		<i>Erodium malacoides</i> (L.) L'Hér.	ıgnelik	IA1	226	
64	HYMENOGASTRACEAE	<i>Rhizopogon luteolus</i> Fr.	doblenmantarı	IA5		716
65		<i>Coridothymus capitatus</i> (L.) Rchb.f.	kekik/karakkekik	IA8, IIA1, VIA2	395, 645	
66	LAMIACEAE	<i>Lamium moschatum</i> Mill. var. <i>moschatum</i>	lülün otu	IA1, IIA1	293, 377	
67		<i>Lamium</i> sp.	ballibaba	IA6	190	
68		<i>Melissa officinalis</i> L.	oğulotu/melisa	IA7, IIA1		754
69		<i>Mentha pulegium</i> L.	çayrmanesi/nana/narpuz/narpuz	IA7, IA8, IIA1, VIA10	600, 613	80?
70		<i>Micromeria myrtilloides</i> Boiss. et Hohen.	çayotu	IA7	367, 633	
71		<i>Origanum onites</i> L.	kekik/salmankekik/inçirkekiki	IA7, IA8, IIA1, IIA2	245, 326, 580, 614	91, 394
72		<i>Origanum vulgare</i> L. subsp. <i>hirtum</i> (Link) Ietsw.	karakekik	IA7, IA8, IIA1		51
73		<i>Phlomis angustissima</i> Hub.-Mor. (END.)	yayaçayı	IA7		18
74		<i>Phlomis fruticosa</i> L.	dağçayı	IA7	338	
75		<i>Rosmarinus officinalis</i> L.	biberiye/kuşdili	IA7, IA8, IIA1	82	
76		<i>Salvia fruticosa</i> Mill.	adaçayı/almekekik/almeçalısı/elmeçalısı	IA4, IA7, IIA1	49, 517, 740	16, 87, 299, 355
77		<i>Salvia tomentosa</i> Mill.	adaçayı	IA7	244	
78		<i>Satureja thymbra</i> L.	kekik/limonkekiki	IA7, IA8	351, 368, 522	447?
79		<i>Sideritis leptocladia</i> O.Schwarz et P.H.Davis (END.)	dağçayı/kızılçayı	IA7, IIA1?		13
80		<i>Sideritis libanotica</i> Labill. subsp. <i>linearis</i> (Benth.) Borm. (END.)	dağçayı/gökçeçayı	IA7, IIA1?		14
81		<i>Thymbra spicata</i> L. var. <i>spicata</i>	çaykekiki/peynirkekiki	IA7, IA8	649, 699	734
82		<i>Ziziphora taurica</i> M.Bieb.	çaykekiki/sivirkekik	IA7, IA8, IIA1		422
83		<i>Ziziphora tenuior</i> L.	narpuz	IA7, IA8, IIA1		86
84	LAURACEAE	<i>Laurus nobilis</i> L.	defne/fenel	IA7, IA8, IIA1, VIA1, VIA2	406, 407, 512	54, 617
85	LEPIDIACEAE	<i>Macrolepota konradii</i> (Huism.ex Orton) Mas.	karakökmen/keçikörmeni/övekökmeni	IA5		715
86	LILIACEAE	<i>Allium ampeloprasum</i> L.	kökmen/körmen	IA1	127, 188?, 579, 665	675
87		<i>Allium subhirsutum</i> L.	tlikişen	IA1, IIA1	73, 138, 187, 524, 535	
88		<i>Asparagus acutifolius</i> L.	develik	IA1, IIA1	47, 167, 170, 177, 255, 424	
89	MALVACEAE	<i>Smilax aspera</i> L.	sılan/sılcana/sılcana	IA1	263, 287, 360, 410	
90		<i>Lavatera cretica</i> L.	develik	IA1	228, 273	
91		<i>Malva sylvestris</i> L.	ebegümeci/gaba/limik	IA1, IIA1	9, 198, 314?, 621	
92	MORACEAE	<i>Ficus carica</i> L. subsp. <i>carica</i> (male)	inçirböğası/erkekincir	IA4, IIA1		741
93	MORCHELLACEAE	<i>Morchella conica</i> Pers.	kuzugöbeğimantarı/kuzugöbeği	IA5, IIA1		216
94		<i>Morchella elata</i> Fr.	kuzugöbeğimantarı/kuzugöbeği	IA5, IIA1		39
95	MYRTACEAE	<i>Myrtus communis</i> L. subsp. <i>communis</i>	mersin	IA4, IIA1, VA3, VIA6	1, 2, 419, 485	
96	ORCHIDACEAE	<i>Anacamptis pyramidalis</i> (L.) Rich.	salepçeygi	IA3	267a, 348	
97		<i>Barlia robertiana</i> (Loisel.) Greuter	patpatanak	IA3	153, 452, 496	
98		<i>Limodorum abortivum</i> (L.) Sw.	salepçeygi	IA3	354	
99		<i>Neotinea maculata</i> (Desf.) Stearn	salep	IA3	214	
100		<i>Ophrys bombyliflora</i> Link.	koyungözü	IA3	202a	
101		<i>Ophrys ferrum-equinum</i> Desf.	koyungözü (Kızılağaç)	IA3	212, 221, 473	
102		<i>Ophrys fusca</i> Link.	kedigözü (Kızılağaç)	IA3	211b, 475	

Table 3. Continued

103	ORCHIDACEAE	<i>Opithys holoserica</i> (Burmm.f.) Creuter ssp. <i>holoserica</i>	salepçeği	IA3	(slide)	
104		<i>Opithys lutea</i> Cav. ssp. <i>minor</i> O. et E. Dnesch	salep	IA3	266, 454	
105		<i>Opithys oestifera</i> M. Bleb. subsp. <i>oestifera</i>	salep	IA3	211a	
106		<i>Opithys omegaifera</i> Fleischm.	koyungözü (Kızılağaç)	IA3	202b, 474	
107		<i>Opithys tenthredinifera</i> Willd.	koyungözü (Kızılağaç)	IA3	206, 472	
108		<i>Opithys vernixia</i> Brot. sp. <i>vernixia</i>	kedigözü	IA3	476	
109		<i>Opithys umbilicata</i> Desf. subsp. <i>umbilicata</i>	salepçeği	IA3	slide	
110		<i>Orchis anatolica</i> Boiss.	dildamak/diliçikk/diliçkrnk (Milas)	IA3	456, 471, 554, 596	
111		<i>Orchis italica</i> Poir.	tavşantopu/tavşantopuğu	IA3	213, 259, 264, 267b, 311	
112		<i>Orchis lactea</i> Poir.	salepçeği	IA3	737	
113		<i>Orchis laxiflora</i> Lam.	salep	IA3	219, 269, 365	
114		<i>Orchis papilionacea</i> L. var. <i>papilionacea</i>	salepotu/kaurtirmağı (Kızılağaç/tavşantopuğu (Çömlekçi))	IA3	156, 210, 220, 232, 448, 455, 743	
115		<i>Orchis cf. sancta</i> L.	pirinççeği/piren/püren	IA3	364	
116		<i>Orchis simia</i> Lam.	toramantasiak (Çömlekçi)	IA3	742	
117		<i>Serapias orientalis</i> (Creuter) H. Baumann et Künkele	sağırkulağı	IA3?	231	
118		<i>Künkele</i> subsp. <i>carica</i> H. Baumann et Künkele	sağırkulağı	IA3?	(slide)	
119		<i>Serapias patmia</i> Hirth et Spach	sağırkulağı	IA3?	530	
120		<i>Serapias politisii</i> Renz	sağırkulağı	IA3	218, 265	
121	OXALIDACEAE	<i>Serapias vomeraceae</i> (Burmm.f.) Briq. subsp. <i>laxiflora</i>	ekşiot	IA1	182	
122	PAPAVERACEAE	<i>Oxalis pes-caprae</i> L.	sabuncuk	IA1?	101, 314	
123		<i>Papaver dubium</i> L.	gelincik/kapçıkotu/kapırcık (Muğla)	IA1?, VA1	74, 137, 223, 272, 309, 315	
		<i>Papaver rhoas</i> L.	gelincik/kapçıkotu	IA1?	5	
124		<i>Papaver rhopalotheca</i> Stapf	çam	IA4, IA9, IIA1, VIA3	240	
125	PNACEAE	<i>Pinus brutia</i> Ten.	künerçami	IA4, IIA1		52, 439
126		<i>Pinus pinea</i> L.	kürekmanları	IA5	478, 710, 713	
127	PLEUROTACEAE	<i>Pleurotus eryngii</i> (DC.) Quéf.	denizmarulu	IA1, VIA8	557	
128	FLUMBAGINACEAE	<i>Limonium sinuatum</i> (L.) Mill.	ovamaıncrı	IA1	72	
129	POLYGONACEAE	<i>Beta</i> sp.	kuzukulağı	IA1	139, 163, 185, 207, 229, 330	
130		<i>Rumex acetosella</i> L.	libda/labada	IA1, IIA1	92, 312, 333, 539	609
131		<i>Rumex</i> sp.	semizotu/semiz	IA1, IIA1	701	
132	PORTULACACEAE	<i>Portulaca oleraceae</i> L.	pirentükali	IA6, VIA4	545, 549	549
133	RAFFLESIAEAE	<i>Cytinus hypocistis</i> L. subsp. <i>orientalis</i> Wettst.	yağlıot/devetabani (Muğla)	IA1	144, 154, 159, 723	
134	RANUNCULACEAE	<i>Ranunculus ficaria</i> L. subsp. <i>ficariaformis</i>	kızılıcyık/alıç	IA4, VA5	81	977
135	ROSACEAE	<i>Crataegus monogyna</i> Jacq.	çöğür/ahlat/aklat	IA4, IIA1, VA5	205, 404	687
136		<i>Pyrus amygdaliformis</i> Vill. var. <i>amygdaliformis</i>	böğürtlen	IA4, IIA1	374, 401	
137		<i>Rubus sanctus</i> Schreb.	mayaslıotu	IA1	106	
138		<i>Sanguisorba minor</i> Scop.	çınarmanları/çınar	IA5		
139	RUSSULACEAE	<i>Lactarius</i> sp.	eşekmemesi/balık	IA6	671	
140	SCROPHULARIACEAE	<i>Verbascum lydlum</i> Boiss. var. <i>lydlum</i> (END.)	bambul/giritotu/üzümçülot	IA1	24, 135, 224, 679	
141	SOLANACEAE	<i>Solanum nigrum</i> L. subsp. <i>nigrum</i>	balotu	IA6	606	
142		<i>Hyoscyamus albus</i> L.	dalan/ısrıgan	IA1, IIA1	19, 132, 181, 199, 290, 525	
143	URTICACEAE	<i>Urtica dioica</i> L.				

Table 4. Cultivated and introduced edibles of the Bodrum area.

Family Name	Species Name	Local Name	Plant Categories	Specimen no.	Dry sample no.
1 AMARANTHACEAE	* <i>Amaranthus chlorostachys</i> Willd.	delisirkən	IB1	662	
2	* <i>Amaranthus retroflexus</i> L.	sirkən/üstüsirkən	IB1	393, 661, 705	
3 ANACARDIACEAE	* <i>Schinus molle</i> L.	kırmızı biber ağacı	IB8	61, 397	69
4 APIACEAE	<i>Apium graveolens</i> L.	kerviz	IB1, IB3, IB1	647	
5	<i>Coriandrum sativum</i> L.	kışniş	IB1	275	
6 ARECACEAE/PALMAE	* <i>Trachycarpus fortunei</i> (Hook.) Wendl.	karabebe ağacı	IB4, VB8	78	78
7 ASTERACEAE	<i>Gynura scolymus</i> L.	enginər	IB2, IB4/6?, IB9, IB1	753	
8 BRASSICACEAE	<i>Brassica oleracea</i> var. <i>capitata</i> L.	lahana/lahana cbezi	IB1, IB1	209	
9	<i>Eruca sativa</i> Mill.	roka	IB1	676	
10 CACTACEAE	* <i>Opuntia ficus-indica</i> (L.) Mill.	frenk inciri /frençir/frençir	IB4, IB1	766	612
11 CUCURBITACEAE	<i>Cucurbita pepo</i> L.	kabak	IB4, IB6	23, 99, 180, 296, 516	
12 FABACEAE	<i>Lathyrus ochrus</i> (L.) DC.	gambiyə bakla	IB4		
13	<i>Pisum sativum</i> L. ssp. <i>elatus</i> (M.Bieb.) Asch. et Graebn. var. <i>brevipedunculatum</i> P.H.Davis et Meikle	fınc bakla/pıncin bakla/byık /sarmaşık	IB1, IB4		
14	<i>Pisum sativum</i> L. subsp. <i>sativum</i> var. <i>arvense</i> (L.) Poir.	fınc bakla/byık	IB1, IB4	750	611
15	<i>Vicia faba</i> L.	börek bakla	IB1, IB4, IB1	288, 749	
16 GERANIACEAE	<i>Pelargonium</i> sp.	itr	IB8	271	
17 JUGLANDACEAE	<i>Juglans regia</i> L.	ceviz	IB4, VB1		
18 LAMIACEAE	<i>Ocimum basilicum</i> L.	fesleğen	IB8, IB1	33	
19	<i>Origanum majorana</i> L.	sepsu	IB8, IB1	247, 387	
20 LAURACEAE	* <i>Persea americana</i> W.Mill.	avokado	IB4, IB1	380	
21 LILIACEAE	<i>Allium cepa</i> L.	soğan	IB1, IB2, IB3, IB1		
22	<i>Allium sativum</i> L.	sarmısak/sarımsak	IB3, IB1, IB2		
23 MORACEAE	<i>Ficus carica</i> L. ssp. <i>carica</i> (female)	incir/kabincir/kabalcır	IB4, IB1	544	
24 OLEACEAE	<i>Olea europaea</i> L. var. <i>europaea</i>	zeytin	IB4, IB1, IB1B, VB3, VB5, VB2	361	
25 POACEAE	<i>Sorghum bicolor</i> (L.) Moench. cv. "Durra"	akdarı	IB4, VB		652
26	<i>Triticum aestivum</i> L.	buğday	IB4, IB1, VB7	747	
27 PUNICACEAE	<i>Punica granatum</i> L.	nar	IB4	657	
28 ROSACEAE	<i>Amygdalus communis</i> L.	payam/badem	IB4, IB1	460	
29	<i>Cydonia oblonga</i> Mill.	ayva	IB4, IB1		
30 RUTACEAE	<i>Citrus aurantium</i> L.	turunc/turuç	IB4, IB1	278	
31	<i>Citrus bergamia</i> Risso et Poitett	bergamut	IB4		
32	<i>Citrus deliciosa</i> Ten./C. <i>nobilis</i> Lour.	mandalina/kinin	IB4, IB1, VB,	276	
33	<i>Citrus limon</i> (L.) Burmann	limon	IB4, IB1		
34	<i>Citrus maxima</i> (Burm.) Merr.	greylur/pomilen	IB4, IB1	-	277, 483
35	<i>Citrus sinensis</i> (L.) Osbeck	portakal	IB4, VB	534	
36 VITACEAE	<i>Vitis vinifera</i> L.	asma	IB1, IB4, IB1B		

Abbreviations in Plant Categories: IB1: Edible Greens; IB2: Stem & Roots; IB3: Bulbs; IB4: Fruit & Seeds; IB5: Mushrooms; IB6: Flowers; IB7: Herbal teas; IB8: Spices;

IB9: Others (e.g. gum, juice); IB1: Medicinals used in human treatments; IB2: Medicinals for animals; IB3: Fuel plants; IB4: Fodders; IB5: Plants used in handicrafts;

VB1: Dyes; VB2: Matting; VB3: Basketry; VB4: Brooms; VB5: Carpentry (e.g. bowls, musical instr.); VB6: Prayer beads; VB7: Amulets; VB8: Others (e.g. rope);

VIB Other uses (e.g. insecticides, beaplants). * Introduced (non-native) plants

In the local Aegean cuisine, greens have an important role. From October on, it is possible to collect about 25 wild greens, and this number can increase to 43 in February. The number then decreases, and in May many edible greens have bloomed and the leaves have become tough, leaving only about 15 still edible (Table 2). During autumn and winter, Bodrum and other towns' markets contain high piles of greens which include many species (Fig. 6). The piles are called either "böreklik" or "kavurmalık"-- for pies or roasting. These greens are either roasted with onion in olive oil, and served with or without yogurt, or boiled and served with olive oil and lemon. Alternately the greens and *Allium* L. species, such as *Allium ampeloprasum* and *A. subhirsutum*, are mixed together and folded into the Turkish flat bread called yufka. *Foeniculum vulgare* (locally called sırra) adds a distinct flavour to all roasted greens and pies, as well as meat stews. About 20 % of all greens (13 species) can be eaten raw, especially tender ones such as *Oxalis pes-caprae*, *Rumex acetocella* and *Stellaria media*, but eating raw greens is not a common tradition in the Bodrum diet, compared with other parts of Turkey.

While hardal (both *Sinapis arvensis* and *Brassica nigra*) and turpotu (*Raphanus raphanistrum* sp.) are the most frequently consumed greens, some greens are more prized than others. For example the shoots of *Asparagus acutifolius* (tilkişen) (Fig. 7), *Smilax aspera* (silcan), and *Tamus communis* subsp. *cretica* (acıot) are among the favourites of the people of Bodrum. Although all three are collected between January and May, when they are tender and can be eaten raw, the villagers prefer to roast them with onions, and mixed with eggs.

The survival of one of Bodrum's favourite edibles, kenker, *Scolymus hispanicus* (Fig. 8), is under threat (Ertuğ, 2002). It can be dug up from October to April, and its roots and the fresh leaves, cleaned of spines, are used in stews with meat or chicken and chickpeas. As its roots are the main edible part, it is now rare on the peninsula, and the sellers in the market explained that they now dig up this plant in the Milas area, 60 km north of Bodrum. This plant, which for 6 months of the year is one of the most common edibles in Bodrum market, is never seen in either of the markets in Milas or Muğla, both within a 100-km radius.

Another favourite food is delikenker, *Onopordum illyricum* (Fig. 9). It is used in an unusual recipe (ibid.) in this area. From December to April, the top part of the



Figure 6. A woman in front of wild greens pile in Muğla Market, February 17, 2000, photo: F. Ertuğ



Figure 7. *Asparagus acutifolius*, collected from Ortakent, January 30, 2002, photo: F. Ertuğ



Figure 8. *Scolymus hispanicus*, Gündoğan, July 12, 2001, photo: F. Ertuğ



Figure 9. *Onopordum illyricum*, Gündoğan, July 10, 2001, photo: F. Ertuğ

root and the bottom leaves of the plant are collected. The spines and green parts of the leaves are removed and only the large central veins are left (Fig. 10). These are boiled, and a filling of rice, onions and spices is placed in the middle of the veins, which are then folded over and tied with string. After they are cooked in a pan, they are dipped in a mixture of flour, eggs and water, and fried in hot olive oil. This recipe is also used for *Centaurea solstitialis* subsp. *solstitialis*, and is apparently not known in any other area.

Among all the edibles, we recorded six endemic species for Turkey and the Aegean islands. While two, *Campanula lyrata* subsp. *lyrata* and *Centaurea urvillei*, are used for their leaves, three of them, *Phlomis angustissima*, *Sideritis leptoclada* and *Sideritis libanotica* subsp. *linearis*, are used as teas, and the flowers of *Verbascum lydiu* var. *lydiu* are edible, and eaten mostly by children.



Figure 10. Removal of green parts of the *O. illyricum* leaves by Fatoş Şirin, January 29, 2002, Ortakent, photo: F. Ertuğ

Although several wild fruit are considered edible, Myrtle (mersin- *Myrtus communis*- Fig. 11), strawberry tree (kocayemiş -*Arbutus unedo*), and the fruit of *Pistacia terebinthus* subsp. *palestina* (çitemik) are most commonly brought to markets, and the rest are eaten as snacks, and are not sold in markets. Of seven edible mushrooms, only two, *Pleurotus eryngii* and *Lactarius* species, are commonly seen in the market; the others known as edible by a few informants.



Figure 11. Edible fruit of *Myrtus communis*, Gündoğan, October 25, 2001, photo: F. Ertuğ

We also attempted to record the cultivars (see Table 4) with various uses, and the ones apparently forgotten or rarely planted in other areas. For example, *Sorghum bicolor* (akdarı), which was found in Bodrum market, was once important in the local diet and is now almost forgotten, and used only as fodder for young chicks. Another variety or hybrid was the spiny globe artichoke (*Cynara scolymus*), also found in Bodrum. Other uncommon records of cultivars from Bodrum are from the family *Fabaceae*. A cultivar identified as *Lathyrus ochrus*, called locally Gambilya bakla, and its seeds are used to make fava. Two subspecies of *Pisum sativum*, subsp. *elatius* and subsp. *sativum* var. *arvense* are also cultivated in gardens, and both the seeds and green shoots are edible. Introduced plants were also recorded (Table 4: indicated with *), as some of them are collected as edibles, such as *Amaranthus* species and the fruit of *Opuntia ficus-indica* (firencir).

Discussion

During this long-term ethnobotanical study, our assumption was confirmed and we obtained detailed information on about 350 useful species. In the Aegean, more aromatic and bulbous plants are available than in many other parts of Turkey and its mild climate allows for the collection of plants over long periods with ease. When we compare the diets in the surrounding Mediterranean countries we see that many of the Aegean edibles we recorded are frequently used although some of the recipes differ (Lambraki, 2001; Savvides, 2000).

However, the general hypothesis of the exceptional richness of edible wild plants in the Bodrum area (or on the Aegean coast) was not confirmed. The number of edibles collected in Bodrum is only slightly higher than in Central Anatolia. In two areas, where we have detailed studies about wild edibles for comparison, people gather quite similar numbers of plants. Although variations in climate and vegetation may often cause people to collect different species, or treat them in different ways, the main difference is the preferences of the people who gather them.

The people of the Aegean and the Mediterranean are well known for their gathering tradition, because they do not only eat maybe more greens, but they also appreciate them more. The green vegetables (wild or cultivated) treated in rich olive oil more or less constitute their main dishes. In East, South-east and Central Anatolia, where animal husbandry is the main source of income, meat is highly valued, but is only consumed on feast days. In these areas rural people collect and consume wild greens, especially during winter, and bulbs, mushrooms and fruit during the spring and autumn; all of which play an important role in their carbohydrate-rich diet. In contrast, in the Aegean region meat is not highly valued, even if their diet probably includes the same amount of it.

A comparison of the known edible natural plants and cultivars in the Bodrum and Central Anatolian studies indicates that 39 more natural edibles are known in Bodrum. The natural plants are 143 and 103, and the cultivars 36 and 70 respectively (Ertuğ, 2000). However, these numbers are somewhat deceptive as a number of plants known in the Bodrum area are no longer collected, and the 25 orchids listed can hardly all form part of the daily diet. Nevertheless the numbers are greater in Bodrum, particularly wild greens, which are 63

and 42 respectively. Additional local studies are needed to place the wild plant use in Anatolia in perspective.

Conclusion

In this study, 774 specimens have been collected, of which 390 species in 89 families have been identified, and all are recorded in a database. The information and samples were gathered from the Bodrum Peninsula, as well as from the villages of Bodrum outside the peninsula and some villages around Milas. According to the results so far, among the 390 species 52 are the cultivars and introduced plants. Three hundred and thirty-eight of them are wild species, locally known as "deli", which translates as crazy or not domesticated. Adequate information is still lacking on the local names or uses of 35 species; however, information on more than 350 useful plants is available on a database, including information on 21 endemics.

Edibles including foods and beverages comprise the highest percentage of useful plants: 143 natural species, in addition to 36 cultivars, a total of 179. The second highest category is medicinals, with a total of 116 (92 natural and 24 cultivars) (Ertuğ, in press). All plants in the edible category are also consumed by animals in addition to 60 fodder plants. Handicraft plants comprise 40 species, and over 60 plants had various uses from thatching to fishing, and social as well as ritual uses.

Collecting information about how people deal with their natural surrounding is not only important for the recording of local cultural traditions and the richness of this heritage, but also gives us some of the information necessary to protect our natural habitat in the long term. If we considered that the number of Turkish endemics is 3708 (Güner et al., 2000), we can see the urgency of this kind of ethnobotanical research. There may not be other chances to record how these species are used (or were used) in Turkey.

References

- Alpözen O (2000) *Bodrum: Ancient Halicarnassus*. Ankara: Dönmez Ofset.
- Baumann H (1996) *Greek Wild Flowers and Plant Lore in Ancient Greece*. London: Herbert Press.
- Baytop T (1994) *Türkçe Bitki Adları Sözlüğü (A Dictionary of vernacular names of wild plants of Turkey)*. Ankara: Türk Tarih Kurumu Basımevi.

The Bodrum study indicates that there are significant gaps in knowledge between generations. The primary school surveys conducted in this project not only provided some valuable information, but also granted an additional bonus, many of the students became interested in the useful plants in their environment, and now have an appreciation of the expertise of their parents and grandparents.

However, the knowledge of the elder generations is also in a state of flux, subject to many outside influences. It is difficult to say how much has already been lost, but there is much still to be investigated. We must remember that not only plants are endemic, but local knowledge is equally endemic and now may have a much shorter life span than many of the plants.

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- Ertuğ-Yaraş F (1996) Contemporary Plant Gathering in Central Anatolia: An Ethnoarchaeological and Ethnobotanical Study. In: Öztürk M, Seçmen Ö & Görk G (eds.) *Plant Life in Southwest and Central Asia*. Proceedings of IVth Plant Life of Southwest Asia Symposium, May 21-28, 1995 İzmir, pp. 945-962, İzmir: Ege Üniversitesi Yayınları.

- Ertuğ F (2000) An Ethnobotanical Study in Central Anatolia (Turkey). *Economic Botany Journal* 54/2: 155-182.
- Ertuğ F (2002) Uslusuyla Delisiyle Kenker. *Bilim ve Teknik* 419: 94-95.
- Ertuğ F (in press) Bodrum Yöresinde Halk Tıbbında Yararlanılan Bitkiler. XIV. Bitkisel İlaç Hammaddeleri Toplantısı Bildirileri, 29-31 Mayıs 2002, Eskişehir.
- Çolakoğlu M & Bilgir B (1977) Ege Bölgesinde insan beslenmesinde kullanılan bazı yabancı (Sarmaşık, Stifno, Helvacık, Deniz Börülcesi, İsrırgan ve Gelincik) otları üzerinde araştırmalar. pp.11-19. *TÜBİTAK VI. Bilim Kongresi Tebliğleri, Tarım ve Ormanlık Araştırma Grubu*, Ankara: TÜBİTAK.
- Çolakoğlu M & Tömek S (1975) *Ege Bölgesinde Bazı Yenebilen Otların Bileşimleri*. Ege Üniversitesi Ziraat Fakültesi Yayınları no 228, İzmir: Ege Üniversitesi Matbaası.
- Güner A, Özhatay N, Ekim T & Başer KHC (eds.) (2000) *Flora of Turkey and the East Aegean Islands*. Vol. 11, Edinburgh: University Press.
- Honda G, Yeşilada E, Tabata M, Sezik E, Fujita T, Takeda Y, Takaishi Y & Tanaka T (1996) Traditional medicine in Turkey VI. Folk medicine in West Anatolia: Afyon, Kütahya, Denizli, Muğla, Aydın provinces. *Journal of Ethnopharmacology* 53: 75-87.
- Lambraki M (2001) *Herbs, Greens, Fruit: The Key to the Mediterranean Diet*. Heraklion: Privately published.
- Lyle-Kalças E (1974) *Food from the Fields*. İzmir: Birlik Matbaası.
- Savvides L (2000) *Edible Wild Plants of the Cyprus Flora*. Nicosia: Privately published.
- Sayar A, Güvensen A, Özdemir F & Öztürk M (1995) Muğla İlindeki bazı türlerin etnobotanik özellikleri. *Ot Sistematik Botanik Dergisi* 2/1: 151-160.
- Sezik E (1969) Muğla civarında salep elde edilen bitkilerin mahalli isimleri. *İstanbul Eczacılık Fakültesi Mecmuası* 5: 77.
- Sezik E (1984) *Orkidelerimiz: Türkiye'nin Orkideleri*. İstanbul: Sandoz Kültür Yayınları.
- Siyamoğlu B (1984) Ege Bölgesinde insan beslenmesinde kullanılan bazı yabancı otlar (Şilcan, Karakan, Pirzola kekiği ve Kudret narı). *Ege Üniv. Ziraat Fak. Dergisi* 21: 75-88.
- Sucu İ (1983) Ege Bölgesi'ndeki halk ilaçlarının halk hekimliğindeki yeri ve önemini belirten bir anket çalışması. *D. Bilim Dergisi, Tıp Serisi* 7: 169-174.
- Sucu İ (1989) Ege Bölgesi Halk İlaçları. *Türk Halk Hekimliği Sempozyumu Bildirileri*: 211-220, Ankara: Ankara Üniversitesi Basımevi.
- Tanker M & Sucu İ (1983) Ege Bölgesi Halk İlaçları. *Ankara Eczacılık Fakültesi Mecmuası* 13: 193-205.
- Tuzlacı E (2000) Bodrum Yarımadası'nın Bitkileri Hakkında Bazı Araştırmalar (Some Researches on the plants of the Bodrum Peninsula). In: Çalış İ, Ersöz T & Başaran AA (eds.) *New Trends and Methods in Natural Products' Research*, pp. 249-263. Proceedings of XIIth International Symposium on Plant Originated Drugs. Ankara: TÜBİTAK.