

The Flora of the Vicinities of Avlan Lake (Antalya-Elmalı)

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Abstract

This paper describes a floristic study of the vicinities of Avlan Lake. The study was conducted between the years 2007 and 2009 and 700 plant specimens were collected. As a result of identification of the collected specimens, 298 taxa at the specific and sub-specific ranks have been determined from the area which belong to 49 families and 158 genera. Thirty-five of taxa were collected for the first time from square C2. The richest family and the richest genus of the research area were found as *Asteraceae* and *Galium* respectively. 54 of the collected plant species were endemic and its ratio to total is 18.12 %. The distribution of species according to the phytogeographical regions is as follows: East Mediterranean; 18.12 %, Irano-Turanian; 10.40 %, Mediterranean; 8.38 %, Euro-Siberian; 3.02%, Widespread and Unknown; 60.06 %.

Key words: Flora, Phytogeography, Avlan Lake, Elmalı, Antalya, Mediterranean, Turkey

INTRODUCTION

The study area is situated with in the borders of Elmalı district in Antalya province at the South part of Mediterranean region of Turkey and at the lower slopes of the Bey Mountains. This area lies within square C2 according to grid system of Davis [11]. Phytogeographically this area belongs to the Mediterranean phytogeographical region. The altitude of the study area is between 1020 m and 1200 m.

The climate of the area was reviewed using data from Meteorology Station of Elmalı [5]. The mean annual precipitation in the area is 478 mm. The most arid and hottest month is August, with mean temperature of 31.5 °C. The annual mean temperature is 10.8 °C. When the climatic data were used in Emberger's pluviothermique quotient, it was determined that research area had a Mediterranean semi-arid cool climate [2,3]. Dominant winds of the region are determined as a direction of SSE, SSW, and WSW.

The geological structure of the study area mostly contains slope debris, old slope debris, alluvial fan, and red micrite. The most abundant soil types in the area are red Mediterranean soil, red-brown Mediterranean soil, and alluvial soil [6,7,8].

Maquis, Juniperus, Cedrus and Alpin communities are the vegetation types of the area [9]. Community of *Juniperus*, community of *Cedrus* and community of *Atraphaxis billardieri*, *Vicia cracca subsp. Stenophylla*,

Achillea peronini, *Marrubium bourgei*, *Onobrychis cornuta*, *Agropyron divarcatum* are determined in the study area [1].

The vicinities of Avlan Lake were selected as the research area because they have not been thoroughly studied. However, some floristic studies have been carried out near the area [12,14,15,16]. Because of the history and position of the Avlan Lake, it has interesting features, in terms of both flora and phytogeography. There is Cedar Research Forest in North of Lake and a quarry in South of the Lake. Besides, there is a road in the middle of the Avlan Lake. Drying efforts had resulted with the aim of increasing the agricultural lands in 1978. Keeping water in Avlan Lake was finally provided in 1997 [4].

The aim of the study was to contribute completion of the Antalya's flora.

MATERIAL and METHODS

The research material consists of 700 plant specimens collected from the research area. They were observed or photographed in the study area during fieldwork conducted between 2007 and 2009. It was taken into account that the specimens including both flowers and fruits to provide identifying of the specimens. The collected plant taxa were dried according to herbarium techniques, numbered and recorded. The specimens were identified by help of Flora of Turkey and East Aegean Islands. Phytogeographical regions were determined

according to Flora of Turkey [10]. The conservation status for endemic and non-endemic taxa are determined according to list of International Union for Conservation of Nature in Red Data Book of Turkish Plants [13]. Some specimens are identified by Ketenoglu (Ankara Univ., Ankara) and Koruklu (Ankara Univ., Ankara). All species are kept at the Herbarium of Ankara University (Herbarium ANK).

The plant taxa of vicinities of Avlan Lake are listed in Appendix. Taxonomic categories in main groups such as families, genera and species are similarly arranged in evolutionary sequence in the Flora of Turkey.

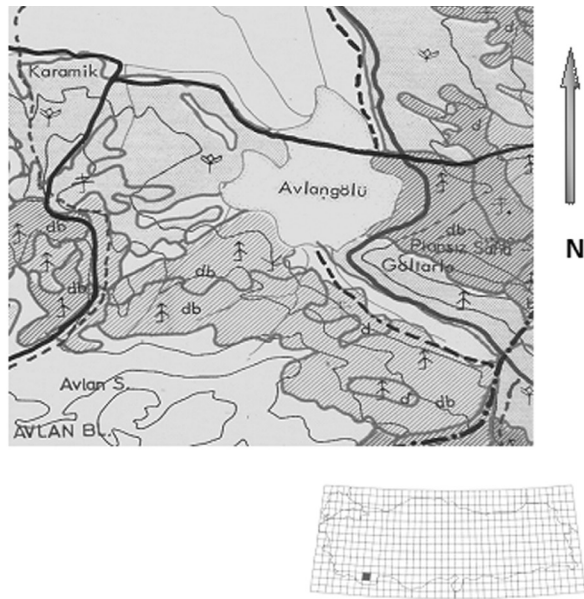


Fig.1: Forest map of the study area

All taxa in the list are represented in following order;

- i. The names and authors of species, subspecies and varieties.
- ii. Collection data of specimens.
- iii. Collection date, collector's name and number.
- iv. Geographical distribution.
- v. Conservation status.

Abbreviations used in the appendix are as follows:

- E.** : East
- El.** : Element
- CR** : Critically endangered
- EN** : Endangered
- VU** : Vulnerable
- LC** : Least concern
- DD** : Data deficient
- S.** : South
- *** : Endemic
- Medit.**: Mediterranean
- Ir.-Tur.**: Irano-Turanian
- Euro-Sib.**: Euro-Siberian

UTM: Universal Transverse Mercator

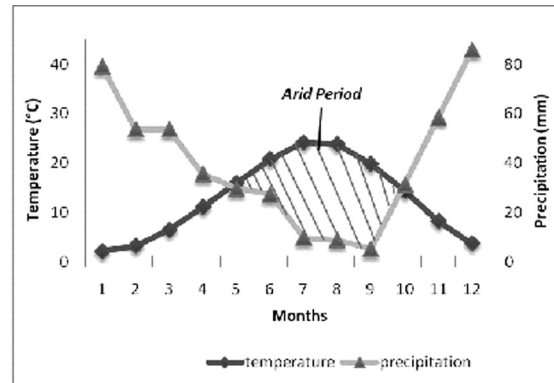


Fig. 2. A climate diagram of the study area

Climatological data were obtained from Elmalı Meteorological station (Figure 2).

RESULT

As a result of identification of the the plant specimens, 158 genera and 49 families were determined. One of these taxa were nonflowering vascular plants (of *Pteridophyta*), 5 taxa belonged to *Gymnospermae*, while remaining 292 were *Angiospermae*. Division of the plant taxa into large taxonomic groups is shown in Table 1.

Distribution of the species in the study area are as follows: Mediterranean elements 79 (26.38 %), Irano-Turanian elements 31 (10.40 %), and Euro-Siberian elements 9 (3.02%); the remaining 179 (60,06%) taxa were multiregional or of unknown phytogeographical region (Table 2). There are 54 endemic taxa (%18.12%) in the study area. Of these taxa, 29 belong to Mediterranean, while 13 belong to Irano-Turanian phytogeographical region. The number of multiregional endemic plants was 12. Conservation categories of endemic plants are determined according to the International Union for Conservation of Nature (IUCN) List (Table 3).

The largest families in terms of number of genera are Compositae (Asteraceae) 44, Leguminosae (Fabaceae) 31, Labiatae 26, Gramineae (Poaceae) 26, Cruciferae 24, Boraginaceae 17, Umbelliferae 15, Rubiaceae 12, Ranunculaceae 8, Caryophyllaceae 7, Liliaceae 7 in the study area (Table 4).

Galium 8, Centaurea 6, Trifolium 6, Euphorbia 6, Bromus 5, Alyssum 5, Erysimum 5, Medicago 5, Veronica 5, Phlomis 5 are the largest ten genera in the study area (Table 5).

DISCUSSION

The research area is the vicinities of Avlan Lake. Vegetation types of in the study area are forests and maquis. *Cedrus libani* A.Rich is the dominant species of the forest vegetation. Maquis vegetation was characterised by *Quercus coccifera* L. Destruction in maquis formation have led to step vegetation in some part of the study area.

Table 1. The division of taxa into large taxonomical groups.

Division	Class	Subclass
<i>Pteridophyta</i>	1	
<i>Spermatophyta</i>	297	
	<i>Gymnospermae</i>	5
	<i>Angiospermae</i>	292
		<i>Dicotyledonae</i>
		255
		<i>Monocotyledonae</i>
		37

According to the climatic diagram, an arid period was found in the study area from May to October. Based on Emberger's precipitation-temperature scale, WSAS (winter-spring-autumn-summer) precipitation regime is presented in Elmalı district [2,3].

The proportion of endemism in the area (18.12 %) was below the average for Turkey (33.5%) [13], which might have been due to climatic, edaphic and topographic properties of the region.

When the phytogeographic distribution is taken into consideration, the number of the Mediterranean elements is not surprising because the study area is situated in Mediterranean region. Irano-Turanian elements are mixed with Mediterranean elements in the study area because anthropogenic effects such as an excessive grazing, the quarry, a road in the middle of the Lake, and agricultural lands are occurred in the study area.

The level of the multiregional species and those of unknown phytogeographical origin are higher in all the studies. Since Turkey serves as a bridge between south Asia and south-east Europe, and little information about the distribution of some species is available, the percentages of multiregional species and those of known phytogeographical origin in Turkey are generally high [12].

The study area is one of the entrance of Çıglikara National Park and is an important place where migrating birds stop. The abundance of flowering plants have led to increase beekeeping. Despite all this, anthropogenic effects in the study area caused the number of natural plants to decrease. The plant specimens collected in the study area may also been used as a historical record in the future because the study area may be completely distributed due to urbanization.

Table 2. A comparison of the distribution and endemism rates (%) of species over the floristic regions in the study area with some studies performed in nearby areas.

	Present study	Düşen & Sumbül (1996)	Fakir (2002)	Deniz (2003)	Palaz (2006)
Total taxa	298	865	645	689	580
Mediterranean %	26.50	35.75	32.1	28.30	33.10
Irano-Turanian %	10.40	5.84	7.9	12.62	8.96
Euro-Siberian %	3.02	2.42	5.1	2.61	3.2
Multiregional or unknown %	60.06	55.55	49.7	56.45	54.65
Endemism rate %	18.12	13.51	16.1	20.46	10.68

The phylogenetic distribution data from the present study were compared with four other floristic studies and presented in Table 2 [12,14,15,16]. This table includes the number of taxa and phytogeographical distribution of species. In all of the studies performed in the Mediterranean phytogeographical region, the number of Mediterranean elements is naturally higher than that of elements belonging to other regions. Since the study conducted on Elmalı Cedar Research Forest [12] is closer than other studied areas, the floristic data from there are more similar with present study. The study area is situated in one of the endemism center in Turkey. Hence, when the studies are compared in terms of the endemism rate, the percentage of present study is higher than some others.

Table 3. The distribution of IUCN category of endemic taxa

Conservation status	Taxa	Taxa%
CR	1	1.81
EN	5	9.09
VU	5	9.09
NT	8	14.03
LC	35	62.5

Table 4. Taxa totals of the largest families

Families	Taxa	Taxa %
<i>Compositae</i>	44	14.76
<i>Leguminosae</i>	31	10.40
<i>Labiatae</i>	26	8.72
<i>Gramineae</i>	26	8.72
<i>Cruciferae</i>	24	8.05
<i>Boraginaceae</i>	17	5.70
<i>Umbelliferae</i>	15	5.03
<i>Rubiaceae</i>	12	4.02
<i>Ranunculaceae</i>	8	2.68
<i>Caryophyllaceae</i>	7	2.34
<i>Liliaceae</i>	7	2.34
Other Families	81	27.19

Table 5. Taxa totals of the largest genera

Genus	Number of Taxa	Genus	Number of Taxa
<i>Galium</i>	8	<i>Alyssum</i>	5
<i>Centaurea</i>	6	<i>Erysimum</i>	5
<i>Trifolium</i>	6	<i>Medicago</i>	5
<i>Euphorbia</i>	6	<i>Veronica</i>	5
<i>Bromus</i>	5	<i>Phlomis</i>	5

APPENDIX**Floristic List**

- PTERIDOPHYTA
 ASPLENIACEAE
Ceterach officinarum DC. , The vicinity of Cedar Forest, 23.04.2008, Keske, 1131
 SPERMATOPHYTA
 GYMNOSPERMAE
 CUPRESSACEAE
Juniperus foetidissima Willd. , 35 S 6763355 UTM 4051246, 07.06.2008, Keske, 1138
J. oxycedrus L. subsp. *oxycedrus*, The vicinity of Yakaçiftlik Village, 22.06.2008, Keske, 1392
J. excelsa M.Bieb. , The vicinity of Cedar Research Forest, 22.06.2008, Keske, 1250
 PINACEAE
Cedrus libani A.Rich, 35 S 6763355 UTM 4051246, 24.08.2007, Keske, 1027, Medit. el.
 EPHEDRACEAE
Ephedra major Host, The vicinity of the watch box, 14.12.2008, Keske, 1353
 ANGIOSPERMAE
 DICOTYLEDONAE
 RANUNCULACEAE
Nigella arvensis L. var. *glauca* Boiss. , Lakeside, 1020 m, 28.06.2009, Keske, 1380
Consolida glandulosa (Boiss. & Huet) Bornm. , The vicinity of Cedar Research Forest, 26.06.2009, Keske, 1383, *, Ir.-Tur. el. , LC
Clematis vitalba L. , The entrance of the Cedar Research Forest, 28.06.2009, Keske, 1376

- C. flammula* L. , 21.06.2008 Keske, 1077, Medit.el.
Ranunculus rumelicus Griseb. , Cedar Forest, 1100 m, 19.05.2009, Keske, 1344, E. Medit. el.
R. muricatus L. , under Cedar Forest, 23.04.2008, Keske, 1086
R. ficaria subsp. *ficariiformis* Rouy & Fouc. , The vicinity of Göltarla, 1050 m, 14.12.2008, Keske, 1339
Ceratocephalus falcatus (L.) Pers. , The vicinity of Göltarla, 23.04.2008, Keske, 1139
 BERBERIDACEAE
Berberis crataegina DC. , 35 S 07634228 UTM 4051343, 24.08.2007, Keske, 1029, Ir-Tur. el.
 PAPAVERACEAE
Glaucium leicarpum Boiss. , Picnic site of Kaymakamlık, 21.06.2008, Keske, 1081, 35 S 6763355 UTM 4051246, 25.08.2007, Keske, 1019
G. grandiflorum Boiss. & A. Huet. var. *grandiflorum*, Cedar Forest, 21.06.2008, Keske, 1210, *, Ir.-Tur.el.
Fumaria kralikii Jordan, Lakeside of Avlan Lake, 1050 m, 19.05.2009, Keske, 1211
F. judaica Boiss. , under Cedar Forest, 23.04.2008, Keske, 1090, Medit. el. , DD
 CRUCIFERAE (BRASSICACEAE)
Raphanus raphanistrum L. , The roadside of Elmali-Finike road, 1100 m, 19.05.2009, Keske, 1332
Cardaria draba (L.) Desv. subsp. *draba*, Forest road, 21.06.2008, Keske, 1336, Picnic site of Kaymakamlık, 1020 m, 19.05.2009 Keske, 1337
Capsella bursa-pastoris (L.) Medik. , North side of Avlan Lake, 19.05.2009, Keske, 1335
Ricottia sinuata Boiss. & Heldr. , Roadsides of Avlan Lake, 21.06.2008, Keske, 1212, *, E. Medit. el. , LC
Alyssum desertorum Stapf. var. *prostratum*, under Cedar Forest, 1100 m, 19.05.2009, Keske, 1328
A. szowitsianum Fisch. Mey. , North side of Avlan Lake, 19.05.2009, Keske, 1327
A. minus var. *minus*, The vicinity of watch box, 21.06.2009, Keske, 1393
A. strigosum Banks & Sol. subsp. *strigosum*, Lakeside of Avlan Lake, 1020 m, 19.05.2009, Keske, 1325
A. murale Waldst. & Kit. subsp. *murale* var. *murale*, under Cedar Research Forest, 1100 m, 20.05.2008, Keske, 1324, VU
Clypeola jonthlasi L. , Forest road, 21.06.2008, Keske, 1334
Arabis deflexa Boiss. , The vicinity of the watch box, 23.04.2008, Keske, 1128, E. Medit. el.
A. aubrietoides Boiss. , under Cedar Forest, 23.04.2008, Keske, 1126
A. nova Vill. , under Cedar Forest, 1100 m, 19.05.2009, Keske, 1329, *, LC
A. verna (L.) DC. , Picnic site of Kaymakamlık, 1050 m, 19.05.2009, Keske, 1330, Medit. el.
Cardamine graeca L. , Roadside of Avlan Lake, 23.04.2008, Keske, 1093
Aubrieta deltoidea (L.) DC., under Cedar Forest, 07.06.2008, Keske, 1114
A. canescens (Boiss.) Bornm subsp. *canescens*, The vicinity of Çıglıkara National Park, 1100 m, 19.05.2009, Keske, 1246, *, LC
Hesperis pisidica Huber-Morath, Forest road, 19.05.2009 Keske, 1331, *, EN
Erysimum goniocaulon Boiss. , The vicinity of Yakaçiftlik Village, 21.06.2008, Keske, 1322, under Cedar Forest, 1100 m, 19.05.2009, Keske, 1321

E. pallidum Boiss. , under Cedar Forest, 07.06.2008, Keske, 1119, *, EN

E. crassipes Fisch. & Mey. , The vicinity of Göltařla, 20.05.2008, Keske, 1315, Picnic site of Kaymakamlık, 1020 m, 19.05.2009 Keske, 1317

E. smyrnaeum Boiss. & Bal. , Picnic site Kaymakamlık, 21.06.2008, Keske, 1319

E. repandum L. , Roadside of Elmalı-Finike road, 1020 m, 19.05.2009, Keske, 1320

Alliaria petiolata (M.Bieb.) Cavara & Grande, North side of Avlan Lake, 1100 m, 19.05.2009, Keske, 1333

CISTACEAE

Helianthemum nummularium (L.) Miller subsp. *tomentosum* (Scop.) Schinz. & Thellung Lakeside, 35 S 07650615 UTM 4052813, 19.05.2009, Keske, 1203

CARYOPHYLLACEAE

Moehringia trinervia (L.) Clairv. , The vicinity of Yakaçiftlik Village, 21.06.2008, Keske, 1374

Stellaria media (L.) Vill. subsp. *media*, Roadside of Elmalı-Finike road, 1100 m, 19.05.2009, Keske, 1193

Holosteum umbellatum L. var. *umbellatum*, under Cedar Forest, 19.05.2009, Keske, 1382

Dianthus calocephalus Boiss. , The entrance of Roadside of Elmalı-Finike road, 20.05.2008, Keske, 1041

Silene italica (L.) Pers. , under Cedar Forest, 1100 m, 19.05.2009, Keske, 1373

S. vulgaris (Moench) Garcke var. *vulgaris*, Lakeside, 1020 m, 19.05.2009, Keske, 1372

S. tunicoidea Boiss. , The entrance of Cedar Research Forest, 28.06.2009, Keske, 1370, *, E. Medit. el. , NT

ILLECEBRACEAE

Herniaria incana Lam. , The vicinity of Yakaçiftlik Village, 26.07.2007, Keske, 1040

POLYGONACEAE

Atraphaxis billardieri Jaub. & Spach var. *billardieri*, The vicinity of the watch box, 21.06.2008, Keske, 1215, Ir.-Tur. el.

Polygonum amphibium L. , From the Avlan Lake, 28.06.2009, Keske, 1376

CHENOPODIACEAE

Chenopodium botrys L. , Lakeside, 1020 m, 28.06.2009, Keske, 1378

GUTTIFERAE

Hypericum triquetrifolium Turra, Roadside of Finike-Elmalı road, 21.08.2008, Keske, 1195

GERANIACEAE

Geranium glaberrimum Boiss. & Heldr. , Picnic site of Kaymakamlık, 19.05.2009, Keske, 1230, *, E.Medit. el. , LC

G. lucidum L. , The vicinity of Göltařla, 1100 m, 19.05.2009, Keske, 1207

G. eginense Hausskn. et. Sint ex. Knuth. , under Cedar Research Forest, 07.06.2008, Keske, 1102, *, Ir.-Tur. el. , EN

G. rotundifolium L. , The vicinity of picnic site, 19.05.2009, Keske, 1240

Erodium cicutarium (L.) L'Hér. subsp. *cicutarium*, Lakeside, 1050 m, 19.05.2009, Keske, 1218

RUTACEAE

Haplophyllum suaveolens (DC.) G.Don. var. *suaveolens*, The entrance of Finike road, field, 1050 m, 07.05.2008, Keske, 1110

ACERACEAE

Acer monspessulanum L. subsp. *monspessulanum*, under Cedar Forest, 26.07.2007, Keske, 1026

A. monspessulanum L. subsp. *microphyllum*, Roadside of

Elmalı-Finike road, 21.06.2008, Keske, 1348

RHAMNACEAE

Paliurus spina-christi Miller, Roadsides of Elmalı-Finike road, the entrance Avlan Lake, 20.05.2008, Keske, 1098

Rhamnus rhodopeus Velenovsky, under Cedar Forest, 07.06.2008, Keske, 1120

ANACARDIACEAE

Cotinus coggyria Scop. , Lakeside, 26.07.2007, Keske, 1057

LEGUMINOSAE (FABACEAE)

Colutea cilicica Boiss. & Bal. in Boiss. , The vicinity of the watch box, 21.06.2008, Keske, 1263, under Cedar Forest, 19.05.2009, Keske, 1262

C. melanocalyx Boiss. & Heldr. subsp. *davisiana* (Browicz) Chamb. , under Cedar Forest, 07.06.2008, Keske, 1123, *, E. Medit. el. , LC

Astragalus microcephalus Willd. , under Cedar Forest, 26.07.2007, Keske, 1017, Ir.-Tur. el.

A. prusianus Boiss. , under Cedar Forest, 26.07.2007, Keske, 1048, *

A. angustifolius Lam. subsp. *angustifolius* var. *violaceus*, The vicinity of the watch box, 21.06.2008, Keske, 1278

Vicia cracca L. subsp. *cracca*, Middle of the Lake, the cultivated area, 28.06.2009, Keske, 1259, Euro.-Sib. el.

V. cracca L. subsp. *stenophylla* Vell. , The vicinity of Yakaçiftlik Village, 21.06.2008, Keske, 1257

Lathyrus digitatus (Bieb.) Fiori in Fiori & Paol, The vicinity of Göltařla, under Cedar Forest, 19.05.2009, Keske, 1282

Ononis spinosa L. subsp. *antiquorum* (L.) Briq. , 35 S 0762652 UTM 4052081, 24.08.2007, Keske, 1051, Medit. el.

O. spinosa L. subsp. *leiosperma* (Boiss.) Sirj. , The vicinity of picnic site, 28.06.2009, Keske, 1264

Trifolium uniflorum L. , 35 S 0763290 UTM 4051200, 25.08.2007, Keske, 1056

T. speciosum Willd. , The vicinity of Yakaçiftlik Village, 1100 m, 21.06.2008, Keske, 1270, Medit. el.

T. campestre Schreb. , under Cedar Forest, 19.05.2009 Keske, 1261

T. resupinatum L. var. *resupinatum*, under Cedar Forest, 1100 m, 19.05.2009 Keske, 1269

T. glanduliferum Boiss. var. *glanduliferum*, The entrance of Cedar Research Forest, 21.06.2008 Keske, 1268, under Cedar Forest, 19.05.2009, Keske, 1267, Medit. el.

T. pannonicum Jacq. subsp. *elongatum* (Willd.) Zoh. , Lakeside, 19.05.2009, Keske, 1266, *, LC

T. stellatum L. var. *stellatum*, under Cedar Forest, 19.05.2009, Keske, 1265

Trigonella aurantiaca Boiss. , under Cedar Forest, 19.05.2009, Keske, 1273, Ir.-Tur. el.

T. polycarpa Boiss. & Heldr. in Boiss. , under Cedar Forest, 19.05.2009, Keske, 1272, *, E. Medit. el. , EN

Medicago sativa L. subsp. *sativa*, The vicinity of the watch box, 21.06.2008, Keske, 1072, The vicinity of Göltařla, 21.06.2008, Keske, 1285

M. arborea L. , Lakeside, 1020 m, 28.06.2009, Keske, 1281

M. minima (L.) Bartram var. *minima*, Lakeside, 1020 m, 19.05.2009, Keske, 1280

M. disciformis DC. , Roadside of Elmalı-Finike road, 21.06.2008, Keske, 1079, Medit. el.

M. polymorpha L. var. *polymorpha*, Lakeside, 1020 m, 19.05.2009, Keske, 1279

Dorycnium axilliflorum Hub.-Mor. , under Cedar Forest,

21.06.2008, Keske, 1078, *, E. Medit. el., NT

Lotus corniculatus L. var. *alpinus*, The vicinity of Göltarla, 21.06.2008, Keske, 1287, under Cedar Forest, 19.05.2009, Keske, 1286

Coronilla emerus L. subsp. *emeroides* (Boiss. & Spruner) Hrabětova, under Cedar Forest, 26.07.2007, Keske, 1054

C. varia L. subsp. *varia*, Forest road, 20.05.2008, Keske, 1243

Onobrychis montana DC. in Lam. subsp. *cadmea* (Boiss.) P.W., under Cedar Forest, 21.06.2008, Keske, 1277

O. armena Boiss. & Huet in Boiss., Lakeside, 1020 m, 19.05.2009, Keske, 1276, Picnic site of Kaymakamlık, 19.05.2009, Keske, 1275, *, LC

O. oxyodonta Boiss., The entrance of Cedar Research Forest, 20.05.2008, Keske, 1274

ROSACEAE

Amygdalus orientalis Mill., Lakeside, 35 S 0762392 UTM 4052278, 25.08.2007, Keske, 1255, Ir.-Tur. el.

Potentilla recta L., under Cedar Forest, 20.05.2008, Keske, 1350

P. kotschyana Fenzl, under Cedar Forest, 1100 m, 19.05.2009, Keske, 1345, E. Medit. el.

Sanguisorba minor Scop. subsp. *minor*, Forest road, 20.05.2008, Keske, 1213

Rosa canina L., Roadsides of Cedar Research Forest, 20.06.2008, Keske, 1251

Amelanchier parviflora Boiss. var. *dentata* Browicz, The vicinity of Yakaçiftlik Village, 21.06.2008, Keske, 1254, 35 S 6763355 UTM 4051246, 1100 m, 25.08.2007, Keske, 1033, *, E.Medit. el., VU

CRASSULACEAE

Umbilicus erectus DC., 35 S 0763290 UTM 4051200, 25.08.2007, Keske, 1047, under Cedar Forest, 07.06.2008, Keske, 1103

U. rupestris (Salisb.) Dandy in Riddlesdell., Lakeside, 21.06.2008, Keske, 1190

SAXIFRAGACEAE

Saxifraga cymbalaria L. var. *cymbalaria*, The vicinity of the watch box, 1050 m, 14.12.2008, Keske, 1191

UMBELLIFERAE (APIACEAE)

Eryngium falcatum Delar., under Cedar Forest, 21.06.2008, Keske, 1170, E. Medit. el.

E. bithynicum Boiss., under Cedar Forest, 24.08.2007, Keske, 1050

E. campestre L. var. *campestre*, under Cedar Forest, 1100 m, 19.05.2009, Keske, 1173, *, Ir.-Tur. el., LC

E. campestre L. var. *virens*, under Cedar Forest, 21.06.2008, Keske, 1172

Scandix stellata Banks & Sol., under Cedar Forest, 07.06.2008, Keske, 1118

S. iberica Bieb., Picnic site of Kaymakamlık, 1050 m, 19.05.2009, Keske, 1169

Smyrniium connatum Boiss. & Kotschy, Lakeside, 07.06.2008, Keske, 1108, E. Medit. el.

Bunium microcarpum (Boiss.) Freyn subsp. *microcarpum*, The vicinity of picnic site, the entrance of maquis, 21.06.2008, Keske, 1166

B. ferulaceum Sm. in Sibth., Forest road, 1100 m, 21.06.2008 Keske, 1164, Medit. el.

Pimpinella peregrina L., The entrance of Cedar Research Forest, 28.06.2009, Keske, 1395

P. tragium Vill. subsp. *lithophila* (Schischkin) Tutin, The North side of Avlan Lake, 19.05.2009, Keske, 1163

Ferula lycia Boiss., under Cedar Forest, 26.07. 2007, Keske, 1005, *, Ir.-Tur. el., LC

Peucedanum chryseum (Boiss & Heldr.) Chamberlain, under Cedar Forest, 21.06.2008, Keske, 1076, *, LC

Daucus broteri Ten., under Cedar Forest, 1150 m, 19.05.2009, Keske, 1168, Medit. el.

D. littoralis Sibth. & Sim., under Cedar Forest, 1100 m, 21.06.2008, Keske, 1167, E. Medit. el.

CAPRIFOLIACEAE

Lonicera nummulariifolia Jaub. & Spach subsp. *glandulifera* (Hub.-Mor.) Chamberlain, under Cedar Forest, 23.04.2008, Keske, 1214, *, E. Medit. el., LC

L. etrusca Santi. var. *etrusca*, under Cedar Forest, 07.06.2008, Keske, 1083, Medit. el.

L. etrusca Santi. var. *hispidula*, under Cedar Forest, 23.04.2008, Keske, 1084

RUBIACEAE

Asperula arvensis L., 35 S 073184 UTM 4052813, 19.05.2009, Keske, 1205, Medit. el.

A. brevifolia Vent., under Cedar Forest, 21.06.2008, Keske, 1198, *, E. Medit. el., LC

Galium subuliferum Somm. & Lev., under Cedar Forest, 23.03.2008 Keske, 1171

G. incanum subsp. *elatius* (Boiss.) Ehrend., under Cedar Forest, 1100 m, 19.05.2009, Keske, 1187, Ir.-Tur. el.

G. incanum Sm. in Sibth & Sm. subsp. *incanum*, under Cedar Forest, 21.06.2208, Keske, 1200, E.Medit. el.

G. dumosum Boiss., Lakeside, 35 S 0762652 UTM 4052081, 24.08.2007, Keske, 1196, *, LC

G. aparine L., Picnic site, 07.06.2008, Keske, 1104

G. adhaerens Boiss. & Bal., under Cedar Forest, 21.06.2008, Keske, 1199, *, E.Medit. el., LC

G. tenuissimum Bieb. subsp. *tenuissimum*, Lakeside, 35 S 0762652 UTM 4052081, 25.08.2007, Keske, 1396

G. brevifolium subsp. *insulare* Ehrend. & Schönb.-Ten., under Cedar Forest, 07.08.2008, Keske, 1136, E. Medit. el.

Rubia davisiana Ehrend., under Cedar Forest, 1197, *, E.Medit. el., CR

R. tenuifolia d'Urv. var. *stenophylla*, under Cedar Forest, 26.07.2007, Keske, 1038, E. Medit. el.

VALERIANACEAE

Valeriana oligantha Boiss. & Heldr., under Cedar Forest, 1100 m, 19.05.2009, Keske, 1188, *, E. Medit. el., VU

V. dioscoridis Sm., under Cedar Forest, 1100 m, 19.05.2009, Keske, 1216, E.Medit. el.

Valerianella triceris Bornm., under Cedar Forest, 21.06.2008, Keske, 1340, E. Medit. el.

V. vesicaria (L.) Moench., Forest road, 20.05.2008, Keske, 1347, The vicinity of Çıglıkara National Park, 1100 m, 19.05.2009, Keske, 1145

DIPSACACEAE

Scabiosa argentea L., The vicinity of Yakaçiftlik Village, 21.06.2008, Keske, 1341, under Cedar Forest, 1100 m, 19.05.2009 Keske, 1185

S. rotata Bieb., The entrance of Cedar Research Forest, 28.06.2009, Keske, 1364, Ir.-Tur. el.

COMPOSITAE (ASTERACEAE)

Xanthium spinosum L., Lakeside, 35 S 0762652 UTM 4052081, 24.08.2007, Keske, 1061, Cedar Research Forest, 14.12.2008, Keske, 1300

Inula heterolepis Boiss., Lakeside, 35 S 0762652 UTM 4052081, 21.06.2008, Keske, 1158, The entrance of Cedar Research Forest, 20.05.2008 Keske, 1153, E. Medit. el.

- Pulicaria arabica* (L.) Cass. , The vicinity of Yakaçiftlik Village, 21.06.2008, Keske, 1314
- Anthemis cretica* L. subsp. *anatolica* (Boiss.) Grierson, under Cedar Forest, 1100 m, 19.05.2009, Keske, 1303
- A. rosea* Sm. in Sibth. & Sm. subsp. *carnea* (Boiss.) Grierson, The vicinity of Yakaçiftlik Village, 21.06.2008 Keske, 1307, under Cedar Forest, 1100 m, 19.05.2009, Keske, 1306, *, E.Medit. el. , DD
- A. tinctoria* L. var. *tinctoria*, under Cedar Forest, 26.07.2007, Keske, 1043
- A. tinctoria* L. var. *pallida*, Cedar Forest, 23.03.2008, Keske, 1304, Forest Road, 21.06.2008, Keske, 1305
- Tanacetum cadmeum* (Boiss.) Heywood subsp. *cadmeum*, The vicinity of Göltařla, 1100 m, 19.05.2009, Keske, 1301, *, LC
- Onopordum anatolicum* (Boiss.) Eig in Pal. , 35 S 6763355 UTM 4051246, 25.08.2007 Keske, 1293, *, Ir.-Tur. el. , LC
- Cirsium libanoticum* DC. subsp. *lyaonicum* (Boiss. & Heldr.) P.H. Davis & Parris, Forest Road, 07.06.200, Keske, 1132, *, E. Medit. el. , LC
- C. arvense* (L.) Scop. subsp. *vestitum*, Lakeside, 1020m, 19.05.2009, Keske, 1291
- Picnemon acarna* (L.) Cass. , under Cedar Forest, 24.08.2007, Keske, 1065, Medit. el.
- Carduus nutans* L. var. *armenus* Boiss. , The entrance of Cedar Research Forest, 21.06.2008, Keske, 1080
- C. pycnocephalus* L. subsp. *albidus*, Center of the Lake, the cultivated area, 28.06.2009, Keske, 1359
- Centaurea cariensis* Boiss. subsp. *maculiceps* (O.Schwarz) Wagenitz, under Cedar Forest, 26.07.2007, Keske, 1020, 35 S 07655349 UTM 4052032, 23.03.2008, Keske, 1296, *, E. Medit. el. , LC
- C. cariensis* Boiss. subsp. *cariensis*, under Cedar Forest, 21.06.2008, Keske, 1095, *, VU
- C. cariensis* Boiss. subsp. *longipapposa* Wagenitz, The entrance of Maquis, 14.12.2008, Keske, 1298, *, E.Medit. el. , LC
- C. virgata* Besser. , under Cedar Forest, 20.05.2008, Keske, 1007, Ir.-Tur. el.
- C. solstitialis* L. subsp. *solstitialis*, The entrance of Cedar Research Forest, 28.06.2009, Keske, 1381
- C. urvillei* DC. subsp. *stepposa* Wagenitz, under Cedar Forest, 26.07.2007, Keske, 1075, *, Ir.-Tur. el. , LC
- C. urvillei* DC. subsp. *armata*, under Cedar Forest, 21.06.2008 Keske, 1299, E. Medit. el.
- C. depressa* Bieb. , The vicinity of Göltařla, 1100 m, 19.05.2009, Keske, 1297
- Crupina vulgaris* Cass. , under Cedar Forest, 1100 m, 19.05.2009, Keske, 1316
- C. crupinastrum* (Maris) Vis. , under Cedar Forest, 21.06.2008, Keske, 1192
- Carlina corymbosa* L. , under Cedar Forest, 21.06.2008, Keske, 1074, The entrance of Maquis, 28.06.2009, Keske, 1390, Medit. el.
- C. oligocephala* Boiss. & Kotschy subsp. *pallescens*, under Cedar Forest, 1100 m, 25.08.2007, Keske, 1292, Roadsides of Elmalı-Finike road, 1030 m, 14.12.2008, Keske, 1294, *, E.Medit. el. , VU
- Xeranthemum annuum* L. , under Cedar Forest, 26.07.2007, Keske, 1046
- Echinops ritro* L. , 35 S 0763290 UTM 4051200, 24.08.2007, Keske, 1062
- E. viscosus* subsp. *bithynicus* (Boiss.) Rech. , The entrance of Cedar Research Forest, 21.06.2008, Keske, 1290
- Scolymus hispanicus* L. , under Cedar Forest, 26.07.2007, Keske, 1066, Medit. el.
- Cichorium intybus* L. , Lakeside, 1020 m, 19.05.2009, Keske, 1360
- Scorzonera cana* (C.A. Mey.) Hoffm. var. *cana*, under Cedar Forest, 21.06.2008, Keske, 1397
- S. cana* (C.A. Mey.) Hoffm. var. *radicosa* (Boiss.) Chamb. , under Cedar Forest, 1100 m, 19.05.2009, Keske, 1361
- Tragopogon longinostris* Bisch. ex Schultz Bip var. *longinostris*, under Cedar Forest, 21.06.2008, Keske, 1242
- T. latifolius* Boiss. var. *angustifolius* Boiss. , Roadsides of Elmalı-Finike road, 20.05.2008, Keske, 1122, Ir.-Tur. el.
- T. bupthalmoides* (DC.) Boiss. var. *bupthalmoides*, The vicinity of Yakaçiftlik Village, 21.06.2008, Keske, 1308, under Cedar Forest, 1100 m, 19.05.2009, Keske, 1309
- Leontodon oxylepis* Boiss. & Heldr. var. *oxylepis*, The vicinity Göltařla, 20.05.2008, Keske, 1312, under Cedar Forest, 1100 m, 19.05.2009, Keske, 1313, E. Medit. el.
- Mycelis muralis* (L.) Dum. , under Cedar Forest, 1100 m, 19.05.2009, Keske, 1295, Euro-Sib. el.
- Lapsana communis* L. subsp. *pisidica* (Boiss.& Heldr.), Lakeside, 1020 m, 19.05.2009, Keske, 1317
- L. communis* L. subsp. *intermedia* (Bieb.) Hayek, under Cedar Forest, 07.06.2008, Keske, 1105
- Taraxacum serotinum* (Waldst. & Kit.) Poirlet in Lam. , Elmalı-Finike Road, 14.12.2008, Keske, 1310
- T. bithynicum* DC. , under Cedar Forest, 1100 m, 19.05.2009, Keske, 1398
- Chondrilla juncea* L. var. *juncea*, The vicinity of the watch box, 21.06.2008, Keske, 1204
- Crepis foetida* L. subsp. *rheoadifolia*, Lakeside, 1020 m, 19.05.2009, Keske, 1311
- CAMPANULACEAE
- Legousia falcata* (Ten.) Fritsch in Mitt. , The vicinity of Göltařla, 1100 m, 19.05.2009, Keske, 1208, Medit. el.
- L. speculum-veneris* (L.) Chaix. in Vill. , under Cedar Forest, 1150 m, 19.05.2009, Keske, 1206
- PRIMULACEAE
- Cyclamen coum* Mill. subsp. *coum*, under ıđlıkara National Park, 23.04.2008, Keske, 1087
- C. trochopteranthum* O. Schwarz, The vicinity of Göltařla, 1100 m, 14.12.2008, Keske, 1354, *, E. Medit. el. , LC
- OLEACEAE
- Jasminum fruticans* L. , under Cedar Forest, 26.07.2007, Keske, 1055, Medit. el.
- Fraxinus ornus* subsp. *cilicica* (Lingelsh.) Yalt. , under Cedar Forest, 07.06.200, Keske, 1088, *, E. Medit.el., LC
- ASCLEPIADACEAE
- Vincetoxicum canescens* (Willd.) Decne. subsp. *canescens*, under Cedar Forest, 07.06.2008, Keske, 1109, 35 S 07650615 UTM 4052813, 19.05.2009, Keske, 1202, Ir.-Tur. el.
- V. fuscatum* (Hornem.) Reichb. fil. subsp. *fuscatum*, The vicinity of Göltařla, 35 S 073184 UTM 4052813, 19.05.2009, Keske, 1201
- CONVOLVULACEAE
- Convolvulus lineatus* L. , The entrance of Cedar Research Forest, 21.06.2008, Keske, 1192, Ir.-Tur. el.
- C. galaticus* Roston ex Choisy, Picnic site, 21.06.2008, Keske, 1224, Cultivated area, 28.06.2009 Keske, 1379, *, Ir.-Tur. el. , LC
- CUSCUTACEAE
- Cuscuta approximata* var. *approximata*, The Cedar Reserach Forest, entrance of maquis, 28.06.2009, Keske, 1257

BORAGINACEAE

Heliotropium hirsutissimum Grauer, Lakeside, 35 S 0762652 UTM 4052081, 25.08.2007, Keske, 1039, E. Medit. el.

Myosotis ramosissima Rochel ex Scultes subsp. *ramosissima*, under Cedar Forest, 1100 m, 19.05.2009, Keske, 1183

M. stricta Link ex Roemer & Schultes, under Cedar Forest, 1100 m, 19.05.2009, Keske, 1184, Euro-Sib. el.

Paracaryum lithospermifolium (Lam.) Grande in Bull. subsp. *cariense* (Boiss.) R. var. *cariense*, under Cedar Forest, 1100 -1200 m, 07.06.2008, Keske, 1175, E. Medit. el.

Cynoglossum montanum L., under Cedar Forest, 07.06.2008, Keske, 1121, Euro-Sib. el.

Neatostema apulum (L.) Johnston in J. , under Cedar Forest, 21.08.2008, Keske, 1174, Medit. el.

Echium italicum L., Lakeside, Picinc site of Kaymakamlık, 19.05.2009, Keske, 1182, Medit. el.

E. vulgare L. , Roadside of picnic site, 19.05.2009, Keske, 1399, Euro-Sib. el.

E. angustifolium Mill. , Roadside of Elmalı-Finike road, 22.10.2007 Keske, 1059, E. Medit. el.

Onosma frutescens Lam. , under Cedar Forest, 07.06.2008, Keske, 1107, E. Medit. el.

O. nanum DC. , under Cedar Forest, 07.06.2008, Keske, 1107, *, E. Medit. el. , LC

O. aucheranum DC. , under Cedar Forest, 1100-1200 m, 19.05.2009, Keske, 1181, E. Medit. el.

O. armenum DC. , Lakeside, 35 S 0762652 UTM 4052081, 24.08.2007, Keske, 1027,

Roadside of Elmalı-Finike road, 22.10.2007, Keske, *, Ir.-Tur. el. , LC

Anchusa undulata L. subsp. *hybrida* (Ten.) Coutinho, under Cedar Forest, 1100-1200 m, 19.05.2009, Keske, 1178, Medit. el.

A. azurea Mill. var *azurea*, Lakeside, 1150 m, 19.05.2009, Keske, 1180

A. strigosa Labill. , Lakeside, 1050 m, 19.05.2009, Keske, 1179

Alkanna kotschyana DC. , under Cedar Forest, 1100 m, 21.06.2008, Keske, 1176, *, E. Medit. el. , LC

SCROPHULARIACEAE

Verbascum glomeratum Boiss. , 35 S 07634228 UTM 4051343, 25.08.2007, Keske, 1032, Lakeside, 28.06.2008 Keske, 1384, Ir.-Tur. el.

Veronica triphyllos L. , The vicinity of Yakaçiftlik Village, 21.08.2008, Keske, 1159

V. triloba (Opiz) Kerner, Lakeside, 21.06.2008, Keske, 1221

V. hederifolia L. , under Cedar Forest, 1150 m, 21.06.2008, Keske, 1160

V. cuneifolia D.Don in Ann subsp. *cuneifolia*, under Cedar Forest, 1150 m, 21.06.2008, Keske, 1189, *, LC

V. cuneifolia D.Don. in Ann subsp. *massicytica* M.A. Fischer, under Cedar Forest, 1100 m, 19.05.2009, Keske, 1186, *, E. Medit. el. , EN

ORONBANCHACEAE

Orobanche alba Steph. Ex. Willd. , under Cedar Forest, 07.06.2008, Keske, 1101

LABIATAE

Teucrium scordium L. subsp. *scordium*, under Cedar Forest, 07.06.2008, Keske, 1115, Euro-Sib. el.

T. chamaedrys L. subsp. *syspirense* (C.Koch) Rech. , under Cedar Forest, 22.10.2007, Keske, 1400, Ir.-Tur. el.

T. chamaedrys L. subsp. *sinuatum* (Celak.) Rech. f. , under Cedar Forest, 21.08.2008, Keske, 1157, Ir.-Tur. el.

T. polium L. , Lakeside, 35 S 0762652 UTM 4052081, 25.08.2007, Keske, 1146, Roadsides of Forest road, 21.06.2008, Keske, 1147

Scutellaria orientalis L. subsp. *pinnatifida* J.R. Edm. , The vicinity of Yakaçiftlik Village, 21.06.2008, Keske, 1256, The vicinity of Göl tarla, 1050 m, 19.05.2009, Keske, 1355

S. orientalis L. subsp. *alpina* var. *alpina*, The vicinity of Yakaçiftlik Village, 21.06.2008, Keske, 1357

Phlomis pungens Willd. var. *hirta* Velen. , Lakeside, 19.05.2009, Keske, 1151

P. lunariifolia Sm. in Sibth. & Sm. , The vicinity of Yakaçiftlik Village, 21.06.2008, Keske, 1156, E. Medit. el.

P. grandiflora H.S. Thomps. var. *grandiflora*, The vicinity of Yakaçiftlik Village, 21.06.2008, Keske, 1154, The vicinity of Göl tarla, 1100 m, 19.05.2009, Keske, 1155

P. lycia D.Don, Lakeside, 1029 m, 26.07.2007, Keske, 1002, *, E. Medit. el. , NT

P. armeniaca Willd. , under Cedar Forest, 26.07.2007, Keske, 1013, Lakeside, 19.05.2009 Keske, 1152, *, Ir.-Tur. el. , LC

Lamium lycium Boiss. , under Cedar Forest, 07.06.2008, Keske, 1125, *, E. Medit. el. , LC

L. garganicum L. subsp. *striatum* (Sm.) Hayek , under Çıglıkara National Park, 1200 m, 19.05.2009, Keske, 1150, E. Medit. el.

L. garganicum L. subsp. *reniforme* (Montbret & Aucher ex Benth.), under Cedar Forest, Lakeside, 1050 m, 19.05.2009, Keske, 1148

L. amplexicaule L. , under Cedar Forest, 1150 m, 19.05.2009, Keske, 1149, Euro-Sib. el.

Sideritis libanotica subsp. *linearis* (Beth.) Bornm. , Roadside of Elmalı-Finike road, 21.06.2008, Keske, 1069, *, LC

Stachys cretica L. subsp. *anatolica* Rech. Fil. , 35 S 0762652 UTM 4052081, 25.08.2007, Keske, 1044, The entrance of Cedar Research Forest, 28.06.2009, Keske, 1368, *, Ir.-Tur. el. , LC

S. pinardii Boiss. , under Cedar Forest, 07.06.2008, Keske, 1137, *, E. Medit. el. , NT

Nepeta italica L. , Roadsides of Forest road, 20.05.2008, Keske, 1096

N. cadmea Boiss. , The entrance of Cedar Research Forest, 20.05.2008, Keske, 1352, *, E. Medit. el. , LC

N. nuda subsp. *albiflora* (Boiss.) Gams, under Cedar Forest, 21.06.2008, Keske, 1068

Satureja thymbra L. , under Cedar Forest, 23.04.2008, Keske, 1085, E. Medit. el.

Clinopodium vulgare L. subsp. *vulgare*, Cedar Research Forest, 28.06.2009, Keske, 1369

Acinos rotundifolius Pers. , Lakeside, 1020 m, 19.05.2009, Keske, 1351

Salvia potentillifolia Boiss. & Heldr. Ex Benth. , 35 S 073184 UTM 4052813, 23.03.2008, Keske, 1028, under Cedar Forest, 21.06.2008, Keske, 1097, *, E. Medit. el.

S. chrysophylla Stapf. , under Cedar Forest, 23.04.2008, Keske, 1082, *, Ir.-Tur. el. , NT

PLUMBAGINACEAE

Acantholimon venustum Boiss. var. *venustum*, The entrance of Cedar Research Forest, 21.06.2008, Keske, 1346, Ir.-Tur. el.

A. acerosum (Willd.) Boiss. var. *acerosum*, under Cedar Forest, 26.07.2007, Keske, 1006, 35 S 0763355 UTM 4051246, 24.08.2007, Keske, 1015, Ir.-Tur. el.

SANTALACEAE

Osyris alba L. , The entrance of Elmalı-Finike road, 21.06.2008, Keske, 1222, Medit. el.

EUPHORBIACEAE

Euphorbia rigida Bieb., Roadsides of Elmalı-Finike Road, 1050 m, 23.03.2008, Keske, 1143, Medit. el.

E. macroclada Boiss., The vicinity of Göltarla, 1100 m, 19.05.2009, Keske, 1142, Ir.-Tur. el.

E. pestalozzae Boiss., 35 S 07655349 UTM 4052032, 23.03.2008, Keske, 1141, Back of Picnic site, the entrance maquis, 21.06.2008, Keske, 1401, *, Ir.-Tur. el. , NT

E. amygdaloides L. var. *amygdaloides*, under Çıglıkara district, 1100 m, 19.05.2009 Keske, 1142, Euro-Sib. el.

E. kotschyana Fenzl. , under Çıglıkara district, 1100 m, 19.05.2009, Keske, 1144, E.Medit. el.

E. characias L. subsp. *wulfenii* (Hoppe ex. W.Koch) A.R. , 35 S 0763373 UTM 4051313, 26.07.2007, Keske, 1024

MORACEAE

Ficus carica subsp. *L. carica* (All.) Schinz et. Thell, Lakeside, 35 S 0762652 UTM 4052081, 25.08.2007, Keske, 1036

FAGACEAE

Quercus trojana P.B. Webb in Loudon, 35 S 0763290 UTM 4051200, 25.08.2007 Keske, 1225

Q. coccifera subsp. *rigida* (Willd.) Boiss. , 35 S 07634228 UTM 4051343, 25.08.2007, Keske, 1067, The vicinity of Göltarla, 20.05.2008, Keske, 1252

BETULACEAE

Ostrya carpinifolia Scop. , 35 S 0763290 UTM 4051200, 24.08.2007 Keske, 1031, The entrance of Cedar Research Forest, 21.06.2008, Keske, 1349

MONOCOTYLEDONEAE

LILIACEAE

Allium atroviolaceum Boiss. , under Cedar Forest, 07.06.2008 Keske, 1124, Picnic site, Lakeside, 28.06.2009 Keske, 1363

A. scorodoprasum L. subsp. *rotundum*, The entrance of Cedar Research Forest, 28.06.2009, Keske, 1362, Medit. el.

Scilla bifolia L. , Roadsides of Finike-Elmalı road, 23.04.2008, Keske, 1126, Medit. el.

Ornithogalum montanum Cyr. in Ten, under Cedar Forest, 1100 m, 19.05.2009, Keske, 1288, Medit. el.

O. sigmoideum Freyn & Sint. , 1150 m, 23.04.2008, Keske, 1130, Euro-Sib. el.

O. alpigenum Stapf in Denkschr. , Picnic site of Kaymakamlık, 20.05.2008, Keske, 1289, *, E. Medit. el. , NT

Gagea granatelli (Parl.) Parl. , under Cedar Forest, 23.04.2008, Keske, 1129, Medit. el.

Crocus biflorus Miller subsp. *isauricus* (Siehe ex Bowles) B.Mathew, under Cedar Forest, 23.04.2008, Keske, 1140, *, E. Medit. el. , LC

C. antalyensis Mathew, under Cedar Forest, 23.04.2008, Keske, 1402, *, E.Medit. el. , NT

ORCHIDACEAE

Cephalanthera kotschyana Renz & Taub. , under Cedar Forest, 1150 m, 07.06.2008 Keske, 1135, *, LC

Orchis palustris Jacq. , under Cedar Forest, 28.06.2009, Keske, 1358

GRAMINEA

Elymus panormitanus (Parl.) Tzevelev, Roadside of Finike-Elmalı road, 07.06.2008, Keske, 1133, Picnic site of Kaymakamlık, 28.06.2009 Keske, 1249, Medit. el.

Aegilops cylindrica Host. , Lakeside, 1020 m, 28.06.2009, Keske, 1375, Ir.-Tur. el.

A. umbellulata Zhuk. subsp. *umbellulata*, 1050 m, 19.05.2009, Keske, 1239, Ir.-Tur. el.

Triticum monococcum L., The vicinity of Göltarla, 1050 m, 19.05.2009, Keske, 1244, The Cedar Research Forest, 28.06.2009 Keske, 1391, VU

Taeniatherum caput-meducae (L.) subsp. *crinitum*, under Cedar Forest, 1100 m, 19.05.2009, Keske, 1226

Bromus commatatus Schrader, The middle of Lake, The cultivated area, 28.06.2009, Keske, 1367

B. arvensis L. , Middle of Lake, The cultivated area, 28.06.2009, Keske, 1366

B. tectorum L. , Cedar Research Forest, 21.06.2008 Keske, 1228, Lakeside, 1050 m, 19.05.2009, Keske, 1229

B. sterilis L. , Lakeside, 1050 m, 19.05.2009, Keske, 1232

B. cappadocicus Boiss. & Bal. subsp. *cappadocicus*, Lakeside, 1050 m, 19.05.2009, Keske, 1217

B. tomentellus Boiss. , Lakeside, 1050 m, 19.05.2009, Keske, 1235, Ir.-Tur. el.

Avena wiestii Steudel, under Cedar Forest, 1100 m, 19.05.2009, Keske, 1231

Phleum pratense L. , The vicinity of Yakaçiftlik Village, 21.06.2008, Keske, 1238, Euro-Sib. el.

Festuca valesiaca Schleicher ex Gaudin, The vicinity of the watch box, 14.12.2007, Keske, 1227

Poa annua L. , under Cedar Forest, 07.06.2008, Keske, 1117

P. pratensis L. , under Cedar Forest, 1150 m, 19.05.2009, Keske, 1219

P. nemoralis L. , under Cedar Forest, 1100-1200 m, 19.05.2009, Keske, 1220

P. bulbosa L. , under Cedar Forest, 21.06.2008, Keske, 1247, The vicinity of Göltarla, 1100 m, 19.05.2009 , Keske, 1248

Dactylis glomerata L. subsp. *glomerata*, The entrance Cedar Research Forest, 28.06.2009, Keske, 1365

D. glomerata subsp. *hispanica* (Roth) Nyman, The vicinity of the watch box, 14.12.2007 Keske, 1233, Roadsides of picnic site, 07.06.2008, Keske, 1116

Cynosurus echinatus L. , Roadsides of Elmalı-Finike road, 1050 m, 14.12.2007, Keske, 1236, The picnic site of Kaymakamlık, 19.05.2009, Keske, 1237, Medit. el.

Briza humilis Bieb. , under Cedar Forest, 1100 m, 19.05.2009, Keske, 1194

B. minor L. , 35 S 0762563 UTM 4051753, 14.12.2008, Keske, 1403

Echinaria capitata (L.) Desf. , Lakeside, 1050 m, 19.05.2009, Keske, 1234

Melica ciliata L. subsp. *ciliata*, Cedar Research Forest, 21.06.2008, Keske, 1070

Piptatherum holciforme Roem. & Schult. var. *holciforme*, Lakeside, 1050 m, 19.05.2009, Keske, 1223

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