



## The flora of Anamur Antique City and its surroundings (Mersin/Turkey)

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### Abstract

This research has been made to determine The flora of Anamur Antique City and its surroundings (Mersin). The research area is in the C4 square according to the grid system. Five hundred and ten plants specimens belonging to 350 taxa, 260 genera and 74 families were collected and identified from the area between 2006-2008 years. The phytogeographic region of plants in this area are represented as follows; Mediterranean (123) 35.1%, Irano-Turanien (17) 4.9%, Euro-Siberian (11) 3.1% and either Multi-regional or unknown (199) 56.9%. The number of endemic taxa is 13 (3.7%).

**Key words:** Flora, Anamur, Mersin, Turkey

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### Anamur Antik Kenti ve çevresinin (Mersin) florası

### Özet

Bu araştırma Anamur Antik Kenti ve Çevresinin (Mersin) florasını tespit etmek için yapılmıştır. Araştırma alanı kareleme sistemine göre C4 karesi içerisinde. 2006-2008 yılları arasında alandan 350 takson, 260 cins ve 74 familyaya ait 510 bitki örneği toplanmış ve teşhis edilmiştir. Bitkilerin fitocoğrafik bölgelere göre dağılımları şöyledir: Akdeniz elementi (123) % 35.1, İran-Turan elementi (17) % 4.9, Avrupa-Sibirya elementi (11) % 3.1 ve çok bölgesel veya bilinmeyen (199) % 56.9'dur. Endemik takson sayısı 13 (% 3.7)'dir.

**Anahtar kelimeler:** Flora, Anamur, Mersin, Türkiye

### 1. Introduction

The investigated area is located 5-6 km west of the district of Anamur and is in square C4, according to the grid system used in the Flora of Turkey (Davis, 1965-1985). Anamur Antique City is one of Anamur's tourism resources. The historical Anamur city, which covers an area of approximately 20-30 square km, is located on the Anamur Cape and eastern of it that takes place in the southern end of Anatolia (Figure 1). It was reported that the foundation date of the city extended up to the Hittites period while it was abandoned about 600 A.C. (Inan & Inan, 2007).

There have been no previous studies on the flora of the Anamur Antique City region. The study area was selected for the research because it was not thoroughly studied and has some interesting characteristics, in terms of both flora and phytogeography. The altitude of the area is between 0 and 70 m. The research area has a mediterranean climate. According to Emberger the precipitation-temperature coefficient (Q) is 67.4 (Akman, 1990). According to this value Anamur is in mediterranean climate less rainfall and take part in bioclimatic zone where winter is very cold. Annual mean temperature is 19.2 °C. The maximum mean temperature (M) is 33.5 °C. The minimum mean temperature (m) is 5.8 °C (Table 1). Annual rainfall is about 965.6 mm and the seasonal precipitation regime is winter, autumn,

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spring and summer (MIM, 2002). The climate diagram shows dry and rainy months (Figure 2). Geological basement of research area was constituted by rocks belonging to Alanya massif (unit). The tectonic unit is represented by pre-permian age marble, phyllites, micaschists and quartzites intercalated calcshists, at the base and permian age recrystallized limestones and dolomites at the upper part. The units mentioned above are covered by quaternary terrace and alluviums (Inan & Inan, 2007). The most common soil type in the research area is the red podzolic soil. There is also alluvial soil groups (Doğu Akdeniz Havzası Toprakları, 1974).

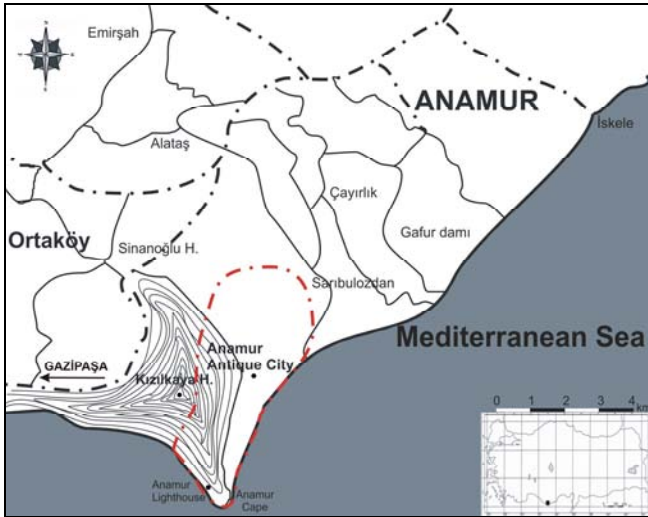


Figure 1. Map of the study area

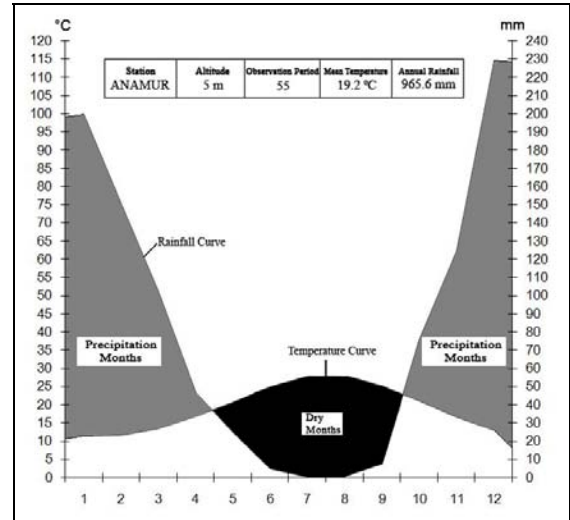


Figure 2. Climate diagram of Anamur

Table 1. Monthly – annual rainfall (mm) and temperature (°C) values of Anamur

| ANAMUR               | OBSERVATION PERIOD | MONTHS |       |       |      |      |      |      |      |      |      |       |       | ANNUAL |
|----------------------|--------------------|--------|-------|-------|------|------|------|------|------|------|------|-------|-------|--------|
|                      |                    | 1      | 2     | 3     | 4    | 5    | 6    | 7    | 8    | 9    | 10   | 11    | 12    |        |
| Rainfall (mm)        | 55                 | 199.4  | 150.1 | 102.6 | 46.7 | 24.8 | 4.7  | 0.3  | 0.7  | 7.4  | 75.4 | 124.4 | 229.1 | 965.6  |
| Avr. Temp. (°C)      | 55                 | 11.4   | 11.5  | 13.4  | 16.8 | 20.7 | 24.9 | 27.9 | 28.0 | 25.1 | 21.0 | 16.5  | 13.0  | 19.2   |
| Max. Avr. Temp. (°C) | 55                 | 22.5   | 23.2  | 27.5  | 33.3 | 37.5 | 41.0 | 42.0 | 44.2 | 39.5 | 36.6 | 30.3  | 24.6  | 33.5   |
| Min. Avr. Temp. (°C) | 55                 | -1.4   | -4.7  | -0.7  | 3.4  | 8.6  | 12.2 | 16.2 | 15.8 | 10.8 | 8.0  | 2.3   | 0.7   | 5.9    |

## 2. Materials and methods

During fieldwork conducted between 2006 and 2008, 510 plant specimens were collected in the study area which were dried according to herbarium techniques and numbered. The specimens are kept in KNYA herbarium collection. The majority of the specimens were identified with the help of the Flora of Turkey and The East Aegean Islands (Davis, 1965-1985; Davis et al., 1988; Güner et al., 2000). Some of the identifications were checked in Flora Europaea (Tutin et al., 1964-1980) and the herbarium of KNYA. All taxa in the floristic list are given according to the order in the Flora of Turkey (Davis, 1965-1985). In the results, every species is represented with the following details: family and taxon name, authors of the species, geographical locations, habitats, altitudes, collection dates, collector numbers and endemism, IUCN threat categories (Ekim et al., 2000; IUCN, 2001), phytogeographical regions and the life forms are given. The phytogeographical regions of the taxa were evaluated according to Flora of Turkey (Davis, 1965-1985; Davis et al., 1988). Grid square and city name are not mentioned for each location because the study area is completely within the C4 Anamur (Mersin). Author abbreviations of plant names are given according to Brummitt and Powell (1992). The wild taxa were compared with floristic investigations of neighbouring areas (Ünal and Gökçeoğlu, 2003; Sümbül and Erik, 1988a-1988b-1990a-1990b; Everest and Rauss, 2004; Ertuğrul et al., 2002).

### 2.1. Abbreviations

The abbreviations used in the text and in the floristic list are as follows: Avr. Temp.: Average temperature; Medit.: Mediterranean element; Ir.-Tur.: Irano - Turanian element; Euro-Sib.: Euro-Siberian element; VU: Vulnerable; LC: Least concern; Th.: Therophytes; Hcrp.: Hemicryptophytes, Ph.: Phanerophytes; Crp.: Cryptophytes; Ch.: Chamaephytes; Vp.: Vascular parasite, H.: Hill, N: North, S: South, E: East, W: West.

2.2. *Vegetation*

Machhie, rocky and meadow are the main vegetation types in the study area. The machhie vegetation is the most common vegetation type in the area and includes *Quercus coccifera* L. and *Sarcopoterium spinosum* (L.) Spach. *Sedum sediforme* (Jacq.) Pau, *Micromeria myrtifolia* Boiss. & Hohen., *Conringia grandiflora* Boiss. & Heldr., *Helianthemum kotschyanum* Boiss., *Trifolium purpureum* Lois. var. *pamphylicum* (Boiss. & Heldr.) Zoh., *Paronychia argentea* Lam. var. *argentea*, *Dianthus strictus* Banks & Sol. var. *subenervis* (Boiss.) Reeve and *Phagnalon graecum* Boiss. are commonly found in the rocky parts of the research area. Meadow vegetation includes *Fumaria officinalis* L., *Biscutella didyma* L., *Thlaspi perfoliatum* L., *Capsella bursa-pastoris* (L.) Medik., *Senecio vernalis* Waldst. & Kit., *Taraxacum officinale* Weber, *Crepis sancta* (L.) Babc., *Convolvulus arvensis* L., *Aegilops umbellulata* Zhuk. subsp. *umbellulata*, *Hordeum murinum* L. subsp. *glaucum* (Steud.) Tzvelev, *Bromus japonicus* Thunb. subsp. *japonicus*.

3. **Results****The Floristic List****PTERIDOPHYTA****EQUISETACEAE****Equisetum ramosissimum** Desf.

Kızılkaya H., damp places, 40 m, 18.05.2008, Yıldızıtugay 1966.

Widespread, Crp.

**ASPLENIACEAE****Ceterach officinarum** DC.

Kızılkaya H., rocky area, 60 m, 18.05.2007, Yıldızıtugay 1409.

Medit., Crp.

**SPERMATOPHYTA****GYMNOSPERMAE****PINACEAE****Cedrus libani** A. Rich.

N of Anamur Antique City, roadsides, 20 m, 17.06.2008, Yıldızıtugay 2032.

Medit., Ph.

**Pinus brutia** Ten.

Anamur Antique City, stony places, 20 m, 28.10.2008, Yıldızıtugay 2100.

Medit., Ph.

**CUPRESSACEAE****Juniperus oxycedrus** L. subsp. **oxycedrus**

Kızılkaya H., rocky area, 50 m, 17.06.2008, Yıldızıtugay 2064.

Widespread, Ph.

**EPHEDRACEAE****Ephedra major** Host

Kızılkaya H., stony places, 40 m, 28.10.2008, Yıldızıtugay 2085.

Ch.

**ANGIOSPERMAE****DICOTYLEDONEAE****RANUNCULACEAE****Nigella arvensis** L. var. **tauricola** P.H.Davis

N of Anamur Antique City, in macchie vegetation, 25 m, 18.06.2008, Yıldızıtugay 2050.

Th.

**Delphinium staphisagria** L.

W of Anamur Antique City, stony places, 10 m, 17.05.2008, Yıldızıtugay 1918.

Medit., Hcrp.

**D. peregrinum** L.

Kızılkaya H., in macchie vegetation, 30 m, 18.06.2008, Yıldızıtugay 2046.

Th.

**Anemone coronaria** L.

N of Anamur Antique City, stony places, 40 m, 01.03.2007, Yıldızıtugay 1305.

Medit., Crp.

**Clematis cirrhosa** L.

S of Anamur Antique City, stony places, 5 m, 01.02.2008, Yıldızıtugay 1757.

Medit. Ph.

**Adonis flammea** Jacq.

Anamur Antique City, roadsides, 10 m, 01.03.2007, Yıldızıtugay 1680.

Widespread., Th.

**Ranunculus sprunerianus** Boiss.

Kızılkaya H., rocky area, 40 m, 08.04.2007, Yıldızıtugay 1527.

Medit., Crp.

**Ceratocephalus testiculatus** (Crantz) Roth

Anamur Antique City, roadsides, 10 m, 07.04.2008, Yıldızıtugay 1823.

Th.

**PAPAVERACEAE****Glaucium leiocarpum** Boiss.

Anamur Antique City, roadsides, 10 m, 18.05.2008, Yıldızıtugay 1979.

Widespread, Hcrp.

**Roemeria hybrida** (L.) DC. subsp. **hybrida**

Kızılkaya H., stony place, 30 m, 18.06.2008, Yıldızıtugay 2065.

Widespread, Th.

**Papaver rhoeas** L.

W of Anamur Antique City, stony place, 20 m, 06.04.2007, Yıldızıtugay 1446.

Widespread, Th.

**Hypecoum imberbe** Sibth. & Sm.

S of Anamur Antique City, sandy seashore, 2 m, 04.03.2008, Yıldızıtugay 1779.

Widespread, Th.

**H. pendulum** L.

Kızılkaya H., rocky places, 30 m, 08.04.2007, Yıldızıtugay 1554.

Widespread, Th.

**Fumaria capreolata** L.

E of Anamur Antique City, roadsides, 10 m, 09.04.2007, Yıldızıtugay 1577.  
Th.

**F. officinalis** L.

S of Anamur Antique City, sandy seashore, 2 m, 04.03.2008, Yıldızıtugay 1780.  
Th.

**F. asepalae** Boiss.

Anamur Antique City, stony places, 40 m, 01.03.2007, Yıldızıtugay 1393; Kızılkaaya H., rocky places, 50 m, 04.03.2008, Yıldızıtugay 1771.  
Ir.-Tur., Th.

**BRASSICACEAE**

**Hirschfeldia incana** (L.) Lag. – Foss.

Kızılkaaya H., stony place, 30 m, 18.06.2008, Yıldızıtugay 2057.  
Widespread, Th.

**Raphanus raphanistrum** L.

W of Anamur Antique City, roadsides, 10 m, 01.03.2007, Yıldızıtugay 1326.  
Th.

**\*Crambe hispanica** L.

This species is new record for the Flora of Turkey: Anamur Antique City, stony and rocky area, 10 m, 08.04.2007, Yıldızıtugay 1524.  
Th.

**Cakile maritima** Scop.

S of Anamur Antique City, sandy seashore, 3 m, 09.04.2007, Yıldızıtugay 1584.  
Th.

**Conringia grandiflora** Boiss. & Heldr.

Kızılkaaya H., rocky area, 50 m, 04.03.2008, Yıldızıtugay 1772.  
Endemic, LC, Medit., Hcrp.

**Cardaria draba** (L.) Desv. subsp. **chalepensis** (L.) O.E.Schulz

Anamur Antique City, roadsides, 10 m, 17.05.2007, Yıldızıtugay 1681.  
Widespread., Hcrp.

**Isatis lusitanica** L.

Anamur Antique City, stony area, 20 m, 01.03.2007, Yıldızıtugay 1390.  
Hcrp.

**Biscutella didyma** L.

Kızılkaaya H., stony area, 50 m, 04.03.2008, Yıldızıtugay 1776; Anamur Antique City, stony places, 10 m, 09.04.2008, Yıldızıtugay 1862.  
Th.

**Thlaspi perfoliatum** L.

E of Anamur Antique City, roadsides, 10 m, 18.05.2008, Yıldızıtugay 1959.  
Widespread., Th.

**Capsella bursa-pastoris** (L.) Medik.

Anamur Antique City, roadsides, 15 m, 06.04.2007, Yıldızıtugay 1427.  
Widespread, Th.

**Bunias erucago** L.

Anamur Antique City, stony area, 35 m, 09.04.2008, Yıldızıtugay 1836.  
Th.

**Alyssum dasycarpum** Steph. ex Willd.

Kızılkaaya H., stony places, 60 m, 09.04.2008, Yıldızıtugay 1885.  
Widespread, Th.

**Clypeola jonthlaspi** L.

Kızılkaaya H., rocky area, 50 m, 07.04.2008, Yıldızıtugay 1820.  
Widespread, Th.

**Erophila verna** (L.) Chevall. subsp. **praecox** (Stev.) Walters

Kızılkaaya H., rocky area, 50 m, 01.02.2008, Yıldızıtugay 1767.  
Widespread, Th.

**Cardamine graeca** L.

N of Anamur Antique City, stony area, 40 m, 01.03.2007, Yıldızıtugay 1307.  
Th.

**Malcolmia chia** (L.) DC.

Anamur Antique City, stony area, 20 m, 01.03.2007, Yıldızıtugay 1378.  
Medit., Th.

**Maresia nana** (DC) Batt.

Kızılkaaya H., rocky area, 70 m, 08.04.2007, Yıldızıtugay 1551.  
Th.

**CAPPARACEAE**

**Capparis spinosa** L. var. **spinosa**

N of Anamur Antique City, stony area, 60 m, 18.08.2008, Yıldızıtugay 2074.  
Ph.

**RESEDACEAE**

**Reseda lutea** L. var. **lutea**

E of Anamur Antique City, roadsides, 10 m, 01.03.2007, Yıldızıtugay 1402.  
Widespread., Hcrp.

**CISTACEAE**

**Cistus creticus** L.

N of Anamur Antique City, rocky places, 50 m, 01.03.2007, Yıldızıtugay 1397.  
Medit., Ph.

**C. salviifolius** L.

S of Anamur Antique City, roadsides, 10 m, 09.04.2007, Yıldızıtugay 1599.  
Ph.

**Helianthemum kotschyanum** Boiss.

Kızılkaaya H., rocky area, 70 m, 09.04.2008, Yıldızıtugay 1868.  
Ir.-Tur., Ch.

**Fumana thymifolia** (L.) Verlot var. **thymifolia**

Kızılkaaya H., rocky area, 60 m, 08.04.2007, Yıldızıtugay 1534.  
Hcrp.

**PORTULACACEAE**

**Portulaca oleracea** L.

E of Anamur Antique City, edge of field, 10 m, 28.10.2008, Yıldızıtugay 2081.  
Th.

**CARYOPHYLLACEAE**

**Minuartia mesogitana** (Boiss.) Hand. – Mazz. subsp. **mesogitana**

Anamur Antique City, stony area, 30 m, 01.03.2007, Yıldızıtugay 1340.

Medit., Th.

**M. hybrida** (Vill.) Schischk subsp. **hybrida**

Kızılkaya H., stony places, 50 m, 09.04.2008, Yıldızıtugay 1867.

Th.

**Stellaria media** (L.) Vill. subsp. **media**

N of Anamur Antique City, rocky area, 60 m, 01.02.2008, Yıldızıtugay 1765.

Th.

**S. media** (L.) Vill. subsp. **postii** Holmboe

Kızılkaya H., stony places, 50 m, 09.04.2008, Yıldızıtugay 1884.

Th.

**Cerastium anomalum** Waldst. & Kit.

N of Anamur Antique City, rocky area, 50 m, 08.04.2007, Yıldızıtugay 1541.

Th.

**C. dichotomum** L. subsp. **dichotomum**

Anamur Antique City, stony places, 40 m, 17.05.2007, Yıldızıtugay 1707.

Th.

**C. brachypetalum** Pers. subsp. **roeseri** (Boiss. & Heldr.) Nyman

Kızılkaya H., stony places, 40 m, 09.04.2008, Yıldızıtugay 1872.

Medit. Th.

**Holosteum umbellatum** L. var. **umbellatum**

Anamur Antique City, roadsides, 10 m, 07.04.2008, Yıldızıtugay 1819.

Th.

**Sagina apetala** Ard.

N of Anamur Antique City, rocky area, 50 m, 09.04.2008, Yıldızıtugay 1866.

Widespread, Th.

**Spergularia marina** (L.) Gris.

W of Anamur Antique City, stony places, 15 m, 01.03.2007, Yıldızıtugay 1360.

Widespread, Th.

**Dianthus strictus** Banks & Sol. var. **subenervis** (Boiss.) Reeve

Kızılkaya H., in macchie vegetation, 40 m, 18.06.2008, Yıldızıtugay 2049.

Hcrp.

**D. zonatus** Fenzl var. **zonatus**

N of Anamur Antique City, rocky area, 60 m, 01.02.2008, Yıldızıtugay 1766.

Hcrp.

**Silene vulgaris** (Moench) Garcke var. **vulgaris**

Anamur Antique City, stony places, 30 m, 09.04.2008, Yıldızıtugay 1851.

Hcrp.

**S. behen** L.

Anamur Antique City, stony places, 25 m, 09.04.2008, Yıldızıtugay 1841.

Th.

**S. heldreichii** Boiss.

Anamur Antique City, stony area, 10 m, 17.05.2008, Yıldızıtugay 1914.

Th.

**S. gallica** L.

Kızılkaya H., rocky area, 50 m, 08.04.2007, Yıldızıtugay 1538; Anamur Antique City, sandy seashore, 2 m, 04.03.2008, Yıldızıtugay 1782-1784.

Th.

**S. bellidifolia** Jacq.

S of Anamur Antique City, sandy seashore, 2 m, 04.03.2008, Yıldızıtugay 1783; Anamur Antique City, stony area, 10 m, 09.04.2008, Yıldızıtugay 1849.

Medit., Th.

**S. colorata** Poiret

Anamur Antique City, stony area, 20 m, 01.03.2007, Yıldızıtugay 1384.

Th.

**S. conoidea** L.

Anamur Antique City, roadsides, 10 m, 06.04.2007, Yıldızıtugay 1471.

Th.

**Agrostemma githago** L.

Anamur Antique City, stony area, 15 m, 06.04.2007, Yıldızıtugay 1424.

Th.

#### ILLECEBRACEAE

**Paronychia argentea** Lam. var. **Argentea**

Kızılkaya H., rocky places, 60 m, 08.04.2007, Yıldızıtugay 1530.

Medit., Hcrp.

#### POLYGONACEAE

**Polygonum equisetiforme** Sibth. & Sm.

S of Anamur Antique City, sandy seashore, 2 m, 10.08.2008, Yıldızıtugay 2059.

Hcrp.

**Rumex acetosella** L.

Anamur Antique City, roadsides, 10 m, 17.05.2008, Yıldızıtugay 1907.

Hcrp.

#### CHENOPODIACEAE

**Beta adanensis** Pamuk apud. Aellen

S of Anamur Antique City, sandy seashore, 3 m, 09.04.2007, Yıldızıtugay 1588.

Endemic, Hcrp.

#### HYPERICACEAE

**Hypericum triquetrifolium** Turra

Kızılkaya H., stony places, 50 m, 18.06.2008, Yıldızıtugay 2051.

Hcrp.

#### MALVACEAE

**Malva nicaeensis** All.

N of Anamur Antique City, stony places, 40 m, 08.04.2007, Yıldızıtugay 1536.

Th.

**M. parviflora** L.

Kızılkaya H., rocky area, 60 m, 08.04.2007, Yıldızıtugay 1563.

Th.

**Alcea pallida** Waldst. & Kit.

Anamur Antique City, stony place, 40 m, 18.06.2008, Yıldızıtugay 2056.

Ch.

**TILIACEAE****Tilia argentea** Desf. ex DC.Anamur Antique City, roadside, 10 m, 28.10.2008, Yıldızıtugay 2101.  
Ph.**LINACEAE****Linum nodiflorum** L.Anamur Antique City, stony places, 30 m, 09.04.2008, Yıldızıtugay 1889.  
Medit., Th.**L. corymbulosum** Reichb.Anamur Antique City, stony places, 50 m, 09.04.2008, Yıldızıtugay 1876.  
Medit., Th.**GERANIACEAE****Geranium purpureum** VillAnamur Antique City, rocky area, 40 m, 08.04.2007, Yıldızıtugay 1542.  
Th.**G. molle** L. subsp. **molle**Anamur Antique City, stony places, 30 m, 07.04.2008, Yıldızıtugay 1799.  
Th.**Erodium moschatum** (L.) L'Herit.Anamur Antique City, roadsides, 10 m, 01.03.2007, Yıldızıtugay 1344.  
Medit., Th.**OXALIDACEAE****Oxalis pes-caprae** L.Anamur Antique City, stony places, 20 m, 01.03.2007, Yıldızıtugay 1400.  
Th.**O. corniculata** L.Anamur Antique City, roadsides, 10 m, 01.03.2007, Yıldızıtugay 1317.  
Th.**ZYGOPHYLLACEAE****Tribulus terrestris** L.W of Anamur Antique City, stony place, 30 m, 18.06.2008, Yıldızıtugay 2047.  
Th.**RUTACEAE****Citrus aurantium** L.S of Anamur Antique City, roadside, 10 m, 18.06.2008, Yıldızıtugay 1900.  
Ph.**VITACEAE****Vitis vinifera** L.Anamur Antique City, field side, 10 m, 18.06.2008, Yıldızıtugay 2102.  
Ph.**ANACARDIACEAE****Cotinus coggyria** Scop.N of Anamur Antique City, stony places, 40 m, 07.04.2007, Yıldızıtugay 1504.  
Ph.**Rhus coriaria** L.Kızılkaya H., stony places, 70 m, 17.05.2007, Yıldızıtugay 1605.  
Medit., Ph.**Pistacia terebinthus** L. subsp. **palaestina** (Boiss.) Engl.N of Anamur Antique City, stony place, 40 m, 18.06.2008, Yıldızıtugay 2053.  
Medit., Ph.**FABACEAE****Ceratonia siliqua** L.Anamur Antique City, stony place, 10-50 m, 18.06.2008, Yıldızıtugay 2043.  
Medit., Ph.**Cercis siliquastrum** L. subsp. **siliquastrum**Anamur Antique City, roadsides, 10 m, 17.06.2008, Yıldızıtugay 1996.  
Ph.**Acacia retinoides** Schlecht.Anamur Antique City, roadsides, 10 m, 18.08.2008, Yıldızıtugay 2079.  
Medit., Ph.**Anagyris foetida** L.S of Anamur Antique City, sandy seashore, 3 m, 04.03.2008, Yıldızıtugay 1788.  
Medit., Ph.**Genista acanthoclada** DC.N of Anamur Antique City, rocky area, 50 m, 08.04.2007, Yıldızıtugay 1524.  
Medit., Ch.**Spartium junceum** L.Anamur Antique City, stony places, 30 m, 18.06.2008, Yıldızıtugay 2038.  
Medit., Ph.**Lupinus varius** L.S of Anamur Antique City, stony places, 10 m, 08.04.2007, Yıldızıtugay 1543.  
Medit., Hcrp.**Robinia pseudoacacia** L.Anamur Antique City, roadsides, 10 m, 07.04.2007, Yıldızıtugay 1502.  
Ph.**Astragalus odoratus** Lam.Anamur Antique City, stony places, 20 m, 09.04.2008, Yıldızıtugay 1878.  
Hcrp.**Phaseolus vulgaris** L.Anamur Antique City, field edge, 10 m, 08.04.2007, Yıldızıtugay 1558.  
Th.**Vicia cracca** L. subsp. **cracca**Anamur Antique City, roadsides, 10 m, 17.05.2007, Yıldızıtugay 1652.  
Euro-Sib., Hcrp.**V. cracca** L. subsp. **stenophylla** Vel.Anamur Antique City, field edge, 10 m, 06.04.2007, Yıldızıtugay 1428.  
Widespread., Hcrp.**V. hybrida** L.Anamur Antique City, stony places, 20 m, 01.03.2007, Yıldızıtugay 1385.  
Medit., Th.**V. sativa** L. subsp. **nigra** (L.) Ehrh. var. **nigra**

Anamur Antique City, stony places, 30 m, 08.04.2007, Yıldızıtugay 1539.

Th.

**V. narbonensis** L. var. **narbonensis**

Anamur Antique City, field edge, 10 m, 01.03.2007, Yıldızıtugay 1380-1388.

Th.

**V. narbonensis** L. var. **serratifolia** (Jacq.) Ser.

Anamur Antique City, rocky area, 30 m, 08.04.2007, Yıldızıtugay 1557.

Th.

**Lathyrus pratensis** L.

Anamur Antique City, stony places, 30 m, 06.04.2007, Yıldızıtugay 1452.

Euro-Sib., Hcrp.

**L. setifolius** L.

Kızılkaya H., stony places, 50 m, 09.04.2008, Yıldızıtugay 1880.

Medit., Hcrp.

**L. cicera** L.

Anamur Antique City, rocky area, 30 m, 08.04.2007, Yıldızıtugay 1540.

Th.

**Pisum sativum** L. subsp. **sativum** var. **sativum**

Anamur Antique City, stony places, 20 m, 01.03.2007, Yıldızıtugay 1386.

Th.

**P. sativum** L. subsp. **sativum** var. **arvense** (L.) Poiret.

Anamur Antique City, rocky places, 40 m, 08.04.2007, Yıldızıtugay 1522.

Th.

**P. sativum** L. subsp. **elatius** (Bieb.) Aschers. & Graebn. var. **elatius**

Anamur Antique City, field margin, 10 m, 09.04.2008, Yıldızıtugay 1852.

Th.

**P. fulvum** Sibth. & Sm.

Anamur Antique City, rocky area, 40 m, 08.04.2007, Yıldızıtugay 1564.

Medit., Th.

**Ononis variegata** L.

S of Anamur Antique City, 3 m, 08.04.2007, Yıldızıtugay 1518.

Medit., Th.

**Trifolium campestre** Schreb.

Kızılkaya H., in macchie vegetation, 30 m, 06.04.2007, Yıldızıtugay 1470.

Widespread., Th.

**T. fragiferum** L. subsp. **fragiferum**

Anamur Antique City, roadsides, 15 m, 01.03.2007, Yıldızıtugay 1369.

Hcrp.

**T. resupinatum** L. var. **microcephalum** Zoh.

S of Anamur Antique City, roadsides, 10 m, 09.04.2007, Yıldızıtugay 1594.

Th.

**T. cherleri** L.

Anamur Antique City, stony places, 30 m, 09.04.2008, Yıldızıtugay 1853.

Medit., Th.

**T. purpureum** Lois. var. **pamphylicum** (Boiss. & Heldr.) Zoh.

Anamur Antique City, rocky area, 40 m, 08.04.2007, Yıldızıtugay 1523.

Medit., Th.

**T. roussacianum** Boiss.

Kızılkaya H., rocky places, 50 m, 08.04.2007, Yıldızıtugay 1550.

Endemic, VU, Medit., Th.

**Melilotus officinalis** (L.) Desr.

Anamur Antique City, roadsides, 10 m, 06.04.2007, Yıldızıtugay 1544.

Widespread, Th.

**M. alba** Desr.

Anamur Antique City, roadsides, 10 m, 08.04.2007, Yıldızıtugay 1597.

Widespread., Th.

**Trigonella spruneriana** Boiss. var. **spruneriana**

Kızılkaya H., rocky places, 50 m, 08.04.2007, Yıldızıtugay 1523.

Ir.-Tur., Th.

**T. velutina** Boiss.

Anamur Antique City, roadsides, 10 m, 17.05.2007, Yıldızıtugay 1743.

Ir.-Tur., Th.

**T. monantha** C.A.Mey. subsp. **monantha**

Anamur Antique City, stony places, 30 m, 09.04.2007, Yıldızıtugay 1531.

Ir.-Tur., Th.

**Medicago radiata** L.

Anamur Antique City, stony places, 50 m, 09.04.2008, Yıldızıtugay 1870.

Ir.-Tur., Th.

**M. orbicularis** (L.) Bart.

S of Anamur Antique City, sandy seashore, 5 m, 09.04.2007, Yıldızıtugay 1569.

Th.

**M. x varia** Martyn

S of Anamur Antique City, roadside, 10 m, 09.04.2007, Yıldızıtugay 1575.

**M. rotata** Boiss. var. **rotata**

S of Anamur Antique City, sandy seashore, 3 m, 09.04.2007, Yıldızıtugay 1568.

Th.

**M. coronata** (L.) Bart.

N of Anamur Antique City, rocky places, 40 m, 08.04.2007, Yıldızıtugay 1525.

Medit., Th.

**M. praecox** DC.

Anamur Antique City, stony places, 30 m, 09.04.2008, Yıldızıtugay 1860.

Medit., Th.

**M. minima** (L.) Bart. var. **minima**

S of Anamur Antique City, roadsides, 5 m, 09.04.2007, Yıldızıtugay 1574.

Widespread., Th.

**M. polymorpha** L. subsp. **polymorpha**

S of Anamur Antique City, roadside, 5 m, 09.04.2007, Yıldızıtugay 1591.

Th.

**M. marina** L.

Anamur Antique City, sandy seashore, 3 m, 09.04.2007, Yıldızıtugay 1573.

Ch.

**M. rigidula** (L.) All. var. **rigidula**

Kızılkaya H., stony places, 50 m, 09.04.2008, Yıldızıtugay 1890.

Widespread, Th.

**Lotus ornithopodioides** L.

Anamur Antique City, rocky area, 40 m, 08.04.2007, Yıldızıtugay 1519.

Medit., Hcrp.

**Hymenocarpus circinnatus** (L.) Savi

N of Anamur Antique City, rocky places, 50 m, 08.04.2007, Yıldızıtugay 1529.

Medit. Th.

**Anthyllis tetraphylla** L.

N of Anamur Antique City, stony places, 40 m, 09.04.2008, Yıldızıtugay 1873.

Medit., Th.

**Coronilla cretica** L.

Kızılkaya H., rocky area, 60 m, 08.04.2007, Yıldızıtugay 1537.

Medit., Th.

**C. parviflora** Willd.

Anamur Antique City, stony places, 40 m, 09.04.2008, Yıldızıtugay 1847.

Medit., Th.

**C. grandiflora** Boiss.

Kızılkaya H., rocky places, 60 m, 08.04.2007, Yıldızıtugay 1526; Anamur Antique City, stony places, 30 m, 09.04.2008, Yıldızıtugay 1850.

Endemic, LC, Medit., Hcrp.

**Scorpiurus muricatus** L. var. **subvillosus** (L.) Fiori

Anamur Antique City, stony places, 30 m, 09.04.2008, Yıldızıtugay 1871.

Th.

**Onobrychis gracilis** Besser

Anamur Antique City, roadsides, 10 m, 09.04.2008, Yıldızıtugay 1781.

Hcrp.

**O. montana** DC. subsp. **cadmea** (Boiss.) P.W.Ball

Anamur Antique City, stony places, 20 m, 17.05.2007, Yıldızıtugay 1624.

Widespread, Hcrp.

**O. armena** Boiss. & Huet

Anamur Antique City, roadside, 10 m, 09.04.2007, Yıldızıtugay 1567.

Endemic, LC, Widespread, Hcrp.

**ROSACEAE****Rubus sanctus** Schreb.

Anamur Antique City, roadside, 10 m, 10.08.2008, Yıldızıtugay 2062.

Widespread, Ch.

**Sarcopoterium spinosum** (L.) Spach

N of Anamur Antique City, rocky places, 50 m, 08.04.2007, Yıldızıtugay 1545.

Medit., Ch.

**Sanguisorba minor** Scop. subsp. **muricata** (Spach)

Briq.

Anamur Antique City, roadsides, 10 m, 07.04.2007, Yıldızıtugay 1481.

Widespread., Hcrp.

**MYRTACEAE****Myrtus communis** L. subsp. **communis**

S of Anamur Antique City, seashore, 5 m, 28.10.2008, Yıldızıtugay 2097.

Ph.

**Eucalyptus camaldulensis** Dehnh.

Anamur Antique City, roadside, 10 m, 06.04.2007, Yıldızıtugay 1426.

Ph.

**PUNICACEAE****Punica granatum** L.

Anamur Antique City, field edge, 10 m, 17.06.2008, Yıldızıtugay 1994.

Ph.

**LYTHRACEAE****Lythrum junceum** Banks. & Sol.

Anamur Antique City, roadside, 10 m, 17.05.2007, Yıldızıtugay 1752.

Medit., Hcrp.

**CRASSULACEAE****Sedum sediforme** (Jacq.) Pau

Kızılkaya H., rocky places, 70 m, 18.06.2008, Yıldızıtugay 2048.

Medit., Ch.

**S. laconicum** Boiss. & Heldr.

N of Anamur Antique City, stony places, 60 m, 09.04.2008, Yıldızıtugay 1883.

Medit., Ch.

**S. pallidum** Bieb. subsp. **pallidum**

Anamur Antique City, rocky places, 50 m, 09.04.2008, Yıldızıtugay 1897.

Ch.

**APIACEAE****Eryngium maritimum** L.

S of Anamur Antique City, sandy seashore, 3 m, 17.05.2007, Yıldızıtugay 1740.

Hcrp.

**Lagoecia cuminoides** L.

Anamur Antique City, stony places, 40 m, 17.05.2007, Yıldızıtugay 1609.

Medit., Th.

**Scandix balansae** Reut. ex Boiss.

Anamur Antique City, sandy seashore, 3 m, 04.03.2008, Yıldızıtugay 1787.

Endemic, VU, Th.

**S. australis** L. subsp. **australis**

Anamur Antique City, stony places, 40 m, 09.04.2008, Yıldızıtugay 1858.

Th.

**Smyrniopsis aucheri** Boiss.

N of Anamur Antique City, rocky places, 60 m, 08.04.2007, Yıldızıtugay 1516.

Hcrp.

**Bupleurum rotundifolium** L.

Anamur Antique City, roadsides, 10 m, 17.05.2007, Yıldızıtugay 1667.

Th.



**B. croceum** Fenzl

Anamur Antique City, roadsides, 5 m, 17.05.2007, Yıldızıtugay 1722.

Ir.-Tur., Th.

**Trinia glauca** (L.) Dum.

Kızılkaya H., in macchie vegetation, 40 m, 18.06.2008, Yıldızıtugay 2045.

Hcrp.

**Ferula communis** L. subsp. **communis**

Kızılkaya H., stony places, 60 m, 07.04.2007, Yıldızıtugay 1514.

Medit., Hcrp.

**Tordylium aegaeum** Runem.

Kızılkaya H., rocky area, 50 m, 08.04.2007, Yıldızıtugay 1517.

Medit., Th.

**T. officinale** L.

N of Anamur Antique City, stony places, 40 m, 09.04.2008, Yıldızıtugay 1887.

Th.

**Ainsworthia trachycarpa** Boiss.

Anamur Antique City, stony places, 30 m, 06.04.2007, Yıldızıtugay 1430.

Medit., Th.

**Torilis arvensis** (Huds.) Link subsp. **elongata** (Hoffm. & Link) Cannon.

N of Anamur Antique City, stony place, 50 m, 18.06.2008, Yıldızıtugay 2044.

Medit., Th.

**T. tenella** (Delile) Reichb.

Anamur Antique City, stony places, 30 m, 08.04.2007, Yıldızıtugay 1565.

Th.

**Turgenia latifolia** (L.) Hoffm.

Anamur Antique City, roadside, 10 m, 17.05.2007, Yıldızıtugay 1745.

Widespread, Th.

**Daucus carota** L.

Anamur Antique City, roadside, 10 m, 10.08.2008, Yıldızıtugay 2060.

Hcrp.

**VALERIANACEAE****Valeriana dioscoridis** Sm.

Anamur Antique City, rocky places, 60 m, 01.03.2007, Yıldızıtugay 1391; Kızılkaya H., rocky places, 50 m, 01.02.2008, Yıldızıtugay 1759.

Medit., Hcrp.

**Valerianella coronata** (L.) DC.

N of Anamur Antique City, stony places, 50 m, 09.04.2008, Yıldızıtugay 1856.

Widespread, Th.

**DIPSACACEAE****Pterocephalus plumosus** (L.) Coult.

Anamur Antique City, stony places, 30 m, 17.05.2008, Yıldızıtugay 1916.

Widespread, Th.

**ASTERACEAE**

**Xanthium strumarium** L. subsp. **cavanillesii** (Schouw) D.Löve & Danser

Anamur Antique City, sandy seashore, 3 m, 17.05.2007, Yıldızıtugay 1750.

Th.

**Pallenis spinosa** (L.) Cass.

N of Anamur Antique City, stony places, 40 m, 18.06.2008, Yıldızıtugay 2039.

Medit., Th.

**Inula graveolens** (L.) Desf.

S of Anamur Antique City, sandy seashore, 3 m, 28.10.2008, Yıldızıtugay 2098.

Medit., Th.

**I. viscosa** (L.) Aiton

Anamur Antique City, stony places, 40 m, 28.10.2008, Yıldızıtugay 2083.

Medit., Ch.

**Phagnalon graecum** Boiss.

Anamur Antique City, stony places, 10 m, 01.03.2007, Yıldızıtugay 1376.

Medit., Ch.

**Filago eriocephala** Guss.

N of Anamur Antique City, stony places, 20 m, 17.05.2007, Yıldızıtugay 1647.

Th.

**Erigeron acer** L. **acer**

Anamur Antique City, field edge, 10 m, 09.04.2008, Yıldızıtugay 1848.

Widespread, Hcrp.

**Bellis sylvestris** Cyr.

N of Anamur Antique City, stony places, 50 m, 01.02.2008, Yıldızıtugay 1764.

Medit., Hcrp.

**Senecio vernalis** Waldst. & Kit.

Anamur Antique City, stony places, 40 m, 09.04.2008, Yıldızıtugay 1879.

Widespread, Th.

**Calendula officinalis** L.

Anamur Antique City, stony places, 30 m, 09.04.2008, Yıldızıtugay 1848.

Th.

**Anthemis cotula** L.

Anamur Antique City, sandy seashore, 3 m, 17.05.2007, Yıldızıtugay 1741.

Widespread, Th.

**Achillea wilhelmsii** C.Koch

Anamur Antique City, roadsides, 10 m, 18.05.2008, Yıldızıtugay 1969.

Ir.-Tur., Hcrp.

**Chrysanthemum segetum** L.

Anamur Antique City, stony places, 50 m, 01.03.2007, Yıldızıtugay 1344.

Medit., Th.

**Matricaria macrotis** Rech.fil.

Anamur Antique City, stony places, 20 m, 01.03.2007, Yıldızıtugay 1375.

Th.

**Gundelia tournefortii** L. var. **tournefortii**

Anamur Antique City, stony places, 30 m, 09.04.2008, Yıldızıtugay 1843.

Hcrp.

**Cynara cardunculus** L.

Anamur Antique City, roadside, 10 m, 09.04.2007, Yıldızıtugay 1598.

Hcrp.

**Onopordum acanthium** L.

Anamur Antique City, stony places, 40 m, 09.04.2008, Yıldızıtugay 1840.

Hcrp.

**Cirsium vulgare** (Savi) Ten.

Anamur Antique City, stony places, 30 m, 09.04.2008, Yıldızıtugay 1855.

Hcrp.

**C. arvense** (L.) Scop. subsp. **vestitum** (Wimm. & Grab.) Petr.

Anamur Antique City, field edge, 10 m, 17.05.2007, Yıldızıtugay 1659.

Hcrp.

**Lamyropsis cynaroides** (Lam.) Dittrich

N of Anamur Antique City, rocky places, 30 m, 08.04.2007, Yıldızıtugay 1556; Anamur Antique City, stony places, 40 m, 17.05.2008, Yıldızıtugay 1915.

Medit., Hcrp.

**Carduus nutans** L. subsp. **nutans** sensu lato

Kızılkaya H., stony places, 35 m, 17.05.2007, Yıldızıtugay 1737.

Widespread, Hcrp.

**Tyrimnus leucographus** (L.) Cass.

Anamur Antique City, roadside, 10 m, 09.04.2007, Yıldızıtugay 1589.

Medit., Hcrp.

**Jurinea consanguinea** DC.

Anamur Antique City, stony places, 25 m, 18.06.2008, Yıldızıtugay 2106.

Hcrp.

**Centaurea solstitialis** L. subsp. **solstitialis**

Anamur Antique City, roadsides, 10 m, 01.07.2007, Yıldızıtugay 1756.

Widespread, Th.

**Xeranthemum annuum** L.

Anamur Antique City, roadside, 10 m, 01.07.2007, Yıldızıtugay 1755.

Widespread, Th.

**Cichorium glandulosum** Boiss. & Huet.

Anamur Antique City, roadside, 10 m, 17.05.2007, Yıldızıtugay 1628.

Ir.-Tur., Hcrp.

**Koelpinia linearis** Pallas

N of Anamur Antique City, stony places, 50 m, 09.04.2008, Yıldızıtugay 1876.

Th.

**Scorzonera kotschy** Boiss.

Anamur Antique City, stony places, 30 m, 09.04.2008, Yıldızıtugay 1844.

Ir.-Tur., Hcrp.

**Tragopogon longirostris** Bisch. ex Sch.Bip. var. **longirostris**

Anamur Antique City, stony places, 50 m, 17.05.2008, Yıldızıtugay 1911.

Hcrp.

**Picris pauciflora** Willd.

Anamur Antique City, roadsides, 10 m, 17.05.2007, Yıldızıtugay 1746.

Medit., Hcrp.

**P. cyprica** Lack

Anamur Antique City, stony places, 40 m, 07.04.2007, Yıldızıtugay 1500.

Medit., Th.

**Urospermum picroides** (L.) F.W.Schmidt

N of Anamur Antique City, stony places, 50 m, 09.04.2008, Yıldızıtugay 1854.

Medit., Th.

**Sonchus asper** (L.) Hill subsp. **glaucescens** (Jordan) Ball

Anamur Antique City, field edge, 10 m, 01.03.2007, Yıldızıtugay 1365.

Th.

**Lactuca serriola** L.

Anamur Antique City, field edge, 540 m, 18.08.2008, Yıldızıtugay 2075a.

Th.

**Taraxacum officinale** Weber

Anamur Antique City, meadows, 10 m, 07.04.2008, Yıldızıtugay 1815.

Hcrp.

**Chondrilla juncea** L. var. **juncea**

Anamur Antique City, roadsides, 10 m, 18.06.2008, Yıldızıtugay 2065.

Widespread, Hcrp.

**Crepis reuterana** Boiss. subsp. **reuterana**

Anamur Antique City, stony places, 40 m, 06.04.2007, Yıldızıtugay 1464.

Medit., Hcrp.

**C. sancta** (L.) Bab.

Anamur Antique City, roadsides, 10 m, 01.03.2007, Yıldızıtugay 1362.

Widespread, Th.

**C. micrantha** Czer.

Anamur Antique City, roadsides, 10 m, 09.04.2007, Yıldızıtugay 1587.

Widespread, Th.

**C. neglecta** L.

Anamur Antique City, stony places, 50 m, 17.05.2008, Yıldızıtugay 1902.

Th.

**CAMPANULACEAE**

**Campanula drabifolia** Sm.

N of Anamur Antique City, stony places, 40 m, 09.04.2008, Yıldızıtugay 1845.

Th.

**Michauxia campanuloides** L'Herit ex Aiton

Anamur Antique City, stony places, 30 m, 18.06.2008, Yıldızıtugay 2055.

Medit., Hcrp.

**Legousia speculum-veneris** (L.) Chaix

Anamur Antique City, stony places, 30 m, 06.04.2007, Yıldızıtugay 1468.

Medit., Th.

**ERICACEAE**

**Erica manipuliflora** Salisb.

Kızılkaya H., stony places, 50 m, 07.04.2007, Yıldızıtugay 1509.  
Medit., Ch.

#### PRIMULACEAE

##### **Androsace maxima** L.

N of Anamur Antique City, stony places, 50 m, 05.04.2007, Yıldızıtugay 1411.  
Th.

##### **Anagallis arvensis** L. var. **arvensis**

Anamur Antique City, sandy seashore, 3 m, 09.04.2007, Yıldızıtugay 1593.  
Th.

##### **A. arvensis** L. var. **caerulea** (L.) Gouan.

Kızılkaya H., stony places, 50 m, 09.04.2008, Yıldızıtugay 1877.  
Th.

#### SYTRACACEAE

##### **Sytrax officinalis** L.

Kızılkaya H., stony places, 50 m, 08.04.2007, Yıldızıtugay 1528.  
Ph.

#### OLEACEAE

##### **Jasminum fruticans** L.

N of Anamur Antique City, stony places, 60 m, 08.04.2007, Yıldızıtugay 1521.  
Medit., Ph.

##### **Olea europaea** L. subsp. **europaea**

Anamur Antique City, stony places, 30 m, 08.04.2007, Yıldızıtugay 1520.  
Ph.

#### APOCYNACEAE

##### **Nerium oleander** L.

Anamur Antique City, roadsides, 10 m, 17.05.2007, Yıldızıtugay 1751.  
Medit., Ph.

#### GENTIANACEAE

##### **Centaurium erythraea** Rafn subsp. **turcicum** (Velen.)

Melderis  
Anamur Antique City, stony places, 40 m, 09.04.2008, Yıldızıtugay 1891.  
Widespread, Th.

#### CONVOLVULACEAE

##### **Convolvulus arvensis** L.

Anamur Antique City, roadsides, 10 m, 18.05.2008, Yıldızıtugay 1922.  
Th.

#### CUSCUTACEAE

##### **Cuscuta planiflora** Ten.

Anamur Antique City, on *Vicia* sp., 10 m, 09.04.2008, Yıldızıtugay 1895.  
Vp.

#### BORAGINACEAE

##### **Heliotropium europaeum** L.

Anamur Antique City, stony places, 20 m, 18.06.2008, Yıldızıtugay 2042.  
Th.

##### **H. dolosum** De Not.

Anamur Antique City, roadsides, 10 m, 17.05.2007, Yıldızıtugay 1606.  
Th.

##### **Myosotis litoralis** Steven ex Bieb.

Anamur Antique City, stony places, 40 m, 07.04.2007, Yıldızıtugay 1499.  
Medit., Th.

##### **Cynoglossum creticum** Mill.

N of Anamur Antique City, rocky places, 30 m, 08.04.2007, Yıldızıtugay 1547.  
Hcrp.

##### **Lithospermum officinale** L.

Anamur Antique City, stony places, 30 m, 06.04.2007, Yıldızıtugay 1450.  
Euro-Sib., Hcrp.

##### **Buglossoides arvensis** (L.) Johnst.

Kızılkaya H., stony places, 60 m, 07.04.2008, Yıldızıtugay 1792.  
Widespread, Th.

##### **Echium plantagineum** L.

N of Anamur Antique City, stony places, 50 m, 06.04.2007, Yıldızıtugay 1424.  
Medit., Hcrp.

##### **Onosma isauricum** Boiss. & Heldr.

Kızılkaya H., stony places, 50 m, 04.03.2008, Yıldızıtugay 1773.  
Endemic, LC, Ir.-Tur., Hcrp.

##### **Anchusa undulata** L. subsp. **hybrida** (Ten.) Cout.

Anamur Antique City, seashore, 3 m, 04.03.2008, Yıldızıtugay 1786.  
Medit., Hcrp.

##### **A. aegyptiaca** (L.) DC.

N of Anamur Antique City, stony places, 50 m, 09.04.2008, Yıldızıtugay 1842.  
Th.

##### **A. aucheri** DC.

Anamur Antique City, rocky places, 40 m, 08.04.2007, Yıldızıtugay 1548.  
Th.

##### **Alkanna aucherana** A.DC.

N of Anamur Antique City, rocky places, 20 m, 01.03.2007, Yıldızıtugay 1377.  
Endemic, LC, Medit., Hcrp.

#### SOLANACEAE

##### **Solanum nigrum** L. subsp. **nigrum**

Anamur Antique City, stony places, 20 m, 01.03.2007, Yıldızıtugay 1372.  
Th.

##### **Atropa belladonna** L.

Anamur Antique City, roadsides, 10 m, 17.05.2007, Yıldızıtugay 1753.  
Euro-Sib., Hcrp.

##### **Madragora autumnalis** Bertol.

Anamur Antique City, stony places, 20 m, 04.03.2008, Yıldızıtugay 1778.  
Medit., Hcrp.

##### **Hyoscyamus aureus** L.

Anamur Antique City, stony places, 20 m, 01.03.2007, Yıldızıtugay 1373.  
Medit., Hcrp.

#### SCROPHULARIACEAE

##### **Verbascum levanticum** I.K.Ferguson

Anamur Antique City, stony places, 20 m, 08.04.2007, Yıldızıtugay 1566.

Medit., Hcrp.

**V. sinuatum** L. var. **sinuatum**

Anamur Antique City, stony places, 15 m, 17.05.2007, Yıldızıtugay 1753.

Medit., Hcrp.

**Scrophularia peregrina** L.

Anamur Antique City, field edge, 10 m, 01.03.2007, Yıldızıtugay 1325.

Medit., Hcrp.

**Antirrhinum majus** L.

Anamur Antique City, stony places, 40 m, 17.05.2008, Yıldızıtugay 1899.

Hcrp.

**Misopates orontium** (L.) Rafin.

N of Anamur Antique City, stony places, 50 m, 17.05.2008, Yıldızıtugay 1898.

Th.

**Linaria chalepensis** (L.) Mill. var. **chalepensis**

Anamur Antique City, meadows, 10 m, 06.04.2007, Yıldızıtugay 1448.

Medit., Th.

**L. simplex** (Willd.) DC.

Anamur Antique City, roadsides, 10 m, 07.04.2008, Yıldızıtugay 1802.

Medit., Th.

**Cymbalaria longipes** (Boiss. & Heldr.) Cheval

W of Anamur Antique City, rocky places, 40 m, 01.03.2007, Yıldızıtugay 1398.

Medit., Th.

**Veronica balansae** Stroh

Anamur Antique City, stony places, 50 m, 01.03.2007, Yıldızıtugay 1341.

Endemic, LC, Medit., Th.

**V. cymbalaria** Bodard

Anamur Antique City, stony places, 40 m, 09.04.2008, Yıldızıtugay 1886.

Medit., Th.

**V. anagallis-aquatica** L.

Anamur Antique City, damp places, 10 m, 06.04.2007, Yıldızıtugay 1465.

Widespread, Hcrp.

**Parentucellia viscosa** (L.) Caruel

Anamur Antique City, roadsides, 10 m, 09.04.2007, Yıldızıtugay 1579.

Medit., Vp.

**Bellardia trixago** (L.) All.

Anamur Antique City, roadsides, 10 m, 09.04.2007, Yıldızıtugay 1579.

Vp.

**OROBANCHACEAE**

**Orobanche ramosa** L.

Kızılkaya H., stony places, 70 m, 09.04.2008, Yıldızıtugay 1837.

Vp.

**O. anatolica** Boiss. & Reut.

Anamur Antique City, stony places, 50 m, 09.04.2008, Yıldızıtugay 1838.

Vp.

**VERBENACEAE**

**Verbena supina** L.

Anamur Antique City, roadsides, 10 m, 09.04.2007, Yıldızıtugay 1570.

Hcrp.

**Vitex agnus-castus** L.

Anamur Antique City, stony places, 50 m, 18.08.2008, Yıldızıtugay 2073.

Medit., Ph.

**LAMIACEAE**

**Ajuga chamaepitys** (L.) Schreb. subsp. **cuneatifolia** (Stapf) P.H.Davis

Anamur Antique City, stony places, 50 m, 07.04.2007, Yıldızıtugay 1491.

Ch.

**Teucrium chamaedrys** L. subsp. **chamaedrys**

Anamur Antique City, stony places, 60 m, 17.05.2008, Yıldızıtugay 1908.

Euro-Sib., Ch.

**Rosmarinus officinalis** L.

W of Anamur Antique City, roadsides, 10 m, 01.03.2007, Yıldızıtugay 1394.

Medit., Ch.

**Lavandula stoechas** L. subsp. **stoechas**

Anamur Antique City, stony places, 20 m, 07.04.2007, Yıldızıtugay 1480.

Medit., Ch.

**Phlomis lunariifolia** Sm.

Anamur Antique City, stony places, 30 m, 01.03.2007, Yıldızıtugay 1383.

Medit., Ch.

**P. grandiflora** H.S. Thomps. subsp. **grandiflora**

Kızılkaya H., stony places, 50 m, 17.05.2008, Yıldızıtugay 1910.

Endemic, Medit., Ch.

**Lamium amplexicaule** L.

Anamur Antique City, stony places, 30 m, 01.03.2007, Yıldızıtugay 1311.

Euro-Sib., Th.

**Ballota nigra** L. subsp. **anatolica** P.H.Davis

Anamur Antique City, stony places, 50 m, 17.05.2008, Yıldızıtugay 1909.

Endemic, LC, Ir.-Tur., Hcrp.

**Stachys arvensis** (L.) L.

Anamur Antique City, stony places, 50 m, 09.04.2008, Yıldızıtugay 1857.

Th.

**Nepeta phyllocllamys** P.H.Davis

Anamur Antique City, stony places, 30 m, 17.05.2008, Yıldızıtugay 1912.

Endemic, VU, Medit., Hcrp.

**Prunella vulgaris** L.

Anamur Antique City, stony places, 40 m, 06.04.2007, Yıldızıtugay 1477.

Euro-Sib., Hcrp.

**Satureja thymbra** L.

E of Anamur Antique City, rocky places, 40 m, 08.04.2007, Yıldızıtugay 1555.

Medit., Ch.

**Micromeria myrtifolia** Boiss. & Hohen.

W of Anamur Antique City, stony places, 60 m, 17.05.2008, Yıldızıtugay 1901.

Medit., Ch.

**Mentha spicata** L. subsp. **tomentosa** (Briq.) Harley  
Anamur Antique City, damp places, 10 m, 18.05.2008, Yıldızıtugay 1940.

Hcrp.

**Salvia viridis** L.

Anamur Antique City, stony places, 30 m, 09.04.2008, Yıldızıtugay 1846.

Medit., Th.

#### PLUMBAGINACEAE

**Plumbago europaea** L.

W of Anamur Antique City, stony places, 40 m, 28.10.2008, Yıldızıtugay 2080.

Euro-Sib., Hcrp.

**Limonium sinuatum** (L.) Mill.

S of Anamur Antique City, stony places, 5 m, 08.04.2007, Yıldızıtugay 1560.

Medit., Hcrp.

**L. angustifolium** (Tausch) Turritt

Anamur Antique City, stony places, 40 m, 01.02.2008, Yıldızıtugay 1762.

Medit., Hcrp.

#### PLANTAGINACEAE

**Plantago atrata** Hoppe

Anamur Antique City, rocky places, 50 m, 08.04.2007, Yıldızıtugay 1559.

Hcrp.

**P. lanceolata** L.

Anamur Antique City, meadows, 20 m, 08.04.2007, Yıldızıtugay 1559a.

Hcrp.

**P. cretica** L.

N of Anamur Antique City, stony places, 30 m, 09.04.2008, Yıldızıtugay 1874.

Medit., Th.

**P. afra** L.

Anamur Antique City, stony places, 40 m, 09.04.2008, Yıldızıtugay 1864.

Th.

#### THYMELAEACEAE

**Daphne sericea** Vahl

Anamur Antique City, rocky places, 30 m, 01.02.2008, Yıldızıtugay 1758.

Medit., Ch.

**D. gnidioides** Jaub. & Spach

Kızılkaya H., stony places, 60 m, 28.10.2008, Yıldızıtugay 2084.

Medit., Ch.

#### ELAEAGNACEAE

**Elaeagnus angustifolia** L.

Anamur Antique City, roadsides, 10 m, 28.10.2008, Yıldızıtugay 2086.

Ph.

#### LAURACEAE

**Lauris nobilis** L.

Anamur Antique City, rocky places, 40 m, 08.04.2007, Yıldızıtugay 1535.

Medit., Ph.

#### LORANTHACEAE

**Viscum album** L. subsp. **album**

Anamur Antique City, on *Prunus*, 20 m, 08.04.2007, Yıldızıtugay 1531.

Vp.

#### RAFFLESIAEAE

**Cytinus hypocistis** L. subsp. **orientalis** Wettst.

W of Anamur Antique City, on *Cistus*, 40 m, 07.04.2007, Yıldızıtugay 1506.

Medit., Vp.

#### EUPHORBIACEAE

**Euphorbia peplis** L.

S of Anamur Antique City, sandy seashore, 3 m, 28.10.2008, Yıldızıtugay 2099.

Medit., Th.

**E. peplis** L. var. **peplis**

Anamur Antique City, stony places, 50 m, 08.04.2007, Yıldızıtugay 1533.

Th.

**E. falcata** L. subsp. **falcata** var. **falcata**

Anamur Antique City, roadsides, 10 m, 01.03.2007, Yıldızıtugay 1358.

Th.

**E. virgata** Waldst. & Kit.

Anamur Antique City, stony places, 60 m, 17.06.2008, Yıldızıtugay 1985.

Hcrp.

#### URTICACEAE

**Parietaria lusitanica** L.

Kızılkaya H., rocky places, 70 m, 07.04.2007, Yıldızıtugay 1495.

Medit., Ch.

#### MORACEAE

**Morus alba** L.

Anamur Antique City, roadsides, 10 m, 18.06.2008, Yıldızıtugay 2103.

Ph.

**M. nigra** L.

Anamur Antique City, field edge, 10 m, 18.06.2008, Yıldızıtugay 2104.

Ph.

#### PLATANACEAE

**Platanus orientalis** L.

Anamur Antique City, roadsides, 10 m, 18.06.2008, Yıldızıtugay 2105.

Ph.

#### FAGACEAE

**Quercus coccifera** L.

W of Anamur Antique City, stony places, 30 m, 18.06.2008, Yıldızıtugay 2054.

Medit., Ph.

#### SALICACEAE

**Salix alba** L.

Anamur Antique City, roadsides, 10 m, 18.06.2008, Yıldızıtugay 2106.

Ph.

**Populus nigra** L. subsp. **nigra**

Anamur Antique City, field edge, 10 m, 18.06.2008, Yıldızıtugay 2107.

Ph.

**RUBIACEAE*****Putoria calabrica*** (L.fil.) DC.

Anamur Antique City, stony places, 40 m, 09.04.2008, Yıldızıtugay 1893.  
Medit., Ch.

***Galium canum*** Req. ex DC. subsp. **canum**

Kızılkaya H., stony places, 60 m, 17.05.2008, Yıldızıtugay 1906.  
Medit., Hcrp.

***G. spurium*** L. subsp. **ibanicum** (Boiss. & Hausskn. ex Boiss.) Schrend.

Anamur Antique City, stony places, 30 m, 17.05.2008, Yıldızıtugay 1905.  
Ir.-Tur., Hcrp.

***G. setaceum*** Lam.

Kızılkaya H., stony places, 40 m, 17.05.2008, Yıldızıtugay 1904.  
Th.

***G. aparine*** L.

Anamur Antique City, field edge, 10 m, 09.04.2007, Yıldızıtugay 1571.  
Th.

***G. bracteatum*** Boiss.

Anamur Antique City, stony places, 40 m, 09.04.2008, Yıldızıtugay 1894.  
Ir.-Tur., Th.

***Valantia muralis*** L.

N of Anamur Antique City, stony places, 50 m, 09.04.2008, Yıldızıtugay 1865.  
Medit., Th.

**MONOCOTYLEDONEAE****ARACEAE*****Arisarum vulgare*** Targ. –Tazz subsp. **vulgare**

S of Anamur Antique City, stony places, 10 m, 01.03.2007, Yıldızıtugay 1381.  
Medit., Crp.

**LILIACEAE*****Asparagus acutifolius*** L.

N of Anamur Antique City, stony places, 40 m, 01.03.2007, Yıldızıtugay 1382.  
Medit., Crp.

***Allium neapolitanum*** Cyr.

S of Anamur Antique City, stony places, 10 m, 04.03.2008, Yıldızıtugay 1775.  
Medit., Crp.

***A. paniculatum*** L. subsp. **paniculatum**

Anamur Antique City, stony places, 40 m, 18.06.2008, Yıldızıtugay 2041.  
Medit., Crp.

***A. bassitense*** Thieb.

Kızılkaya H., stony places, 40 m, 17.05.2008, Yıldızıtugay 1906.  
Medit., Crp.

***Urginea maritima*** (L.) Baker

N of Anamur Antique City, stony places, 30 m, 18.08.2008, Yıldızıtugay 2078.  
Medit., Crp.

***Scilla autumnalis*** L.

Anamur Antique City, stony places, 10 m, 28.10.2008, Yıldızıtugay 2082.

Medit., Crp.

***Ornithogalum narbonense*** L.

Anamur Antique City, stony places, 20 m, 17.05.2008, Yıldızıtugay 1919.  
Medit., Crp.

***Muscari comosum*** (L.) Mill.

S of Anamur Antique City, stony places, 10 m, 08.04.2007, Yıldızıtugay 1532.  
Medit., Crp.

***Gagea granatellii*** (Parl.) Parl.

Kızılkaya H., rocky places, 50 m, 04.03.2008, Yıldızıtugay 1769.  
Medit., Crp.

**SMILACACEAE*****Smilax aspera*** L.

S of Anamur Antique City, stony places, 5 m, 07.04.2007, Yıldızıtugay 1507.  
Medit., Ch.

**AMARYLLIDACEAE*****Narcissus tazetta*** L. subsp. **tazetta**

Anamur Antique City, roadsides, 10 m, 01.02.2008, Yıldızıtugay 1760.  
Crp.

**IRIDACEAE*****Iris pseudacorus*** L.

W of Anamur Antique City, wetlands, 5 m, 17.05.2007, Yıldızıtugay 1839.  
Crp.

***Romulea ramiflora*** Ten. subsp. **ramiflora**

Kızılkaya H., rocky places, 50 m, 01.02.2008, Yıldızıtugay 1763-1968.  
Medit., Crp.

***Gladiolus anatolicus*** (Boiss.) Stapf

Kızılkaya H., stony places, 50 m, 09.04.2008, Yıldızıtugay 1875.  
Endemic, LC, Medit., Crp.

**ORCHIDACEAE*****Spiranthes spiralis*** (L.) Chevall.

N of Anamur Antique City, in macchie vegetation, 40 m, 28.10.2008, Yıldızıtugay 2096.  
Medit., Crp.

***Neotinea maculata*** (Desf.) Stearn

Kızılkaya H., in macchie vegetation, 50 m, 07.04.2007, Yıldızıtugay 1486.  
Medit., Crp.

***Orchis anatolica*** Boiss.

Anamur Antique City, in macchie vegetation, 50 m, 07.04.2008, Yıldızıtugay 1810.  
Medit., Crp.

**JUNCACEAE*****Juncus acutus*** L.

Anamur Antique City, roadsides, 10 m, 09.04.2007, Yıldızıtugay 1581.  
Crp.

**CYPERACEAE*****Cyperus rotundus*** L.

S of Anamur Antique City, roadsides, 10 m, 08.04.2007, Yıldızıtugay 1578.  
Crp.

***C. capitatus*** Vandelli

S of Anamur Antique City, seashore, 3 m, 09.04.2007, Yıldızıtugay 1583.

Crp.

#### POACEAE

**Brachypodium pinnatum** (L.) P. Beauv.

Kızılkaya H., stony places, 60 m, 07.04.2007, Yıldızıtugay 1501.

Euro-Sib., Hcrp.

**Agropyron cristatum** (L.) Gaertner subsp. **pectinatum** var. **pectinatum**

Anamur Antique City, roadside, 10 m, 17.05.2007, Yıldızıtugay 1749.

Hcrp.

**Elymus tauri** (Boiss. & Bal.) Melderis

Anamur Antique City, seashore, 3 m, 09.04.2007, Yıldızıtugay 1585.

Ir.-Tur., Hcrp.

**Aegilops umbellulata** Zhuk. subsp. **umbellulata**

Kızılkaya H., rocky places, 50 m, 08.04.2007, Yıldızıtugay 1561.

Ir.-Tur., Th.

**Hordeum murinum** L. subsp. **glaucum** (Steud.)

Tzvelev

W of Anamur Antique City, roadsides, 20 m, 18.05.2008, Yıldızıtugay 1931.

Th.

**Taeniatherum caput-medusae** (L.) Nevski subsp. **crinitum** (Schreb.) Melderis

Kızılkaya H., stony places, 60 m, 17.05.2007, Yıldızıtugay 1635.

Ir.-Tur., Th.

**Bromus japonicus** Thunb. subsp. **japonicus**

Kızılkaya H., stony places, 50 m, 17.05.2008, Yıldızıtugay 1903.

Th.

**B. scoparius** L.

S of Anamur Antique City, roadside, 10 m, 09.04.2007, Yıldızıtugay 1572.

Th.

**B. tectorum** L.

Kızılkaya H., stony places, 40 m, 09.04.2008, Yıldızıtugay 1881.

Widespread, Th.

**Avena barbata** Pott ex Link subsp. **barbata**

Anamur Antique City, stony places, 40 m, 06.04.2007, Yıldızıtugay 1437.

Medit., Th.

**Phragmites australis** (Cav.) Trin ex Steud.

Anamur Antique City, sandy seashore, 5 m, 09.04.2007, Yıldızıtugay 1580.

Euro-Sib., Crp.

**Rostraria cristata** (L.) Tzvelev var. **cristata**

Anamur Antique City, rocky places, 40 m, 08.04.2007, Yıldızıtugay 1552.

Widespread, Th.

**Deschampsia caespitosa** (L.) P. Beauv.

Anamur Antique City, stony places, 30 m, 09.04.2008, Yıldızıtugay 1896.

Widespread, Th.

**Aira elegantissima** Schur subsp. **elegantissima**

Anamur Antique City, stony places, 60 m, 07.04.2007, Yıldızıtugay 1513.

Medit., Th.

**Polypogon monspeliensis** (L.) Desf.

S of Anamur Antique City, sandy seashore, 3 m, 09.04.2007, Yıldızıtugay 1595.

Widespread, Th.

**Lagurus ovatus** L.

Anamur Antique City, rocky places, 40 m, 08.04.2007, Yıldızıtugay 1546.

Medit., Th.

**Phleum pratense** L.

Anamur Antique City, sandy seashore, 5 m, 17.05.2007, Yıldızıtugay 1736.

Euro-Sib., Th.

**Catapodium rigidum** (L.) C.E. Hubbard ex Dony subsp. **rigidum** var. **rigidum**

Anamur Antique City, stony places, 40 m, 09.04.2008, Yıldızıtugay 1859.

Widespread, Th.

**Poa bulbosa** L.

Anamur Antique City, roadsides, 10 m, 17.05.2007, Yıldızıtugay 1705.

Crp.

**Briza maxima** L.

Kızılkaya H., stony places, 40 m, 17.05.2007, Yıldızıtugay 1611.

Th.

**Melica ciliata** L. subsp. **ciliata**

Anamur Antique City, stony places, 30 m, 07.04.2007, Yıldızıtugay 1512.

Widespread, Hcrp.

**Piptatherum miliaceum** (L.) Cosson subsp. **miliaceum**

Anamur Antique City, stony places, 40 m, 17.05.2008, Yıldızıtugay 1913.

Hcrp.

**Aeluropus littoralis** (Gouan) Parl.

Anamur Antique City, stony places, 30 m, 06.04.2007, Yıldızıtugay 1469.

Hcrp.

**Cynodon dactylon** (L.) Pers. var. **dactylon**

Kızılkaya H., stony places, 30 m, 09.04.2008, Yıldızıtugay 1882.

Crp.

**Hyparrhenia hirta** (L.) Stapf

Anamur Antique City, stony places, 40 m, 09.04.2008, Yıldızıtugay 1888.

Hcrp.

#### 4. Conclusions

As a result of the examination of 510 plants specimens which were collected from the research area between 2006-2008 years, 350 taxa that belong to 260 genera and 74 families were determined from area. Two taxa of them belong to Pteridophyta and 348 taxa belong to Spermatophyta divisions. The subdivision Gymnospermae has 4 taxa and Angiospermae has 344 taxa. Of these, 298 taxa belong to the dicotyledones while the other 46 taxa belong to the monocotyledones (Table 2).

Table 2. The dispersion of taxa into large taxonomical groups

|                 | Families | Genera | Species | Subsp. | Var. | Taxa | Endemics |
|-----------------|----------|--------|---------|--------|------|------|----------|
| Pteridophyta    | 2        | 2      | 2       | -      | -    | 2    | -        |
| Spermatophyta   | 72       | 258    | 249     | 64     | 35   | 348  | 13       |
| Gymnospermae    | 3        | 4      | 3       | 1      | -    | 4    | -        |
| Angiospermae    | 69       | 254    | 246     | 63     | 35   | 344  | 13       |
| Dicotyledones   | 60       | 213    | 217     | 50     | 31   | 298  | 12       |
| Monocotyledones | 9        | 41     | 29      | 13     | 4    | 46   | 1        |
| Total           | 74       | 260    | 251     | 64     | 35   | 350  | 13       |

The largest families according to the number of species in this study are presented in Table 3. The family Asteraceae is the largest group in the study area, with 40 taxa. The family Fabaceae is the second largest group, with 35 taxa. The family Poaceae ranks third, with 25 taxa. When researches performed near the region were compared with regard to the largest three families, Flora of Akdeniz University Campus (Antalya-Turkey) (Ünal and Gökçeoğlu, 2003) is the closest study to our research (Table 4). The family Lamiaceae ranks first in Kozlar Highplateau (Everest and Rauss, 2004). In other studies Asteraceae ranks first as the family with the highest number of taxa (Ünal and Gökçeoğlu, 2003; Sümbül and Erik, 1988a-1988b-1990a-1990b; Ertuğrul et al., 2002). Furthermore, Asteraceae is the largest family and Fabaceae is the second largest family in the Flora of Turkey. In most floristic studies, Asteraceae and Fabaceae are usually the richest families. This can be explained by the diversity of vegetation types, soil construction, climatic conditions and topography (Balos & Akan, 2008). Because of these reasons taxa belonging to these families were dominant in the research area.

Table 3. The families containing the highest number of taxa

| Families         | Number of taxa | Rate (%) |
|------------------|----------------|----------|
| Asteraceae       | 40             | 11.4     |
| Fabaceae         | 35             | 10.0     |
| Poaceae          | 25             | 7.1      |
| Caryophyllaceae  | 20             | 5.7      |
| Brassicaceae     | 17             | 4.9      |
| Apiaceae         | 16             | 4.6      |
| Lamiaceae        | 15             | 4.3      |
| Scrophulariaceae | 13             | 3.7      |
| Boraginaceae     | 12             | 3.4      |
| Liliaceae        | 9              | 2.6      |
| Total            | 202            | 57.7     |

Table 4. Comparison of large families in the Anamur Antique City and neighbouring areas

| Families (%)     | Anamur | Campus | Taşeli | Kozlar | Çekiç |
|------------------|--------|--------|--------|--------|-------|
| Total Taxa       | 350    | 452    | 1053   | 272    | 607   |
| Asteraceae       | 11.4   | 15.2   | 11.4   | 11.0   | 13.8  |
| Fabaceae         | 10.0   | 10.6   | 9.9    | 8.8    | 7.9   |
| Poaceae          | 7.1    | 6.6    | 3.4    | 6.3    | 6.2   |
| Caryophyllaceae  | 5.7    | 2.7    | 5.4    | 3.3    | 6.7   |
| Brassicaceae     | 4.9    | 4.4    | 7.1    | 5.5    | 9.0   |
| Apiaceae         | 4.6    | 3.1    | 4.6    | 2.9    | 4.8   |
| Lamiaceae        | 4.3    | 6.6    | 7.2    | 12.5   | 8.7   |
| Scrophulariaceae | 3.7    | 3.1    | 3.7    | 3.7    | 4.1   |
| Boraginaceae     | 3.4    | 2.2    | 3.5    | 6.6    | 2.8   |
| Liliaceae        | 2.6    | 0.4    | 4.7    | 2.9    | 4.9   |



Anamur: The Flora of Anamur Antique City and Its Surroundings (Mersin).

Campus: The Flora of Akdeniz University Campus (Antalya-Turkey).

Taşeli: The Flora of Taşeli Plateau I, II, III, IV.

Kozlar: Investigations Flora in Mersin: Kozlar Highplateau of South Turkey.

Çekiç: The Flora of Çekiç Mountain and Gevne Valley (Hadim-Konya).

The largest families in terms of number of genera were Compositae (34), Leguminosae (24), Gramineae (23), Cruciferae (17), Labiatae (14), Umbelliferae (12), Boraginaceae (9) and Liliaceae (9). The genera containing the highest number of species in this study are listed in Table 5. The genus *Medicago* L. ranks first, with 10 taxa (2.66%). *Silene* L. ranks second, with 7 taxa (2.0%) and *Trifolium* L. ranks third, with 6 taxa (1.71%).

Table 5. The genera containing the highest number of taxa

| Genera           | Number of taxa | Rate (%) |
|------------------|----------------|----------|
| <i>Medicago</i>  | 10             | 2.86     |
| <i>Silene</i>    | 7              | 2.00     |
| <i>Trifolium</i> | 6              | 1.71     |
| <i>Vicia</i>     | 6              | 1.71     |
| <i>Galium</i>    | 5              | 1.43     |
| <i>Crepis</i>    | 4              | 1.14     |
| <i>Euphorbia</i> | 4              | 1.14     |
| <i>Plantago</i>  | 4              | 1.14     |

The species of the study area, categorised according to phytogeographical regions, can be listed as follows: Mediterranean elements 123 (35.1%), Irano-Turanian elements 17 (4.9%), Euro-Siberian elements 11 (3.1%) and the remaining 199 (56.9%) taxa are either multi-regional or unknown. The results of the studies conducted in close and similar areas, along with phytogeographical distribution, are presented in Table 6. Except from Çekiç the Mediterranean elements seem to be dominant in all area studied and the Irano-Turanian elements come second.

The total number of endemic taxa is 13 (3.7%). The proportion of endemism in the area is low (3.7%), below the average of Turkey (34%) (Ekim, 2005; Behçet et al., 2009). The endemism rate is 30 (6.6%) for Campus (Ünal & Gökçeoğlu, 2003), 213 (20.2%) for Taşeli (Sümbül and Erik, 1988a-1988b-1990a-1990b), 33 (12.0%) for Kozlar (Everest and Rauss, 2004) and 133 (21.9%) for Çekiç (Ertuğrul et al., 2002). According to the IUCN red data book categories (Ekim et al., 2000; IUCN, 2001), *Trifolium roussaeum* Boiss., *Scandix balansae* Reut. ex Boiss. and, *Nepeta phyllochlamys* P.H.Davis are VU, *Conringia grandiflora* Boiss. & Heldr., *Onobrychis armena* Boiss. & Huet, *Onosma isauricum* Boiss. & Heldr., *Alkanna aucherana* A.DC., *Veronica balansae* Strohm., *Ballota nigra* L. subsp. *anatolica* P.H.Davis and *Gladiolus anatolicus* (Boiss.) Stapf are LC.

Table 6. A comparison of the phytogeographical elements and endemism

| Research area (%)         | Anamur | Campus | Taşeli | Kozlar | Çekiç |
|---------------------------|--------|--------|--------|--------|-------|
| Total Taxa                | 350    | 452    | 1053   | 272    | 607   |
| Mediterranean             | 35.1   | 40.9   | 29.0   | 18.7   | 18.0  |
| Irano-Turanian            | 4.9    | 2.7    | 16.9   | 16.9   | 22.0  |
| Euro-Siberian             | 3.1    | 1.6    | 5.8    | 4.4    | 5.4   |
| Multi-regional or unknown | 56.9   | 54.3   | 48.3   | 60.0   | 54.6  |
| Endemism                  | 3.7    | 6.6    | 20.2   | 12.0   | 21.9  |

The life forms of the taxa according to Raunkiaer (1934) are given in Table 7; 166 (47.5%) of the taxa are therophytes, 89 (25.4%) of the taxa are hemicryptophytes, 35 (10.0%) of the taxa are phanerophytes, 27 (7.7%) of the taxa are cryptophytes, 26 (7.4%) of the taxa are chamaephytes and 7 (2.0%) of the taxa are vascular parasites. Because of the weather is dry from the beginning of may until the end of september, therophytes are dominant in the area.

Table 7. Life forms in the research area

| Life form         | Number of taxa | Rate (%) |
|-------------------|----------------|----------|
| Therophyte        | 166            | 47.5     |
| Hemicryptophyte   | 89             | 25.4     |
| Phanerophyte      | 35             | 10.0     |
| Cryptophyte       | 27             | 7.7      |
| Chamaephyte       | 26             | 7.4      |
| Vascular parasite | 7              | 2.0      |
| Total             | 350            | 100      |

The specimens of *Crambe* L. were collected during the floristic study from Anamur Antique City (Mersin). At first, we were not able to identify these specimens by using the Flora of Turkey (Hedge, 1965; Davis et al., 1988; Güner et al., 2000). After that plant specimens were identified as *Crambe hispanica* L. according to the Flora Europaea (Ball, 1964), Flora of Iranica (Hedge, 1968) and Flora Hellenica (Strid & Tan, 1997). After thorough examinations of all the specimens and the relevant literature, it was decided that this species is a new record for Turkey. *Crambe hispanica* L. (Brassicaceae) is reported as a new record for the flora of Turkey (Yıldızıtugay et al., 2009).

### Acknowledgements

We would like to thank Selçuk University (BAP, project no: 08201021) for financial support, Musa ÖZEL and Ahmet UYSAL for their helps in floristic research.

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(Received for publication 15 February 2010; The date of publication 01 December 2010)