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# The flora of Kırmızı Tuzla (Karaçoban, Erzurum/Turkey) and Bahçe Tuzlası (Malazgirt, Muş/Turkey) and their environment

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**Abstract**

This research was carried out in 2006 and 2007 in order to determine the flora of Kırmızı Tuzla (Karaçoban/Erzurum) and Bahçe Tuzlası (Malazgirt/Muş) and their environs. In the area, 1056 taxa belonging to 75 families, and 374 genera were determined. Of all the collected specimens, 70 taxa are new records for B9 square; four taxa belong to Cryptogamae and 1052 taxa belong to Phanerogamae. A total of 101 (% 9.56) endemic species were collected from the area. The distributions of the endemic and rare taxa according to the red data is a follows: 2 taxa in critically "CR", 8 taxa in endangered "EN", 30 taxa in vulnerable "VU", 16 taxa in near threatened "NT", 63 taxa in least concern "LC" and 2 taxa (*Inula discoidea* Boiss. and *Cicuta virosa* L.) in data deficient "DD". It has been categorised *Inula discoidea* Boiss. as VU instead of DD. The largest families are *Asteraceae* (170), *Brassicaceae* (97), *Fabaceae* (84). The largest genera are *Astragalus*, *Centaurea* and *Silene*.

**Key words:** Bahçe Tuzlası, Kırmızı Tuzla, Flora, Variation, Red data categories, Endemic

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## Kırmızı Tuzla (Karaçoban/Erzurum) ve Bahçe Tuzlası (Malazgirt / Muş) çevrelerinin florası

**Özet**

Bu araştırma 2006-2007 yılları arasında, Kırmızı Tuzla (Karaçoban/Erzurum) ile Bahçe Tuzlası (Malazgirt/Muş) ve çevrelerinin florasını tespit etmek üzere yapılmıştır. Araştırma bölgesinde 75 familyaya bağlı 374 cins ve 1056 tür ve türaltı takson tespit edilmiştir. Bunlardan 70 takson B9 karesi için yeni kayıt, 4 takson kriptogam grubuna ve 1052 takson ise fanerogam grubuna aittir. Alandan toplam 101 (% 9. 56) endemik takson belirlenmiştir. Endemik ve nadir olan taksonların tehlike kategorilerine dağılımları: 2 takson kritik **"**CR**",** 8 takson tehlikede "EN", 30 takson zarar görebilir "VU", 16 takson tehdit altına girebilir "NT**"**, 63 takson az endişe verici "LC" ve 2 takson (*Inula discoidea* Boiss. ve *Cicuta virosa* L.) veri yetersiz **"**DD**"** şeklindedir. *Inula discoidea* Boiss. türü veri yetersiz kategorisinden (DD) çıkarılarak zarar görebilir (VU) kategorisine konuldu. En büyük üç familya; *Asteraceae* (170), *Brassicaceae* (97) ve *Fabaceae* (84)'dir. En büyük cinsler; *Astragalus*, *Centaurea* ve *Silene*'dir.

**Anahtar kelimeler:** Bahçe Tuzlası, Kırmızı Tuzla, Flora, Varyasyon, Tehlike kategorileri, Endemik

## 1. Introduction

This research was carried out to determine the flora of Kırmızı Tuzla (Karaçoban-Erzurum) and Bahçe Tuzlası (Malazgirt-Muş) and their environs in the East Anatolia. According to the Flora of Turkey (Davis, 1965-1985; Davis et al., 1988; Güner et al., 2000), some foreign researchers, such as Aucher-Eloy, Aznavour, Bornmueller, Donner, Handel-Mazetti, Haussknecht, Huber-Morath, Kotschy, Krause, Manisadjian, Noë, Nabelek, Olivier, Rix, Schischkin, Sorger, Sosnovsky, Tchihatcheff, Tournefort, Uotila and Walter collected specimens in East Anatolia. Some floristic investigations (Tatlı & Altan, 1987; Tatlı, 1989; Gümüş, 1992; Öğün & Altan, 1992; Behçet & Altan, 1993; Özçelik & Babaç, 1993; Demirkuş, 1994; Altan & Behçet, 1995; Yıldırımlı, 1995; Kaya, 1996; Öztürk & Behçet, 1998; Altan ve Uğurlu, 2000; Altıok & Behçet, 2005; Karabacak & Behçet, 2007; Ünal & Behçet, 2007;) have been made recently. However East Anatolia is still a "little known" or "unknown" region for floristic structure of Turkey, with regard to floristic studies (Çırpıcı 1987). The research area is "little known" area. The aim of this research is to determine the flora of the Kırmızı Tuzla and Bahçe Tuzlası surroundings, and to determine the endemic and rare plant species. This study is expected to contribute to the flora of Turkey.

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The research area is located in the Irano-Turanian phytogeographic region and is situated in the B9 square and located within the province of Muş and Erzurum. The research area is surrounded in the east by Dikbıyık and Güleç villages, in the south-east by Kadıköy, Gölağılı, Nurettin and Konakkuran villages, in the north-east by Doğantaş and Tıkızlı villages, in the west by Karaçoban town and Binpınar village, in the south-west by Kurganlı and Erence villages, in the north by Çiçekveren and Ulucanlar villages and in the south by Aktuzla and Alikalkan villages. Kocasu (Hınıs river), Sarıtaş, Bilala, Çatal and Şor are the main streams in the study area. Kazgölü, Kurt lake (Sarıgöl), Doğanbey pond, Seydan (Bahçe) lake and Kuruca rush-bed are the other wetlands in the area. The altitude varies between 1500 and 2150 m. In the research area, the highest point is Laladağ (2113 m) and the lowest hill is Hanımköşkü (1853 m). The other important peaks are Güzelbaba (2044 m) mountain and Ziyaret (1957 m) hill (Figure 1).

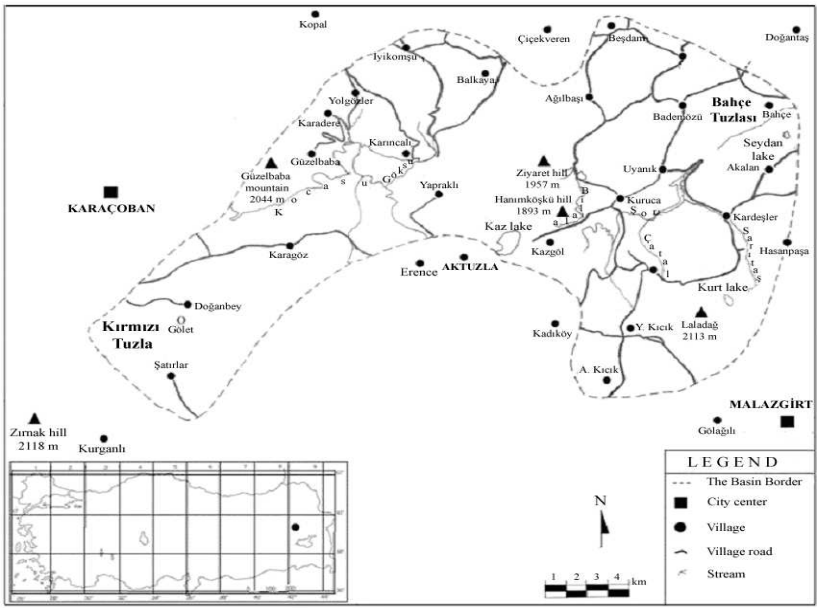


Figure 1. Geographic map of the study area.

The climate of the research area was examined using data obtained from the meteorology stations in Malazgirt, Muş, Erzurum and Patnos (DMIGM, 2005). According to the precipitation-temperature quotient of Emberger (1955), the area is described bioclimatically as a semiarid, iced type of Mediterranean climate (Table 1).

Table 1. Climatic data of the meteorological stations

| Station | h | P | M | m | Q | PE | PE/M | Precip. regime | Bioclimate |
|---|---|---|---|---|---|---|---|---|---|
| Malazgirt | 1565 | 451.4 | 31.6 | -14.2 | 34.98 | 44.7 | 1.41 | Sp.A.W.Sm | Semi-arid glacial |
| Muş | 1284 | 778.1 | 33.2 | -11.0 | 61.96 | 40.9 | 1.23 | Sp.W.A.Sm | Semi-arid glacial |
| Erzurum | 1757 | 411.1 | 27.6 | -15.0 | 34.55 | 82.6 | 2.99 | Sp.A.Sm.W | Semi-arid glacial |
| Patnos | 1650 | 468.3 | 30.2 | -14.3 | 37.45 | 44.7 | 1.48 | Sp.W.A.Sm | Semi-arid glacial |

h - altitude in m; P - mean annual precipitation in mm; M - mean temperature (ºC) for the hottest month; m - mean temperature (ºC) for the coldest month; Q - Emberger's pluviometric quotient: 2000 P/M²-m²; PE: Summer rainfall; PE/M - Emberger's index of xericity; A - Autumn; Sp - Spring; W - Winter; Sm - Summer.

Steppe formation is the main vegetation type in the area. In the area rarely some shrub and tree form species are distributed. In addition hydrophytic and hygrophytic vegetation are developed in the aquatic and humidity habitats of area. The vegetation of the area has been almost markedly destroyed by anthropogenic factors such as early and extreme overgrazing and collection of plant material for fuel.

*Pyrus elaeagnifolia* subsp. *kotschyana* formed small tree-shrub community in W slopes between Sümbüllü and Uyanık villages and around Kuruca and Kazgölü villages. The length of *P. elaeagnifolia* subsp. *kotschyana* reaches approximately 6-7 m. The shrub form of *P. elaeagnifolia* subsp. *kotschyana* and *Crataegus orientalis* var. *orientalis* are seen sparsely scattered in the area. A dense shrub community developed approximately 100 ha in SE of Karıncalı village around the way towards Kazgölü village facing the N side of valley. *Cotonoaster nummularia* is a dominant species in this shrub formation (Figure 2). *C. nummularia* is under risk. Therefore, the occurance density of the species in the area indicates the importance of the area in terms of protection of the area. In addition to *C. nummularia* species, the other shrub forms in the area are: *Rhamnus catharticus* L. var. *catharticus, Prunus divaricata, Pyrus elaeagnifolia* subsp. *kotschyana, Rosa canina* and *R. pulverulenta.*



Figure 2. Community of *Cotonoaster nummularia* Fisch. & C. A. Mey.

*Salix caprea* community developes in some places along side Kocasu stream, around Balkaya village and in the N of Hasanpaşa village in streambed and in 30 ha humidy area of SE of Laladağ village in the study area. *S. alba* community is available in the area in tree form approximately 40-50 m in length and in shrub form in Kocasu streamside. *Populus tremula, Cerasus mahaleb* var. *mahaleb, Rhamnus catharticus* var. *catharticus, Salix caprea, S. alba, Rosa pisiformis* and *R. canina* shrub forms are observed in the slopes of stream in the S of Kardeşler village.

The salt pools in Bahçe Tuzlası and Kırmızı Tuzla are constructed in narrow stream beds. The area is exposed to flooding a few times in a year. The violent flood of water forces and moves the vegetation and the salty soils from the area and the area is covered with mud. Therefore, the area is poor in terms of plants. The plant species developed in saline area are; *Salicornia europaea, Puccinelia gigantea, Petrosimonia squarrosa, Salsola kali* subsp. *tragus, Atriplex laevis, Lepidium ruderale, L. pinnatifidum, Euclidium syriacum, Eremopyrum bonaepartis* subsp. *hirsutum, Crypsis alopecuroides, C. aculeata.*

In the research area, steppe vegetation is characterised by Fabaceae, Asteraceae and Poaceae members. *Thymus transcaucasicus, T. praecox* subsp. *caucasicus* var. *grossheimii, Globularia trichosantha* subsp. *trichosantha, Polygala papilionacea, P. anatolica, Veronica orientalis* subsp. *orientalis, Anthemis tinctoria* subsp. *tinctoria, A. tinctoria* subsp. *discoidea, Bromus tectorum* subsp. *tectorum, B. tomentellus, Achillea biebersteinii, Hordeum bulbosum, Rindera albida, Centaurea virgata, C. polypodiifolia* var. *polypodiifolia, C. pseudoscabiosa* subsp. *pseudoscabiosa, C. schischkinii, C. saligna, Catabrosella parviflora* subsp. *calvertii, Scutellaria orientalis* L. subsp. *orientalis, Astragalus pycnocephalus* var. *pycnocephalus, A. gummifer, A. microcephalus, A. subrobustus, A. onobrychioides, A. lagurus, A. campylosema* subsp. *campylosema, Dianthus eythrocoleus, D. orientalis, Stipa ehrenbergiana, Koeleria cristata, Acantholimon venustum* var. *venustum, A. bracteatum* var. *capitatum, A. caryophyllaceum, Gundelia tournefortii* var. *tournefortii, Nepeta betonicifolia, Helichrysum plicatum* subsp. *plicatum, H. pallasii, Hypericum scabrum, Chardinia orientalis, Teucrium polium, T. chamaedrys* subsp. *chamaedrys, Phleum montanum* subsp. *montanum, Verbascum oreophilum* var. *oreophilum, Marrubium parviflorum,* subsp. *parviflorum, Phlomis pungens* var. *seticalycina, P. kurdica Stachys cretica* subsp. *garana, Achillea schischkinii, Artemisia austriaca, A. absinthium, A. spicigera, Silene marschallii, S. montbretiana, Senecio racemosus, Euphorbia cheiradenia, Ziziphora clinipodioides, Dactylis glomerata* subsp. *hispanica, Coronilla orientalis* var. *orientalis, Inula oculus-christi, Thalictrum flavum, Cirsium lappaceum* subsp. *tenuilobum, Chondrilla juncea* var. *juncea, Salvia multicaulis, S. virgata, S. brachyantha, S. poculata* taxa are dominant.

Hydrophytic vegetation is found in the streamside (as Kocasu (Hınıs river), Sarıtaş, Bilala, Çatal and Şor streams) and lakeside (as Kazgölü, Kurt lake (Sarıgöl), Doğanbey göleti, Seydan (Bahçe) lakes and Kuruca rush-bed) formations. *Orchis palustris, Eleocharis uniglumis, E. palustris, Barbarea vulgaris, B. plantaginea, B. minor* var. *robusta, Carex hordeistichos, C. divisa, Schoenoplectus lacustris* subsp. *tabernamontani, Rorippa austriaca, R. islandica, Equisetum ramosissimum, Crypsis alopecuroides, Elatine alsinastrum, Beckmannia eruciformis, Ranunculus lateriflorus, Alopecurus arundinaceus, Lepidium perfoliatum, Juncus inflexus, J. bufonius, Alisma lanceolatum, Colchicum szovitsii, C. kotschyi, Catabrosa aquatica, Polygonum amphibium, Lathyrus pratensis, Butomus umbellatus, Bolboschoenus maritimus* var. *maritimus, Prunella laciniata, Inula helenium* subsp. *pseudohelenium, Cirsium canum, Lythrum hyssopifolia, L. salicaria, Myriophyllum spicatum, Pulicaria vulgaris, P. armena, P. dysenterica, Psychrogeton nigromontanus, Senecio othonnae, Tussilago farfara, Tanacetum balsamita* subsp. *balsamitoides, Veronica anagallis-aquatica* subsp. *anagallis-aquatica, V. anagallis-aquatica* subsp. *oxycarpa, Filipendula vulgaris, Agrostis stolonifera, Phleum pratense, Sparganium erectum* subsp. *microcarpum, Carex melanostachya, C. riparia, Cirsium rhizocephalum* subsp. *sinuatum, Scorzonera parviflora, Teucrium scordium* subsp. *scordioides, Utricularia vulgaris, Scrophularia umbrosa, Allium vineale, Pedicularis comosa* var. *acmodonta, Cyperus longus, C. glaber, C. fuscus, Lysimachia vulgaris, Phragmites australis, Calamagrostis epigejos, Trifolium trichocephalum, T. campestre, Glyceria plicata, Rhinanthus angustifolius* subsp. *grandiflorus, Mentha longifolia* subsp. *typhoides* var. *calliantha, Phalaris arundinacea, Festuca arundinacea* subsp. *arundinacea, Potamogeton nodosus, P. lucens, P. panormitanus, P. berchtoldii, P. trichoides, P. pectinatus, Groenlandia densa, Lemna minor, L. turionifera, Zannichelia palustris* L. subsp. *repens, Echinocloa colonum* dominate in this formation.

*Artemisia incana, Ephedra major, Parietaria judaica, Scrophularia libanotica* subsp. *libanotica* var. *nevshehirensis, Arabis caucasica* subsp. *caucasica, Cystopteris fragilis, Campanula crispa, Achillea nobilis* subsp. *neilreichii, Melica persica* subsp. *inaequiglumis, Ceterach officinarum, Salsola canescens, Stachys lavandulifolia* var. *lavandulifolia* are commonly found in the rocky parts of the research area.

## 1. Materials and Methods

The materials of the study consisting of 3830 vascular plant specimens were collected between 2006 and 2007. These specimens were identified basically with the help of the Flora of Turkey (Davis, 1965-1985; Davis et al., 1988; Güner et al., 2000) and the other floras (Rechinger, 1965-1977; Towsend & Guest, 1966-1985; Zohary, 1966-1986; Tutin et al., 1964-1981; Komarov &

Shishkin, 1933-1964), some revisions (Aytaç, 1997; Ekici & Ekim, 2004) and articles (Behçet, 1989; Behçet & Almanar, 2004; Sutorý, 2005). Threatened categories are proposed for some endemic and non-endemic taxa according to IUCN risk categories (IUCN, 2001; Ekim et al., 2000). The flora of the area is analyzed by Raunkiaer' life form system (Raunkiaer, 1934).

The order of plant taxa follows that of the Flora of Turkey (Davis, 1965-1988). The floristic list is given as appendix. The list first gives the localities of the taxa (the area lies entirely within "B9", which is omitted from the citation), followed by habitats, collection date, GPS, altitude, collectors' names, numbers, endemism, threat categories, their phytogeographical regions and life form. The symbol (▲) in front of a plant name indicates a new record for the B9 square. The authors of the plant names were checked (Brummitt & Powel 1992). All the specimens are deposited in VANF herbarium. The abbreviations used in the text and the floristic list are as follows: END.: endemic; NT: near threatened; LC: least concern; VU: vulnerable; EN: endangered; DD:data deficient E. Medit.: East Mediterranean element; Medit.: Mediterranean element; Euro-Sib.: Euro-Siberian element; Eux.: Euxin element; H. Eux.: Hyrcano-Euxin element; Ir.-Tur.: Irano-Turanian element; Th: therophyte, Hc: hemicryptophyte, Cr: cryptophyte, Kh: chamaephyte, Fh: phanarophyte, E: east; N: north; S: south; W: west; LFM: Lütfi BEHÇET-Fevzi ÖZGÖKÇE-Murat ÜNAL; VANF: Yüzüncü Yıl University Faculty of Art and Sciences, Department of Biology Herbarium in Van.

## 2. Results and Discussion

At the end of this study, 3830 vascular plant specimens were collected from the research area, and 879 species (1056 taxa) and 374 genera belonging to 75 families were established. In the flora of research area, it is determined that Pteridophyta with four taxa, Gymnospermae with one taxon while Angiospermae with 1051 taxa. 880 taxa of Angiospermae members are belong to dicots whereas 171 taxa are belong to monocots. *Lepidium pinnatifidum* Ledeb. (Ünal et al., 2007) and *Crambe orientalis* L. var. *sulphurea* Stapf distribution in Turkey is first recorded in our study area. Distribution of taxa into the large taxonomical groups in the study is shown in table 2.

Table 2. The dispersion of taxa into the large taxonomical groups

| Plant Group | Number of Families | Number of Genera | Number of taxa |
|---|---|---|---|
| *Pteridophyta* | 3 | 3 | 4 |
| *Spermatophyta* | 72 | 371 | 1052 |
| *Gymnospermae* | 1 | 1 | 1 |
| *Angiospermae* | 71 | 370 | 1051 |
| *Dicotyledones* | 56 | 293 | 880 |
| *Monocotyledones* | 15 | 77 | 171 |
| Total | 75 | 374 | 1056 |

The largest families based on their species number in the area are *Asteraceae* (170 spp.), *Brassicaceae* (97 spp.), *Fabaceae* (84 spp.), *Poaceae* (77 spp.) and *Lamiaceae* (76 spp.) respectively. In comparison with the Flora of Turkey (Davis et al., 1988), the order of the families is approximately the same in this study. Comparison of first 10 families with highest taxa show that our floristic study have important similarity with floristic studies carried out on East Anatolia region, even the range changes. The ten largest families according to the number of species are shown in table 3.

Table 3.Comparison of the 10 families containing the most species in studies conducted in nearby region (abbrevations are below the table)

| Study areas | Total taxa | *Asteraceae* % | *Brassicaceae* % | *Fabaceae* % | *Poaceae* % | *Lamiaceae* % | *Caryophyllaceae* % | *Apiaceae* | *Liliaceae* % | *Scrophulariaceae* | *Ranunculaceae* % |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Kır. and Bah. Tuz | 1056 | 16.08 | 9.17 | 7.94 | 7.28 | 7.19 | 5.77 | 5.67 | 4.25 | 4.16 | 2.93 |
| Akçadağ | 891 | 15.90 | 7.70 | 7.60 | 7.60 | 6.30 | 5.70 | 2.80 | 4.60 | 4.70 | 3.14 |
| Pirreşit | 828 | 15.00 | 7.20 | 8.90 | 10.70 | 5.70 | 7.00 | 3.50 | 4.30 | 3.90 | 3.50 |
| Erek Dağı | 574 | 16.50 | 6.90 | 8.70 | 6.10 | 6.60 | 3.60 | 4.10 | 2.80 | 3.80 | 4.10 |
| Bitlis River | 925 | 11.70 | 5.70 | 10.90 | 8.30 | 7.00 | 4.30 | 3.50 | 3.50 | 3.78 | 3.50 |
| Hizan | 627 | 11.50 | 5.26 | 11.30 | 9.00 | 8.45 | 5.58 | 4.78 | 2.70 | 5.20 | 4.78 |
| Süphan | 780 | 15.60 | 7.40 | 10.30 | 9.20 | 6.90 | 5.10 | 4.40 | 3.20 | 3.50 | 4.40 |
| Kurubaş | 418 | 15.07 | 12.20 | 9.33 | 8.13 | 5.74 | 4.78 | 4.06 | 2.87 | 2.87 | 3.58 |
| Toprakkale | 249 | 18.00 | 7.60 | 8.80 | 6.00 | 11.00 | 5.20 | 4.40 | 2.80 | 3.61 | 4.40 |
| Çakmak | 381 | 10.50 | 6.20 | 6.60 | 9.70 | 6.60 | 5.50 | --- | --- | 4.90 | --- |
| Terc.Bağır. | 862 | 11.00 | 7.00 | 9.50 | 7.70 | 8.30 | 4.80 | --- | --- | 2.90 | --- |
| Munzur | 1518 | 12.90 | 8.80 | 9.20 | 4.80 | 8.10 | 5.60 | --- | --- | 4.40 | --- |
| Çiçek | 780 | 15.10 | 4.70 | 6.30 | 4.70 | 5.70 | 4.70 | 4.20 | 2.80 | 5.30 | 3.00 |
| Allahuekber | 368 | 12.40 | 4.00 | 5.70 | 7.40 | 10.10 | 7.30 | 7.73 | 2.71 | 3.50 | 7.73 |
| Iğdır | 144 | 15.20 | 11.80 | 9.00 | 10.40 | 2.08 | 1.38 | 2.08 | 0.69 | 0.69 | 0.69 |

Abbreviations:
Kır. and Bah. Tuz: The Flora of Kırmızı Tuzla (Karaçoban/Erzurum) and Bahçe Tuzlası (Malazgirt / Muş) and their Environment
Akçadağ : The Flora of Akçadağ (Van-Turkey) (Karabacak & Behçet, 2007)
Pirreşit : Flora of Pirreşit Mountain (Van, Turkey) (Ünal & Behçet, 2007)
Erek Dağı : Erek Dağı (Van) Florası Üzerinde Çalışmalar (III) (Özçelik & Babaç, 1993)
Bitlis River : The Flora of Bitlis River Valley (Altıok &Behçet, 2005)
Hizan : Hizan (Bitlis) Florası (Altan & Behçet, 1995)
Süphan : Süphan Dağı (Bitlis) Florası (Behçet, 1991)
Kurubaş : Kurubaş Geçidi (Van) Florası (Öztürk & Behçet, 1998)
Toprakkale : Toprakkale (Van) Florası (Öğün & Altan, 1992)
Çakmak : Çakmak Dağları (Ağrı) Florası (Gümüş, 1992)
Terc.-Bağır. : Tercan Çevresi ve Şengül (Erzincan) ve Bağırbaba (Tunceli) Dağlarının Florası (Kaya, 1996)
Munzur : Munzur Dağları (Erzincan-Tunceli) Florası (Yıldırımlı, 1995)
Çiçek : Çiçek Dağı (Posof-Kars) Florası (Demirkuş, 1994)
Allahuekber : Allahuekber Dağları (Erzurum) Florasına Katkılar (Tatlı, 1989)
Iğdır : Iğdır Ovası (Iğdır) Florasına Katkılar (Tatlı & Altan, 1989)

The richest genera in terms of the number of taxa are *Astragalus* L. (31), *Centaurea* L. (18) and *Silene* L. (16). Genus *Astragalus* as one of the largest genera of flowering plants contains c.2500 taxa in the world and 446 taxa in Turkey (Ekici & Ekim, 2004). The study area is mostly in steppe character. In our study, the genus *Astragalus* ranks first due to ecological factors, and the habitat of the species, which are known as steppic plants of Irano-Turanian phytogeographic regions. Following *Astragalus*, the genus *Centaurea* is represented by 18 taxa. The genera *Centaurea* and *Silene* are the third and fifth largest genera in Turkey, respectively. *Silene* is also relatively widespread throughout Turkey. The genera with the largest number of species in the research area are shown in table 4.

Table 4. Taxa totals of the largest genera in the study area

| Genus | Number of Taxa |
|---|---|
| *Astragalus* | 31 (2.93 %) |
| *Centaurea* | 18 (1.70 %) |
| *Silene* | 16 (1.51 %) |
| *Veronica* | 15 (1.41 %) |
| *Alyssum* | 15 (1.41 %) |
| *Dianthus* | 14 (1.32 %) |
| *Salvia* | 14 (1.32 %) |
| *Allium* | 14 (1.32 %) |
| *Ranunculus* | 13 (1.22 %) |
| *Stachys* | 13 (1.22 %) |

The number of endemic taxa in the study area is 101 and endemism ratio is 9.65%. The proportion of endemism in the area is low (9.65%), below the average of Turkey (34%) (Ekim, 2005).
A total of 121 taxa, all endemics, and 20 non endemics were evaluated according to IUCN risk categories. The results are summarized in table 5. Sixty-three taxa are placed in the least concern categories, while 30 taxa in the vulnerable, 16 taxa in the near threatened, 8 taxa in the endangered, 2 taxa in the critically and 2 taxa are put in the data deficient categories.

Table 5. Risk categories of endangered taxa, most of them being endemics.

| Categories | LC | VU | NT | EN | CR | DD | Total |
|---|---|---|---|---|---|---|---|
| Taxa | 63 | 30 | 16 | 8 | 2 | 2 | 121 |

*Inula discoidea* Boiss., is a local endemic and included in **DD** category. The species was recorded only in B8 square in Bingöl up to now. We have determined that the species has distribution in 8 different localities in our study area (B9 square). Therefor, we have categorised the species as **VU** instead of **DD**.

There is not a certain information in the flora of Turkey about the distribution and locality of ***Cicuta virosa*** L. which belongs to the threat category of **DD** according to the red data book of Turkish plants. According to The Flora of Turkey, it was probably collected between Erzurum and Trabzon. In the present study we have first reported the definite locality of species . The species is also suitable to be included in **DD** category due to restricted distribution.

On the other hand, the main problems causing the taxa to be categorised in the least concern, vulnerable and near threatened is excess collection of plant material, clearing and over-grazing on the steppe. An updated version of the Red Data Book for the vascular plants of Turkey was published by Ekim et al., (2000). There are some disagreements among the authors of the risk categories for some taxa. This is because of considering the Turkish flora as a whole while our observations are based only on the study area. Meanwhile, further floristic studies in Turkish flora would contribute more to the Red Data Book in the future. Another reason for disagreement is that they have used the criteria of IUCN 1994. However, new criteria have been used in this paper.

The species of the study area, categorized according to phytogeographic regions, can be listed as follows: Irano-Turanian elements 327 (30.84%) (47 endemics), Euro-Siberian elements 89 (14 Eux., 4 H.Eux.) (8.42%) (4 endemics) and Mediterranean elements 24 (2.27%) (2 endemics). The remaining 616 (58.42%) taxa are cosmopolitan or of unknown phytogeographic origin (Table 6). The dominance of the Irano-Turanian elements would be expected because the study area lies in the Irano- Turanian region. Similar results were obtained from other floristic studies in East Anatolia close to Kırmızı Tuzla and Bahçe Tuzlası (Table 6). Irano-Turanian elements seems to be dominant in all areas studied while Euro-Siberian elements come the second except for Allahuekber Mountains (Tatlı, 1989), Bitlis River valley (Altıok & Behçet, 2005), and Toprakkale (Öğün & Altan, 1992).

Table 6. The comparison of the distribution of phytogeographical elements and endemism ratio (%) in the study area and near regions (abbreviations are below table 3)

| Study areas | Irano-Turanian | Euro-Siberian | Mediterranean | Cosmopolitan and others | Endemism |
|---|---|---|---|---|---|
| Kır. and Bah. Tuz | 30.84 | 8.42 | 2.27 | 58.42 | 9.65 |
| Akçadağ | 35.4 | 9.9 | 2.9 | 51.6 | 7.5 |
| Pirreşit | 38.4 | 2.6 | 9.5 | 49.5 | 9.0 |
| Erek Dağı | 42.8 | 9.9 | 3.1 | 44.2 | 7.8 |
| Bitlis River | 31.8 | 4.8 | 8.7 | 54.6 | 6.8 |
| Hizan | 34.9 | 6.2 | 4.7 | 54.2 | 7.9 |
| Süphan | 37 | 8.7 | 2 | 52.3 | 8.5 |
| Kurubaş | 44 | 7 | 1 | 47 | 7 |
| Toprakkale | 44 | 4.4 | 4.8 | 46.8 | 4 |
| Çakmak | 33.9 | 20 | 2.6 | 37.2 | 6.5 |
| Terc.Bağır. | 25 | 10.7 | 4.4 | 59.9 | 6.5 |
| Munzur | 45.7 | 8 | 4.4 | 41.9 | 19.9 |
| Çiçek | 12.6 | 29.6 | 1 | 56.8 | 3 |
| Allahuekber | 37 | 41.3 | 1.6 | 20.1 | 4.6 |
| Iğdır | 44.4 | 7.7 | 3.5 | 44.4 | 1.4 |

**Interesting distributed taxa in study area:**

***Hesperis kitiana*** has been collected between Patnos and Tutak (Ağrı) at 1750 m altitude and published at 1988 as new taxon for science. Our study clarified distribution area of this taxon has been widened after collection of type material second time at 4 different localities.

Distribution of ***Petrosimonia squarrosa*** was now only in one locality of Iğdır (B10) and Kars (A9) at Turkey. Our record exhibited that distribution of the plant is going to be widened in middle part of East Anatolia region.

***Crinitaria villosa***, an element of Euro-Siberian phytogeographic region, was known to be present in coulder and moistier environment of Erzurum. It is interesting to see the distribution of this species in steppe part of our quite drowght study area.

Type specimens of ***Tragopogon fibrosus*** was founded previously in Gümüşhane (A7), collected second time in study area.

Also distribution of ***Centaurium erythraea*** subsp. ***rumelicum***, known in west parts of Turkey (A2, B2, C2 squares), in the study area is interesting.

Distribution of ***Polypogon maritimus*** subsp. ***subspathaceus*** in our study area is very interesting. The taxon differs easily from other ***Polypogon*** members by some characters those are 6-7 mm length of gluma awn, gluma 2-fid at apex and lemma awnless. The subspecies was known present on sandy habitats at 40 m altitude from sea coast (A2, B1, C2, C3, C4 squares). Also the plant is an E. Mediterranean element. Our specimens collected in our study area were affected by harsh winter condition in Iran-Turan phytogeographic region. In contrary, the habitats are meadow not sandy.

***Eremopoa attalica*** is endemic and an E. Mediterranean element. The species was known only in C3 square (Antalya and Burdur around). Distribution of species in our study area having different ecology is interesting from point view of plant geography.

The taxa can also be classified according to their life forms. Raunkiaer's life forms spectrum acts as an indicator of the climate or region (Raunkiaer, 1934; Akman & Ketenoğlu, 1992). The life forms of the taxa according to Raunkiaer are represented in the area as follows: hemicryptophytes 571 (54.07%), therophytes 259 (24.52%), cryptophytes (also called geophytes) 111 (10.51%), chamaephytes 89 (8.42%) and phanerophytes 26 (2.46%).

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## APPENDIX

**The Floristic List**

**PTERIDOPHYTA**
**EQUISETACEAE**
***Equisetum ramosissimum*** Desf.
Muş: Malazgirt, S of Kardeşler village, streamside, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1800 m, LFM 1325, Hc.
***E. arvense*** L.
Muş: Malazgirt, Karıncalı village, humid places, 29 v 2006, 39° 22' 485" N 42° 16' 298" E, 1509 m, LFM 630, Hc.

**ASPLENIACEAE**
***Ceterach officinarum*** DC.
Erzurum: NE of Karaçoban, Kırımkaya villages, Güzelbaba mountain, steppe, 11 vi 2006, 39° 19' 864" N 42° 13' 472" E, 1663 m, LFM 908, Hc.

**ATHYRIACEAE**
***Cystopteris fragilis*** (L.) Bernh.
Muş: Malazgirt, A. Kıcık village surroundings, rocky places, 12.05.2007, 39° 16' 121" N 42° 22' 928" E, 1742 m, LFM 2616, Hc.

**SPERMATOPHYTA**
**GYMNOSPERMAE**
**EPHEDRACEAE**
***Ephedra major*** Host.
Muş: Malazgirt, Karıncalı valley, rocky places, 26.10.2006, 39° 21' 456" N 42° 15' 582" E, 1552 m, LFM 2541, Kh.

**ANGIOSPERMAE**
**RANUNCULACEAE**
***Nigella oxypetala*** Boiss.
Muş: Malazgirt, Kardeşler village, alluvial steppe, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1811 m, LFM 1514, Ir.-Tur., Th.
***N. latisecta*** P.H. Davis
Muş: Malazgirt, north slopes in the of the hills eastern of Karıncalı village, steppe, 10.06.2007, 39° 22' 294" N 42° 17' 842" E, 1702 m, LFM 2901, Ir.-Tur., Th.

***N. segetalis*** M. Bieb.
Erzurum: Karaçoban, Kırmızı Tuzla surroundings, steppe, 30 vii 2006, 39° 17' 412" N 42° 06' 330" E, 1576 m, LFM 2278a, Th.
***Delphinium albiflorum*** DC.
Muş: Malazgirt, A. Kıcık village, steppe, 11 vii 2006, 39° 15' 220" N 42° 22' 839" E, 1642 m, LFM 1740, Hc.
***D. cyphoplectrum*** Boiss. var. ***stenophyllum*** Boiss.
Muş: Malazgirt, between Sarıgöl and Gölağılı village, steppe, 18.08.2007, 39° 17' 302" N 42° 26' 470" E, 1950 m, LFM 3597, Hc. **"VU"**
***D. cyphoplectrum*** Boiss. var. ***vanense*** (Rech.f.) P.H.Davis
Muş: Malazgirt, SE of Karıncalı village, slopes around Kazgölü road, steppe, 23 vi 2006, 39° 21' 216" N 42° 20' 024" E, 1760 m, LFM 1076, **END**., Hc, "**NT**"
***Consolida scleroclada*** (Boiss.) Schröd. var. ***rigida*** (Freyn & Sint.) P.H.Davis
Muş: Malazgirt, between Uyanık and Bahçe villages, steppe, 06 vii 2006, 39° 22' 794" N 42° 24' 602" E, 1737 m, LFM 1451, Th.
***C. regalis*** S.F. Gray subp. ***paniculata*** (Host) Soó var. ***divaricata*** (Ledeb.) P.H. Davis
Erzurum: Karaçoban, Kırmızı Tuzla surroundings, steppe, 30 vii 2006, 39° 17' 412" N 42° 06' 330" E, 1576 m, LFM 2226b, Th.
▲***C. cornuta*** (P.H. Davis & Hossain) P.H. Davis
Muş: Malazgirt, Bahçe tuzlası surroundings, steppe, 06 vii 2006, 39° 25' 035" N 42° 27' 201" E, 1724 m, LFM 1398, **END**., Ir.-Tur., Th. **"EN"**
***C. oliveriana*** (DC.) Schröd.
Muş: Malazgirt, A. Kıcık village, steppe, 11 vii 2006, 39° 15' 220" N 42° 22' 839" E, 1642 m, LFM 1741, Ir.-Tur., Th.
***Clematis orientalis*** L.
Muş: Malazgirt, between Beşdam and Sırtdüzü villages, streamside, 02.09.2007, 39° 21' 439" N 42° 15' 293" E, 1489 m, LFM 3658, Hc.
***Adonis aestivalis*** L. subsp. ***parviflora*** (Fisch. ex DC) Busch
Muş: Malazgirt, Karıncalı village, fields, 29 v 2006, 39° 22' 485" N 42° 16' 298" E, 1509 m, LFM 682, Th.
***A. eriocalycina*** Boiss.
Muş: Malazgirt, Beşdam village surroundings, meadows, 21.05.2007, 39° 26' 072" N 42° 22' 445" E, 1823 m, LFM 2714, Ir.-Tur., Th.
***A. flammea*** Jacq.
Muş: Malazgirt, Karıncalı valley, steppe, 26.05.2007, 39° 23' 028" N 42° 17' 045" E, 1590 m, LFM 2846, Th.
***Ranunculus sericeus*** Banks & Sol.
Muş: Malazgirt, Kazgölü village surroundings, meadow 23 vi 2006, 39° 20' 004" N 42° 20' 648" E, 1800 m, LFM 1138, Ir.-Tur., Hc.
***R. poluninii*** P.H. Davis
Muş: Malazgirt, north slopes in the of the hills eastern of Karıncalı village, steppe, 10.06.2007, 39° 22' 294" N 42° 17' 842" E, 1702 m, LFM 2897, **END.,** Ir.-Tur., Hc. **"EN"**
***R. repens*** L.
Muş: Malazgirt, N of Kaz lake, meadow, 10.06.2007, 39° 20' 891" N 42° 19' 449" E, 1775 m, LFM 3018, Hc.
***R. bulbosus*** L. subsp. ***aleae*** (Willk.) Rouy & Fouc
Muş: Malazgirt, N of Ağılbaşı village, humid places, 21.05.2007, 39° 23' 910" N 42° 22' 483" E, 1801 m, LFM 2725, Hc.
***R. constantinopolitanus*** (DC.) d' Urv.
Muş: Malazgirt, Bademözü village surroundings, meadows, 21.05.2007, 39° 24' 712" N 42° 26' 095" E, 1766 m, LFM 2994, Hc.
***R. oxyspermus*** Willd.
Muş: Malazgirt, Yolgözler plateau, steppe, 29 v 2006, 39° 23' 413" N 42° 15' 562" E, 1691 m, LFM 610, Cr.
***R. illyricus*** L. subsp. ***illyricus***
Muş: Malazgirt, Yapraklı village surroundings, steppe, 27 v 2006, 39° 21' 031" N 42° 15' 978" E, 1591 m, LFM 218, Cr.
▲***R. sintenisii*** Freyn
Muş: Malazgirt, NE of A. Kıcık village, steppe, 12.05.2007, 39° 16' 628" N 42° 23' 454" E, 1763 m, LFM 2683, **END.,** Ir.-Tur., Hc. **"VU"**
***R. macrorhynchus*** Boiss. subsp. ***macrorhynchus***
Muş: Malazgirt, S of Ağılbaşı village, steppe, 21.05.2007, 39° 24' 681" N 42° 21' 974" E, 1798 m, LFM 2757, Ir.-Tur., Hc.
***R. arvensis*** L.
Erzurum: Karaçoban, Kırmızı Tuzla surroundings, steppe, 03 vi 2006, 39° 17' 377" N 42° 06' 329" E, 1592 m, LFM 752b, Th.
***R. sceleratus*** L.
Muş: Malazgirt, Bahçe (Seydan) lake surroundings, streamside, 23 viii 2006, 39° 23' 366" N 42° 29' 082" E, 1686 m, LFM 2454, Th.
***R. kochii*** Ledeb.
Muş: Malazgirt, N of Hasanpaşa village, fields, 2 iv 2006, 39° 19' 550" N 42° 30' 219" E, 1539 m, LFM 012, Ir.-Tur., Cr.
***R. lateriflorus*** DC.
Muş: Malazgirt, SE of Laladağ village, around Sarıgöl, meadows drying up in summer 18.08.2007, 39° 18' 379" N 42° 25' 858" E, 1969 m, LFM 3577, Th.
***Ceratocephalus testiculatus*** (Crantz) Roth
Erzurum: Karaçoban, Kırmızı Tuzla surroundings, steppe, 29 iv 2006, 39° 41' 765" N 42° 04' 854" E, 1747 m, LFM 93, Th.
***Thalictrum minus*** L. var. ***minus***
Muş: Malazgirt, Karıncalı valley, steppe, 26.05.2007, 39° 23' 028" N 42° 17' 045" E, 1590 m, LFM 2814, Hc.
***T. flavum*** L.
Muş: Malazgirt, S of Bastem (Uyanık) village, humid slopes, 23 viii 2006, 39° 22' 139" N 42° 24' 288" E, 1648 m, LFM 2514, Hc.
***T. simplex*** L.
Muş: Malazgirt, north slopes in the of the hills eastern of Karıncalı village, humid places, 10.06.2007, 39° 22' 294" N 42° 17' 842" E, 1702 m, LFM 2907, Hc.

**BERBERIDACEAE**
***Leontice leontopetalum*** L. subsp. ***leontopetalum***
Muş: Malazgirt, S of Ağılbaşı village, steppe, 21.05.2007, 39° 24' 681" N 42° 21' 974" E, 1798 m, LFM 2771, Cr.
***L. leontopetalum*** L. subsp. ***ewersmannii*** (Bunge) Coode
Muş: Malazgirt, Karıncalı valley, steppe, 23.04.2007, 39° 21' 067" N 42° 15' 587" E, 1537 m, LFM 2593, Cr.

**PAPAVERACEAE**
***Glaucium corniculatum*** L. subsp. ***corniculatum***
Erzurum: Karaçoban, Kırmızı Tuzla surroundings, steppe, 30 vii 2006, 39° 17' 412" N 42° 06' 330" E, 1576 m, LFM 2262, Hc.
***G. grandiflorum*** Boiss. & Huet var. ***grandiflorum***
Muş: Malazgirt, Karıncalı village, fields, 29 v 2006, 39° 22' 485" N 42° 16' 298" E, 1509 m, LFM 660, Ir.-Tur., Hc.
***Roemeria hybrida*** (L.) DC. subsp. ***hybrida***
Erzurum: N of Karaçoban, Kırımkaya villages, Güzelbaba mountain, steppe, 05 vi 2006, 39° 21' 663" N 42° 10' 670" E, 1776 m, LFM 844, Th.
***Papaver fugax*** Poir. var. ***fugax***
Muş: Malazgirt, between Karıncalı village and Kaz lake surroundings, steppe, 17 vii 2006, 39° 14' 726" N 42° 24' 165" E, 1646 m, LFM 1964, Hc.
***P. cylindricum*** Cullen
Muş: Malazgirt, 2 km SW of Kuruca village, steppe, 11 vii 2006, 39° 21' 434" N 42° 21' 448" E, 1850 m, LFM 1845, Ir.-Tur., Hc.
***P. macrostomum*** Boiss. & Huet ex Boiss.
Muş: Malazgirt, Karıncalı valley, steppe, 26.05.2007, 39° 23' 028" N 42° 17' 045" E, 1590 m, LFM 2801, Ir.-Tur., Th.
***P. rhoeas*** L.
Muş: Malazgirt, Yapraklı village surroundings, streamside, 27 v 2006, 39° 21' 031" N 42° 15' 978" E, 1591 m, LFM 765, Th.
***P. dubium*** L. subsp. ***dubium***
Muş: Malazgirt, Kuruca village, steppe, 11 vii 2006, 39° 20' 692" N 42° 23' 296" E, 1705 m, LFM 1765, Th.
***P. minus*** (Boiv.) Meikle
Muş: Malazgirt, Yapraklı village surroundings, steppe, 27 v 2006, 39° 21' 031" N 42° 15' 978" E, 1591 m, LFM 241, E. Medit., Th.
***Hypecoum pendulum*** L.

Muş: Malazgirt, 1 km to A. Kıcık village, steppe, 12.05.2007, 39° 14' 899" N 42° 22' 092" E, 1589 m, LFM 2651, Th.
***Corydalis oppositifolia*** DC. subsp. ***oppositifolia***
Muş: Malazgirt, Laladağ, N of A. Kıcık village, humid slopes, 14.04.2007, 39° 16' 593" N 42° 23' 447" E, 1772 m, LFM 2579, Cr.
***Fumaria schleicheri*** Soy.-Will.
Muş: Malazgirt, Yapraklı village surroundings, streamside, 27 v 2006, 39° 21' 031" N 42° 15' 978" E, 1591 m, LFM 758, Eu.-Sib., Th.
***F. asepala*** Boiss.
Muş: Malazgirt, 2 km S of Laladağı village, steppe, 23 vi 2006, 39° 18' 072" N 42° 25' 308" E, 1900 m, LFM 1272, Ir.-Tur., Th.

**BRASSICACEAE**
***Brassica elongata*** Ehrh.
Muş: Malazgirt, A. Kıcık village, fields, 11 vii 2006, 39° 15' 220" N 42° 22' 839" E, 1642 m, Hc.
***Sinapis arvensis*** L.
Erzurum: N of Karaçoban, steppe, 30 vii 2006, 39° 20' 226" N 42° 05' 803" E, 1533 m, LFM 2163, Th.
***Crambe orientalis*** L. var. ***orientalis***
Muş: Malazgirt, Yeniköy surroundings, steppe, 17 vii 2006, 39° 15' 002" N 42° 24' 173" E, 1904 m, LFM 1990, Ir.-Tur., Hc.
***C. orientalis*** L. var. ***sulphurea*** Stapf
Muş: Malazgirt, E of Yolgözler village (Yolgözler Plateau) steppe, 27 v 2006, 39° 23' 413" N 42° 15' 562" E, 1691 m, LFM 249; Muş: Malazgirt, Karagöz village surroundings, steppe, 16.06.2007, 39° 17' 380" N 42° 06' 427" E, 1583 m, LFM 3206, Hc.
**This taxon is a new record for Turkey**
***Conringia orientalis*** (L.) Andrz.
Muş: Malazgirt, Kardeşler village, alluvial steppe, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1811 m, LFM 1542, Th.
***C. planisiliqua*** Fisch. & C.A. Mey.
Muş: Malazgirt, 2 km to A. Kıcık village, steppe, 12.05.2007, 39° 14' 749" N 42° 22' 661" E, 1584 m, LFM 2668, Ir.-Tur., Th.
***C. persica*** Boiss.
Muş: Malazgirt, 1 km to Doğanbey village, steppe, 30 vii 2006, 39° 18' 228" N 42° 08' 284" E, 1710 m, LFM 2223, Th.
***C. perfoliata*** (C.A. Mey.) Busch
Muş: Malazgirt, between Karıncalı and Yapraklı villages, steppe, 27 v 2006, 39° 21' 706" N 42° 15' 403" E, 1520 m, LFM 460a, Th.
***Lepidium ruderale*** L.
Erzurum: Karaçoban, Kırmızı Tuzla surroundings, salty places, 30 vii 2006, 39° 17' 412" N 42° 06' 330" E, 1576 m, LFM 2230, Th.
***L. pinnatifidum*** Ledeb.
Erzurum: Karaçoban, Kırmızı Tuzla surroundings, steppe, 03 vi 2006, 39° 17' 377" N 42° 06' 329" E, 1592 m, LFM 742-LFM 792; Muş: Malazgirt, Karagöz village surroundings, steppe, 16.06.2007, 39° 17' 380" N 42° 06' 427" E, 1583 m, LFM 3221, Th. **"VU"**
***L. perfoliatum*** L.
Erzurum: Karaçoban, Kırmızı Tuzla surroundings, steppe, 03 vi 2006, 39° 17' 377" N 42° 06' 329" E, 1592 m, LFM 763, Th.
***L. latifolium*** L.
Muş: Malazgirt, between Beşdam and Sırtdüzü villages, streamside, 02.09.2007, 39° 21' 439" N 42° 15' 293" E, 1489 m, LFM 3682, Hc.
***Cardaria draba*** (L.) Desv. subsp. ***draba***
Muş: Malazgirt, 2 km S of Laladağı village, steppe, 23 vi 2006, 39° 18' 072" N 42° 25' 308" E, 1900 m, LFM 1271, Hc.
***C. draba*** (L.) Desv. subsp. ***chalepensis*** (L.) O.E.Schulz.
Erzurum: Karaçoban, Kırmızı Tuzla surroundings, steppe, 29 iv 2006, 39° 41' 765" N 42° 04' 854" E, 1747 m, LFM 100, Hc.
***Isatis erzurumica*** P.H. Davis & Trautv.
Muş: Malazgirt, south slopes in the of the hills eastern of Karıncalı village, steppe, 10.06.2007, 39° 22' 279" N 42° 17' 748" E, 1760 m, LFM 2974, **END.,** Ir.-Tur., Hc. **"NT"**
***I. glauca*** Aucher ex Boiss. subsp. ***iconia*** (Boiss. & Heldr.) P.H. Davis
Muş: Malazgirt, Laladağ, steppe, 18.08.2007, 39° 18' 315" N 42° 23' 707" E, 1997 m, LFM 3462, **END.,** Ir.-Tur., Hc. **"LC"**
***I. glauca*** Aucher ex Boiss. subsp. ***exauriculata*** (Bornm.) P.H. Davis
Muş: Malazgirt, Y. Kıcık village 1 km forward, steppe, 17 vii 2006, 39° 17' 410" N 42° 23' 353" E, 1904 m, LFM 1851, Ir.-Tur., Hc.
***I. kotschyana*** Boiss & Hohen.
Muş: Malazgirt, between Karıncalı and Yolgözler villages, steppe, 14.07.2007, 39° 23' 133" N 42° 16' 042" E, 1625 m, LFM 3314, Ir.-Tur., Hc. **"VU"**
***I. tinctoria*** L. subsp. ***tinctoria***
Muş: Malazgirt, between İyikomşu and Kırımkaya village surroundings (Radar), steppe, 01.08.2007, 39° 15' 250" N 42° 03' 700" E, 2095 m, LFM 3365, Hc. **"VU"**
***I. tinctoria*** L. subsp. ***tomentella*** (Boiss.) P.H. Davis
Muş: Malazgirt, 2 km SW of Kuruca village, steppe, 11 vii 2006, 39° 21' 434" N 42° 21' 448" E, 1850 m, LFM 1837, Hc.
▲***I. spectabilis*** P.H. Davis
Muş: Malazgirt, between Laladağ and Kuruca villages, roadside-steppe, 23 vi 2006, 39° 19' 064" N 42° 24' 094" E, 1850 m, LFM 1206, **END.,** Ir.-Tur., Hc. **"VU"**
***I. takhtajanii*** Avet.
Muş: Malazgirt, 3 km NW of Hasanpaşa village, steppe, 23 viii 2006, 39° 22' 323" N 42° 29' 748" E, 1743 m, LFM 2339, Ir.-Tur., Hc.
***I. cochlearis*** Boiss.
Erzurum: NE of Karaçoban, Kırımkaya villages, Güzelbaba mountain, steppe, 11 vi 2006, 39° 19' 864" N 42° 13' 472" E, 1663 m, LFM 868, Ir.-Tur., Hc.
***Coluteocarpus vesicaria*** (L.) Holmboe subsp. ***vesicaria***
Muş: Malazgirt, S of Ağılbaşı village, steppe, 21.05.2007, 39° 24' 681" N 42° 21' 974" E, 1798 m, LFM 2753, Hc.
***Aethionema carneum*** (Banks & Sol.) B. Fedtsch.
Muş: Malazgirt, SE of Balkaya village, fields, 16 iv 2006, 39° 21' 925" N 42° 29' 665" E, 1657 m, LFM 057, Ir.-Tur., Th.
***Ae. arabicum*** (L.) Andrz. ex DC.
Muş: Malazgirt, between Hasanpaşa and Koçali villages, steppe, 29 iv 2006, 39° 08' 797" N 42° 32' 533" E,1531 m, LFM 118, Th.
***Ae. speciosum*** Boiss. & A. Huet
Muş: Malazgirt, 3 km NW of Hasanpaşa village, steppe, 23 viii 2006, 39° 22' 323" N 42° 29' 748" E, 1743 m, LFM 2308, Ir.-Tur., Hc.
***Ae. trinervium*** (DC.) Boiss.
Muş: Malazgirt, S of Ağılbaşı village, steppe, 21.05.2007, 39° 24' 681" N 42° 21' 974" E, 1798 m, LFM 2759, Hc.
***Ae. membranaceum*** DC.
Muş: Malazgirt, between Karıncalı and Yapraklı villages, steppe, 27 v 2006, 39° 21' 706" N 42° 15' 403" E, 1520 m, Ir.-Tur., Hc.
***Ae. armenum*** Boiss.
Muş: Malazgirt, Yapraklı village surroundings, steppe, 27 v 2006, 39° 21' 031" N 42° 15' 978" E, 1591 m, LFM 180, Ir.-Tur., Hc.
***Ae. coridifolium*** DC.
Muş: Malazgirt, north slopes in the of the hills eastern of Karıncalı village, steppe, 10.06.2007, 39° 22' 294" N 42° 17' 842" E, 1702 m, LFM 2963, Hc.
***Thlaspi huetii*** Boiss.
Muş: Malazgirt, NW of Koçali village, steppe, 16 iv 2006, 39° 21' 925" N 42° 29' 772" E, 1785 m, LFM 051, Th.
***T. perfoliatum*** L.
Muş: Malazgirt, Laladağ, N of A. Kıcık village, humid slopes, 14.04.2007, 39° 16' 593" N 42° 23' 447" E, 1772 m, LFM 2581, Th.
***T. ceratocarpon*** Murray
Muş: Malazgirt, Kaz lake surroundings, steppe, 17 vii 2006, 39° 20' 604" N 42° 19' 882" E, 1731 m, LFM 2014, Th.
***T. bornmuelleri*** (Rech.) Hedge
Muş: Malazgirt, Yolgözler plateau surroundings, steppe, 29 v 2006, 39° 23' 413" N 42° 15' 562" E, 1691 m, LFM 476, **END.,** Ir.-Tur., Th. **"VU"**
***Capsella bursa-pastoris*** (L.) Medik.
Muş: Malazgirt, Yapraklı village surroundings, meadow, 27 v 2006, 39° 21' 031" N 42° 15' 978" E, 1591 m, LFM 184, Th.
***Euclidium syriacum*** (L.) R. Br.

Muş: Malazgirt, between Aktuzla and Yapraklı village, steppe, 26.05.2007, 39° 20' 895" N 42° 15' 945" E, 1577 m, LFM 2792, Th.
***Neslia paniculata*** (L.) Desv.
Muş: Malazgirt, Yapraklı village surroundings, fields, 27 v 2006, 39° 21' 031" N 42° 15' 978" E, 1591 m, LFM 360, Th.
***N. apiculata*** Fisch.
Muş: Malazgirt, Karıncalı valley, fields, 26.05.2007, 39° 22' 587" N 42° 17' 506" E, 1623 m, LFM 2877, Th.
***Bunias orientalis*** L.
Muş: Malazgirt, S of Kardeşler village, fields, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1800 m, LFM 1337, Hc.
***Fibigia eriocarpa*** (DC.) Boiss.
Muş: Malazgirt, NE of A. Kıcık village, steppe, 12.05.2007, 39° 16' 628" N 42° 23' 454" E, 1763 m, LFM 2682, Hc.
***F. suffruticosa*** (Vent.) Sweet
Muş: Malazgirt, SE of Karıncalı village, slopes around Kazgölü road, steppe, 23 vi 2006, 39° 21' 216" N 42° 20' 024" E, 1760 m, LFM 1117, Hc.
***Bornmuellera glabrescens*** (Boiss. & Bal.) Cullen & Dudley
Muş: Malazgirt, A. Kıcık village surroundings, steppe, 12.05.2007, 39° 16' 121" N 42° 22' 928" E, 1742 m, LFM 2634, **END.,** Hc. **"EN"**
***Alyssum linifolium*** Stephan ex Willd. var. ***linifolium***
Muş: Malazgirt, Bahçe tuzlası surroundings, fields, 2 iv 2006, 39° 14' 016" N 42° 28' 351" E, 1572 m, LFM 040, Th.
***A. menicoides*** Boiss.
Muş: Malazgirt, 5 km to Hasanpaşa village, fields, 23 v 2007, 39° 12' 857" N 42° 29' 526" E, 1561 m, LFM 2613, Ir.-Tur., Th.
***A. desertorum*** Stapf var. ***desertorum***
Muş: Malazgirt, W of Kaz gölü village, meadows, 10.06.2007, 39° 20' 706" N 42° 21' 500" E, 1764 m, LFM 3028, Th.
***A. desertorum*** Stapf var. ***prostratum*** T.R. Dudley
Muş: Malazgirt, SE of Bahçe village , fields, 2 iv 2006, 39° 23' 578" N 42° 28' 993" E, 1668 m, LFM 037, Th.
***A. strictum*** Willd.
Muş: Malazgirt, Karıncalı village, steppe, 29 v 2006, 39° 22' 485" N 42° 16' 298" E, 1509 m, LFM 650, Ir.-Tur., Th.
***A. szowitsianum*** Fisch. & C.A. Mey.
Muş: Malazgirt, Güzelbaba mountain, steppe, 29 v 2006, 39° 21' 663" N 42° 10' 670" E, 1776 m, LFM 510, Th.
***A. minus*** (L.) Rothm. var. ***minus***
Muş: Malazgirt, between Yolgözler and İyikomşu villages, steppe, 27 v 2006, 39° 25' 138" N 42° 13' 697" E,1743 m, LFM 349, Th.
***A. minus*** (L.) Rothm. var. ***micranthum*** (Meyer) T.R. Dudley
Erzurum: Karaçoban, Karakol, Karagöz village surroundings, steppe, 20 vi 2006, 39° 19' 864" N 42° 13' 472" E, 1663 m, LFM 983, Th.
***A. strigosum*** Banks & Sol. subsp. ***strigosum***
Muş: Malazgirt, between Kuşluca village and Zırnak hill, steppe, 16.06.2007, 39° 15' 341" N 42° 03' 837" E, 2133 m, LFM 3174, Th.
***A. hirsutum*** M. Bieb.
Muş: Malazgirt, Yapraklı village surroundings, steppe, 27 v 2006, 39° 21' 031" N 42° 15' 978" E, 1591 m, LFM 554, Th.
***A. callichorum*** Boiss. & Bal.
Muş: Malazgirt, Yeniköy surroundings, steppe, 17 vii 2006, 39° 15' 002" N 42° 24' 173" E, 1904 m, LFM 2001, **END.,** Hc. **"LC"**
***A. pateri*** Nyár subsp. **pateri**
Muş: Malazgirt, Karadere village surroundings, steppe, 01.08.2007, 39° 23' 641" N 42° 12' 306" E, 1750 m, LFM 3402, **END.,** Ir.-Tur., Hc. **"LC"**
***A. pateri*** Nyár subsp. ***prostratum*** (Nyár) T.R. Dudley
Erzurum: NE of Karaçoban, Kırımkaya villages, Güzelbaba mountain, steppe, 11 vi 2006, 39° 19' 864" N 42° 13' 472" E, 1663 m 918, **END.,** Ir.-Tur., Hc. **"LC"**
***A. filiforme*** Nyár
Muş: Malazgirt, between Kuşluca village and Zırnak hill, steppe, 16.06.2007, 39° 15' 341" N 42° 03' 837" E, 2133 m, LFM 3170, **END.,** Ir.-Tur., Hc. **"LC"**
***A. murale*** Waldst. & Kit. var. ***murale***
Muş: Malazgirt, between Sarıgöl and Gölağılı village, steppe, 18.08.2007, 39° 17' 302" N 42° 26' 470" E, 1950 m, LFM 3592, Hk.
***Clypeola aspera*** (Grauer) Turrill
Muş: Malazgirt, Karıncalı valley, fields, 26.05.2007, 39° 22' 587" N 42° 17' 506" E, 1623 m, Ir-Tur., Th.
***Draba nemorosa*** L.
Muş: Malazgirt, Karıncalı village, steppe, 29 v 2006, 39° 22' 485" N 42° 16' 298" E, 1509 m, LFM 667, Th.
***D. huetii*** Boiss.
Erzurum: Karaçoban, Kırmızı Tuzla surroundings, steppe, 03 vi 2006, 39° 17' 377" N 42° 06' 329" E, 1592 m, LFM 750, Th.
***Erophila verna*** (L.) Chevall. subsp. ***verna***
Muş: Malazgirt, between Çat and Karıncalı villages, steppe-rocky places, 16 iv 2006, 39° 21' 925" N 42° 29' 665" E, 1650 m, LFM 069, Th.
***E. minima*** C.A.Mey.
Muş: Malazgirt, Karıncalı valley, steppe, 23.04.2007, 39° 21' 067" N 42° 15' 587" E, 1537 m, LFM 2595, Th.
***Arabis caucasica*** Willd. subsp. ***caucasica***
Muş: Malazgirt, between Çat and Karıncalı villages, steppe-rocky places, 16 iv 2006, 39° 21' 925" N 42° 29' 665" E, 1650 m, LFM 061, Hc.
***A. nova*** Vill.
Muş: Malazgirt, between Çat and Karıncalı villages, steppe-rocky places, 16 iv 2006, 39° 21' 925" N 42° 29' 665" E, 1650 m, LFM 077a, Th.
***Rorippa islandica*** (Oeder) Borbás
Muş: Malazgirt, Kaz lake surroundings, streamside, 17 vii 2006, 39° 20' 604" N 42° 19' 882" E, 1731 m, LFM 2017, Th.
***R. austriaca*** (Crantz) Besser
Erzurum: SE of Karaçoban, river surroundings, meadows drying up in summer, 30 vii 2006, 39° 20' 226" N 42° 05' 803" E, 1533 m, LFM 2142, Hc. (Hidrofit)
▲***R. amphibia*** (L.) Besser
Erzurum: between Karaçoban and Kırmızı Tuzla, before arriving the bridge, wet-humid meadow places, 03 vi 2006, 39° 18' 545" N 42° 06' 151" E, 1673 m, LFM 732b, Hc.(Hidrofit)
***R. sylvestre*** (L.) Besser
Erzurum: between Karaçoban and Kırmızı Tuzla, before arriving the bridge, wet-humid meadow places, 03 vi 2006, 39° 18' 545" N 42° 06' 151" E, 1673 m, LFM 732a, Hc. (Hidrofit)
***Barbarea vulgaris*** R. Br.
Muş: Malazgirt, Yapraklı village surroundings, streamside, 27 v 2006, 39° 21' 031" N 42° 15' 978" E, 1591 m, LFM 280a, Hc. (Hidrofit)
***B. plantaginea*** DC.
Muş: Malazgirt, W of Kazgölü village, streamside-wet places, 23 vi 2006, 39° 20' 004" N 42° 21' 608" E, 1710 m, LFM 1265, Hc. (Hidrofit)
***B. minor*** K. Koch var. ***robusta*** Cullen & Coode
Erzurum: Karaçoban, Karakol, Karagöz village surroundings, humid place, 20 vi 2006, 39° 19' 864" N 42° 13' 472" E, 1663 m, LFM 1009, **END.,** Hc. **"LC"** (Hidrofit)
***B. minor*** K. Koch var. ***eriopoda*** Busch
Muş: Malazgirt, Yolgözler plateau surroundings, steppe, 29 v 2006, 39° 23' 413" N 42° 15' 562" E, 1691 m, LFM 478, Hc. (Hidrofit)
***Cardamine uliginosa*** M. Bieb.
Muş: Malazgirt, N of Kaz lake, meadow, 10.06.2007, 39° 20' 891" N 42° 19' 449" E, 1775 m, LFM 3005, Hc. (Hidrofit)
***Drabopsis verna*** K.Koch
Muş: Malazgirt, NE of A. Kıcık village, steppe, 12.05.2007, 39° 16' 628" N 42° 23' 454" E, 1763 m, LFM 2674, Ir.-Tur., Th.
***Chorispora tenella*** (Pall.) DC.
Muş: Malazgirt, 1 km to A. Kıcık village, steppe, 12.05.2007, 39° 14' 899" N 42° 22' 092" E, 1589 m, LFM 2635, Th.
***Hesperis bicuspidata*** (Willd.) Poir.
Muş: Malazgirt, north slopes in the of the hills eastern of Karıncalı village, steppe, 10.06.2007, 39° 22' 294" N 42° 17' 842" E, 1702 m, LFM 2908, Hc.
***H. persica*** Boiss.
Muş: Malazgirt, between Karıncalı and Yapraklı villages, steppe, 27 v 2006, 39° 21' 706" N 42° 15' 403" E, 1520 m, LFM 463, Ir.-Tur., Hc.
***H. kitiana*** P.H. Davis

Muş: Malazgirt, Yolgözler plateau, steppe, 29 v 2006, 39° 23' 413" N 42° 15' 562" E, 1691 m, LFM 603, **END.,** Ir.-Tur., Hc. **"CR"** Det: A. Duran
***Sterigmostemum incanum*** M. Bieb.
Muş: Malazgirt, Karıncalı village, steppe, 29 v 2006, 39° 22' 485" N 42° 16' 298" E, 1509 m, LFM 724, Ir.-Tur., Hc.
***Erysimum cuspidatum*** (M. Bieb.) DC.
Muş: Malazgirt, SE of Laladağ village, around Sarıgöl, steppe, 18.08.2007, 39° 18' 379" N 42° 25' 858" E, 1969 m, LFM 3453, Hc.
▲***E. goniocaulon*** Boiss.
Erzurum: Karaçoban, Karakol, Karagöz village surroundings, steppe, 20 vi 2006, 39° 19' 864" N 42° 13' 472" E, 1663 m, LFM 965b, Hk.
***E. passgalense*** Boiss.
Erzurum: Karaçoban, Kırmızı Tuzla surroundings, steppe, 30 vii 2006, 39° 17' 412" N 42° 06' 330" E, 1576 m, LFM 2280, Hc.
▲***E. leucanthemum*** (Stephan) B. Fedtsch
Muş: Malazgirt, between Karıncalı village and Kaz lake surroundings, steppe, 17 vii 2006, 39° 14' 726" N 42° 24' 165" E, 1646 m, LFM 1864, Hc.
***E. caespitosum*** DC. (Syn: ***E. macrostigma*** Boiss.-in Flora of Turkey)
Muş: Malazgirt, between Karıncalı village and Kaz lake surroundings, steppe, 17 vii 2006, 39° 14' 726" N 42° 24' 165" E, 1646 m, LFM 1933, Hc. Det: I.C. Hedge
***E. pulchellum*** (Willd.) Gay
Muş: Malazgirt, Yapraklı village surroundings, steppe, 29 v 2006, 39° 21' 031" N 42° 15' 978" E, 1591 m, LFM 591, Hc.
***E. alpestre*** Kotschy ex Boiss.
Muş: Malazgirt, between Kuşluca village and Zırnak hill, steppe, 16.06.2007, 39° 15' 341" N 42° 03' 837" E, 2133 m, LFM 3176, Hc.
***E. crassipes*** Fisch. & C.A. Mey.
Erzurum: N of Karaçoban, Kırımkaya villages, Güzelbaba mountain, steppe, 05 vi 2006, 39° 21' 663" N 42° 10' 670" E, 1776 m, LFM 821, Hc.
***E. eginense*** Hausskn. ex Bornm.
Muş: Malazgirt, Karıncalı valley, steppe, 26.05.2007, 39° 23' 028" N 42° 17' 045" E, 1590 m, LFM 2857, **END.,** Hc. **"VU"**
***E. leptocarpum*** Gay
Muş: Malazgirt, south slopes in the of the hills eastern of Karıncalı village, steppe, 10.06.2007, 39° 22' 279" N 42° 17' 748" E, 1760 m, LFM 2968, **END.,** Hc. **"EN"**
***E. smyrnaeum*** Boiss. & Bal.
Muş: Malazgirt, Yapraklı village surroundings, steppe, 27 v 2006, 39° 21' 031" N 42° 15' 978" E, 1591 m, Hc.
***Sisymbrium loeselii*** L.
Muş: Malazgirt, between Karıncalı and Yolgözler villages, steppe, 14.07.2007, 39° 23' 133" N 42° 16' 042" E, 1625 m, LFM 3313, Th.
***Descurania sophia*** (L.) Webb. ex Prantl
Muş: Malazgirt, between Yolgözler and İyikomşu villages, steppe, 27 v 2006, 39° 25' 138" N 42° 13' 697" E,1743 m, LFM 339, Th.
***Arabidopsis pumila*** (Stephan) Busch
Erzurum: Karaçoban, Kırmızı Tuzla surroundings, steppe, 29 iv 2006, 39° 41' 765" N 42° 04' 854" E, 1747 m, LFM 084, Th.
***Camelina rumelica*** Velen.
Muş: Malazgirt, N of Ağılbaşı village, steppe, 21.05.2007, 39° 23' 910" N 42° 22' 483" E, 1801 m, LFM 2720; 200, LFM 2821, Th.
***C. hispida*** Boiss. var. ***hispida***
Muş: Malazgirt, Kardeşler village, alluvial steppe, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1811 m, LFM 1640, Th.
▲***C. hispida*** Boiss. var. ***grandiflora*** (Boiss.) Hedge
Muş: Malazgirt, north slopes in the of the hills eastern of Karıncalı village, steppe, 10.06.2007, 39° 22' 294" N 42° 17' 842" E, 1702 m, LFM 2896b, **END.,** Th. **"LC"**

**RESEDACEAE**
***Reseda lutea*** L. var. ***lutea***
Muş: Malazgirt, 3 km NW of Hasanpaşa village, steppe, 23 viii 2006, 39° 22' 323" N 42° 29' 748" E, 1743 m, LFM 2331, Hc.

**CISTACEAE**
***Helianthemum ledifolium*** (L.) Mill. var. ***ledifolium***
Muş: Malazgirt, Yolgözler village, steppe, 29 v 2006, 39° 23' 413" N 42° 15' 562" E, 1691 m, LFM 524, Th.

**VIOLACEAE**
***Viola occulta*** Lehm.
Muş: Malazgirt, SE of Bahçe village , fields, 2 iv 2006, 39° 23' 578" N 42° 28' 993" E, 1668 m, Th.

**POLYGALACEAE**
***Polygala anatolica*** Boiss. & Heldr.
Muş: Malazgirt, Karıncalı village, steppe, 29 v 2006, 39° 22' 485" N 42° 16' 298" E, 1509 m, LFM 657, Hc.
***P. papilionacea*** Boiss.
Muş: Malazgirt, between Karıncalı and Yapraklı villages, steppe, 27 v 2006, 39° 21' 706" N 42° 15' 403" E, 1520 m, LFM 416, Ir.-Tur., Ch.
***P. hohenackeriana*** Fisch. & C.A. Mey.
Muş: Malazgirt, S of Ağılbaşı village, steppe, 21.05.2007, 39° 24' 681" N 42° 21' 974" E, 1798 m, LFM 2768, Ch.

**CARYOPHYLLACEAE**
***Arenaria serpyllifolia*** L.
Muş: Malazgirt, Karıncalı village, steppe, 29 v 2006, 39° 22' 485" N 42° 16' 298" E, 1509 m, LFM 703, Th.
***A. leptoclados*** (Rchb.) Guss.
Muş: Malazgirt, Karıncalı village, steppe, 29 v 2006, 39° 22' 485" N 42° 16' 298" E, 1509 m, LFM 631, Th.
***A. gypsohiloides*** LMant var. ***gypsophiloides***
Muş: Malazgirt, Karagöz village surroundings, steppe, 16.06.2007, 39° 17' 380" N 42° 06' 427" E, 1583 m, LFM 3181, Ir.-Tur., Hc.
***A. gypsohiloides*** LMant var. ***glabra*** Fenzl.
Muş: Malazgirt, Laladağ, steppe-fallowing lands, 18.08.2007, 39° 17' 949" N 42° 23' 599" E, 2055 m, LFM 3550, Ir.-Tur., Hc.
***Minuartia juniperina*** (L.) Maire & Petitm.
Muş: Malazgirt, north slopes in the of the hills eastern of Karıncalı village, steppe, 10.06.2007, 39° 22' 294" N 42° 17' 842" E, 1702 m, LFM 2943, Ch.
***M. glandulosa*** (Boiss. & A. Huet) Bornm.
Muş: Malazgirt, between Kuşluca village and Zırnak hill, steppe, 16.06.2007, 39° 15' 341" N 42° 03' 837" E, 2133 m, LFM 3167, **END.,** Ir.-Tur., Ch. **"LC"**
***M. umbellulifera*** (Boiss.) McNeill subsp. ***umbellulifera*** var. ***umbellulifera***
Erzurum: NE of Karaçoban, Kırımkaya villages, Güzelbaba mountain, steppe, 11 vi 2006, 39° 19' 864" N 42° 13' 472" E, 1663 m, LFM 864a, **END.,** Ch. **"LC"**
***M. verna*** (L.) Hiern
Erzurum: N of Karaçoban, Kırımkaya villages, Güzelbaba mountain, steppe, 05 vi 2006, 39° 21' 663" N 42° 10' 670" E, 1776 m, LFM 838, Ch.
***M. hamata*** (Hausskn.) Mattf.
Muş: Malazgirt, 1 km N of Kazgölü, meadows, 23 vi 2006, 39° 20' 572" N 42° 21' 708" E, 1730 m, LFM 1216, Th.
***M. micrantha*** Schischk.
Erzurum: NE of Karaçoban, Kırımkaya villages, Güzelbaba mountain, steppe, 11 vi 2006, 39° 19' 864" N 42° 13' 472" E, 1663 m, LFM 864b, Ch.
***M. subtilis*** (Fenzl) Hand.-Mazz.
Erzurum: SE of Karaçoban, river surroundings, meadows drying up in summer, 30 vii 2006, 39° 20' 226" N 42° 05' 803" E, 1533 m, LFM 2145, Ir.-Tur., Th.
***Cerastium dahuricum*** Fisch.
Muş: Malazgirt, Karıncalı village, humid places, 29 v 2006, 39° 22' 485" N 42° 16' 298" E, 1509 m, LFM 644, Eu.-Sib., Hc.
***C. armeniacum*** Gren.
Muş: Malazgirt, S of Ağılbaşı village, steppe, 21.05.2007, 39° 24' 681" N 42° 21' 974" E, 1798 m, LFM 2761, **END.,** Th. **"LC"**
***C. perfoliatum*** L.

Muş: Malazgirt, Hacılar village surroundings, steppe, 21.05.2007, 39° 17' 463" N 42° 19' 986" E, 1723 m, LFM 2704, Th.
***C. dichotomum*** L. subsp. ***dichotomum***
Muş: Malazgirt, Sırtdüzü village surroundings, steppe, 21.05.2007, 39° 27' 105" N 42° 23' 465" E, 1851 m, LFM 2743, Th.
***C. longifolium*** Willd.
Muş: Malazgirt, N of Ağılbaşı village, humid places, 21.05.2007, 39° 23' 910" N 42° 22' 483" E, 1801 m, LFM 2724, Ir.-Tur., Th.
***C. illyricum*** Ard. subsp. ***comatum*** (Desv.) P.D. Sell & Whitehead
Muş: Malazgirt, NE of A. Kıcık village, steppe, 12.05.2007, 39° 16' 628" N 42° 23' 454" E, 1763 m, LFM 2675, E. Medit., Th.
***Holosteum umbellatum*** L. var. ***glutinosum*** (M.Bieb.) Gay
Muş: Malazgirt, Bahçe tuzlası surroundings, fields, 2 iv 2006, 39° 14' 016" N 42° 28' 351" E, 1572 m, LFM 041, Th.
***Spergularia bocconi*** (Scheele) Asch. & Graebn.
Erzurum: N of Karaçoban, steppe, 30 vii 2006, 39° 20' 226" N 42° 05' 803" E, 1533 m, LFM 2149, Medit., Th.
***Telephium oligospermum*** Steud. ex Boiss.
Erzurum: NE of Karaçoban, Kırımkaya villages, Güzelbaba mountain, steppe, 11 vi 2006, 39° 19' 864" N 42° 13' 472" E, 1663 m, LFM 915, Ir.-Tur., Hc.
***Dianthus strictus*** Banks & Sol. var. ***strictus***
Muş: Malazgirt, Y. Kıcık village surroundings, steppe, 17 vii 2006, 39° 17' 410" N 42° 23' 353" E, 1904 m, LFM 1904, Hc.
***D. strictus*** Banks & Sol. var. ***subenervis*** (Boiss.) Reeve
Muş: Malazgirt, between Sarıgöl and Gölağılı village, steppe, 18.08.2007, 39° 17' 302" N 42° 26' 470" E, 1950 m, LFM 3600, Hc.
***D. strictus*** Banks & Sol. var. ***axilliflorus*** (Fenzl) Reeve
Erzurum: Karaçoban, Kırmızı Tuzla surroundings, steppe, 30 vii 2006, 39° 17' 412" N 42° 06' 330" E, 1576 m, LFM 2277, Hc.
***D. strictus*** Banks & Sol. var. ***gracilior*** (Boiss.) Reeve
Muş: Malazgirt, Karagöz lake surroundings, steppe, 30 vii 2006, 39° 19' 651" N 42° 13' 112" E, 1647 m, Hc.
***D. zederbaueri*** Vierh.
Muş: Malazgirt, 3 km NW of Hasanpaşa village, steppe, 23 viii 2006, 39° 22' 323" N 42° 29' 748" E, 1743 m, LFM 2307a, **END.,** Ir.-Tur., Hc. **"NT"**
***D. lactiflorus*** Fenzl
Muş: Malazgirt, 3 km to Karagöz village, steppe, 30 vii 2006, 39° 19' 846" N 42° 13' 808" E, 1623 m, LFM 2118b, **END.,** Hc. **"NT"**
▲***D. balansae*** Boiss.
Muş: Malazgirt, Karadere village surroundings, steppe, 01.08.2007, 39° 23' 641" N 42° 12' 306" E, 1750 m, LFM 3401, **END.,** Hc. "**LC"**
***D. tabrisianus*** Bien. ex Boiss.
Muş: Malazgirt, Çat village surroundings, steppe, 14.07.2007, 39° 22' 399" N 42° 16' 677" E, 1535 m, LFM 3232, Ir.-Tur., Hc.
***D. orientalis*** Adams
Erzurum: NE of Karaçoban, Kırımkaya villages, Güzelbaba mountain, steppe, 11 vi 2006, 39° 19' 864" N 42° 13' 472" E, 1663 m, LFM 865, Hc.
***D. eythrocoleus*** Boiss.
Erzurum: N of Karaçoban, Kırımkaya villages, Güzelbaba mountain, steppe, 05 vi 2006, 39° 21' 663" N 42° 10' 670" E, 1776 m, LFM 820, **END.,** Ir.-Tur., Hc. **"LC"**
***D. masmenaeus*** Boiss. var. ***glabrescens*** Boiss.
Muş: Malazgirt, Kardeşler village, alluvial steppe, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1811 m, LFM 1614, **END.,** Ir.-Tur., Hc. **"LC"**
▲***D. brevicaulis*** Fenzl subsp. ***brevicaulis***
Muş: Malazgirt, S of Kardeşler village, fields, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1800 m, LFM 1308, Hc.
***D. calocephalus*** Boiss.
Muş: Malazgirt, Karagöz village surroundings, steppe, 16.06.2007, 39° 17' 380" N 42° 06' 427" E, 1583 m, LFM 3213, Hc.
▲***D. capitatus*** Balb. ex DC.
Muş: Malazgirt, 1 km SW of Kuruca village, humid meadows, 23 vi 2006, 39° 21' 177" N 42° 21' 813" E, 1830 m, LFM1190a, Eu.-Sib., Hc.
***Petrorhagia alpina*** (Habl.) Ball & Heywood subsp. ***alpina***
Muş: Malazgirt, S of Kardeşler village, fields, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1800 m, LFM 1303, Th.
***Velezia rigida*** L.
Erzurum: NE of Karaçoban, Kırımkaya villages, Güzelbaba mountain, steppe, 11 vi 2006, 39° 19' 864" N 42° 13' 472" E, 1663 m, LFM 922, Th.
***Gypsophila sphaerocephala*** Fenzl ex Tchihat. var. ***cappadocica*** Boiss.
Muş: Malazgirt, between Karıncalı village and Kaz lake surroundings, steppe, 17 vii 2006, 39° 14' 726" N 42° 24' 165" E, 1646 m, LFM 1872, **END**., Hc. **"LC"**
***G. bicolor*** (Freyn & Sint.) Grossh.
Muş: Malazgirt, Yeniköy surroundings, steppe, 17 vii 2006, 39° 15' 002" N 42° 24' 173" E, 1904 m, LFM 1989, Hc.
***G. perfoliata*** L.
Muş: Malazgirt, 1 km to Doğanbey village, steppe, 30 vii 2006, 39° 18' 228" N 42° 08' 284" E, 1710 m, LFM 2194, Hc.
***G. ruscifolia*** Boiss.
Muş: Malazgirt, İyikomşu village surroundings, humid slopes, 14.07.2007, 39° 26' 255" N 42° 13' 997" E, 1707 m, LFM 3328, Ir.-Tur., Hc.
***G. glandulosa*** (Boiss.) Walp.
Muş: Malazgirt, 2 km SW of Kuruca village, steppe, 11 vii 2006, 39° 21' 434" N 42° 21' 448" E, 1850 m, LFM 1824, **END.,** Eux. (mt.), Hc. **"LC"**
***G. bitlisensis*** Bark.
Muş: Malazgirt, Karıncalı valley, steppe, 26.05.2007, 39° 23' 028" N 42° 17' 045" E, 1590 m, LFM 2852, **END.,** Ir.-Tur., Th. **"NT"**
▲***G. hispida*** Boiss.
Muş: Malazgirt, SE of Karıncalı village, slopes around Kazgölü road, steppe, 23 vi 2006, 39° 21' 216" N 42° 20' 024" E, 1760 m, LFM 1065, Ir.-Tur., Hc.
***G. pilosa*** Hudson
Muş: Malazgirt, Kardeşler village, alluvial steppe, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1811 m, LFM 1530, Ir.-Tur., Th.
***Vaccaria pyramidata*** Medik. var. ***grandiflora*** (Fisch. ex DC.) Cullen
Muş: Malazgirt, between Erence and Karagöz villages, fields, 30 vii 2006, 39° 19' 751" N 42° 14' 632" E, 1686 m, LFM 2076, Th.
***Silene marschallii*** C.A. Mey.
Muş: Malazgirt, 3 km to Karagöz village, roadside, 30 vii 2006, 39° 19' 846" N 42° 13' 808" E, 1623 m, LFM 2101, Ir.-Tur., Hc.
***S. capitellata*** Boiss.
Muş: Malazgirt, between Kuşluca village and Zırnak hill, steppe, 16.06.2007, 39° 15' 341" N 42° 03' 837" E, 2133 m, LFM 3143, **END.,** Ir.-Tur., Hc. **"LC"**
***S. laxa*** Boiss. & Kotschy
Muş: Malazgirt, 1 km N of Kardeşler village, steppe, 06 vii 2006, 39° 21' 865" N 42° 25' 337" E, 1672 m, LFM 1448 Ir.-Tur., Hc.
***S. chlorifolia*** Sm.
Muş: Malazgirt, between Aktuzla and Yapraklı village, steppe, 26.05.2007, 39° 20' 895" N 42° 15' 945" E, 1577 m, LFM 2791, Ir.-Tur., Hc.
***S. sclerophylla*** Chowdhuri
Muş: Malazgirt, between İyikomşu and Kırımkaya village surroundings (Radar), steppe, 01.08.2007, 39° 15' 250" N 42° 03' 700" E, 2095 m, LFM 3340, **END.,** Ir.-Tur., Hc. **"LC"**
***S. otites*** (L.) Wibel
Muş: Malazgirt, Hasanpaşa village 3 km forward, stream-bed, 23 viii 2006, 39° 22' 323" N 42° 29' 748" E, 1743 m, LFM 2481, Hk.
***S. spergulifolia*** (Desf.) M. Bieb.
Muş: Malazgirt, between Kuşluca village and Zırnak hill, steppe, 16.06.2007, 39° 15' 341" N 42° 03' 837" E, 2133 m, LFM 3161, Ir.-Tur., Hc.
***S. montbretiana*** Boiss.
Muş: Malazgirt, between Kuşluca village and Zırnak hill, steppe, 16.06.2007, 39° 15' 341" N 42° 03' 837" E, 2133 m, LFM 3151, Ir.-Tur., Hc.
***S. ampullata*** Boiss.
Muş: Malazgirt, between A.Kıcık and Y.Kıcık villages, steppe, 10.06.2007, 39° 17' 002" N 42° 23' 245" E, 1830 m, LFM 3078, Ir.-Tur., Hc.
***S. odontopetala*** Fenzl
Muş: Malazgirt, 2 km S of Laladağı village, steppe, 23 vi 2006, 39° 18' 072" N 42° 25' 308" E, 1900 m, LFM 1281, Hc.
***S. vulgaris*** (Moench) Garcke var. ***vulgaris***
Muş: Malazgirt, between Kuşluca village and Zırnak hill, steppe, 16.06.2007, 39° 15' 341" N 42° 03' 837" E, 2133 m, LFM 3155, Hc.

***S. vulgaris*** (Moench) Garcke var. ***commutata*** (Guss.) Coode & Cullen
Erzurum: N of Karaçoban, steppe, 30 vii 2006, 39° 20' 226" N 42° 05' 803" E, 1533 m, LFM 2174, Hc.
***S. alba*** (Miller) E.H.L. Krause subsp. ***eriocalycina*** (Boiss.) Walters
Muş: Malazgirt, north slopes in the of the hills eastern of Karıncalı village, humid places, 10.06.2007, 39° 22' 294" N 42° 17' 842" E, 1702 m, LFM 2954, Hc.
***S. noctiflora*** L.
Muş: Malazgirt, İyikomşu village surroundings, humid slopes, 14.07.2007, 39° 26' 255" N 42° 13' 997" E, 1707 m, LFM 3331, Th.
***S. dichotoma*** Ehrh. subsp. ***sibthorpiana*** (Rchb.) Rech.
Muş: Malazgirt, A. Kıcık village, steppe, 11 vii 2006, 39° 15' 220" N 42° 22' 839" E, 1642 m, LFM 1723, Hc.
***S. conoidea*** L.
Muş: Malazgirt, Karıncalı valley, fields, 26.05.2007, 39° 22' 587" N 42° 17' 506" E, 1623 m, LFM 2879, Th.
***Agrostemma githago*** L.
Muş: Malazgirt, Karıncalı village, steppe, 29 v 2006, 39° 22' 485" N 42° 16' 298" E, 1509 m, LFM 659, Th.

**ILLECEBRACEAE**
***Herniaria glabra*** L.
Muş: Malazgirt, between Y. Kıcık and A.Kıcık villages, steppe, 17 vii 2006, 39° 13' 088" N 42° 24' 073" E 1650 m, LFM 2059, Th.
***H. hirsuta*** L.
Erzurum: Karaçoban, Kırmızı Tuzla surroundings, steppe, 30 vii 2006, 39° 17' 412" N 42° 06' 330" E, 1576 m, LFM 2210, Th.
***H. incana*** Lam.
Muş: Malazgirt, between Beşdam and Sırtdüzü villages, streamside, 02.09.2007, 39° 21' 439" N 42° 15' 293" E, 1489 m, LFM 3687, Hc.
***Paronychia kurdica*** Boiss. subsp. ***kurdica*** var. ***kurdica***
Erzurum: NE of Karaçoban, Kırımkaya villages, Güzelbaba mountain, steppe, 11 vi 2006, 39° 19' 864" N 42° 13' 472" E, 1663 m, LFM 884, Hc.
***Scleranthus uncinatus*** Schur
Muş: Malazgirt, between A.Kıcık and Y.Kıcık villages, wet places, 18.08.2007, 39° 16' 951" N 42° 23' 140" E, 1848 m, LFM 3620, Th.

**POLYGONACEAE**
***Polygonum amphibium*** L.
Muş: Malazgirt, SE of Laladağ village, around Sarıgöl, meadow-swamp, 18.08.2007, 39° 18' 379" N 42° 25' 858" E, 1969 m, LFM 3428, Hc.
***P. lapathifolium*** L.
Muş: Malazgirt, Y.Kıcık village surroundings, weeds, 18.08.2007, 39° 17' 541" N 42° 23' 465" E, 1917 m, LFM 3645, Hc.
***P. setosum*** Jacq.
Muş: Malazgirt, NW of Hasanpaşa village (Karagölmez district), steppe, 05.09.2007, 39° 19' 936" N 42° 28' 281" E, 1808 m, LFM 3737, Ir.-Tur., Hc.
***P. aviculare*** L.
Muş: Malazgirt, Laladağ, steppe, 18.08.2007, 39° 18' 315" N 42° 23' 707" E, 1997 m, LFM 3481, Th.
***Rumex acetosella*** L.
Muş: Malazgirt, between İyikomşu and Kırımkaya village surroundings (Radar), steppe, 01.08.2007, 39° 15' 250" N 42° 03' 700" E, 2095 m, LFM 3347, Hc.
***R. scutatus*** L.
Muş: Malazgirt, Karıncalı valley, steppe, 26.10.2006, 39° 21' 456" N 42° 15' 582" E, 1552 m, LFM 2522; 243, LFM 3772, Hc.
***R. tuberosus*** L. subsp. ***horizontalis*** (Koch.) Rech.
Erzurum: Karaçoban, Karakol, Karagöz village surroundings, steppe, 20 vi 2006, 39° 19' 864" N 42° 13' 472" E, 1663 m, LFM 1006, Cr.
***R. ponticus*** E.H.L. Krause
Muş: Malazgirt, Kardeşler village, alluvial steppe, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1811 m, LFM 1617, **END.,** Ir.-Tur., Hc. **"LC"**
***R. angustifolius*** Campd. subsp. ***macranthus*** (Boiss.) Rech.
Muş: Malazgirt, Bahçe (Seydan) lake surroundings, streamside, 23 viii 2006, 39° 23' 366" N 42° 29' 082" E, 1686 m, LFM 2455, Hc.

**CHENOPODIACEAE**
***Polycnemum arvense*** L.
Muş: Malazgirt, NW of Hasanpaşa village (Karagölmez district), steppe, 05.09.2007, 39° 19' 936" N 42° 28' 281" E, 1808 m, LFM 3730, Th.
***Beta lomatogona*** Fisch. & C.A. Mey.
Muş: Malazgirt, 1 km N of Kardeşler village, steppe, 06 vii 2006, 39° 21' 865" N 42° 25' 337" E, 1672 m, LFM 1445, Ir.-Tur., Hc.
***Chenopodium botrys*** L.
Muş: Malazgirt, Bahçe (Seydan) lake surroundings, steppe, 23 viii 2006, 39° 23' 366" N 42° 29' 082" E, 1686 m, LFM 2452, Th.
***C. album*** L. subsp. ***album*** var. ***album***
Erzurum: Karaçoban, Kırmızı Tuzla surroundings, salty places, 30 vii 2006, 39° 17' 412" N 42° 06' 330" E, 1576 m, LFM 2269, Th. (Halofit)
***C. album*** L. subsp. ***album*** var. ***microphyllum*** (Boenn) Aellen
Muş: Malazgirt, Bahçe (Seydan) lake surroundings, sandy places, 23 viii 2006, 39° 23' 366" N 42° 29' 082" E, 1686 m, LFM 2461, Th. (Halofit)
***C. album*** L. subsp. ***iranicum*** Aellen
Muş: Malazgirt, Bahçe Tuzlası, salty places, 23 viii 2006, 39° 24' 018" N 42° 28' 179" E, 1579 m, LFM 2403a, Th. (Halofit)
▲***Atriplex laevis*** C.A. Mey.
Muş: Malazgirt, Bahçe Tuzlası, salty places, 23 viii 2006, 39° 24' 018" N 42° 28' 179" E, 1579 m, LFM 2403b, Th. (Halofit)
***A. pungens*** Trautv.
Muş: Malazgirt, between Sarıgöl and Gölağılı village, steppe, 18.08.2007, 39° 17' 302" N 42° 26' 470" E, 1950 m, LFM 3607, Th. (Halofit)
***Salicornia europaea*** L.
Muş: Malazgirt, Bahçe Tuzlası, salty places, 06 vii 2006, 39° 23' 977" N 42° 28' 114" E, 1587 m, LFM 1377, Th. (Halofit)
***Salsola kali*** L. subsp. ***tragus*** (L.) Nyman
Muş: Malazgirt, Bahçe Tuzlası, salty places, 06 vii 2006, 39° 23' 977" N 42° 28' 114" E, 1587 m, LFM 1378, Th. (Halofit)
***S. ruthenica*** Iljin
Muş: Malazgirt, Bahçe Tuzlası, salty places, 23 viii 2006, 39° 24' 018" N 42° 28' 179" E, 1579 m, LFM 2402, Hc.
***S. canescens*** (Moq.) Boiss.
Muş: Malazgirt, Karıncalı valley, rocky places, 26.10.2006, 39° 21' 456" N 42° 15' 582" E, 1552 m, LFM 2538, Ir.-Tur., Kh.
▲***Petrosimonia squarrosa*** (Schrenk) Bunge
Erzurum: Karaçoban, Kırmızı Tuzla surroundings, steppe, 30 vii 2006, 39° 17' 412" N 42° 06' 330" E, 1576 m, LFM 2274, Th. (Halofit)

**AMARANTHACEAE**
***Amaranthus retroflexus*** L.
Muş: Malazgirt, Bahçe (Seydan) lake surroundings, sandy places, 23 viii 2006, 39° 23' 366" N 42° 29' 082" E, 1686 m, LFM 2460, Th.
***A. albus*** L.
Muş: Malazgirt, between Beşdam and Sırtdüzü villages, streamside, 02.09.2007, 39° 21' 439" N 42° 15' 293" E, 1489 m, LFM 3664, Th.

**ELATINACEAE**
***Elatine alsinastrum*** L.
Muş: Malazgirt, SE of Laladağ village, around Sarıgöl, meadow-swamp, 18.08.2007, 39° 18' 379" N 42° 25' 858" E, 1969 m, LFM 3427, Cr.

**HYPERICACEAE (GUTTIFERAE)**
***Hypericum lysimachioides*** Boiss. & Noë var. ***lysimachioides***
Muş: Malazgirt, Karıncalı village surroundings, steppe, 14.07.2007, 39° 22' 564" N 42° 15' 556" E, 1598 m, LFM 3290, Ir.-Tur., Hc.

***H. elongatum*** Ledeb. subsp. ***elongatum***
Muş: Malazgirt, Karıncalı valley, steppe, 26.05.2007, 39° 22' 796" N 42° 17' 676" E, 1769 m, LFM 2895, Ir.-Tur., Hc.
***H. lydium*** Boiss.
Muş: Malazgirt, 1 km to Doğanbey village, steppe, 30 vii 2006, 39° 18' 228" N 42° 08' 284" E, 1710 m, LFM 2203, Hc.
***H. helianthemoides*** (Spach) Boiss.
Erzurum: Karaçoban, Kırmızı Tuzla surroundings, steppe, 30 vii 2006, 39° 17' 412" N 42° 06' 330" E, 1576 m, LFM 2276, Ir.-Tur., Hc.
***H. scabrum*** L.
Muş: Malazgirt, Laladağ, steppe-fallowing lands, 18.08.2007, 39° 17' 949" N 42° 23' 599" E, 2055 m, LFM 3546, Ir.-Tur., Kh.
***H. formosissimum*** Takht.
Muş: Malazgirt, S of Kardeşler village, streamside, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1800 m, LFM 1315, Ir.-Tur., Kh.
***H. tetrapterum*** Fr.
Muş: Malazgirt, between Y. Kıcık and A.Kıcık villages, steppe, 17 vii 2006, 39° 13' 088" N 42° 24' 073" E 1650 m, LFM 2055, Hc.
***H. perforatum*** L.
Erzurum: NE of Karaçoban, Kırımkaya villages, Güzelbaba mountain, steppe, 11 vi 2006, 39° 19' 864" N 42° 13' 472" E, 1663 m, LFM 883, Hc.

**MALVACEAE**
***Malva sylvestris*** L.
Muş: Malazgirt, NW of Hasanpaşa village (Karagölmez district), stream bed, 05.09.2007, 39° 19' 936" N 42° 28' 281" E, 1808 m, LFM 3769, Hc.
***Alcea setosa*** (Boiss.) Alef.
Muş: Malazgirt, Bahçe (Seydan) lake surroundings, steppe, 23 viii 2006, 39° 23' 366" N 42° 29' 082" E, 1686 m, LFM 2432, E. Med., Hc.
***A. apterocarpa*** (Fenzl) Boiss.
Muş: Malazgirt, between Beşdam and Sırtdüzü villages, steppe, 02.09.2007, 39° 21' 439" N 42° 15' 293" E, 1489 m, LFM 3713, **END.,** Ir.-Tur., Hc. **"LC"**
***A. kurdica*** (Schltr) Alef.
Muş: Malazgirt, 1 km N of Kardeşler village, steppe, 06 vii 2006, 39° 21' 865" N 42° 25' 337" E, 1672 m, LFM 1439, Ir.-Tur., Hc. **"VU"**

**LINACEAE**
***Linum mucronatum*** Bertol subsp. ***orientale*** (Boiss.) P.H. Davis
Muş: Malazgirt, north slopes in the of the hills eastern of Karıncalı village, steppe, 10.06.2007, 39° 22' 294" N 42° 17' 842" E, 1702 m, LFM 2900, Kh. **"VU"**
***L. mucronatum*** Bertol subsp. ***armenum*** (Bordz.) P.H. Davis
Muş: Malazgirt, ,10 km to to Aktuzla, steppe, 05 vi 2006, 39° 16' 666" N 42° 17' 276" E, 1612 m, LFM 797, Ir.-Tur., Kh.
***L. flavum*** L. subsp. ***scabrinerve*** (P.H. Davis) P.H. Davis
Muş: Malazgirt, SE of Karıncalı village, slopes around Kazgölü road, steppe, 23 vi 2006, 39° 21' 216" N 42° 20' 024" E, 1760 m, LFM 1082, **END.,** Ir.-Tur., Kh. **"LC"**
▲***L. unguiculatum*** P.H. Davis
Muş: Malazgirt, N of Kazgölü, steppe, 23 vi 2006, 39° 20' 604" N 42° 21' 882" E, 1830 m, LFM 1123, **END.,** Ir.-Tur., Hc. **"LC"**
***L. meletonis*** Hand.-Mazz.
Muş: Malazgirt, Karıncalı valley, steppe, 26.05.2007, 39° 23' 028" N 42° 17' 045" E, 1590 m, LFM 2808, Ir.-Tur., Hc.
***L. austriacum*** L. subsp. ***austriacum***
Muş: Malazgirt, 3 km to Karagöz village, steppe, 30 vii 2006, 39° 19' 846" N 42° 13' 808" E, 1623 m, LFM 2120, Hc.

**GERANIACEAE**
***Geranium lucidum*** L.
Muş: Malazgirt, NW of Koçali village ,fields, 2 iv 2006, 39° 21' 925" N 42° 29' 772" E, 1742 m, LFM 026, Th.
***G. tuberosum*** L. subsp. ***tuberosum***
Muş: Malazgirt, Yapraklı village surroundings, fields, 27 v 2006, 39° 21' 031" N 42° 15' 978" E, 1591 m, LFM 311, Cr.
***G. stepporum*** P.H. Davis
Muş: Malazgirt, Bademözü village surroundings, meadows, 21.05.2007, 39° 24' 712" N 42° 26' 095" E, 1766 m, LFM 2687, Ir.-Tur., Cr.
***G. sylvaticum*** L.
Muş: Malazgirt, 1 km to Doğanbey village, steppe, 30 vii 2006, 39° 18' 228" N 42° 08' 284" E, 1710 m, LFM 2192, Eu.-Sib., Hc.
***G. collinum*** Stephan ex Willd.
Muş: Malazgirt, between A.Kıcık and Y.Kıcık villages, wet places, 18.08.2007, 39° 16' 951" N 42° 23' 140" E, 1848 m, LFM 3627, Cr.
***G. pratense*** L. subsp. ***finitimum*** (Woronow) Knuth
Muş: Malazgirt, 3 km NW of Hasanpaşa village, streamside, 23 viii 2006, 39° 22' 323" N 42° 29' 748" E, 1743 m, LFM 2355, Hc.
***Erodium absinthoides*** Willd. subsp. ***absinthoides***
Muş: Malazgirt, Beypınarı village surroundings, steppe, 21.05.2007, 39° 24' 310" N 42° 23' 563" E, 1751 m, LFM 2778, **END.,** Ir.-Tur., Hc. **"LC"**
***E. absinthoides*** Willd. subsp. ***armenum*** (Trautv.) P.H.Davis
Muş: Malazgirt, S of Ağılbaşı village, steppe, 21.05.2007, 39° 24' 681" N 42° 21' 974" E, 1798 m, LFM 2767, Ir.-Tur., Hc.

**ZYGOPHYLLACEAE**
***Tribulus terrestris*** L.
Muş: Malazgirt, between Beşdam and Sırtdüzü villages, streamside, 02.09.2007, 39° 21' 439" N 42° 15' 293" E, 1489 m, LFM 3663, Th.

**RUTACEAE**
***Haplophyllum ptilostylum*** Spach
Muş: Malazgirt, Bahçe tuzlası surroundings, steppe, 06 vii 2006, 39° 25' 035" N 42° 27' 201" E, 1724 m, LFM 1389, Ir.-Tur., Kh.

**ACERACEAE**
***Acer tataricum*** L.
Muş: Malazgirt, Karıncalı valley, streamside, 26.10.2006, 39° 21' 456" N 42° 15' 582" E, 1552 m, LFM 2574, Fh.

**RHAMNACEAE**
▲***Frangula alnus*** Mill. subsp. ***alnus***
Muş: Malazgirt, Kardeşler village, Sarıtaş stream, streamside, 08.09.2007, 39° 20' 827" N 42° 27' 080" E, 1696 m, LFM 3797, Eu.-Sib., Fh.
***Rhamnus catharticus*** L. var. ***catharticus***
Muş: Malazgirt, S of Kardeşler village, inside of the valley-humid places, 06 vii 2006, 39° 19' 088" N 42° 26' 703" E, 1800 m, LFM 1684, Eu.-Sib., Fh.
***R. kurdicus*** Boiss. & Hohen.
Muş: Malazgirt, Karıncalı village valleys, steppe, 17 vii 2006, 39° 17' 410" N 42° 23' 353" E, 1904 m, LFM 1914, Ir.-Tur., Fh.

**FABACEAE**
▲***Genista tinctoria*** L.
Muş: Malazgirt, between Yolgözler and İyikomşu villages, steppe, 14.07.2007, 39° 25' 287" N 42° 13' 621" E, 1744 m, LFM 3246, Eu.-Sib., Kh.
***Astragalus densifolius*** Lam. subsp. ***densifolius***
Muş: Malazgirt, Kardeşler village, alluvial steppe, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1811 m, LFM 1658, Ir.-Tur., Kh. Det: Z. Aytaç & M. Ekici
***A. macrostachys*** DC.
Erzurum: Karaçoban, Karakol, Karagöz village surroundings, steppe, 20 vi 2006, 39° 19' 864" N 42° 13' 472" E, 1663 m, LFM 1011, Ir.-Tur., Hc.
***A. macrourus*** Fisch. & C.A. Mey.
Muş: Malazgirt, between Kuşluca village and Zırnak hill, steppe, 16.06.2007, 39° 15' 341" N 42° 03' 837" E, 2133 m, LFM 3139, Ir.-Tur., Hc. Det: Z. Aytaç & M. Ekici

***A. fraxinifolius*** DC.
Muş: Malazgirt, between Kuşluca village and Zırnak hill, steppe, 16.06.2007, 39° 15' 341" N 42° 03' 837" E, 2133 m, LFM 3142, Ir.-Tur., Kh.
***A. christianus*** L.
Muş: Malazgirt, 1 km to A. Kıcık village, steppe, 12.05.2007, 39° 14' 899" N 42° 22' 092" E, 1589 m, LFM 2654, Kh.
***A. angustiflorus*** K. Koch subsp. ***angustiflorus***
Muş: Malazgirt, W of Kazgölü village, fields, 23 vi 2006, 39° 20' 004" N 42° 21' 608" E, 1800 m, LFM 1230, Ir.-Tur., Kh.
***A. fraxinella*** Bunge
Muş: Malazgirt, W of Kaz gölü village, steppe, 10.06.2007, 39° 20' 706" N 42° 21' 500" E, 1764 m, LFM 3031, Ir.-Tur., Kh.
***A. brachycalyx*** Fisch.
Muş: Malazgirt, between İyikomşu and Kırımkaya village surroundings (Radar), steppe, 01.08.2007, 39° 15' 250" N 42° 03' 700" E, 2095 m, LFM 3362, Ir.-Tur., Kh.
***A. gummifer*** Labill.
Muş: Malazgirt, 3 km NW of Hasanpaşa village, steppe, 23 viii 2006, 39° 22' 323" N 42° 29' 748" E, 1743 m, LFM 2317, Ir.-Tur., Kh.
***A. microcephalus*** Willd.
Muş: Malazgirt, N of Kazgölü, steppe, 23 vi 2006, 39° 20' 604" N 42° 21' 882" E, 1830 m, LFM 1126, Ir.-Tur., Kh.
***A. pycnocephalus*** Fisch. var. ***pycnocephalus***
Muş: Malazgirt, 1 km N of Kardeşler village, steppe, 06 vii 2006, 39° 21' 865" N 42° 25' 337" E, 1672 m, LFM 1438, Ir.-Tur., Kh.
***A. amblolepis*** Fisch.
Muş: Malazgirt, 3 km to Karagöz village, steppe, 30 vii 2006, 39° 19' 846" N 42° 13' 808" E, 1623 m, LFM 2110, Ir.-Tur., Kh.
***A. wartoensis*** Boiss.
Muş: Malazgirt, 2 km to to A. Kıcık village, steppe, 11 vii 2006, 39° 15' 220" N 42° 22' 839" E, 1642 m, LFM 1696, Kh.
▲***A. lagowskii*** Trautv.
Muş: Malazgirt, Kardeşler village, alluvial steppe, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1811 m, LFM 1607, Kh.
***A. lagurus*** Willd.
Muş: Malazgirt, between İyikomşu and Kırımkaya village surroundings (Radar), steppe, 01.08.2007, 39° 15' 250" N 42° 03' 700" E, 2095 m, LFM 3360, Ir.-Tur., Kh.
***A. brachypodus*** Boiss.
Muş: Malazgirt, S of Kardeşler village, steppe, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1800 m, LFM 1304, Ir.-Tur., Kh.
***A. halicacabus*** Lam.
Muş: Malazgirt, between A.Kıcık and Y.Kıcık villages, steppe, 10.06.2007, 39° 17' 002" N 42° 23' 245" E, 1830 m, LFM 3080, Ir.-Tur., Kh.
***A. macrocephalus*** Willd. subsp. ***finitimus*** (Bunge) Chamb.
Muş: Malazgirt, 1 km N of Kuruca village, steppe, 10.06.2007, 39° 21' 838" N 42° 24' 046" E, 1710 m, LFM 3061, Ir.-Tur., Kh.
***A. echinops*** Aucher ex Boiss.
Muş: Malazgirt, S of Laladağ village, roadside-meadow, 23 vi 2006, 39° 18' 450" N 42° 25' 098" E, 1650 m, LFM 1148b, Kh.
***A. odoratus*** Lam.
Muş: Malazgirt, Karagöz village surroundings, steppe, 16.06.2007, 39° 17' 380" N 42° 06' 427" E, 1583 m, LFM 3110, Kh.
***A. xylobasis*** Freyn & Bornm. var. ***angustus*** (Freyn & Sint.) Freyn & Bornm.
Muş: Malazgirt, Karagöz village surroundings, steppe, 16.06.2007, 39° 17' 380" N 42° 06' 427" E, 1583 m, LFM 3096, **END.,** Ir.-Tur., Kh. **"LC"**
***A. onobrychioides*** M. Bieb.
Muş: Malazgirt, ,10 km to to Aktuzla, steppe, 05 vi 2006, 39° 16' 666" N 42° 17' 276" E, 1612 m, LFM 805, Kh. **"VU"**
***A. arguricus*** Bunge
Muş: Malazgirt, SE of Karıncalı village, slopes around Kazgölü road, steppe, 23 vi 2006, 39° 21' 216" N 42° 20' 024" E, 1760 m, LFM 1115, Ir.-Tur., Kh. **"VU"**
***A. xerophilus*** Ledeb.
Erzurum: NE of Karaçoban, Kırımkaya villages, Güzelbaba mountain, steppe, 11 vi 2006, 39° 19' 864" N 42° 13' 472" E, 1663 m, LFM 872, **END.,** Ir.-Tur., Kh. **"LC"**
***A. bicolor*** Lam.
Muş: Malazgirt, south slopes in the of the hills eastern of Karıncalı village, steppe, 10.06.2007, 39° 22' 279" N 42° 17' 748" E, 1760 m, LFM 2967, Ir.-Tur., Kh.
***A. fragrans*** Willd.
Muş: Malazgirt, Sırtdüzü village surroundings, steppe, 21.05.2007, 39° 27' 105" N 42° 23' 465" E, 1851 m, LFM 2747, Ir.-Tur., Kh.
***A. tigridis*** Boiss.
Muş: Malazgirt, 2 km to Karagöz village, steppe, 30 vii 2006, 39° 19' 651" N 42° 13' 112" E, 1647 m, LFM 2250, Ir.-Tur., Kh.
***A. campylosema*** Boiss. subsp. ***campylosema***
Muş: Malazgirt, Kardeşler village, alluvial steppe, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1811 m, LFM 1592; Muş: Malazgirt, Y. Kıcık village surroundings, steppe, 17 vii 2006, 39° 17' 410" N 42° 23' 353" E, 1904 m, LFM 1903, **END.,** Ir.-Tur., Kh. **"LC"**
***A. campylosema*** Boiss. subsp. ***nigripilis*** Hub.-Mor. & Chamb.
Muş: Malazgirt, Karagöz village surroundings, steppe, 16.06.2007, 39° 17' 380" N 42° 06' 427" E, 1583 m,LFM 3189, **END.,** Ir.-Tur., Kh. **"LC"**
***A. subrobustus*** Boriss.
Muş: Malazgirt, Hasanpaşa village surroundings, steppe, 21.05.2007, 39° 21' 834" N 42° 29' 758" E, 1746 m, LFM 2728, Ir.-Tur., Kh.
***A. aucheri*** Boiss.
Muş: Malazgirt, Karıncalı valley, steppe, 26.05.2007, 39° 23' 028" N 42° 17' 045" E, 1590 m, LFM 2842, Ir.-Tur., Kh.
***Oxytropis lupinoides*** Grossh.
Muş: Malazgirt, SE of Karıncalı village, slopes around Kazgölü road, steppe, 23 vi 2006, 39° 21' 216" N 42° 20' 024" E, 1760 m, LFM 1052, Ir.-Tur., Kh.
***Glycyrrhiza glabra*** L. var. ***glabra***
Muş: Malazgirt, N of Kardeşler village, steppe, 06 vii 2006, 39° 21' 865" N 42° 25' 537" E, 1672 m, LFM 1348a, Hc.
***G. glabra*** L. var. ***glandulifera*** (Waldst. & Kit Tan) Boiss.
Muş: Malazgirt, N of Kardeşler village, steppe, 06 vii 2006, 39° 21' 865" N 42° 25' 537" E, 1672 m, LFM 1348b; Erzurum: Karaçoban, Kırmızı Tuzla surroundings, steppe, 30 vii 2006, 39° 17' 412" N 42° 06' 330" E, 1576 m, LFM 2290, Hc.
***Cicer echinospermum*** P.H. Davis
Muş: Malazgirt, Kardeşler village, alluvial steppe, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1811 m, LFM 1518, **END.,** Ir.-Tur., Th. **"VU"**
***Vicia cracca*** L. subsp. ***cracca***
Muş: Malazgirt, SE of Laladağ village, Salix caprea community, 18.08.2007, 39° 18' 931" N 42° 23' 682" E, 1861 m, LFM 3532, Eu.-Sib., Hc.
***V. cracca*** L. subsp. ***stenophylla*** Vel.
Muş: Malazgirt, Laladağ, steppe-fallowing lands, 18.08.2007, 39° 17' 949" N 42° 23' 599" E, 2055 m, LFM 3547, Hc.
***V. cappadocica*** Boiss. & Bal.
Muş: Malazgirt, Karıncalı valley, steppe, 26.05.2007, 39° 23' 028" N 42° 17' 045" E, 1590 m, LFM 2802, Th.
▲***V. assyriaca*** Boiss.
Muş: Malazgirt, Kardeşler village, alluvial steppe, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1811 m, LFM 1609, Ir.-Tur., Th.
▲***V. michauxii*** Spreng. var. ***stenophylla*** Boiss.
Muş: Malazgirt, Karıncalı valley, steppe, 26.05.2007, 39° 23' 028" N 42° 17' 045" E, 1590 m, LFM 2797, Ir.-Tur., Th.
▲***V. pannonica*** Crantz var. ***pannonica***
Muş: Malazgirt, S of Ağılbaşı village, steppe, 21.05.2007, 39° 24' 681" N 42° 21' 974" E, 1798 m, LFM 2755, Th.
***V. sativa*** L. subsp. ***nigra*** (L.) Ehrh. var. ***nigra***
Muş: Malazgirt, A. Kıcık village, steppe, 11 vii 2006, 39° 15' 220" N 42° 22' 839" E, 1642 m, LFM 1732, Th.
***Lens montbretii*** (Fisch. & C.A. Mey.) P.H. Davis
Muş: Malazgirt, Kardeşler village, alluvial steppe, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1811 m, LFM 1591, Th.
***L. orientalis*** (Boiss.) Hand.-Mazz.
Erzurum: Karaçoban, Karakol, Karagöz village surroundings, steppe, 20 vi 2006, 39° 19' 864" N 42° 13' 472" E, 1663 m, LFM 951, Th.
***Lathyrus pallescens*** (M. Bieb.) K. Koch
Muş: Malazgirt, N of Kaz lake, meadow, 10.06.2007, 39° 20' 891" N 42° 19' 449" E, 1775 m, LFM 2991, Hc.

***L. cyaneus*** (Steven) K. Koch var. ***pinnatus*** P.H. Davis
Muş: Malazgirt, Sırtdüzü village surroundings, steppe, 21.05.2007, 39° 27' 105" N 42° 23' 465" E, 1851 m, LFM 2738, **END.,** Hc. **"NT"**
***L. boissieri*** Širj.
Muş: Malazgirt, Bahçe (Seydan) lake surroundings, meadow, 05.09.2007, 39° 23' 294" N 42° 28' 775" E, 1638 m, LFM 3779, Ir.-Tur., Hc.
***L. layardii*** J. Ball ex Boiss.
Muş: Malazgirt, N of Kaz lake, meadow, 10.06.2007, 39° 20' 891" N 42° 19' 449" E, 1775 m, LFM 2996, **END.,** Ir.-Tur., Hc. **"VU"**
***L. cicera*** L.
Muş: Malazgirt, W of Kaz gölü village, meadows, 10.06.2007, 39° 20' 706" N 42° 21' 500" E, 1764 m, LFM 3033, Th.
▲***L. sativus*** L.
Muş: Malazgirt, Kardeşler village, alluvial steppe, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1811 m, LFM 1539, Th.
***Pisum sativum*** L. subsp. ***sativum*** var. ***arvense*** (L.) Poir.
Muş: Malazgirt, Karıncalı valley, steppe, 26.05.2007, 39° 23' 028" N 42° 17' 045" E, 1590 m, LFM 2867, Th.
***Ononis arvensis*** L.
Muş: Malazgirt, Kardeşler village, humid alluvial places, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1811 m, LFM 1496, Eu.-Sib., Hc.
***Trifolium repens*** L. var. ***repens***
Muş: Malazgirt, between A.Kıcık and Y.Kıcık villages, wet places, 18.08.2007, 39° 16' 951" N 42° 23' 140" E, 1848 m, LFM 3621, Hc.
***T. ambiguum*** M. Bieb.
Muş: Malazgirt, S of Kuruca village, rush bed-marshy place, 23 vi 2006, 39° 19' 950" N 42° 23' 749" E, 1670 m, LFM 1160, Hc.
***T. campestre*** Schreb.
Muş: Malazgirt, W of Kazgölü village, streamside-wet places, 23 vi 2006, 39° 20' 004" N 42° 21' 608" E, 1710 m, LFM 1256, Th.
***T. fragiferum*** L. var. ***fragiferum***
Muş: Malazgirt, N of Bahçe village 300 m, streamside, 23 viii 2006, 39° 21' 542" N 42° 27' 897" E, 1637 m, LFM 2415, Hc.
***T. fragiferum*** L. var. ***pulchellum*** Lange
Muş: Malazgirt, SE of Laladağ village, around Sarıgöl, meadow-swamp, 18.08.2007, 39° 18' 379" N 42° 25' 858" E, 1969 m, LFM 3432, Hc.
***T. pratense*** L. var. ***pratense***
Muş: Malazgirt, N of Kaz lake, meadow, 10.06.2007, 39° 20' 891" N 42° 19' 449" E, 1775 m, LFM 3013, Hc.
***T. trichocephalum*** M. Bieb.
Muş: Malazgirt, 1 km SW of Kuruca village, humid meadows, 23 vi 2006, 39° 21' 177" N 42° 21' 813" E, 1830 m, LFM 1194, Hc.
***T. arvense*** L. var. ***arvense***
Muş: Malazgirt, between Yolgözler and İyikomşu villages, steppe, 14.07.2007, 39° 25' 287" N 42° 13' 621" E, 1744 m, LFM 3258b, Th.
***Melilotus officinalis*** (L.) Desr.
Erzurum: Karaçoban, Karakol, Karagöz village surroundings, steppe, 20 vi 2006, 39° 19' 864" N 42° 13' 472" E, 1663 m, LFM 964, Hc.
***M. alba*** Desr.
Muş: Malazgirt, 2 km SW of Kuruca village, stream side, 11 vii 2006, 39° 21' 434" N 42° 21' 448" E, 1850 m, LFM 1821, Hc.
***Trigonella velutina*** Boiss.
Erzurum: N of Karaçoban, Kırımkaya villages, Güzelbaba mountain, steppe, 05 vi 2006, 39° 21' 663" N 42° 10' 670" E, 1776 m, LFM 828, Ir.-Tur., Th.
***T. astroides*** Fisch. & C.A. Mey.
Muş: Malazgirt, Bahçe (Seydan) lake surroundings, steppe, 23 viii 2006, 39° 23' 366" N 42° 29' 082" E, 1686 m, LFM 2459, Ir.-Tur., Th.
***T. monantha*** C.A. Mey. subsp. ***monantha***
Muş: Malazgirt, Karıncalı valley, steppe, 26.05.2007, 39° 23' 028" N 42° 17' 045" E, 1590 m, LFM 2799, Ir.-Tur., Th.
***Medicago lupulina*** L.
Muş: Malazgirt, Yeniköy surroundings, steppe, 17 vii 2006, 39° 15' 002" N 42° 24' 173" E, 1904 m, LFM 2002, Hc.
***M.*** x ***varia*** Martyn
Muş: Malazgirt, Karadere village surroundings, steppe, 01.08.2007, 39° 23' 641" N 42° 12' 306" E, 1750 m, LFM 3424, Hc.
▲***Dorycnium pentaphyllum*** Scop subsp. ***haussknechtii*** (Boiss.) Gams
Muş: Malazgirt, between Yolgözler and İyikomşu villages, steppe, 14.07.2007, 39° 25' 287" N 42° 13' 621" E, 1744 m, LFM 3254, **END.,** Ir.-Tur., Kh. **"LC"**
***Lotus corniculatus*** L. var. ***corniculatus***
Muş: Malazgirt, Laladağ, humid places, 18.08.2007, 39° 18' 315" N 42° 23' 707" E, 1997 m, LFM 3496, Hc.
***L. corniculatus*** L. var. ***tenuifolius*** L.
Muş: Malazgirt, Karagöz lake surroundings, steppe, 30 vii 2006, 39° 19' 651" N 42° 13' 112" E, 1647 m, LFM 2085, Hc.
***Coronilla orientalis*** Miller var. ***orientalis***
Muş: Malazgirt, 2 km S of Laladağı village, steppe, 23 vi 2006, 39° 18' 072" N 42° 25' 308" E, 1900 m, LFM 1276, Hc.
***C. varia*** L. subsp. ***varia***
Muş: Malazgirt, S of Kuruca village, rush bed-marshy place, 23 vi 2006, 39° 19' 950" N 42° 23' 749" E, 1670 m, LFM 1161, Hc.
***Hedysarum varium*** Willd.
Muş: Malazgirt, south slopes in the of the hills eastern of Karıncalı village, steppe, 10.06.2007, 39° 22' 279" N 42° 17' 748" E, 1760 m, LFM 2978, Ir.-Tur., Kh.
***H. syriacum*** Boiss.
Muş: Malazgirt, N of Kazgölü, steppe, 23 vi 2006, 39° 20' 604" N 42° 21' 882" E, 1830 m, LFM 1125, Ir.-Tur., Kh.
***H. nitidum*** Willd.
Muş: Malazgirt, SE of Karıncalı village, slopes around Kazgölü road, steppe, 23 vi 2006, 39° 21' 216" N 42° 20' 024" E, 1760 m, LFM 1066, **END.,** Ir.-Tur., Kh. **"LC"**
***Onobrychis cornuta*** (L.) Desv.
Muş: Malazgirt, W of Kaz gölü village, meadows, 10.06.2007, 39° 20' 706" N 42° 21' 500" E, 1764 m, LFM 3034, Ir.-Tur., Kh.
***O. stenostachya*** Freyn subsp. ***sosnowskyi*** (Grossh.) Hedge
Muş: Malazgirt, 1 km N of Uyanık village, steppe, 06 vii 2006, 39° 22' 794" N 42° 24' 602" E, 1720 m, LFM 1487, **END.,** Ir.-Tur., Hc. **"VU"**
***O. fallax*** Freyn & Sint.
Muş: Malazgirt, Kuruca village, steppe, 11 vii 2006, 39° 21' 232" N 42° 22' 749" E, 1682 m, LFM 1805, **END.,** Hc. **"LC"**
▲***O. pisidica*** Boiss.
Muş: Malazgirt, between İyikomşu and Kırımkaya village surroundings (Radar), steppe, 01.08.2007, 39° 15' 250" N 42° 03' 700" E, 2095 m, LFM 3348, **END.,** Ir.-Tur., Hc. **"NT"**
***O. hajastana*** Grossh.
Muş: Malazgirt, SE of Karıncalı village, slopes around Kazgölü road, steppe, 23 vi 2006, 39° 21' 216" N 42° 20' 024" E, 1760 m, LFM 1091, Ir.-Tur., Hc.
***O. altissima*** Grossh.
Erzurum: Karaçoban, Karakol, Karagöz village surroundings, steppe, 20 vi 2006, 39° 19' 864" N 42° 13' 472" E, 1663 m, LFM 943, Hc.
***O. galegifolia*** Boiss.
Muş: Malazgirt, between Karıncalı and Yolgözler villages, steppe, 14.07.2007, 39° 23' 133" N 42° 16' 042" E, 1625 m, LFM 3312, Ir.-Tur., Hc.
***O. radiata*** (Desf.) M. Bieb.
Muş: Malazgirt, 2 km SW of Kuruca village, steppe, 11 vii 2006, 39° 21' 434" N 42° 21' 448" E, 1850 m, LFM 1827, Hc.

**ROSACEAE**
***Cerasus microcarpa*** (C.A. Mey.) Boiss. subsp. ***tortuosa*** (Boiss. & Hausskn.) Browicz
Muş: Malazgirt, between Karıncalı village and Kaz lake surroundings, steppe, 17 vii 2006, 39° 14' 726" N 42° 24' 165" E, 1646 m, LFM 1882, Ir.-Tur., Fh.
***C. mahaleb*** (L.) Mill. var. ***mahaleb***
Muş: Malazgirt, Bahçe (Seydan) lake surroundings, steppe, 05.09.2007, 39° 23' 294" N 42° 28' 775" E, 1638 m, LFM 3777, Fh.
***Filipendula vulgaris*** Moench.
Muş: Malazgirt, S of Bastem (Uyanık) village, humid slopes, 23 viii 2006, 39° 22' 139" N 42° 24' 288" E, 1648 m, LFM 2371, Eu.-Sib., Hc.
***F. ulmaria*** (L.) Maxim

Muş: Malazgirt, S of Kuruca village, rush bed-marshy place, 23 vi 2006, 39° 19' 950" N 42° 23' 749" E, 1670 m, LFM 1148a, Eu.-Sib., Hc.
***Rubus idaeus*** L.
Muş: Malazgirt, S of Kardeşler village, steppe, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1811 m, LFM 1421, Kh.
***Potentilla recta*** L.
Muş: Malazgirt, Bastem village surroundings, humid places, 10.06.2007, 39° 22' 155" N 42° 24' 391" E, 1642 m, LFM 3065, Hc.
***P. supina*** L.
Muş: Malazgirt, Kardeşler village, humid alluvial places, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1811 m, LFM 1477, Hc.
***P. pannosa*** Boiss. & Hausskn.
Erzurum: N of Karaçoban, Kırımkaya villages, Güzelbaba mountain, steppe, 05 vi 2006, 39° 21' 663" N 42° 10' 670" E, 1776 m, LFM 847, Ir.-Tur., Hc. **"VU"**
***P. reptans*** L.
Erzurum: Karaçoban, Karakol, Karagöz village surroundings, humid place, 20 vi 2006, 39° 19' 864" N 42° 13' 472" E, 1663 m, LFM 987, Cr.
***Agrimonia eupatoria*** L.
Muş: Malazgirt, 2 km SW of Kuruca village, humid meadows, 11 vii 2006, 39° 21' 434" N 42° 21' 448" E, 1850 m, LFM 1812, Hc.
***Sanguisorba officinalis*** L.
Erzurum: Karaçoban, Karakol, Karagöz village surroundings, humid place, 20 vi 2006, 39° 19' 864" N 42° 13' 472" E, 1663 m, LFM 988, Hc. (hidrofit)
***S. minor*** Scop. subsp. ***minor***
Erzurum: NE of Karaçoban, Kırımkaya villages, Güzelbaba mountain, steppe, 11 vi 2006, 39° 19' 864" N 42° 13' 472" E, 1663 m, LFM 911, Hc.
***S. minor*** Scop. subsp. ***muricata*** (Spach.) Briq
Muş: Malazgirt, Karagöz village surroundings, steppe, 16.06.2007, 39° 17' 380" N 42° 06' 427" E, 1583 m, LFM 3226, Hc.
***Rosa pisiformis*** (Christ.) D. Sosn
Muş: Malazgirt, İyikomşu village surroundings, humid slopes, 14.07.2007, 39° 26' 255" N 42° 13' 997" E, 1707 m, LFM 3330, **END.,** Ir.-Tur., Fh. **"NT"**
***R. foetida*** J.Herm.
Muş: Malazgirt, Karadere village surroundings, steppe, 01.08.2007, 39° 23' 641" N 42° 12' 306" E, 1750 m, LFM 3395, Fh.
***R. hemisphaerica*** J.Herm.
Muş: Malazgirt, between İyikomşu and Kırımkaya village surroundings (Radar), steppe, 01.08.2007, 39° 15' 250" N 42° 03' 700" E, 2095 m, LFM 3351, Fh.
***R. pimpinelifolia*** L.
Muş: Malazgirt, between Karıncalı village and Kaz lake surroundings, steppe, 17 vii 2006, 39° 14' 726" N 42° 24' 165" E, 1646 m, LFM 1963, Fh.
***R. pulverulenta*** M.Bieb.
Muş: Malazgirt, NW of Hasanpaşa village (Karagölmez district), steppe, 05.09.2007, 39° 19' 936" N 42° 28' 281" E, 1808 m, LFM 3736, Fh.
***R. iberica*** Steven
Muş: Malazgirt, Karıncalı valley, steppe, 26.10.2006, 39° 21' 456" N 42° 15' 582" E, 1552 m, LFM 2550, Fh.
***R. montana*** Chaix subsp. ***woronowii*** (Lonacz.) Ö.Nilson
Muş: Malazgirt, between Karıncalı village and Kaz lake surroundings, steppe, 17 vii 2006, 39° 14' 726" N 42° 24' 165" E, 1646 m, LFM 1882, Fh.
***R. canina*** L.
Muş: Malazgirt, between Beşdam and Sırtdüzü villages, streamside, 02.09.2007, 39° 21' 439" N 42° 15' 293" E, 1489 m, LFM 3694, Fh.
***Cotoneaster nummularia*** Fisch. & C.A. Mey.
Muş: Malazgirt, Karıncalı valley, steppe, 08.09.2007, 39° 22' 275" N 42° 17' 757" E, 1729 m, LFM 3828, Fh.
***Crataegus pentagyna*** Waldst. & Kit. ex Willd.
Muş: Malazgirt, 2 km to Karagöz village, steppe, 30 vii 2006, 39° 19' 651" N 42° 13' 112" E, 1647 m, LFM 2235, Eu.-Sib., Fh.
***C. meyeri*** Pojark
Muş: Malazgirt, north slopes in the of the hills eastern of Karıncalı village, steppe, 10.06.2007, 39° 22' 294" N 42° 17' 842" E, 1702 m, LFM 2912, Ir.-Tur., Fh.
***C. monogyna*** Jacq.subsp. ***monogyna***
Erzurum: Karaçoban, Kırmızı Tuzla surroundings, steppe, 30 vii 2006, 39° 17' 412" N 42° 06' 330" E, 1576 m, LFM 2216, Fh.
***C. monogyna*** Jacq.subsp. ***azarella*** (Gris.) Franco
Muş: Malazgirt, Laladağ, steppe, 18.08.2007, 39° 18' 315" N 42° 23' 707" E, 1997 m, LFM 3475, Fh.
***Malus sylvestris*** Mill. subsp. ***orientalis*** (A. Uglitzkich) Browicz var. ***orientalis***
Muş: Malazgirt, S of Bastem (Uyanık) village, humid slopes, 23 viii 2006, 39° 22' 139" N 42° 24' 288" E, 1648 m, LFM 2470, Fh.
***Pyrus elaeagnifolia*** Pall. subsp. ***kotschyana*** (Boiss.) Browicz
Muş: Malazgirt, Sırtdüzü village surroundings, steppe, 21.05.2007, 39° 27' 105" N 42° 23' 465" E, 1851 m, LFM 2744, Fh.

**LYTHRACEAE**
***Lythrum salicaria*** L.
Muş: Malazgirt, between Beşdam and Sırtdüzü villages, streamside, 02.09.2007, 39° 21' 439" N 42° 15' 293" E, 1489 m, LFM 3668, Eu.-Sib., Hc.
***L. hyssopifolia*** L.
Erzurum: 2 km to Kırmızı Tuzla, edge of pool, 30 vii 2006, 39° 17' 947" N 42° 06' 245" E, 1669 m, LFM 2168, Th.

**ONAGRACEAE**
***Epilobium angustifolium*** L.
Muş: Malazgirt, S of Bastem (Uyanık) village, humid slopes, 23 viii 2006, 39° 22' 139" N 42° 24' 288" E, 1648 m, LFM 2477, Hc.
***E. hirsutum*** L.
Muş: Malazgirt, 3 km NW of Hasanpaşa village, streamside, 23 viii 2006, 39° 22' 323" N 42° 29' 748" E, 1743 m, LFM 2357, Hc.
***E. minutiflorum*** Hausskn.
Muş: Malazgirt, between A.Kıcık and Y.Kıcık villages, wet places, 18.08.2007, 39° 16' 951" N 42° 23' 140" E, 1848 m, LFM 3623, Hc.

**HALORAGIDACEAE**
***Myriophyllum spicatum*** L.
Muş: Malazgirt, Bahçe (Seydan) lake, in the water, 23 viii 2006, 39° 23' 366" N 42° 29' 082" E, 1686 m, LFM 2429, Hc. (Hidrofit)

**CUCURBITACEAE**
***Bryonia aspera*** Steven ex Ledeb.
Muş: Malazgirt, between Sarıgöl and Gölağılı village, steppe, 18.08.2007, 39° 17' 302" N 42° 26' 470" E, 1950 m, LFM 3602, Hc.

**CRASSULACEAE**
***Phedimus obtusifolius*** (C.A. Mey.) ´t Hart
Muş: Malazgirt, Yolgözler plateau, steppe, 29 v 2006, 39° 23' 413" N 42° 15' 562" E, 1691 m, LFM 622b, Cr.
***Sedum subulatum*** (C.A. Mey.) Boiss.
Erzurum: NE of Karaçoban, Kırımkaya villages, Güzelbaba mountain, steppe, 11 vi 2006, 39° 19' 864" N 42° 13' 472" E, 1663 m, LFM 891, Hc.
***S. lydium*** Boiss.
Erzurum: N of Karaçoban, Kırımkaya villages, Güzelbaba mountain, steppe, 05 vi 2006, 39° 21' 663" N 42° 10' 670" E, 1776 m, LFM 825, Hc.
***Rosularia sempervivum*** (M. Bieb.) A. Berger subsp. ***kurdica*** Eggli
Erzurum: NE of Karaçoban, Kırımkaya villages, Güzelbaba mountain, steppe, 11 vi 2006, 39° 19' 864" N 42° 13' 472" E, 1663 m, LFM 906, Ir.-Tur., Hc.

**APIACEAE**
***Actinolema macrolema*** Boiss.
Muş: Malazgirt, between Uyanık and Bahçe villages, steppe, 06 vii 2006, 39° 22' 794" N 42° 24' 602" E, 1737 m, LFM 1472, Ir.-Tur., Th.
***A. eryngioides*** Fenzl

Muş: Malazgirt, W of Kazgölü village, fields, 23 vi 2006, 39° 20' 004" N 42° 21' 608" E, 1730 m, LFM 1184, Ir.-Tur., Th.
***Eryngium wanaturi*** Woronow
Muş: Malazgirt, 3 km to Karagöz village, steppe, 30 vii 2006, 39° 19' 846" N 42° 13' 808" E, 1623 m, LFM 2128a, Ir.-Tur., Hc. **"VU"**
***E. billardieri*** Delar.
Erzurum: N of Karaçoban, steppe, 30 vii 2006, 39° 20' 226" N 42° 05' 803" E, 1533 m, LFM 2178, Ir.-Tur., Hc.
***Chaerophyllum macrospermum*** (Spreng.) Fisch. & C.A. Mey.
Muş: Malazgirt, Laladağ, steppe, 18.08.2007, 39° 18' 315" N 42° 23' 707" E, 1997 m, LFM 3483, Ir.-Tur., Hc.
***C. bulbosum*** L.
Muş: Malazgirt, Kardeşler village, alluvial steppe, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1811 m, LFM 1580, Eu.-Sib., Cr.
***C. angelicifolium*** M. Bieb.
Muş: Malazgirt, road surroundings from Karıncalı village to Kaz Lake, stream side, 17 vii 2006, 39° 14' 726" N 42° 24' 165" E, 1646 m, LFM 1920, Eux., Hc.
***C. crinitum*** Boiss.
Muş: Malazgirt, Karadere village surroundings, steppe, 01.08.2007, 39° 23' 641" N 42° 12' 306" E, 1750 m, LFM 3387, Ir.-Tur., Cr.
***Grammosciadium daucoides*** DC.
Muş: Malazgirt, Laladağ surroundings, meadows, 12.05.2007, 39° 18' 261" N 42° 23' 248" E, 1989 m, LFM 2664, Ir.-Tur., Hc.
***G. platycarpum*** Boiss. & Hausskn.
Muş: Malazgirt, N of Kazgölü, steppe, 23 vi 2006, 39° 20' 604" N 42° 21' 882" E, 1830 m, LFM 1129, Ir.-Tur., Hc.
***G. pterocarpum*** Boiss.
Muş: Malazgirt, between Y. Kıcık and A.Kıcık villages, stony slopes, 17 vii 2006, 39° 13' 088" N 42° 24' 073" E 1650 m, LFM 2061, Ir.-Tur., Hc.
***Anthriscus nemorosa*** (M. Bieb.) Spreng.
Erzurum: Karaçoban, Kırmızı Tuzla surroundings, steppe, 29 iv 2006, 39° 41' 765" N 42° 04' 854" E, 1747 m, LFM 091, Hc.
***Scandix iberica*** M. Bieb.
Muş: Malazgirt, south slopes in the of the hills eastern of Karıncalı village, steppe, 10.06.2007, 39° 22' 279" N 42° 17' 748" E, 1760 m, LFM 2984, Th.
***S. pecten-veneris*** L.
Muş: Malazgirt, Laladağ, steppe-fallowing lands, 18.08.2007, 39° 17' 949" N 42° 23' 599" E, 2055 m, LFM 3551, Th.
***Bifora radians*** M. Bieb.
Erzurum: Karaçoban, Karakol, Karagöz village surroundings, steppe, 20 vi 2006, 39° 19' 864" N 42° 13' 472" E, 1663 m, LFM 960, Th.
***Scaligeria glaucescens*** (DC.) Boiss.
Erzurum: Karaçoban, Kırmızı Tuzla surroundings, steppe, 30 vii 2006, 39° 17' 412" N 42° 06' 330" E, 1576 m, LFM 2215, Hc.
***Smyrniopsis aucheri*** Boiss.
Muş: Malazgirt, Kuruca village, steppe, 11 vii 2006, 39° 21' 232" N 42° 22' 749" E, 1682 m, LFM 1802, Ir.-Tur., Hc.
***Bunium paucifolium*** DC. var. ***paucifolium***
Muş: Malazgirt, Kardeşler village, alluvial steppe, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1811 m, LFM 1589, Cr.
***B. microcarpum*** (Boiss.) Freyn subsp. ***microcarpum***
Muş: Malazgirt, between Karıncalı village and Kaz lake surroundings, steppe, 17 vii 2006, 39° 14' 726" N 42° 24' 165" E, 1646 m, LFM 1870, Hc.
***B. microcarpum*** (Boiss.) Freyn subsp. ***bourgai*** (Boiss.) Hedge & Lamond
Muş: Malazgirt, 3 km NW of Hasanpaşa village, humid slopes, 23 viii 2006, 39° 22' 323" N 42° 29' 748" E, 1743 m, LFM 2322, Hc.
***Pimpinella corymbosa*** Boiss.
Muş: Malazgirt, 2 km SW of Kuruca village, steppe, 11 vii 2006, 39° 21' 434" N 42° 21' 448" E, 1850 m, LFM 1825, Ir.-Tur., Hc.
***P. oliveroides*** Boiss. & Hausskn.
Muş: Malazgirt, 2 km S of Laladağı village, steppe, 23 vi 2006, 39° 18' 072" N 42° 25' 308" E, 1900 m, LFM 1283, Hc.
***P. saxifraga*** L.
Muş: Malazgirt, between İyikomşu and Kırımkaya village surroundings (Radar), steppe, 01.08.2007, 39° 15' 250" N 42° 03' 700" E, 2095 m, LFM 3342, Hc.
***P. anthriscoides*** Boiss. var. ***anthriscoides***
B9 Muş: Malazgirt, S of Laladağ village, meadow, 23 vi 2006, 39° 18' 450" N 42° 25' 098" E, 2000 m, LFM 1169; B9 Muş: Malazgirt, S of Kardeşler village, streamside, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1811 m, LFM 1423, Ir.-Tur., Hc.
***P. peucedanifolia*** Fisch. ex Ledeb.
Muş: Malazgirt, between A.Kıcık and Y.Kıcık villages, steppe, 18.08.2007, 39° 16' 951" N 42° 23' 140" E, 1848 m, LFM 3634, Ir.-Tur., Hc.
***Sium sisarum*** L. var. ***lancifolium*** (M.Bieb.) Thell.
Muş: Malazgirt, between A.Kıcık and Y.Kıcık villages, wet places, 18.08.2007, 39° 16' 951" N 42° 23' 140" E, 1848 m, LFM 3622, Hc.
***Seseli petraeum*** M. Bieb.
Muş: Malazgirt, 2 km to A. Kıcık village, steppe, 11 vii 2006, 39° 15' 220" N 42° 22' 839" E, 1642 m, LFM 1697, Eux (mt.), Hc. **"VU"** Det: H. Duman
***S. peucedanoides*** (M. Bieb.) Koso-Pol.
Muş: Malazgirt, between Karıncalı village and Kaz lake surroundings, steppe, 17 vii 2006, 39° 14' 726" N 42° 24' 165" E, 1646 m, LFM 1929, Eu.-Sib., Hc.
***Oenanthe silaifolia*** M. Bieb.
Muş: Malazgirt, SE of Laladağ village, around Sarıgöl, meadow-swamp, 18.08.2007, 39° 18' 379" N 42° 25' 858" E, 1969 m, LFM 3435, Hc.
***Oe. sophiae*** Schischk.
Muş: Malazgirt, SE of Laladağ village, Salix caprea community, 18.08.2007, 39° 18' 931" N 42° 23' 682" E, 1861 m, LFM 3516, Hc.
***Prangos pabularia*** Lindl.
Muş: Malazgirt, S of Kardeşler village, streamside, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1800 m, LFM 1336, Hc.
***Heptaptera anisoptera*** (DC.) Tutin
Muş: Malazgirt, Kardeşler village, alluvial steppe, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1811 m, LFM 1541, Hc.
***H. anatolica*** (Boiss.) Tutin
Muş: Malazgirt, Yeniköy surroundings, steppe, 17 vii 2006, 39° 15' 002" N 42° 24' 173" E, 1904 m, LFM 1999, Hc.
***Hippomarathrum microcarpum*** (M. Bieb.) Fedtsch.
Muş: Malazgirt, S of Bastem (Uyanık) village, humid slopes, 23 viii 2006, 39° 22' 139" N 42° 24' 288" E, 1648 m, LFM 2372, Hc.
***Bupleurum rotundifolium*** L.
Muş: Malazgirt, between Uyanık and Bahçe villages, steppe, 06 vii 2006, 39° 22' 794" N 42° 24' 602" E, 1737 m, LFM 1463, Th.
***B. croceum*** Fenzl
Muş: Malazgirt, Laladağ, humid places, 18.08.2007, 39° 18' 315" N 42° 23' 707" E, 1997 m, LFM 3492, Ir.-Tur., Th.
***Apium nodiflorum*** (L.) Lang
Muş: Malazgirt, Hasanpaşa village 3 km forward, stream-bed, 23 viii 2006, 39° 22' 323" N 42° 29' 748" E, 1743 m, LFM 2489, Hc.
▲***Cicuta virosa*** L.
Muş: Malazgirt, Kazgölü village surroundings, meadow 23 vi 2006, 39° 20' 004" N 42° 20' 648" E, 1800 m, LFM 1139, Hc. **"DD"** Det: H. Duman
There is not a certain information in the flora of Turkey about the distribution and locality of ***C. virosa***. According to The Flora of Turkey, it was probably collected between Erzurum and Trabzon. In the present study we have first reported the certain locality of species .
***Falcaria vulgaris*** Bernh.
Muş: Malazgirt, 3 km to Karagöz village, roadside, 30 vii 2006, 39° 19' 846" N 42° 13' 808" E, 1623 m, LFM 2122, Hc.
***F. falcarioides*** (Bornm. & Wolff) Wolff
Muş: Malazgirt, Kuruca village, steppe, 11 vii 2006, 39° 20' 692" N 42° 23' 296" E, 1705 m, LFM 1767, Hc.
***Ferula communis*** L. subsp. ***communis***
Muş: Malazgirt, 3 km to Karagöz village, roadside, 30 vii 2006, 39° 19' 846" N 42° 13' 808" E, 1623 m, LFM 2107, Hc.
***F. orientalis*** L.
Muş: Malazgirt, 1 km N of Uyanık village, steppe, 06 vii 2006, 39° 22' 794" N 42° 24' 602" E, 1720 m, LFM 1482, Ir.-Tur., Hc.
***F. rigidula*** DC.
Muş: Malazgirt, 1 km to Doğanbey village, steppe, 30 vii 2006, 39° 18' 228" N 42° 08' 284" E, 1710 m, LFM 2195, Ir.-Tur., Hc.

▲***F. huber-morathii*** Peşmen
Muş: Malazgirt, S of Kardeşler village, inside of the valley-humid places, 06 vii 2006, 39° 19' 088" N 42° 26' 703" E, 1800 m, LFM 1687, **END**., Ir.-Tur., Hc. **"EN"** Det: A. Duran
▲***Ferulago setifolia*** K. Koch
Muş: Malazgirt, between Sarıgöl and Gölağılı village, steppe, 18.08.2007, 39° 17' 302" N 42° 26' 470" E, 1950 m, LFM 3601, Ir.-Tur., Hc.
***F. platycarpa*** Boiss. & Bal.
Muş: Malazgirt, Karıncalı village surooundings, steppe, 11 vii 2006, 39° 22' 216" N 42° 18' 024" E, 1794 m, LFM 1749, **END.,** Ir.-Tur., Hc. **"LC"**
***Opopanax hispidus*** (Friv.) Gris.
Muş: Malazgirt, 3 km to Karagöz village, steppe, 30 vii 2006, 39° 19' 846" N 42° 13' 808" E, 1623 m, LFM 2106, Hc.
***Malabaila pastinacifolia*** Boiss. & Bal.
Erzurum: Karaçoban, Karakol, Karagöz village surroundings, steppe, 20 vi 2006, 39° 19' 864" N 42° 13' 472" E, 1663 m, LFM 954, Hc.
***M. dasyantha*** (K. Koch) Grossh.
Muş: Malazgirt, south slopes in the of the hills eastern of Karıncalı village, steppe, 10.06.2007, 39° 22' 279" N 42° 17' 748" E, 1760 m, LFM 2969, Ir.-Tur., Hc.
***M. secacul*** Banks & Sol.
Muş: Malazgirt, Karagöz village surroundings, steppe, 16.06.2007, 39° 17' 380" N 42° 06' 427" E, 1583 m, LFM 3188, Cr.
***Heracleum crenatifolium*** Boiss.
Muş: Malazgirt, S of Kardeşler village, steppe, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1811 m, LFM 1431, **END**., Hc. **"NT"**
***H. persicum*** Desf.
Muş: Malazgirt, 1 km N of Kardeşler village, steppe, 06 vii 2006, 39° 21' 865" N 42° 25' 337" E, 1672 m, LFM 1443, Ir.-Tur., Hc.
***H. apiifolium*** Boiss.
Erzurum: NE of Karaçoban, Kırımkaya villages, Güzelbaba mountain, steppe, 11 vi 2006, 39° 19' 864" N 42° 13' 472" E, 1663 m, LFM 882, Hc.
***Torilis arvensis*** (Huds.) Link subsp. ***arvensis***
Muş: Malazgirt, Bahçe (Seydan) lake surroundings, steppe, 23 viii 2006, 39° 23' 366" N 42° 29' 082" E, 1686 m, LFM 2475, Th.
***T. leptophylla*** (L.) Rchb.
Muş: Malazgirt, SE of Karıncalı village, slopes around Kazgölü road, steppe, 23 vi 2006, 39° 21' 216" N 42° 20' 024" E, 1760 m, LFM 1046, Th.
***Astrodaucus orientalis*** (L.) Drude
Muş: Malazgirt, Kardeşler village, alluvial steppe, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1811 m, LFM 1675, Th.
***Caucalis platycarpus*** L.
Muş: Malazgirt, 2 km SW of Kuruca village, steppe, 11 vii 2006, 39° 21' 434" N 42° 21' 448" E, 1850 m, LFM 1833, Th.
***Turgenia latifolia*** (L.) Hoffm.
Muş: Malazgirt, A. Kıcık village, steppe, 11 vii 2006, 39° 15' 220" N 42° 22' 839" E, 1642 m, LFM 1733, Th.
***Lisaea papyracea*** Boiss.
Muş: Malazgirt, Bahçe tuzlası surroundings, steppe, 06 vii 2006, 39° 25' 035" N 42° 27' 201" E, 1724 m, LFM 1395, Ir.-Tur., Th.
***L. strigosa*** (Banks & Sol.) Eig
Muş: Malazgirt, Kardeşler village, alluvial steppe, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1811 m, LFM 1663, Ir.-Tur., Th.
***Daucus carota*** L.
Muş: Malazgirt, 3 km W of Hasanpaşa village, Salix caprea community, wet meadows, 23 viii 2006, 39° 22' 323" N 42° 29' 748" E, 1743 m, LFM 2423, Hc.

**VALERIANACEAE**
***Valeriana sisymbriifolia*** Vahl.
Muş: Malazgirt, 1 km SW of Kuruca village, humid meadows, 23 vi 2006, 39° 21' 177" N 42° 21' 813" E, 1830 m, LFM 1204, Hc.
***V. officinalis*** L.
Muş: Malazgirt, S of Laladağ village (1 km), meadows, 23 vi 2006, 39° 18' 450" N 42° 25' 095" E, 2000 m, LFM 1164, Hc.
***Valerianella oxyrhyncha*** Fisch. & C.A. Mey.
Muş: Malazgirt, Yapraklı village surroundings, steppe, 27 v 2006, 39° 21' 031" N 42° 15' 978" E, 1591 m, LFM 161, Th.
***V. cymbicarpa*** C.A. Mey.
Muş: Malazgirt, Karıncalı valley, steppe, 26.05.2007, 39° 23' 028" N 42° 17' 045" E, 1590 m, LFM 2849, Ir.-Tur., Th.

**DIPSACACEAE**
***Dipsacus laciniatus*** L.
Muş: Malazgirt, Kardeşler village, Sarıtaş stream, streamside, 08.09.2007, 39° 20' 827" N 42° 27' 080" E, 1696 m, LFM 3802, Hc.
***Cephalaria aristata*** K. Koch
Muş: Malazgirt, SE of Laladağ village, Salix caprea community, 18.08.2007, 39° 18' 931" N 42° 23' 682" E, 1861 m, LFM 3533, Th.
***C. syriaca*** (L.) Schrader
Muş: Malazgirt, W of Kazgölü village, fields, 23 vi 2006, 39° 20' 004" N 42° 21' 608" E, 1730 m, LFM 1181, Th.
***C. speciosa*** Boiss. & Kotschy
Muş: Malazgirt, 3 km NW of Hasanpaşa village, steppe, 23 viii 2006, 39° 22' 323" N 42° 29' 748" E, 1743 m, LFM 2313, **END.,** Ir.-Tur., Hc. **"LC"**
***C. hirsuta*** Stapf
Muş: Malazgirt, Kuruca village, steppe, 11 vii 2006, 39° 21' 232" N 42° 22' 749" E, 1682 m, LFM 1799, Ir.-Tur., Hc.
***C. procera*** Fisch. & Lall.
Muş: Malazgirt, N of Kardeşler village, steppe, 06 vii 2006, 39° 21' 865" N 42° 25' 537" E, 1672 m, LFM 1364, Ir.-Tur.**,** Hc.
***C. sparsipilosa*** Matthews
Muş: Malazgirt, SE of Laladağ village, around Sarıgöl, steppe, 18.08.2007, 39° 18' 379" N 42° 25' 858" E, 1969 m, LFM 3448, **END.,** Ir.-Tur., Th. **"NT"**
***C. microcephala*** Boiss.
Erzurum: Karaçoban, Kırmızı Tuzla surroundings, steppe, 30 vii 2006, 39° 17' 412" N 42° 06' 330" E, 1576 m, LFM 2219, Ir.-Tur., Hc.
***Scabiosa argentea*** L.
Muş: Malazgirt, between Y. Kıcık and A.Kıcık villages, steppe, 17 vii 2006, 39° 13' 088" N 42° 24' 073" E 1650 m, LFM 2071, Hc.
***S. micrantha*** Desf.
Muş: Malazgirt, Karıncalı valley, steppe, 26.10.2006, 39° 21' 456" N 42° 15' 582" E, 1552 m, LFM 2523, Hc.
***S. bicolor*** Kotschy
Muş: Malazgirt, N of Kazgölü, steppe, 23 vi 2006, 39° 20' 604" N 42° 21' 882" E, 1830 m, LFM 1127, Th.
***S. persica*** Boiss.
Muş: Malazgirt, ,10 km to to Aktuzla, steppe, 05 vi 2006, 39° 16' 666" N 42° 17' 276" E, 1612 m, LFM 813, Th.
***S. rotata*** M. Bieb.
Erzurum: Karaçoban, Karakol, Karagöz village surroundings, steppe, 20 vi 2006, 39° 19' 864" N 42° 13' 472" E, 1663 m, LFM 980, Th.
▲***Pterocephalus brevis*** Coulter
Muş: Malazgirt, between Aktuzla and Yapraklı village, steppe, 26.05.2007, 39° 20' 895" N 42° 15' 945" E, 1577 m, LFM 2785, Th. **"VU"**

**ASTERACEAE (COMPOSITAE)**
***Bidens tripartita*** L.
Muş: Malazgirt, Kardeşler village, Sarıtaş stream, streamside, 08.09.2007, 39° 20' 827" N 42° 27' 080" E, 1696 m, LFM 3791, Hc.
***Xanthium spinosum*** L.
Muş: Malazgirt, Kardeşler village, alluvial steppe, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1811 m, LFM 1605, Th.
***X. strumarium*** L. subsp. ***strumarium***
Muş: Malazgirt, 300 m N of Bahçe village, streamside, 23 viii 2006, 39° 21' 542" N 42° 27' 897" E, 1637 m, LFM 2407, Th.
***X. strumarium*** L. subsp. ***cavanillesii*** (Shouw) D.Löve & P.Danserau

Muş: Malazgirt, Y.Kıcık village surroundings, weeds, 18.08.2007, 39° 17' 541" N 42° 23' 465" E, 1917 m, LFM 3647, Th.

***Inula helenium*** L. subsp. ***orgyalis*** (Boiss.) Grierson

Muş: Malazgirt, S of Bastem (Uyanık) village, humid slopes, 23 viii 2006, 39° 22' 139" N 42° 24' 288" E, 1648 m, LFM 2479, **END**., Eux., Hc. **"NT"**

***I. helenium*** L. subsp. ***pseudohelenium*** Grierson

Muş: Malazgirt, S of Kardeşler village, streamside, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1800 m, LFM 1338; Muş: Malazgirt, S of Kardeşler village, streamside, 06 vii 006, 39° 20' 460" N 42° 27' 019" E, 1800 m, LFM 1710, Ir.-Tur., Hc.

***I. macrocephala*** Boiss & Kotschy

Muş: Malazgirt, N of Kuruca village, drying meadows, yol kenarı, 23 viii 2006, 39° 21' 826" N 42° 23' 806" E, 1722 m, LFM 2304, **END.** Ir.-Tur., Hc. **"VU"**

***I. discoidea*** Boiss.

Muş: Malazgirt, between Yolgözler and İyikomşu villages, steppe, 14.07.2007, 39° 25' 287" N 42° 13' 621" E, 1744 m, LFM 3252; Muş: Malazgirt, SE of Laladağ village, around Sarıgöl, steppe, 18.08.2007, 39° 18' 379" N 42° 25' 858" E, 1969 m, LFM 3444; Muş: Malazgirt, Laladağ, steppe, 18.08.2007, 39° 18' 315" N 42° 23' 707" E, 1997 m, LFM 3482; Muş: Malazgirt, SE of Laladağ village, Salix caprea community, 18.08.2007, 39° 18' 931" N 42° 23' 682" E, 1861 m, LFM 3508; Muş: Malazgirt, Laladağ, steppe-fallowing lands, 18.08.2007, 39° 17' 949" N 42° 23' 599" E, 2055 m, LFM 3542-LFM 3553; Muş: Malazgirt, between Sarıgöl and Gölağılı village, steppe, 18.08.2007, 39° 17' 302" N 42° 26' 470" E, 1950 m, LFM 3595; Muş: Malazgirt, NW of Hasanpaşa village (Karagölmez district), steppe, 05.09.2007, 39° 19' 936" N 42° 28' 281" E, 1808 m, LFM 3729; Muş: Malazgirt, 1 km to Kuruca village, steppe, 08.09.2007, 39° 21' 831" N 42° 23' 812" E, 1711 m, LFM 3817, **END.,** Ir.-Tur., Hc. **"VU"**

**The species was recorded only in B8 square in Bingöl up to now. We have determined that the species has distribution in 8 different localities in our study area (B9 square). Therefor, we have categorised the species as VU instead of DD.**

***I. salicina*** L.

Muş: Malazgirt, 2 km SW of Kuruca village, humid meadows, 11 vii 2006, 39° 21' 434" N 42° 21' 448" E, 1850 m, LFM 1811; Muş: Malazgirt, S of Bastem (Uyanık) village, humid slopes, 23 viii 2006, 39° 22' 139" N 42° 24' 288" E, 1648 m, LFM 2513, Euro-Sib., Hc.

***I. oculus-christi*** L.

Muş: Malazgirt, Laladağ, steppe-fallowing lands, 18.08.2007, 39° 17' 949" N 42° 23' 599" E, 2055 m, LFM 3545, Euro-Sib.?, Hc.

***I. britannica*** L.

Muş: Malazgirt, 300 m N of Bahçe village, steppe, 23 viii 2006, 39° 21' 542" N 42° 27' 897" E, 1637 m, LFM 2414, Eu.-Sib., Hc.

***I. aucherana*** DC.

Muş: Malazgirt, 1 km to Doğanbey village, steppe, 30 vii 2006, 39° 18' 228" N 42° 08' 284" E, 1710 m, LFM 2189, Ir.-Tur., Hc.

***Pulicaria vulgaris*** (L.) Gaertner

Muş: Malazgirt, Kardeşler village surroundings, stream bed, 08.09.2007, 39° 21' 037" N 42° 26' 662" E, 1669 m, LFM 3783, Eu.-Sib., Th.

***P. armena*** Boiss. & Kotschy

Erzurum: SE of Karaçoban, river surroundings, meadows drying up in summer, 30 vii 2006, 39° 20' 226" N 42° 05' 803" E, 1533 m, LFM 2153 Muş: Malazgirt, Bahçe (Seydan) lake surroundings, streamside, 23 viii 2006, 39° 23' 366" N 42° 29' 082" E, 1686 m, LFM 2507, **END**.?, Ir.-Tur., Th. **"LC"**

***Helichrysum pallasii*** (Spreng.) Ledeb**.**

Muş: Malazgirt, A. Kıcık village, steppe, 11 vii 2006, 39° 15' 220" N 42° 22' 839" E, 1642 m, LFM 1727; Muş: Malazgirt, 3 km to Karagöz village, roadside, 30 vii 2006, 39° 19' 846" N 42° 13' 808" E, 1623 m, LFM 2129, Ir-Tur., Kh.

***H. plicatum*** DC. subsp. ***plicatum***

Muş: Malazgirt, 3 km to Karagöz village, roadside, 30 vii 2006, 39° 19' 846" N 42° 13' 808" E, 1623 m, LFM 2128; Muş: Malazgirt, Laladağ, steppe-fallowing lands, 18.08.2007, 39° 17' 949" N 42° 23' 599" E, 2055 m, LFM 3556, Kh.

***H. plicatum*** DC. subsp. ***pseudoplicatum*** (Nábělek) P.H. Davis & Kupicha

Muş: Malazgirt, N of Kardeşler village, steppe, 06 vii 2006, 39° 21' 865" N 42° 25' 537" E, 1672 m, LFM 1347, Kh.

***H. armenium*** DC. subsp. ***armenium***

Muş: Malazgirt, 3 km NW of Hasanpaşa village, steppe, 23 viii 2006, 39° 22' 323" N 42° 29' 748" E, 1743 m, LFM 2344. Ir.-Tur., Kh.

***H. arenarium*** (L.) Moench. subsp. ***aucheri*** (Boiss.) P.H. Davis & Kupicha

Erzurum: NE of Karaçoban, Kırımkaya villages, Güzelbaba mountain, steppe, 11 vi 2006, 39° 19' 864" N 42° 13' 472" E, 1663 m, LFM 880, **END**.?, Ir.-Tur., Kh. **"LC"**

***Logfia arvensis*** (L.) Holub.

Muş: Malazgirt, Kardeşler village, Sarıtaş stream, streamside, 08.09.2007, 39° 20' 827" N 42° 27' 080" E, 1696 m, LFM 3798, Th.

***Evax anatolica*** Boiss. & Heldr.

Muş: Malazgirt, between Yolgözler and İyikomşu villages, steppe, 14.07.2007, 39° 25' 287" N 42° 13' 621" E, 1744 m, LFM 3260, Ir.-Tur., Th.

***Aster amellus*** L. subsp. ***ibericus*** (Steven) Avet.

Muş: Malazgirt, between Karıncalı village and Kaz lake surroundings, steppe, 17 vii 2006, 39° 14' 726" N 42° 24' 165" E, 1646 m, LFM 1939, Eux., Hc.

***Galatella punctata*** (Waldst. & Kit.) Nees

Erzurum: Karaçoban, Kırmızı Tuzla surroundings, steppe, 30 vii 2006, 39° 17' 412" N 42° 06' 330" E, 1576 m, LFM 2213; Muş: Malazgirt, 3 km W of Hasanpaşa village, Salix caprea community, wet meadows, 23 viii 2006, 39° 22' 323" N 42° 29' 748" E, 1743 m, LFM 2417; Muş: Malazgirt, SE of Laladağ village, Salix caprea community, 18.08.2007, 39° 18' 931" N 42° 23' 682" E, 1861 m, LFM 3517, Eu.-Sib.?, Hc.

▲***Crinitaria villosa*** (L.) Grossh.

Muş: Malazgirt, 3 km to Karagöz village, steppe, 30 vii 2006, 39° 19' 846" N 42° 13' 808" E, 1623 m, LFM 2136; Muş: Malazgirt, Karıncalı valley, steppe, 08.09.2007, 39° 22' 275" N 42° 17' 757" E, 1729 m, LFM 3829, Eu.-Sib., Hc.

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

Muş: Malazgirt, Hasanpaşa village 3 km forward, stream-bed, 23 viii 2006, 39° 22' 323" N 42° 29' 748" E, 1743 m, LFM 2490, Hc.

***E. acer*** L. subsp. ***pycnotrichus*** (Vierh.) Grierson

Muş: Malazgirt, above Y. Kıcık village, fields, 17 vii 2006, 39° 17' 410" N 42° 23' 353" E, 1904 m, LFM 1860, Eu.-Sib., Hc.

***Lacnophyllum noeanum*** Boiss.

Muş: Malazgirt, between Sarıgöl and Gölağılı village, steppe, 18.08.2007, 39° 17' 302" N 42° 26' 470" E, 1950 m, LFM 3596, Ir.-Tur., Hc.

***Psychrogeton nigromontanus*** (Boiss. & Buhse) Grierson

Muş: Malazgirt, Laladağ, humid places, 18.08.2007, 39° 18' 315" N 42° 23' 707" E, 1997 m, LFM 3490, Ir.-Tur., Hc.

***Senecio erucifolius*** L.

Muş: Malazgirt, 3 km NW of Hasanpaşa village, streamside, 23 viii 2006, 39° 22' 323" N 42° 29' 748" E, 1743 m, LFM 2329, Hc.

***S. mollis*** Willd.

Muş: Malazgirt, between Hasanpaşa and Kardeşler village, streamside-rocky, 23 viii 2006, 39° 21' 826" N 42° 23' 806" E, 1722 m, LFM 2381, Ir.-Tur.?, Hc.

***S. eriospermus*** DC. var. ***eriospermus***

Muş: Malazgirt, İyikomşu village surroundings, humid slopes, 14.07.2007, 39° 26' 255" N 42° 13' 997" E, 1707 m, LFM 3324, Ir.-Tur., Hc.

***S. lorentii*** Hochst.

Muş: Malazgirt, SE of Karıncalı village, slopes around Kazgölü road, steppe, 23 vi 2006, 39° 21' 216" N 42° 20' 024" E, 1760 m, LFM 1059, Ir.-Tur., Hc.

***S racemosus*** (M. Bieb.) DC.

Muş: Malazgirt, A. Kıcık village, steppe, 11 vii 2006, 39° 15' 220" N 42° 22' 839" E, 1642 m, LFM 1728, Ir.-Tur., Hc.

***S. doriiformis*** DC. subsp. ***orientalis*** (Fenzl) Mathews

Erzurum: Karaçoban, Karakol, Karagöz village surroundings, steppe, 20 vi 2006, 39° 19' 864" N 42° 13' 472" E, 1663 m, LFM 1007, Ir.-Tur.?, Hc.

***S. fluviatilis*** Wallr.

Muş: Malazgirt, between Hasanpaşa and Kardeşler village, streamside-rocky, 23 viii 2006, 39° 21' 826" N 42° 23' 806" E, 1722 m, LFM 2376, Eu.-Sib., Hc. **"VU"**

***S. othonnae*** M. Bieb.

Muş: Malazgirt, SE of Laladağ village, Salix caprea community, 18.08.2007, 39° 18' 931" N 42° 23' 682" E, 1861 m, LFM 3511, Eu.-Sib., Hc.

***S. vernalis*** Waldst. & Kit.

Erzurum: NE of Karaçoban, Kırımkaya villages, Güzelbaba mountain, steppe, 11 vi 2006, 39° 19' 864" N 42° 13' 472" E, 1663 m, LFM 897, Th.

***Tussilago farfara*** L.

Muş: Malazgirt, Güzelbaba mountain slopes, steppe, 29.04.2007, 39° 24' 562" N 42° 14' 536" E, 1702 m, LFM 2604, Eu.-Sib., Hc.

***Eupatorium cannabium*** L.

Muş: Malazgirt, 3 km NW of Hasanpaşa village, streamside, 23 viii 2006, 39° 22' 323" N 42° 29' 748" E, 1743 m, LFM 2356, Eu.-Sib., Hc.
***Anthemis cretica*** L. subsp. ***pontica*** (Willd.) Grierson
Muş: Malazgirt, SE of Laladağ village, steppe, 18.08.2007, 39° 18' 315" N 42° 23' 707" E, 1997 m, LFM 3537, Hc.
***A. cretica*** L. subsp. ***albida*** (Boiss.) Grierson
Muş: Malazgirt, Karıncalı valley, steppe, 26.05.2007, 39° 22' 796" N 42° 17' 676" E, 1769 m, LFM 2888, Hc.
▲***A. cretica*** L. subsp. ***umblicata*** (Boiss. & A. Huet) Grierson
Muş: Malazgirt, north slopes in the of the hills eastern of Karıncalı village, humid places, 10.06.2007, 39° 22' 294" N 42° 17' 842" E, 1702 m, LFM 2941, Hc.
***A. armeniaca*** Freyn & Sint.
Muş: Malazgirt, N of Kaz lake, steppe, 10.06.2007, 39° 20' 891" N 42° 19' 449" E, 1775 m, LFM 2992, **END.,** Ir.-Tur., Th. **"LC"**
***A. tinctoria*** L. var. ***tinctoria***
Erzurum: Karaçoban, Kırmızı Tuzla surroundings, steppe, 30 vii 2006, 39° 17' 412" N 42° 06' 330" E, 1576 m, LFM 2295, Hc.
▲***A. tinctoria*** L. var. ***discoidea*** (All.) DC.
Muş: Malazgirt, Karıncalı village, steppe, 29 v 2006, 39° 22' 485" N 42° 16' 298" E, 1509 m, LFM 641, Hc.
***A. triumfettii*** (L.) All.
Muş: Malazgirt, between Karıncalı and Yapraklı villages, steppe, 27 v 2006, 39° 21' 706" N 42° 15' 403" E, 1520 m, LFM 412, Hc.
▲***A. melanoloma*** Trautv. subsp. ***melanoloma***
Muş: Malazgirt, S of Ağılbaşı village, steppe, 21.05.2007, 39° 24' 681" N 42° 21' 974" E, 1798 m, LFM 2754, **END.,** Eux., Hc. **"LC"**
***A. coelepoda*** Boiss. var. ***bourgaei*** Boiss.
Muş: Malazgirt, 1 km N of Kuruca village, steppe, 10.06.2007, 39° 21' 838" N 42° 24' 046" E, 1710 m, LFM 3060, Th.
***Anacyclus anatolicus*** L. Behçet & S. Almanar
Muş: Malazgirt, Yapraklı village surroundings, steppe, 27 v 2006, 39° 15' 092" N 42° 18' 410" E, 1550 m, LFM 130, **END**., Ir.-Tur., Th. **"CR"**
***Achillea schischkinii*** Sosn.
Muş: Malazgirt, SE of Karıncalı village, slopes around Kazgölü road, steppe, 23 vi 2006, 39° 21' 216" N 42° 20' 024" E, 1760 m, LFM 1054, **END.,** Ir.-Tur., Hc. **"LC"**
***A. millefolium*** L. subsp. ***millefolium***
Muş: Malazgirt, between Karıncalı village and Kaz lake surroundings, steppe, 17 vii 2006, 39° 14' 726" N 42° 24' 165" E, 1646 m, LFM 1956a, Eu.-Sib., Hc.
***A. nobilis*** L. subsp. ***neilreichii*** (A. Kern.) Formánek
Erzurum: N of Karaçoban, Kırımkaya villages, Güzelbaba mountain, steppe, 05 vi 2006, 39° 21' 663" N 42° 10' 670" E, 1776 m, LFM 835, Eu.-Sib., Hc.
***A. biebersteinii*** Afan.
Muş: Malazgirt, Yapraklı village surroundings, steppe, 27 v 2006, 39° 21' 031" N 42° 15' 978" E, 1591 m, LFM 370, Ir.-Tur., Hc.
***Tanacetum balsamita*** L. subsp. ***balsamita***
Muş: Malazgirt, Karadere village surroundings, steppe, 01.08.2007, 39° 23' 641" N 42° 12' 306" E, 1750 m, LFM 3407, Hc.
***T. balsamita*** L. subsp. ***balsamitoides*** (Sch. Bip.) Grierson
Muş: Malazgirt, Kardeşler village, humid alluvial places, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1811 m, LFM 1678, Hc.
▲***T. aucheranum*** (DC.) Sch. Bip.
Erzurum: NE of Karaçoban, Kırımkaya villages, Güzelbaba mountain, steppe, 11 vi 2006, 39° 19' 864" N 42° 13' 472" E, 1663 m, LFM 859, Ir.-Tur., Hc.
▲***T. cadmeum*** (Boiss.) Heywood subsp**.** ***cadmeum***
Muş: Malazgirt, Kardeşler village, alluvial steppe, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1811 m, LFM 1563, **END**?., Hc. **"LC"**
***T. vulgare*** L**.**
Muş: Malazgirt, road surroundings from Karıncalı village to Kaz Lake, meadow, 17 vii 2006, 39° 14' 726" N 42° 24' 165" E, 1646 m, LFM 1940, Hc.
***T. argyrophyllum*** (K.Koch) Tzvel. var. ***argyrophyllum***
Muş: Malazgirt, between A.Kıcık and Y.Kıcık villages, steppe, 10.06.2007, 39° 17' 002" N 42° 23' 245" E, 1830 m, LFM 3082, Ir.-Tur., Hc.
***T. abrotanifolium*** (L.) Druce
Muş: Malazgirt, SE of Karıncalı village, slopes around Kazgölü road, steppe, 23 vi 2006, 39° 21' 216" N 42° 20' 024" E, 1760 m, LFM 1113, Ir.-Tur., Hc.
***Tripleurospermum melanolepis*** (Boiss. & Buhse) Pobed
Muş: Malazgirt, N of Ağılbaşı village, humid places, 21.05.2007, 39° 23' 910" N 42° 22' 483" E, 1801 m, LFM 2716, Hc.
***T. oreades*** (Boiss.) Rech.f.
Muş: Malazgirt, Karagöz lake surroundings, steppe, 30 vii 2006, 39° 19' 651" N 42° 13' 112" E, 1647 m, LFM 2090, Hc.
***T. transcaucasicum*** (Manden.) Pobed**.**
Erzurum: Karaçoban, Karakol, Karagöz village surrounding, meadow, 20 vi 2006, 39° 19' 864" N 42° 13' 472" E, 1663 m, LFM 1005, Hc.
***T. monticolum*** (Boiss. & Huet) Bornm.
Muş: Malazgirt, Yolgözler plateau surroundings, steppe, 29 v 2006, 39° 23' 413" N 42° 15' 562" E, 1691 m, LFM 475, **END**., Hc. **"LC"**
***T. decipiens*** (Fisch. & C.A. Mey.) Bornm.
Muş: Malazgirt, SE of Laladağ village, around Sarıgöl, meadows drying up in summer 18.08.2007, 39° 18' 379" N 42° 25' 858" E, 1969 m, LFM 3579, Hc.
***T. microcephalum*** (Boiss.) Bornm.
Muş: Malazgirt, Bahçe tuzlası surroundings, streamside, 06 vii 2006, 39° 25' 035" N 42° 27' 201" E, 1724 m, LFM 1403, Ir.-Tur., Hc.
***Artemisia vulgaris*** L.
Muş: Malazgirt, Karıncalı valley, rocky places, 26.10.2006, 39° 21' 456" N 42° 15' 582" E, 1552 m, LFM 2564, Kh.
***A. abrotanum*** L.
Muş: Malazgirt, between Beşdam and Sırtdüzü villages, streamside, 02.09.2007, 39° 21' 439" N 42° 15' 293" E, 1489 m, LFM 3673, Kh.
***A. austriaca*** Jacq.
Muş: Malazgirt, NW of Hasanpaşa village (Karagölmez district), steppe, 05.09.2007, 39° 19' 936" N 42° 28' 281" E, 1808 m, LFM 3738, Hc.
***A. incana*** (L.) Druce
Muş: Malazgirt, Kazgölü village surroundings, steppe, 26.10.2006, 39° 20' 628" N 42° 19' 962" E, 1728 m, LFM 2517, Ir.-Tur., Kh.
***A. absinthium*** L.
Erzurum: Karaçoban, Kırmızı Tuzla surroundings, steppe, 30 vii 2006, 39° 17' 412" N 42° 06' 330" E, 1576 m, LFM 2218, Hc.
***A. scoparia*** Waldst & Kit Tan
Muş: Malazgirt, between Beşdam and Sırtdüzü villages, streamside, 02.09.2007, 39° 21' 439" N 42° 15' 293" E, 1489 m, LFM 3667, Hc.
***A. taurica*** Willd.
Muş: Malazgirt, Karıncalı valley, rocky places, 26.10.2006, 39° 21' 456" N 42° 15' 582" E, 1552 m, LFM 2558, Kh.
***A. spicigera*** K. Koch.
Muş: Malazgirt, Karıncalı valley, rocky places, 26.10.2006, 39° 21' 456" N 42° 15' 582" E, 1552 m, LFM 2535, Ir.-Tur., Kh.
***Gundelia tournefortii*** L. var. ***tournefortii***
Muş: Malazgirt, Yapraklı village surroundings, steppe, 27 v 2006, 39° 21' 031" N 42° 15' 978" E, 1591 m, LFM 216, Hc.
***Cousinia bicolor*** Freyn & Sint.
Muş: Malazgirt, between İyikomşu and Kırımkaya village surroundings (Radar), steppe, 01.08.2007, 39° 15' 250" N 42° 03' 700" E, 2095 m, LFM 3357, **END**., Ir.-Tur., Hc. **"LC"**
▲***Onopordum armenum*** Grossh.
Muş: Malazgirt, Kardeşler village, alluvial steppe, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1811 m, LFM 1595, Ir.-Tur., Hc.
***Cirsium ciliatum*** (Murr.) Moench subsp. ***szovitsii*** (K.Koch) Petr.
Muş: Malazgirt, 3 km NW of Hasanpaşa village, steppe, 23 viii 2006, 39° 22' 323" N 42° 29' 748" E, 1743 m, LFM 2342, Ir.-Tur., Hc.
***C. cephalotes*** Boiss.
Muş: Malazgirt, Bahçe (Seydan) lake surroundings, steppe, 23 viii 2006, 39° 23' 366" N 42° 29' 082" E, 1686 m, LFM 2360, Eux. (mt.), Hc.
***C. macrobotrys*** (K. Koch) Boiss.
Muş: Malazgirt, 1 km to Kuruca village, steppe, 08.09.2007, 39° 21' 831" N 42° 23' 812" E, 1711 m, LFM 3814, Hc.
***C. lappaceum*** (M. Bieb.) Fisch. subsp. ***anatolicum*** Petrak
Muş: Malazgirt, Y.Kıcık village surroundings, weeds, 18.08.2007, 39° 17' 541" N 42° 23' 465" E, 1917 m, LFM 3650, Ir.-Tur., Hc.

***C. lappaceum*** (M. Bieb.) Fisch. subsp. ***tenuilobum*** (K.Koch) P.H. Davis & Parris
Muş: Malazgirt, Hasanpaşa village 3 km forward, stream-bed, 23 viii 2006, 39° 22' 323" N 42° 29' 748" E, 1743 m, LFM 2501, **END**., Ir.-Tur., Hc. **"LC"**
***C. echinus*** (M.Bieb.) Hand.-Mazz.
Muş: Malazgirt, Y. Kıcık village surroundings, steppe, 17 vii 2006, 39° 17' 410" N 42° 23' 353" E, 1904 m, LFM 2037, Ir.-Tur., Hc.
***C. canum*** (L.) All.
Muş: Malazgirt, Yeniköy surroundings, meadows, 11 vii 2006, 39° 15' 002" N 42° 24' 173" E, 1680 m, LFM 1700, Eu.-Sib., Hc.
***C. rhizocephalum*** C.A. Mey. subsp. ***rhizocephalum***
Muş: Malazgirt, Laladağ, humid places, 18.08.2007, 39° 18' 315" N 42° 23' 707" E, 1997 m, LFM 3489, Hc.
***C. rhizocephalum*** C.A. Mey. subsp. ***sinuatum*** (Boiss.) P.H. Davis & Parris
Muş: Malazgirt, S of Bastem (Uyanık) village, humid slopes, 23 viii 2006, 39° 22' 139" N 42° 24' 288" E, 1648 m, LFM 2370, Hc.
***C. elodes*** M. Bieb.
Muş: Malazgirt, Yeniköy surroundings, wet meadows, 11 vii 2006, 39° 15' 002" N 42° 24' 173" E, 1680 m, LFM 1711, Ir.-Tur, Hc.
***C. arvense*** (L.) Scop. subsp. ***vestitum*** (Wimm. & Grab.) Petr.
Muş: Malazgirt, Karıncalı village surroundings, steppe, 14.07.2007, 39° 22' 564" N 42° 15' 556" E, 1598 m, LFM 3276, Hc.
***Picnomon acarna*** (L.) Cass.
Muş: Malazgirt, Karadere village surroundings, steppe, 01.08.2007, 39° 23' 641" N 42° 12' 306" E, 1750 m, LFM 3416, Medit., Th.
***Carduus nutans*** L. subsp. **nutans**
Muş: Malazgirt, 1 km N of Kuruca village, steppe, 10.06.2007, 39° 21' 838" N 42° 24' 046" E, 1710 m, LFM 3060, Hc.
***Jurinea consanguinea*** DC.
Muş: Malazgirt, SE of Karıncalı village, slopes around Kazgölü road, steppe, 23 vi 2006, 39° 21' 216" N 42° 20' 024" E, 1760 m, LFM 1047, Hc.
▲***J. pontica*** DC.
Muş: Malazgirt, Karıncalı valley, steppe, 26.05.2007, 39° 23' 028" N 42° 17' 045" E, 1590 m, LFM 2838, **END.**, Ir.-Tur., Hc. **"LC"**
▲***J. cataonica*** Boiss. & Hausskn.
Muş: Malazgirt, Karıncalı valley, steppe, 08.09.2007, 39° 22' 275" N 42° 17' 757" E, 1729 m, LFM 3827, **END.**, Ir.-Tur., Hc. **"LC"**
***Serratula radiata*** (Waldst. & Kit.) M. Bieb. subsp. ***biebersteiniana*** Iljin ex Grossh.
Muş: Malazgirt, SE of Karıncalı village, slopes around Kazgölü road, steppe, 23 vi 2006, 39° 21' 216" N 42° 20' 024" E, 1760 m, LFM 1104, Ir.-Tur.?, Hc.
***S. serratuloides*** (DC.) Takth.
Muş: Malazgirt, SE of Karıncalı village, slopes around Kazgölü road, steppe, 23 vi 2006, 39° 21' 216" N 42° 20' 024" E, 1760 m, LFM 1085, Ir.-Tur., Hc.
***Centaurea amasiensis*** Bornm.
Muş: Malazgirt, SE of Karıncalı village, slopes around Kazgölü road, steppe, 23 vi 2006, 39° 21' 216" N 42° 20' 024" E, 1760 m, LFM 1101; Muş: Malazgirt, between Karıncalı village and Kaz lake surroundings, steppe, 17 vii 2006, 39° 14' 726" N 42° 24' 165" E, 1646 m, LFM 1967, **END**., Hc. **"LC"**
***C. aggregata*** Fisch. & C.A. Mey. ex DC. subsp. ***aggregata***
Muş: Malazgirt, 1 km N of Kardeşler village, steppe, 06 vii 2006, 39° 21' 865" N 42° 25' 337" E, 1672 m, LFM 1435, Hc.
***C. virgata*** Lam.
Muş: Malazgirt, between Yolgözler and İyikomşu villages, steppe, 14.07.2007, 39° 25' 287" N 42° 13' 621" E, 1744 m, LFM 3245, Hc.
***C. saligna*** (K.Koch) Wagenitz
Muş: Malazgirt, between Sarıgöl and Gölağılı village, steppe, 18.08.2007, 39° 17' 302" N 42° 26' 470" E, 1950 m, LFM 3598, **END**., Ir.-Tur., Hc. **"LC"**
***C. armena*** Boiss.
Muş: Malazgirt, north slopes in the of the hills eastern of Karıncalı village, steppe, 10.06.2007, 39° 22' 294" N 42° 17' 842" E, 1702 m, LFM 2940, **END.,** Ir.-Tur., Hc. **"LC"**
***C. glastifolia*** L.
Muş: Malazgirt, 1 km N of Uyanık village, streamside, 06 vii 2006, 39° 22' 794" N 42° 24' 602" E, 1720 m, LFM 1489, Ir.-Tur., Hc.
***C. pterocaula*** Trautv.
Muş: Malazgirt, Kuruca village, steppe, 11 vii 2006, 39° 21' 232" N 42° 22' 749" E, 1682 m, LFM 1807, Ir.-Tur., Hc.
***C. spectabilis*** (Fisch. & C.A. Mey.) Sch. Bip. var. ***spectabilis***
Erzurum: Karaçoban, Karakol, Karagöz village surroundings, steppe, 20 vi 2006, 39° 19' 864" N 42° 13' 472" E, 1663 m, LFM 944, Ir.-Tur., Hc.
***C. fenzlii*** Reichardt
Muş: Malazgirt, N of Kazgölü, steppe, 23 vi 2006, 39° 20' 604" N 42° 21' 882" E, 1830 m, LFM 1124, **END**., Ir.-Tur., Hc. **"LC"**
***C. polypodiifolia*** Boiss. var. ***polypodiifolia***
Muş: Malazgirt, between Kuruca and Kazgölü villages, steppe, 08.09.2007, 39° 20' 836" N 42° 21' 845" E, 1763 m, LFM 3826, Ir.-Tur., Hc.
***C. polypodiifolia*** Boiss. var. ***szovitsiana*** (Boiss.) Wagenitz
Muş: Malazgirt, S of Laladağ village, roadside-meadow, 23 vi 2006, 39° 18' 450" N 42° 25' 098" E, 1650 m, LFM 1149, Hc.
***C. solstitialis*** L. subsp. ***solstitialis***
Muş: Malazgirt, Karagöz lake surroundings, steppe, 30 vii 2006, 39° 19' 651" N 42° 13' 112" E, 1647 m, LFM 2091, Hc.
***C. iberica*** Trev. ex Spreng.
Muş: Malazgirt, 2 km to A. Kıcık village, steppe, 11 vii 2006, 39° 15' 220" N 42° 22' 839" E, 1642 m, LFM 1688, Hc.
***C. pseudoscabiosa*** Boiss. & Buhse subsp. ***pseudoscabiosa***
Muş: Malazgirt, Karadere village surroundings, steppe, 01.08.2007, 39° 23' 641" N 42° 12' 306" E, 1750 m, LFM 3409, Ir.-Tur., Hc.
***C. pseudoscabiosa*** Boiss.&Buhse subsp***. araratica*** (Azn.) Wagenitz
Muş: Malazgirt, N of Kardeşler village, steppe, 06 vii 2006, 39° 21' 865" N 42° 25' 537" E, 1672 m, LFM 1358, Ir.-Tur., Hc.
***C. schischkinii*** Tzvel.
Erzurum: Karaçoban, Karakol, Karagöz village surroundings, steppe, 20 vi 2006, 39° 19' 864" N 42° 13' 472" E, 1663 m, LFM 1031, **END**., Ir.-Tur., Hc. **"NT"**
***C. triumfettii*** All.
Muş: Malazgirt, Yolgözler plateau surroundings, steppe, 29 v 2006, 39° 23' 413" N 42° 15' 562" E, 1691 m, LFM 487, Hc.
***C. depressa*** M. Bieb.
Muş: Malazgirt, Karıncalı valley, fields, 26.05.2007, 39° 22' 587" N 42° 17' 506" E, 1623 m, LFM 2874, Th.
***Crupina vulgaris*** Cass.
Muş: Malazgirt, Yapraklı village surroundings, steppe, 27 v 2006, 39° 21' 031" N 42° 15' 978" E, 1591 m, LFM 194, Th.
***C. crupinastrum*** (Moris) Vis.
Muş: Malazgirt, Karıncalı valley, steppe, 26.05.2007, 39° 23' 028" N 42° 17' 045" E, 1590 m, LFM 2856, Th.
***Xeranthemum annuum*** L.
Muş: Malazgirt, Y. Kıcık village surroundings, steppe, 17 vii 2006, 39° 17' 410" N 42° 23' 353" E, 1904 m, LFM 1887, Th.
***Sieberia nana*** (DC.) Bornm.
Muş: Malazgirt, between Uyanık and Bahçe villages, steppe, 06 vii 2006, 39° 22' 794" N 42° 24' 602" E, 1737 m, LFM 1457, Ir.-Tur., Th.
***Chardinia orientalis*** (L.) Kuntze
Muş: Malazgirt, Karıncalı village, steppe, 29 v 2006, 39° 22' 485" N 42° 16' 298" E, 1509 m, LFM 669, Ir.-Tur., Th.
***Echinops pungens*** Trautv. var. ***pungens***
Muş: Malazgirt, SE of Laladağ village, around Sarıgöl, steppe, 18.08.2007, 39° 18' 379" N 42° 25' 858" E, 1969 m, LFM 3584, Ir.-Tur., Hc.
***Cichorium intybus*** L.
Muş: Malazgirt, Y. Kıcık village surroundings, humid places, 17 vii 2006, 39° 17' 410" N 42° 23' 353" E, 1904 m, LFM 1907, Hc.
▲***C. endivia*** L.
Muş: Malazgirt, Laladağ, steppe-fallowing lands, 18.08.2007, 39° 17' 949" N 42° 23' 599" E, 2055 m, LFM 3574, Th.
***C. glandulosum*** Boiss. & Huet
Muş: Malazgirt, Kardeşler village, alluvial steppe, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1811 m, LFM 1499, Ir.-Tur., Th.
***Scorzonera cana*** (C.A. Mey) Hoffm. subsp. ***jacquiniana*** (W. Koch) D.F. Chamb.
Muş: Malazgirt, Yapraklı village surroundings, meadow, 27 v 2006, 39° 21' 031" N 42° 15' 978" E, 1591 m, LFM 153, Hc.

***S. suberosa*** K. Koch subsp. ***suberosa***
Muş: Malazgirt, between Yolgözler and İyikomşu villages, steppe, 27 v 2006, 39° 25' 138" N 42° 13' 697" E,1743 m, LFM 350; Muş: Malazgirt, Hacılar village surroundings, steppe, 21.05.2007, 39° 17' 463" N 42° 19' 986" E, 1723 m, LFM 2707, Ir.-Tur., Hc.
***S. mollis*** M. Bieb. subsp. ***mollis***
Muş: Malazgirt, between A.Kıcık and Y.Kıcık villages, steppe, 10.06.2007, 39° 17' 002" N 42° 23' 245" E, 1830 m, LFM 3070, Hc.
***S. mollis*** M. Bieb. subsp. ***szowitsii*** (DC.) D.F. Chamb.
Erzurum: Karaçoban, Kırmızı Tuzla surroundings, steppe, 29 iv 2006, 39° 41' 765" N 42° 04' 854" E, 1747 m, LFM 105, Ir.-Tur., Hc.
***S. semicana*** DC.
Muş: Malazgirt, Sırtdüzü village surroundings, steppe, 21.05.2007, 39° 27' 105" N 42° 23' 465" E, 1851 m, LFM 2779, Ir.-Tur., Hc.
***S. incisa*** DC.
Muş: Malazgirt, north slopes in the of the hills eastern of Karıncalı village, humid places, 10.06.2007, 39° 22' 294" N 42° 17' 842" E, 1702 m, LFM 2957, Ir.-Tur., Hc.
***S. parviflora*** Jacq.
Muş: Malazgirt, Kuruca village, reedy, 11 vii 2006, 39° 21' 237" N 42° 22' 747" E, 1684 m, LFM 1787, Hc.
***S. latifolia*** (Fisch. & C.A. Mey.) DC. var. ***latifolia***
Muş: Malazgirt, 1 km S of Laladağ village, meadows, 23 vi 2006, 39° 18' 450" N 42° 25' 095" E, 2000 m, LFM 1442, Ir.-Tur., Hc.
***Tragopogon coloratus*** C.A. Mey
Muş: Malazgirt, Yapraklı village surroundings, steppe, 27 v 2006, 39° 21' 031" N 42° 15' 978" E, 1591 m, LFM 191, Ir.-Tur., Hc.
***T. dubius*** Scop
Muş: Malazgirt, between Aktuzla and Yapraklı village, steppe, 26.05.2007, 39° 20' 895" N 42° 15' 945" E, 1577 m, LFM 2790, Hc.
***T. pratensis*** L. subsp. ***pratensis***
Muş: Malazgirt, Yapraklı village surroundings, sandy places, 27 v 2006, 39° 21' 031" N 42° 15' 978" E, 1591 m, LFM 200, Eu-Sib., Hc.
***T. pratensis*** L. subsp. ***orientalis*** (L.) Vollm.
Muş: Malazgirt, Y. Kıcık village surroudings, meadows, 17 vii 2006, 39° 17' 410" N 42° 23' 353" E, 1904 m, LFM 1888, Hc.
***T. latifolius*** Boiss. var. ***latifolius***
Muş: Malazgirt, Karıncalı village surroundings, steppe, 14.07.2007, 39° 22' 564" N 42° 15' 556" E, 1598 m, LFM 3275, Hc.
***T. buphthalmoides*** (DC.) Boiss. var. ***buphthalmoides***
Muş: Malazgirt, Kardeşler village, alluvial steppe, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1811 m, LFM 1511-LFM 1669, Hc.
***T. buphthalmoides*** (DC.) Boiss. var. ***latifolius*** Boiss.
Muş: Malazgirt, 10 km to to Aktuzla, steppe, 05 vi 2006, 39° 16' 666" N 42° 17' 276" E, 1612 m, LFM 814, Ir.-Tur., Hc.
***T.reticulatus*** Boiss. & Huet
Muş: Malazgirt, E of Yolgözler village (Yolgözler Plateau) steppe, 27 v 2006, 39° 23' 413" N 42° 15' 562" E, 1691 m, LFM 246, Hc.
▲***T. fibrosus*** Freyn & Sint. ex Freyn
Erzurum: Karaçoban, Karakol, Karagöz village surroundings, steppe, 20 vi 2006, 39° 19' 864" N 42° 13' 472" E, 1663 m, LFM 984, **END**., Hc. **"EN"**
***Leontodon crispus*** Vill. subsp. ***asper*** (Waldst & Kit.) Rohl. var. ***asper***
Muş: Malazgirt, S of Kardeşler village, fields, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1800 m, LFM 1291, Hc.
▲***Picris hieracioides*** L.
Muş: Malazgirt, Karıncalı village surroundings, meadows, 11 vii 2006, 39° 22' 216" N 42° 18' 024" E, 1794 m, LFM 1754, Eu-Sib, Hc.
***P. strigosa*** M. Bieb. subsp. ***strigosa***
Erzurum: Karaçoban, Kırmızı Tuzla surroundings, steppe, 30 vii 2006, 39° 17' 412" N 42° 06' 330" E, 1576 m, LFM 2299, Ir.-Tur., Hc.
***Rhagadiolus angulosus*** (Jaub. & Spach) Kupicha
Muş: Malazgirt, N of Kaz lake, meadow, 10.06.2007, 39° 20' 891" N 42° 19' 449" E, 1775 m, LFM 2997, Ir.-Tur., Th.
***R. hamosus*** (Boiss. & Hausskn.) Kupicha
Erzurum: Karaçoban, Kırmızı Tuzla surroundings, steppe, 03 vi 2006, 39° 17' 377" N 42° 06' 329" E, 1592 m, LFM 748b, Ir.-Tur., Th.
***Sonchus asper*** (L.) Hill. subsp. ***glaucescens*** (Jord.) Ball
Muş: Malazgirt, NW of Hasanpaşa village (Karagölmez district), stream bed, 05.09.2007, 39° 19' 936" N 42° 28' 281" E, 1808 m, LFM 3771, Hc.
***Hieracium umbellatum*** L.
Muş: Malazgirt, S of Bastem (Uyanık) village, humid slopes, 23 viii 2006, 39° 22' 139" N 42° 24' 288" E, 1648 m, LFM 2512, Hc.
***Pilosella x fallax*** (Willd.) Arv.-Touv.
Muş: Malazgirt, S of Kardeşler village, fields, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1800 m, LFM 1321, Hc.
***P. maschukensis*** (Litv. & Zahn) Sojàk
Muş: Malazgirt, between Y. Kıcık and A.Kıcık villages, steppe, 17 vii 2006, 39° 13' 088" N 42° 24' 073" E 1650 m, LFM 2048, Hc.
***P. verruculata*** (Link) Sojàk
Muş: Malazgirt, 1 km SW of Kuruca village, humid meadows, 23 vi 2006, 39° 21' 177" N 42° 21' 813" E, 1830 m, LFM 1192, Hc.
▲***Lactuca saligna*** L.
Muş: Malazgirt, SE of Laladağ village, around Sarıgöl, steppe, 18.08.2007, 39° 18' 379" N 42° 25' 858" E, 1969 m, LFM 3583, Hc.
***L. georgica*** Grossh.
Muş: Malazgirt, Kardeşler village, alluvial steppe, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1811 m, LFM 1546, Hyrcano-Eux., Hc.
***L. scarioloides*** Boiss.
Muş: Malazgirt, Karıncalı valley, steppe, 26.10.2006, 39° 21' 456" N 42° 15' 582" E, 1552 m, LFM 2547, Ir.-Tur., Hc.
***L. serriola*** L.
Muş: Malazgirt, 3 km W of Hasanpaşa village, Salix caprea community, wet meadows, 23 viii 2006, 39° 22' 323" N 42° 29' 748" E, 1743 m, LFM 2419, Eu.-Sib., Hc.
▲***L. aculeata*** Boiss. & Kotschy ex Boiss.
Erzurum: Karaçoban, Kırmızı Tuzla surroundings, streamside, 30 vii 2006, 39° 17' 412" N 42° 06' 330" E, 1576 m, LFM 2284, Ir.-Tur., Hc.
***Scariola orientalis*** (Boiss.) Sojak
Muş: Malazgirt, NW of Hasanpaşa village (Karagölmez district), steppe, 05.09.2007, 39° 19' 936" N 42° 28' 281" E, 1808 m, LFM 3735, Ir.-Tur., Hc.
***Lapsana communis*** L. subsp. ***intermedia*** (M. Bieb.) Hayek
Muş: Malazgirt, S of Bastem (Uyanık) village, humid slopes, 23 viii 2006, 39° 22' 139" N 42° 24' 288" E, 1648 m, LFM 2478, Th.
***L. communis*** L. subsp. ***adenophora*** (Boiss.) Rech.f.
Muş: Malazgirt, Laladağ, humid places, 18.08.2007, 39° 18' 315" N 42° 23' 707" E, 1997 m, LFM 3506a, Hc.
***Taraxacum bessarabicum*** (Hornem.) Hand.-Mazz. subsp. ***bessarabicum***
Muş: Malazgirt, NW of Hasanpaşa village (Karagölmez district), steppe, 05.09.2007, 39° 19' 936" N 42° 28' 281" E, 1808 m, LFM 3733, Hc.
***T. anatolicum*** van Soest
Muş: Malazgirt, NW of Hasanpaşa village (Karagölmez district), stream bed, 05.09.2007, 39° 19' 936" N 42° 28' 281" E, 1808 m, LFM 3750, **END.,** Ir.-Tur., Hc. **"EN"**
***T. assemani*** Blauche
Muş: Malazgirt, Karıncalı valley, steppe, 26.10.2006, 39° 21' 456" N 42° 15' 582" E, 1552 m, LFM 2520, Ir.-Tur., Hc.
***T. serotinum*** (Waldst. & Kit.) Poir.
Muş: Malazgirt, Karıncalı village surroundings, steppe, 26.10.2006, 39° 20' 850" N 42° 15' 703" E, 1501 m, LFM 2516, Hc.
***T. montanum*** (C.A. Mey.) DC.
Muş: Malazgirt, Bahçe (Seydan) lake surroundings, steppe, 05.09.2007, 39° 23' 294" N 42° 28' 775" E, 1638 m, LFM 3774, Ir.-Tur., Hc.
***T. androssovii*** Schischkin
Muş: Malazgirt, 1 km to A. Kıcık village, steppe, 12.05.2007, 39° 14' 899" N 42° 22' 092" E, 1589 m, LFM 2652, Hc.
***T. buttleri*** von Soest
Muş: Malazgirt, between Çat and Karıncalı villages, steppe-rocky places, 16 iv 2006, 39° 21' 925" N 42° 29' 665" E, 1650 m, LFM 063, Hc.
***Chondrilla juncea*** L. var. ***juncea***
Muş: Malazgirt, Bahçe (Seydan) lake surroundings, steppe, 23 viii 2006, 39° 23' 366" N 42° 29' 082" E, 1686 m, LFM 2465, Hc.
***Crepis pannonica*** (Jacq.) K. Koch

Muş: Malazgirt, between Karıncalı village and Kaz lake surroundings, steppe, 17 vii 2006, 39° 14' 726" N 42° 24' 165" E, 1646 m, LFM 1927; Muş: Malazgirt, 3 km to Karagöz village, roadside, 30 vii 2006, 39° 19' 846" N 42° 13' 808" E, 1623 m, LFM 2109, Hc.
***C. pulchra*** L. subsp. ***pulchra***
Muş: Malazgirt, Kardeşler village, alluvial steppe, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1811 m, LFM 1519, Hc.
***C. alpina*** L.
Muş: Malazgirt, Yapraklı village surroundings, steppe, 27 v 2006, 39° 21' 031" N 42° 15' 978" E, 1591 m, LFM 369, Th.
***C. foetida*** L. subsp. ***rhoeadifolia*** (M. Bieb.) Célak
Muş: Malazgirt, Karıncalı village surroundings, steppe, 14.07.2007, 39° 22' 564" N 42° 15' 556" E, 1598 m, LFM 3286, Th.
***C. sancta*** (L.) Babc.
Muş: Malazgirt, Karıncalı village, steppe, 29 v 2006, 39° 22' 485" N 42° 16' 298" E, 1509 m, LFM 677, Th.

**CAMPANULACEAE**
***Campanula crispa*** Lam.
Muş: Malazgirt, between İyikomşu and Kırımkaya village surroundings (Radar), steppe, 01.08.2007, 39° 15' 250" N 42° 03' 700" E, 2095 m, LFM 3335, Ir.-Tur., Hc.
***C. glomerata*** L. subsp. ***hispida*** (Witasek) Hayek
Muş: Malazgirt, W of Kazgölü village, streamside-wet places, 23 vi 2006, 39° 20' 004" N 42° 21' 608" E, 1710 m, LFM 1255, Eu.-Sib., Hc.
***C. involucrata*** Aucher ex A. DC.
Muş: Malazgirt, north slopes in the of the hills eastern of Karıncalı village, steppe, 10.06.2007, 39° 22' 294" N 42° 17' 842" E, 1702 m, LFM 2904, Ir.-Tur., Hc.
***C. stevenii*** M. Bieb. subsp. ***beauverdiana*** (Fomin) Rech.f.
Muş: Malazgirt, between Karıncalı and Yapraklı villages, steppe, 27 v 2006, 39° 21' 706" N 42° 15' 403" E, 1520 m, LFM 438, Ir.-Tur., Hc.
***Asyneuma filipes*** (Nábělek) Damboldt
Muş: Malazgirt, Karadere village surroundings, steppe, 01.08.2007, 39° 23' 641" N 42° 12' 306" E, 1750 m, LFM 3380, Ir.-Tur., Hc.
***A. rigidum*** (Willd.) Grossh. subsp. ***rigidum***
Muş: Malazgirt, between Karıncalı village and Kaz lake surroundings, steppe, 17 vii 2006, 39° 14' 726" N 42° 24' 165" E, 1646 m, LFM 1923-LFM 1936-LFM 1955; Muş: Malazgirt, 1 km to Doğanbey village, steppe, 30 vii 2006, 39° 18' 228" N 42° 08' 284" E, 1710 m, LFM 2206; Muş: Malazgirt, S of Bastem (Uyanık) village, humid slopes, 23 viii 2006, 39° 22' 139" N 42° 24' 288" E, 1648 m, LFM 2511, Ir.-Tur., Hc.
***A. virgatum*** (Labill.) Bornm. subsp. ***virgatum***
Muş: Malazgirt, N of Kardeşler village, steppe, 06 vii 2006, 39° 21' 865" N 42° 25' 537" E, 1672 m, LFM 1352, Hc.
▲***A. virgatum*** (Labill.) Bornm. subsp. ***cichoriiforme*** (Boiss.) Damboldt
Erzurum: SE of Karaçoban, river surroundings, meadows drying up in summer, 30 vii 2006, 39° 20' 226" N 42° 05' 803" E, 1533 m, LFM 2177, **END.,** E. Medit., Hc. **"LC"**

**LENTIBULARIACEAE**
***Utricularia vulgaris*** L.
Muş: Malazgirt, Kuruca village, in the water, 11 vii 2006, 39° 21' 237" N 42° 22' 747" E, 1684 m, LFM 1793, Eu.-Sib., Hc.

**PRIMULACEAE**
***Primula auriculata*** Lam.
Muş: Malazgirt, Bademözü village surroundings, meadows, 21.05.2007, 39° 24' 712" N 42° 26' 095" E, 1766 m, LFM 2691, Ir.-Tur.?, Hc.
***Androsace maxima*** L.
Muş: Malazgirt, SE of Bahçe village , fields, 2 iv 2006, 39° 23' 578" N 42° 28' 993" E, 1668 m, LFM 035, Th.
***Lysimachia vulgaris*** L.
Muş: Malazgirt, road surroundings from Karıncalı village to Kaz Lake, stream side, 17 vii 2006, 39° 14' 726" N 42° 24' 165" E, 1646 m, LFM 1930, Hc.
***Anagallis foemina*** Miller
Muş: Malazgirt, Kuruca village, steppe, 11 vii 2006, 39° 20' 692" N 42° 23' 296" E, 1705 m, LFM 1775a, Th.

**APOCYNACEAE**
***Trachomitum venetum*** (L.) Woodson subsp. ***sarmatiense*** (Woodson) Avetisian
Muş: Malazgirt, between Beşdam and Sırtdüzü villages, streamside, 02.09.2007, 39° 21' 439" N 42° 15' 293" E, 1489 m, LFM 3671, E. Med., Hc.

**GENTIANACEAE**
***Centaurium erythraea*** Rafn subsp. ***erythraea***
Muş: Malazgirt, Yeniköy surroundings, steppe, 17 vii 2006, 39° 15' 002" N 42° 24' 173" E, 1904 m, LFM 1992, Th.
▲***C. erythraea*** Rafn subsp. ***rumelicum*** (Velen.) Melderis
Erzurum: SE of Karaçoban, river surroundings, meadows drying up in summer, 30 vii 2006, 39° 20' 226" N 42° 05' 803" E, 1533 m, LFM 2144, Medit., Th.

**CONVOLVULACEAE**
***Convolvulus arvensis*** L.
Muş: Malazgirt, between Erence and Karagöz villages, fields, 30 vii 2006, 39° 19' 751" N 42° 14' 632" E, 1686 m, LFM 2075, Hc.
***C. galaticus*** Rostan ex Choisy
Muş: Malazgirt, Kardeşler village, alluvial steppe, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1811 m, LFM 1582, **END**., Ir-Tur., Hc. **"LC"**
***C. lineatus*** L.
Muş: Malazgirt, SE of Karıncalı village, slopes around Kazgölü road, steppe, 23 vi 2006, 39° 21' 216" N 42° 20' 024" E, 1760 m, LFM 1074, Kh.
▲***Calystegia sepium*** (L.) R.Br. ***sepium***
Muş: Malazgirt, between Beşdam and Sırtdüzü villages, streamside, 02.09.2007, 39° 21' 439" N 42° 15' 293" E, 1489 m, LFM 3688, Hc.

**CUSCUTACEAE**
***Cuscuta campestris*** Yunck.
Muş: Malazgirt, Y.Kıcık village surroundings, weeds, 18.08.2007, 39° 17' 541" N 42° 23' 465" E, 1917 m, LFM 3648, Th.
***C. kurdica*** Engelm.
Muş: Malazgirt, N of Kardeşler village, steppe, 06 vii 2006, 39° 21' 865" N 42° 25' 537" E, 1672 m, LFM 1349, Ir.-Tur., Parazit. Th.
***C. planiflora*** Ten
Muş: Malazgirt, Laladağ, steppe, 18.08.2007, 39° 18' 315" N 42° 23' 707" E, 1997 m, LFM 3465, Th.
***C. lupuliformis*** Krocker
Muş: Malazgirt, SE of Laladağ village, Salix caprea community, 18.08.2007, 39° 18' 931" N 42° 23' 682" E, 1861 m, LFM 3519, Eu.-Sib., Th.
***C. monogyna*** Vahl subsp**. *monogyna***
Muş: Malazgirt, between Karıncalı village and Kaz lake surroundings, steppe, 17 vii 2006, 39° 14' 726" N 42° 24' 165" E, 1646 m, LFM 1875, Th.

**BORAGINACEAE**
***Heliotropium europaeum*** L.
Muş: Malazgirt, Laladağ, steppe, 18.08.2007, 39° 18' 315" N 42° 23' 707" E, 1997 m, LFM 3473, Th.
***H. dolosum*** De Not.
Muş: Malazgirt, 1 km N of Kardeşler village, steppe, 06 vii 2006, 39° 21' 865" N 42° 25' 337" E, 1672 m, LFM 1444, Th.
▲***H. lasiocarpum*** Fisch. & C.A. Mey.
Muş: Malazgirt, Bahçe (Seydan) lake surroundings, sandy places, 23 viii 2006, 39° 23' 366" N 42° 29' 082" E, 1686 m, LFM 2448, Ir.-Tur., Th.
▲***H. supinum*** L.

Muş: Malazgirt, between Y. Kıcık and A.Kıcık villages, edge of fields, 17 vii 2006, 39° 13' 088" N 42° 24' 073" E 1650 m, LFM 2065, Th.
***Lappula barbata*** (M. Bieb.) Gürke
Erzurum: Karaçoban, Kırmızı Tuzla surroundings, steppe, 30 vii 2006, 39° 17' 412" N 42° 06' 330" E, 1576 m, LFM 2222, Ir.-Tur., Hc.
***Rochelia disperma*** (L.f.) K. Koch var. ***disperma***
Muş: Malazgirt, A. Kıcık village surroundings, steppe, 12.05.2007, 39° 16' 121" N 42° 22' 928" E, 1742 m, LFM 2630a, Th.
***R. disperma*** (L.f.) K. Koch var. ***microcalycina*** (Bornm.) J.R. Edm. **(-216)**
Muş: Malazgirt, Yapraklı village surroundings, steppe, 27 v 2006, 39° 21' 031" N 42° 15' 978" E, 1591 m, LFM 380; Muş: Malazgirt, Karıncalı village, steppe, 29 v 2006, 39° 22' 485" N 42° 16' 298" E, 1509 m, LFM 651, **END**.?, Ir.-Tur., Th. **"LC"**
***Asperugo procumbens*** L.
Muş: Malazgirt, Karıncalı valley, steppe, 26.05.2007, 39° 23' 028" N 42° 17' 045" E, 1590 m, LFM 2793, Eu.-Sib., Th.
***Myosotis heteropoda*** Trautv.
Muş: Malazgirt, Yapraklı village surroundings, steppe, 27 v 2006, 39° 21' 031" N 42° 15' 978" E, 1591 m, LFM 163, Ir.-Tur., Th.
***M. sicula*** Guss.
Muş: Malazgirt, Bahçe (Seydan) lake surroundings, humid places, 23 viii 2006, 39° 23' 366" N 42° 29' 082" E, 1686 m, LFM 2441, Th.
***M. platyphylla*** Boiss.
Muş: Malazgirt, Karıncalı valley, steppe, 26.05.2007, 39° 23' 028" N 42° 17' 045" E, 1590 m, LFM 2796-LFM 2803, **END.,** Ir.-Tur., Hc. **"VU"**
▲***Paracaryum montbretii*** (H. Riedl.) R.R. Mill.
Muş: Malazgirt, Yapraklı village surroundings, steppe, 27 v 2006, 39° 21' 031" N 42° 15' 978" E, 1591 m, LFM 273, **END.**, Hc. **"**DD**"**
***P. cristatum*** (Schreb.) Boiss. subsp. ***cristatum***
Muş: Malazgirt, between A.Kıcık and Y.Kıcık villages, steppe, 10.06.2007, 39° 17' 002" N 42° 23' 245" E, 1830 m, LFM 3073, **END.,** Ir.-Tur., Hc. **"LC"**
***P. cristatum*** (Schreb.) Boiss. subsp. ***carduchorum*** R.R.Mill**.**
Muş: Malazgirt, Yapraklı village surroundings, steppe, 27 v 2006, 39° 21' 031" N 42° 15' 978" E, 1591 m, LFM 273, Ir.-Tur., Hc.
***Rindera albida*** (Wettst.) Kusn.
Erzurum: N of Karaçoban, Kırımkaya villages, Güzelbaba mountain, steppe, 05 vi 2006, 39° 21' 663" N 42° 10' 670" E, 1776 m, LFM 816, Ir.-Tur., Hc.
***Lithospermum officinale*** L.
Muş: Malazgirt, Karıncalı valleys, steppe, 17 vii 2006, 39° 17' 410" N 42° 23' 353" E, 1904 m, LFM 1915; 161, LFM 2471, Eu.-Sib., Hc.
***Buglossoides arvensis*** (L.) Johnston
Muş: Malazgirt, Bademözü village surroundings, meadows, 21.05.2007, 39° 24' 712" N 42° 26' 095" E, 1766 m, LFM 2685, Th.
***Onosma sericeum*** Willd.
Muş: Malazgirt, between Uyanık and Bahçe villages, steppe, 06 vii 2006, 39° 22' 794" N 42° 24' 602" E, 1737 m, LFM 1468, Ir.-Tur., Kh.
***O. nemoricolum*** Hauskn. & Bornm. ex Bornm.
Muş: Malazgirt, between Karıncalı and Yapraklı villages, steppe, 27 v 2006, 39° 21' 706" N 42° 15' 403" E, 1520 m, LFM 469, Ir.-Tur., Kh.
***O. aucheranum*** DC.
Muş: Malazgirt, Karıncalı village, steppe, 29 v 2006, 39° 22' 485" N 42° 16' 298" E, 1509 m, LFM 716, E. Medit, Kh.
▲***O. roussaei*** DC.
Muş: Malazgirt, 1 km N of Kuruca village, steppe, 10.06.2007, 39° 21' 838" N 42° 24' 046" E, 1710 m, LFM 3052, Ir.-Tur., Kh.
***Cerinthe minor*** L. subsp. ***auriculata*** (Ten.) Domac
Muş: Malazgirt, Yolgözler village, steppe, 29 v 2006, 39° 23' 413" N 42° 15' 562" E, 1691 m, LFM 532, Hc.
***Anchusa leptophylla*** Roem. & Schult. subsp. ***incana*** (Ledeb.) D.F.Chamb.
Muş: Malazgirt, Bahçe Tuzlası, salty places, 06 vii 2006, 39° 23' 977" N 42° 28' 114" E, 1587 m, LFM 1376, **END**., Ir.-Tur., Kh. **"LC"**
***A. leptophylla*** Roem. & Schult. subsp. ***tomentosa*** (Boiss.) D.F.Chamb.
Muş: Malazgirt, W of Kazgölü village, fields, 23 vi 2006, 39° 20' 004" N 42° 21' 608" E, 1800 m, LFM 1229, **END**., Ir.-Tur., Kh. **"LC"**
***A. azurea*** Miller var. ***azurea***
Muş: Malazgirt, A. Kıcık village surroundings, steppe, 12.05.2007, 39° 16' 121" N 42° 22' 928" E, 1742 m, LFM 2624, Hc.
***A. arvensis*** (L.) M. Bieb. subsp. ***orientalis*** (L.) Nordh.
Muş: Malazgirt, Karıncalı village, fields, 29 v 2006, 39° 22' 485" N 42° 16' 298" E, 1509 m, LFM 658, Hc.
***A. aucheri*** DC.
Muş: Malazgirt, Yolgözler village, steppe, 29 v 2006, 39° 23' 413" N 42° 15' 562" E, 1691 m, LFM 527, Th.
***Nonea pulla*** (L.) DC. subsp. ***scabrisquamata*** A. Baytop
Muş: Malazgirt, Laladağ, Y. Kıcık village surroundings, roadside, 14.04.2007, 39° 16' 602" N 42° 23' 306" E, 1786 m, LFM 2592, Ir.-Tur., Hc.
***Caccinia macranthera*** (Banks & Sol.) Brand var. ***crassifolia*** (Vent.) Brand
Muş: Malazgirt, A. Kıcık village surroundings, steppe, 12.05.2007, 39° 16' 121" N 42° 22' 928" E, 1742 m, LFM 2615, Ir.-Tur., Hc.

**SOLANACEAE**
***Solanum alatum*** Moench
Muş: Malazgirt, Karıncalı valley, humid places, 26.10.2006, 39° 21' 456" N 42° 15' 582" E, 1552 m, LFM 2568, Th.
***Hyoscyamus niger*** L.
Muş: Malazgirt, Karıncalı village, steppe, 29 v 2006, 39° 22' 485" N 42° 16' 298" E, 1509 m, LFM 645, Th.

**SCROPHULARIACEAE**
***Verbascum agrimoniifolium*** (K.Koch) Hub.-Mor. subsp. ***agrimoniifolium***
Muş: Malazgirt, 3 km S of Kuruca village, humid-road side, 23 vi 2006, 39° 19' 504" N 42° 23' 649" E, 1850 m, LFM 1211, Ir.-Tur., Hc**.**
***V. oreophilum*** K. Koch var. ***oreophilum***
Muş: Malazgirt, between Laladağ and Kuruca villages, roadside-steppe, 23 vi 2006, 39° 19' 064" N 42° 24' 094" E, 1850 m, LFM 1207, **END.,** Ir.-Tur. elm, Hc. **"LC"**
***V. oreophilum*** K. Koch var. ***joannis*** (Bordz.) Hub.-Mor.
Muş: Malazgirt, 3 km S of Kuruca village, humid-road side, 23 vi 2006, 39° 19' 504" N 42° 23' 649" E, 1850 m, LFM 1210, Ir.-Tur., Hc.
***V. phoenicum*** L.
Erzurum: Karaçoban, Kırmızı Tuzla, steppe, 03 vi 2006, 39° 17' 377" N 42° 06' 329" E, 1592 m, LFM 791, Hc.
▲***V. pyramidatum*** M. Bieb.
Erzurum: Karaçoban, Kırmızı Tuzla, steppe, 03 vi 2006, 39° 17' 377" N 42° 06' 329" E, 1592 m, LFM 792. Hyrcano-Eux., Hc.
***V. armenum*** Boiss. & Kotschy var. ***armenum***
Muş: Malazgirt, NW of Hasanpaşa village (Karagölmez district), stream bed, 05.09.2007, 39° 19' 936" N 42° 28' 281" E, 1808 m, LFM 3760, Ir.-Tur., Hc.
***V. armenum*** Boiss. & Kotschy var. ***tempskyanum*** (Freyn & Sint.) Murb**.**
Erzurum: SE of Karaçoban, river surroundings, meadows drying up in summer, 30 vii 2006, 39° 20' 226" N 42° 05' 803" E, 1533 m, LFM 2166, **END**., Ir.-Tur., Hc. **"LC"**
***V. tauri*** Boiss. & Kotschy
Erzurum: NE of Karaçoban, Kırımkaya villages, Güzelbaba mountain, steppe, 11 vi 2006, 39° 19' 864" N 42° 13' 472" E, 1663 m, LFM 901, **END.,** E. Med. (mt.), Hc. **"LC"**
***V. varians*** Freyn & Sint var. ***varians***
Erzurum: N of Karaçoban, Kırımkaya villages, Güzelbaba mountain, steppe, 05 vi 2006, 39° 21' 663" N 42° 10' 670" E, 1776 m, LFM 818, Hc.
***Scrophularia ilwensis*** K. Koch
Muş: Malazgirt, N of Kazgölü, steppe, 23 vi 2006, 39° 20' 604" N 42° 21' 882" E, 1830 m, LFM 1132, Ir.-Tur., Hc.
***S. umbrosa*** Dumort.
Muş: Malazgirt, S of Kardeşler village, streamside, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1800 m, LFM 1701, Eu.-Sib., Hc.(Hidrofit)
***S. libanotica*** Boiss. subsp. ***libanotica*** var. ***libanotica***
Muş: Malazgirt, between İyikomşu and Kırımkaya village surroundings (Radar), steppe, 01.08.2007, 39° 15' 250" N 42° 03' 700" E, 2095 m, LFM 3336, Hc.
***S. libanotica*** Boiss. subsp. ***libanotica*** var. ***nevshehirensis*** R.R. Mill.

Erzurum: NE of Karaçoban, Kırımkaya villages, Güzelbaba mountain, steppe, 11 vi 2006, 39° 19' 864" N 42° 13' 472" E, 1663 m, LFM 869, Ir.-Tur., Hc.
***S. libanotica*** Boiss. subsp. ***libanotica*** var. ***urartuënsis*** R.R. Mill.
Muş: Malazgirt, between Beşdam and Sırtdüzü villages, steppe, 02.09.2007, 39° 21' 439" N 42° 15' 293" E, 1489 m, LFM 3701, **END.**, Ir.-Tur., Hc. **"LC"**
***S. lucida*** L.
Erzurum: NE of Karaçoban, Kırımkaya villages, Güzelbaba mountain, steppe, 11 vi 2006, 39° 19' 864" N 42° 13' 472" E, 1663 m, LFM 928, Med.?, Hc.
▲***Chaenorhinum minus*** (L.) Lange subsp. ***anatolicum*** P.H. Davis
Erzurum: N of Karaçoban, steppe, 30 vii 2006, 39° 20' 226" N 42° 05' 803" E, 1533 m, LFM 2147, **END.,** Th. **"LC"**
***Linaria chalepensis*** (L.) Mill. var. ***chalepensis***
Muş: Malazgirt, Yapraklı village surroundings, steppe, 27 v 2006, 39° 21' 031" N 42° 15' 978" E, 1591 m, LFM 587, E. Medit., Th.
***L. kurdica*** Boiss. & Hohen. subsp. ***kurdica***
Muş: Malazgirt, 1 km to Doğanbey village, steppe, 30 vii 2006, 39° 18' 228" N 42° 08' 284" E, 1710 m, LFM 2185, Ir.-Tur., Hc.
***L. kurdica*** Boiss. & Hohen. subsp. ***araratica*** (Tzvel.) P.H. Davis
Muş: Malazgirt, W of Hasanpaşa village, steppe, 05.09.2007, 39° 19' 596" N 42° 29' 106" E, 1718 m, LFM 3726, Ir.-Tur., Hc.
***L. kurdica*** Boiss. & Hohen. subsp. ***pycnophylla*** (Boiss. & Balansa) P.H. Davis
Muş: Malazgirt, 10 km to to Aktuzla, steppe, 05 vi 2006, 39° 16' 666" N 42° 17' 276" E, 1612 m, LFM 806, Ir.-Tur., Hc.
***L. pyramidata*** (Lam.) Spreng.
Muş: Malazgirt, Karıncalı village surooundings, steppe, 11 vii 2006, 39° 22' 216" N 42° 18' 024" E, 1794 m, LFM 1757, Ir.-Tur., Hc.
***Veronica bozakmanii*** M.A. Fisch.
Erzurum: between Karaçoban and Kırmızı Tuzla, before arriving the bridge, steppe, 03 vi 2006, 39° 18' 545" N 42° 06' 151" E, 1673 m, LFM 734b, Ir.-Tur., Th.
▲***V. acinifolia*** L.
Muş: Malazgirt, between A.Kıcık and Y.Kıcık villages, steppe, 10.06.2007, 39° 17' 002" N 42° 23' 245" E, 1830 m, LFM 3084, Th.
***V. reuterana*** Boiss.
Erzurum: Karaçoban, Kırmızı Tuzla surroundings, steppe, 03 vi 2006, 39° 17' 377" N 42° 06' 329" E, 1592 m, LFM 762, Ir.-Tur., Th.
***V. arvensis*** L.
Erzurum: between Karaçoban and Kırmızı Tuzla, before arriving the bridge, steppe, 03 vi 2006, 39° 18' 545" N 42° 06' 151" E, 1673 m, LFM 648, Eu.-Sib., Th.
***V. praecox*** All.
Muş: Malazgirt, Karıncalı village, steppe, 29 v 2006, 39° 22' 485" N 42° 16' 298" E, 1509 m, LFM 668, Th.
***V. biloba*** Schreb.
Muş: Malazgirt, Karıncalı village, steppe, 29 v 2006, 39° 22' 485" N 42° 16' 298" E, 1509 m, LFM 674, Ir.-Tur., Th.
***V. bornmuelleri*** Hausskn.
Muş: Malazgirt, between A.Kıcık and Y.Kıcık villages, steppe, 10.06.2007, 39° 17' 002" N 42° 23' 245" E, 1830 m, LFM 3072, Ir.-Tur., Th.
***V. polita*** Fries
Muş: Malazgirt, Bahçe tuzlası surroundings, fields, 2 iv 2006, 39° 14' 016" N 42° 28' 351" E, 1572 m, LFM 039, Th.
***V. campylopoda*** Boiss.
Muş: Malazgirt, Yapraklı village surroundings, steppe, 27 v 2006, 39° 21' 031" N 42° 15' 978" E, 1591 m, LFM 538, Ir.-Tur., Th.
***V. hederifolia*** L.
Muş: Malazgirt, Karıncalı village, steppe, 29 v 2006, 39° 22' 485" N 42° 16' 298" E, 1509 m, LFM 680a, Th.
***V. anagallis-aquatica*** L. subsp. ***anagallis-aquatica***
Erzurum: Karaçoban, Karakol, Karagöz village surroundings, humid place, 20 vi 2006, 39° 19' 864" N 42° 13' 472" E, 1663 m, LFM 932, Hc. (Hidrofit)
***V. anagallis-aquatica*** L. subsp. ***oxycarpa*** (Boiss.) Elenevsky
Muş: Malazgirt, 3 km NW of Hasanpaşa village, streamside, 23 viii 2006, 39° 22' 323" N 42° 29' 748" E, 1743 m, LFM 1262, Ir.-Tur., Hc. (Hidrofit)
***V. michauxii*** Lam.
Muş: Malazgirt, Kaz lake surroundings, streamside, 17 vii 2006, 39° 20' 604" N 42° 19' 882" E, 1731 m, Ir.-Tur., Hc.
***V. beccabunga*** L. subsp. ***abscondita*** M.A. Fisch.
Muş: Malazgirt, between Hasanpaşa and Kardeşler village, streamside-rocky, 23 viii 2006, 39° 21' 826" N 42° 23' 806" E, 1722 m, LFM 2389, Ir.-Tur., Hc. (Hidrofit).
***V. orientalis*** Mill. subsp. ***orientalis***
Muş: Malazgirt, NE of A. Kıcık village, steppe, 12.05.2007, 39° 16' 628" N 42° 23' 454" E, 1763 m, LFM 2676, Ir.-Tur., Kh.
***Lagotis stolonifera*** (K.Koch) Maxim.
Erzurum: Karaçoban, Kırmızı Tuzla surroundings, steppe, 29 iv 2006, 39° 41' 765" N 42° 04' 854" E, 1747 m, LFM 104, Ir.-Tur., Hc.
***Euphrasia pectinata*** Ten
Muş: Malazgirt, Karıncalı village, humid places, 29 v 2006, 39° 22' 485" N 42° 16' 298" E, 1509 m, LFM 649, Eu.-Sib., Th.
***Odontites aucheri*** Boiss.
Muş: Malazgirt, Karıncalı village surroundings, steppe, 14.07.2007, 39° 22' 564" N 42° 15' 556" E, 1598 m, LFM 3267, Ir.-Tur., Th.
***O. verna*** (Bellardi) Dumort
Muş: Malazgirt, Laladağ, steppe, 18.08.2007, 39° 18' 315" N 42° 23' 707" E, 1997 m, LFM 3467, Th.
***Pedicularis comosa*** L. var. ***acmodonta*** (Boiss.) Boiss.
Muş: Malazgirt, N of Kaz lake, meadow, 10.06.2007, 39° 20' 891" N 42° 19' 449" E, 1775 m, LFM 3016, Hc. (Hidrofit)
***Rhinanthus angustifolius*** C.C. Gmel. subsp. ***grandiflorus*** (Wallr.) D.A. Webb
Muş: Malazgirt, W of Kazgölü village, streamside-wet places, 23 vi 2006, 39° 20' 004" N 42° 21' 608" E, 1710 m, LFM 1258, Th. (Hidrofit)
***Bungea trifida*** (Vahl) C.A. Mey.
Muş: Malazgirt, Yapraklı village surroundings, steppe, 27 v 2006, 39° 21' 031" N 42° 15' 978" E, 1591 m, LFM 567, Ir.-Tur., Hc.

**OROBANCHACEAE**
***Phelypaea tournefortii*** Desf.
Erzurum: Karaçoban, Kırmızı Tuzla surroundings, steppe, 03 vi 2006, 39° 17' 377" N 42° 06' 329" E, 1592 m, LFM 770, Ir.-Tur., Hc.
On *Centaurea schischkinii*
***Orobanche aegyptiaca*** Pers.
Muş: Malazgirt, Yapraklı village surroundings, fields, 27 v 2006, 39° 21' 031" N 42° 15' 978" E, 1591 m, LFM 188, Hc.
▲***O. serratocalyx*** G. Beck
Erzurum: Karaçoban, Karakol, Karagöz village surroundings, humid place, 20 vi 2006, 39° 19' 864" N 42° 13' 472" E, 1663 m, LFM 1019, Hc.
***O. caesia*** Reichb.
Muş: Malazgirt, Güzelbaba mountain, steppe, 01.08.2007, 39° 23' 722" N 42° 12' 235" E, 1720 m, LFM 3367, Hc.
***O. cernua*** Loefl.
Erzurum: Karaçoban, Karakol, Karagöz village surroundings, humid place, 20 vi 2006, 39° 19' 864" N 42° 13' 472" E, 1663 m, LFM 1010b, Hc.
***O. kurdica*** Boiss. & Hausskn.
Muş: Malazgirt, south slopes in the of the hills eastern of Karıncalı village, steppe, 10.06.2007, 39° 22' 279" N 42° 17' 748" E, 1760 m, LFM 2977, Ir.-Tur., Hc.
***O. armena*** Tzvelev
Muş: Malazgirt, Yolgözler village, steppe, 29 v 2006, 39° 23' 413" N 42° 15' 562" E, 1691 m, LFM 580, **END.,** Ir.-Tur., Hc. **"EN"**
***O. anatolica*** Boiss. & Reuter
Muş: Malazgirt, Karıncalı valley, steppe, 26.05.2007, 39° 23' 028" N 42° 17' 045" E, 1590 m, LFM 2829, Hc.

**ACANTHACEAE**
***Acanthus dioscoridis*** L. var. ***dioscoridis***
Muş: Malazgirt, Laladağ, steppe-fallowing lands, 18.08.2007, 39° 17' 949" N 42° 23' 599" E, 2055 m, LFM 3570, Hc.

**GLOBULARIACEAE**

***Globularia trichosantha*** Fisch. & C.A.Mey. subsp. ***trichosantha***
Muş: Malazgirt, between Çat and Karıncalı villages, steppe-rocky places, 16 iv 2006, 39° 21' 925" N 42° 29' 665" E, 1650 m, LFM 085, Hc.

**LAMIACEAE (LABIATAE)**
▲***Ajuga salicifolia*** (L.) Schreb.
Muş: Malazgirt, between Aktuzla and Yapraklı village, steppe, 26.05.2007, 39° 20' 895" N 42° 15' 945" E, 1577 m, LFM 2786, Ir.-Tur., Hc.
***A. chamaepitys*** (L.) Schreb. subsp. ***chia*** (Schreb.) Arcangeli var. ***chia***
Muş: Malazgirt, S of Ağılbaşı village, steppe, 21.05.2007, 39° 24' 681" N 42° 21' 974" E, 1798 m, LFM 2762, Hc.
***A. chamaepitys*** (L.) Schreb. subsp. ***chia*** (Schreb.) Arcangeli var. ***ciliata*** Briq.
Muş: Malazgirt, Karıncalı valley, steppe, 26.10.2006, 39° 21' 456" N 42° 15' 582" E, 1552 m, LFM 2534, Hc.
***Teucrium orientale*** L. var. ***orientale***
Muş: Malazgirt, İyikomşu village surroundings, humid slopes, 14.07.2007, 39° 26' 255" N 42° 13' 997" E, 1707 m, LFM 3317, Ir.-Tur., Hc.
***T. parviflorum*** Schreb.
Muş: Malazgirt, Kardeşler village, humid alluvial places, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1811 m, LFM 1502, Ir.-Tur., Hc.
***T. scordium*** L. subsp. ***scordium***
Muş: Malazgirt, Laladağ, humid places, 18.08.2007, 39° 18' 315" N 42° 23' 707" E, 1997 m, LFM 3493, Hc.
***T. scordium*** L. subsp. ***scordioides*** (Schreb.) Maire & Petitmengin
Muş: Malazgirt, Inside of Kardeşler village, streamside, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1811 m, LFM 1479, Eu.-Sib., Hc.
***T. chamaedrys*** L. subsp. ***chamaedrys***
Muş: Malazgirt, between Karıncalı village and Kaz lake surroundings, steppe, 17 vii 2006, 39° 14' 726" N 42° 24' 165" E, 1646 m, LFM 1962, Eu.-Sib., Kh.
***T. chamaedrys*** L. subsp. ***sinuatum*** (Čelak) Rech.f.
Muş: Malazgirt, N of Kuruca village, drying meadows-roadside, 23 viii 2006, 39° 21' 826" N 42° 23' 806" E, 1722 m, LFM 2321, Ir.-Tur., Kh.
***T. polium*** L.
Muş: Malazgirt, Laladağ, steppe, 18.08.2007, 39° 18' 315" N 42° 23' 707" E, 1997 m, LFM 3477, Hc.
***Scutellaria orientalis*** L. subsp. ***orientalis***
Muş: Malazgirt, 1 km N of Kuruca village, steppe, 10.06.2007, 39° 21' 838" N 42° 24' 046" E, 1710 m, LFM 3057, Kh.
***S. orientalis*** L. subsp. ***bornmuelleri*** (Hausskn. ex Bornm.) J.R. Edmondson
Muş: Malazgirt, Karagöz village surroundings, steppe, 16.06.2007, 39° 17' 380" N 42° 06' 427" E, 1583 m, LFM 3180, Ir.-Tur., Hc.
***Phlomis tuberosa*** L.
Erzurum: Karaçoban, Karakol, Karagöz village surroundings, steppe, 20 vi 2006, 39° 19' 864" N 42° 13' 472" E, 1663 m, LFM 1023, Hc.
***P. pungens*** Willd. var. ***hirta*** Velen.
Muş: Malazgirt, Kardeşler village, alluvial steppe, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1811 m, LFM 1616, Hc.
***P. pungens*** Willd. var. ***seticalycina*** (Náběl ek) Hub.-Mor.
Muş: Malazgirt, SE of Karıncalı village, slopes around Kazgölü road, steppe, 23 vi 2006, 39° 21' 216" N 42° 20' 024" E, 1760 m, LFM 1048, Hc.
***P. rigida*** Labill.
Muş: Malazgirt, 2 km SW of Kuruca village, steppe, 11 vii 2006, 39° 21' 434" N 42° 21' 448" E, 1850 m, LFM 1814, Ir.-Tur., Kh.
***P. kurdica*** Rech.f.
Muş: Malazgirt, A. Kıcık village, steppe, 11 vii 2006, 39° 15' 220" N 42° 22' 839" E, 1642 m, LFM 1745, Ir.-Tur., Kh.
***Lamium amplexicaule*** L.
Muş: Malazgirt, NW of Koçali village, fields, 2 iv 2006, 39° 21' 925" N 42° 29' 772" E, 1742 m, LFM 017, Euro-Sib., Th.
***L. macrodon*** Boiss. & Huet
Muş: Malazgirt, Laladağ, N of A. Kıcık village, humid slopes, 14.04.2007, 39° 16' 593" N 42° 23' 447" E, 1772 m, LFM 2584, Ir.-Tur., Th.
***Wiedemannia orientalis*** Fisch. & Mey.
Muş: Malazgirt, Karıncalı valley, steppe, 26.05.2007, 39° 23' 028" N 42° 17' 045" E, 1590 m, LFM 2828, Ir.-Tur., Th.
***Ballota nigra*** L. subsp. ***kurdica*** P.H. Davis
Muş: Malazgirt, S of Kardeşler village, streamside, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1800 m, LFM 1705, Ir.-Tur., Hc.
***Marrubium parviflorum*** Fisch. & Mey. subsp. ***parviflorum***
Muş: Malazgirt, between Beşdam and Sırtdüzü villages, steppe, 02.09.2007, 39° 21' 439" N 42° 15' 293" E, 1489 m, LFM 3706, Ir.-Tur., Hc.
***M. parviflorum*** Fisch. & Mey. subsp. ***oligodon*** (Boiss.) Seybold
Muş: Malazgirt, Kardeşler village, alluvial steppe, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1811 m, LFM 1550, **END.,** Hc. **"LC"**
***M. cordatum*** Náb.
Muş: Malazgirt, between Kuşluca village and Zırnak hill, steppe, 16.06.2007, 39° 15' 341" N 42° 03' 837" E, 2133 m, LFM 3134, Hc.
***Sideritis montana*** L. subsp. ***montana***
Muş: Malazgirt, between Erence and Karagöz villages, fields, 30 vii 2006, 39° 19' 751" N 42° 14' 632" E, 1686 m, LFM 2074, Medit., Th.
***Stachys balansae*** Boiss. & Kotschy subsp. ***balansae***
Muş: Malazgirt, 3 km to Karagöz village, steppe, 30 vii 2006, 39° 19' 846" N 42° 13' 808" E, 1623 m, LFM 2111, Hc.
***S. balansae*** Boiss. & Kotschy subsp. ***carduchorum*** Bhattacharjee
Muş: Malazgirt, Karıncalı valleys, steppe, 17 vii 2006, 39° 17' 410" N 42° 23' 353" E, 1904 m, LFM 1918, Ir.-Tur., Hc.
▲***S. cretica*** L. subsp. ***garana*** (Boiss.) Rech.f.
Erzurum: Karaçoban, Kırmızı Tuzla surroundings, steppe, 30 vii 2006, 39° 17' 412" N 42° 06' 330" E, 1576 m, LFM 2271, Ir.-Tur., Hc.
▲***S. byzantina*** K. Koch
Muş: Malazgirt, Kardeşler village, alluvial steppe, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1811 m, LFM 1656, Eu.-Sib., Hc.
***S. setifera*** C.A. Mey. subsp. ***setifera***
Muş: Malazgirt, S of Kardeşler village, streamside, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1800 m, LFM 1293, Ir.-Tur., Hc.
***S. kurdica*** Boiss. & Hohen. var. ***brevidens*** Bornm. ex Bhattacharjee
Muş: Malazgirt, between Sarıgöl and Gölağılı village, steppe, 18.08.2007, 39° 17' 302" N 42° 26' 470" E, 1950 m, LFM 3604, Ir.-Tur., Hc.
***S. lavandulifolia*** Vahl var. ***lavandulifolia***
Muş: Malazgirt, Yapraklı village surroundings, steppe, 27 v 2006, 39° 21' 031" N 42° 15' 978" E, 1591 m, LFM 288, Ir.-Tur., Hc.
***S. lavandulifolia*** Vahl var. ***brachyodon*** Boiss.
Muş: Malazgirt, between Kuşluca village and Zırnak hill, steppe, 16.06.2007, 39° 15' 341" N 42° 03' 837" E, 2133 m, LFM 3128, Ir.-Tur., Hc.
***S. atherocalyx*** K. Koch
Muş: Malazgirt, Karıncalı village, fields, 29 v 2006, 39° 22' 485" N 42° 16' 298" E, 1509 m, LFM 661, Eu.-Sib., Hc.
***S. iberica*** M. Bieb. subsp. ***iberica*** var. ***iberica***
Muş: Malazgirt, Güzelbaba mountain, steppe, 01.08.2007, 39° 23' 722" N 42° 12' 235" E, 1720 m, LFM 3371, Ir.-Tur., Hc.
***S. iberica*** M. Bieb. subsp. ***georgica*** Rech.f.
Muş: Malazgirt, S of Kardeşler village, humid places, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1811 m, LFM 1414, Ir.-Tur., Hc.
***S. iberica*** M. Bieb. subsp. ***stenostachya*** (Boiss.) Rech.f.
Muş: Malazgirt, S of Kardeşler village, streamside, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1800 m, LFM 1706, Ir.-Tur., Hc.
***S. macrostachya*** (Wend.) Briq.
Muş: Malazgirt, between Karıncalı village and Kaz lake surroundings, steppe, 17 vii 2006, 39° 14' 726" N 42° 24' 165" E, 1646 m, LFM 1922, Eux., Hc.
***Nepeta racemosa*** Lam.
Erzurum: NE of Karaçoban, Kırımkaya villages, Güzelbaba mountain, steppe, 11 vi 2006, 39° 19' 864" N 42° 13' 472" E, 1663 m, LFM 862, Ir.-Tur., Hc.
***N. betonicifolia*** C.A. Mey.
Muş: Malazgirt, N of Kaz lake, steppe, 10.06.2007, 39° 20' 891" N 42° 19' 449" E, 1775 m, LFM 2995, Ir.-Tur., Hc.
***N. stenantha*** Kotschy & Boiss. ex Boiss.
Muş: Malazgirt, NW of Hasanpaşa village (Karagölmez district), steppe, 05.09.2007, 39° 19' 936" N 42° 28' 281" E, 1808 m, LFM 3734, Ir.-Tur., Hc.

***N. aristata*** Boiss. & Kotschy ex Boiss.
Muş: Malazgirt, 1 km N of Kazgölü, meadows, 23 vi 2006, 39° 20' 572" N 42° 21' 708" E, 1730 m, LFM 1218, **END.,** Ir.-Tur., Hc. **"NT"**
***N. congesta*** Fisch. & Mey. var. ***cryptantha*** (Boiss.) Hedge & Lamond
Erzurum: Karaçoban, Karakol, Karagöz village surroundings, steppe, 20 vi 2006, 39° 19' 864" N 42° 13' 472" E, 1663 m, LFM 967, Hc.
***N. stricta*** (Banks & Sol.) Hedge & Lamond var. ***stricta***
Muş: Malazgirt, between Kuşluca village and Zırnak hill, steppe, 16.06.2007, 39° 15' 341" N 42° 03' 837" E, 2133 m, LFM 3137, Hc.
***N. heliotropifolia*** Lam. var. ***heliotropifolia***
Muş: Malazgirt, north slopes in the of the hills eastern of Karıncalı village, steppe, 10.06.2007, 39° 22' 294" N 42° 17' 842" E, 1702 m, LFM 2906, Ir.-Tur., Hc.
***Lallemantia peltata*** (L.) Fisch. & Mey.
Muş: Malazgirt, between Kuşluca village and Zırnak hill, steppe, 16.06.2007, 39° 15' 341" N 42° 03' 837" E, 2133 m, LFM 3157, Ir.-Tur., Th.
***L. iberica*** (M. Bieb.) Fisch. & Mey.
Muş: Malazgirt, Karıncalı valley, steppe, 26.05.2007, 39° 23' 028" N 42° 17' 045" E, 1590 m, LFM 2834, Ir.-Tur., Th.
***Prunella vulgaris*** L.
Muş: Malazgirt, between Uyanık and Bahçe villages, humid meadows, 06 vii 2006, 39° 22' 794" N 42° 24' 602" E, 1737 m, LFM 1454, Eu.-Sib., Hc.
***P. laciniata*** (L.) L.
Muş: Malazgirt, S of Kardeşler village, streamside, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1800 m, LFM 1310, Eu. Sib., Hc.
***Satureja hortensis*** L.
Muş: Malazgirt, between Kardeşler and Uyanık (Bastem) villages, steppe, 08.09.2007, 39° 21' 443" N 42° 25' 855" E, 1658 m, LFM 3803, Th.
***Acinos rotundifolius*** Pers.
Erzurum: NE of Karaçoban, Kırımkaya villages, Güzelbaba mountain, steppe, 11 vi 2006, 39° 19' 864" N 42° 13' 472" E, 1663 m, LFM 903, Th.
***Thymus transcaucasicus*** Ronniger
Muş: Malazgirt, Çat village surroundings, steppe, 14.07.2007, 39° 22' 399" N 42° 16' 677" E, 1535 m, LFM 3235, Kh.
***T. kotschyanus*** Boiss. & Hohen. var. ***kotschyanus***
Muş: Malazgirt, between Kuşluca village and Zırnak hill, steppe, 16.06.2007, 39° 15' 341" N 42° 03' 837" E, 2133 m, LFM 3168, Kh.
***T. migricus*** Klokov & Des.-Shost
Muş: Malazgirt, Karıncalı village surroundings, steppe, 26.10.2006, 39° 20' 850" N 42° 15' 703" E, 1501 m, LFM 2519, Ir.-Tur., Kh.
***T. praecox*** Opiz subsp. ***caucasicus*** (Ronniger) Jalas var. ***grossheimii*** (Ronniger) Jalas
Erzurum: NE of Karaçoban, Kırımkaya villages, Güzelbaba mountain, steppe, 11 vi 2006, 39° 19' 864" N 42° 13' 472" E, 1663 m, LFM 875b, Kh.
***Mentha longifolia*** (L.) Hudson subsp. ***typhoides*** (Briq.) Harley var. ***calliantha*** (Stapf) Briq.
Muş: Malazgirt, NW of Hasanpaşa village (Karagölmez district), stream bed, 05.09.2007, 39° 19' 936" N 42° 28' 281" E, 1808 m, LFM 3757, Hc.
***M. spicata*** L. subsp. ***spicata***
Muş: Malazgirt, 1 km to Doğanbey village, streamside, 30 vii 2006, 39° 18' 228" N 42° 08' 284" E, 1710 m, LFM 2198, Hc.
***Lycopus europaeus*** L.
Muş: Malazgirt, Kardeşler village, Sarıtaş stream, streamside, 08.09.2007, 39° 20' 827" N 42° 27' 080" E, 1696 m, LFM 3794, Eu.-Sib., Hc.
***Ziziphora clinipodioides*** Lam.
Muş: Malazgirt, N of Kazgölü, steppe, 23 vi 2006, 39° 20' 604" N 42° 21' 882" E, 1830 m, LFM 1135, Kh.
***Z. capitata*** L.
Erzurum: NE of Karaçoban, Kırımkaya villages, Güzelbaba mountain, steppe, 11 vi 2006, 39° 19' 864" N 42° 13' 472" E, 1663 m, LFM 853, Th.
***Z. persica*** Bunge
Erzurum: Karaçoban, Karakol, Karagöz village surroundings, steppe, 20 vi 2006, 39° 19' 864" N 42° 13' 472" E, 1663 m, LFM 989, Ir.-Tur., Th.
***Z. tenuior*** L.
Muş: Malazgirt, 2 km S of Laladağı village, steppe, 23 vi 2006, 39° 18' 072" N 42° 25' 308" E, 1900 m, LFM 1273, Ir.-Tur., Th.
***Salvia suffruticosa*** Montbret & Aucher ex Bentham
Erzurum: between Karaçoban and Kırmızı Tuzla, before arriving the bridge, steppe, 03 vi 2006, 39° 18' 545" N 42° 06' 151" E, 1673 m, LFM 733b, Ir.-Tur., Hc.
***S. multicaulis*** Vahl
Muş: Malazgirt, 1 km to A. Kıcık village, steppe, 12.05.2007, 39° 14' 899" N 42° 22' 092" E, 1589 m, LFM 2650, Ir.-Tur., Kh.
***S. syriaca*** L.
Erzurum: N of Karaçoban, steppe, 30 vii 2006, 39° 20' 226" N 42° 05' 803" E, 1533 m, LFM 2173, Ir.-Tur., Hc.
***S. brachyantha*** (Bordz.) Pobed.
Muş: Malazgirt, S of Ağılbaşı village, steppe, 21.05.2007, 39° 24' 681" N 42° 21' 974" E, 1798 m, LFM 2776, Ir.-Tur., Hc.
***S. aethiopsis*** L.
Muş: Malazgirt, Karagöz village surroundings, steppe, 16.06.2007, 39° 17' 380" N 42° 06' 427" E, 1583 m, LFM 3098, Hc.
***S. ceratophylla*** L.
Muş: Malazgirt, Karıncalı valley, steppe, 26.05.2007, 39° 23' 028" N 42° 17' 045" E, 1590 m, LFM 2827, Ir.-Tur., Hc.
***S. microstegia*** Boiss. & Bal.
Erzurum: N of Karaçoban, Kırımkaya villages, Güzelbaba mountain, steppe, 05 vi 2006, 39° 21' 663" N 42° 10' 670" E, 1776 m, LFM 819, Ir.-Tur., Hc.
***S. xanthocheila*** Boiss. ex Bentham
Muş: Malazgirt, between Karıncalı and Yapraklı villages, steppe, 27 v 2006, 39° 21' 706" N 42° 15' 403" E, 1520 m, LFM 471a, Ir.-Tur., Hc.
***S. frigida*** Boiss.
Muş: Malazgirt, Yolgözler village, steppe, 29 v 2006, 39° 23' 413" N 42° 15' 562" E, 1691 m, LFM 534, Ir.-Tur., Hc.
***S. poculata*** Náb.
Erzurum: NE of Karaçoban, Kırımkaya villages, Güzelbaba mountain, steppe, 11 vi 2006, 39° 19' 864" N 42° 13' 472" E, 1663 m, LFM 860, Ir.-Tur., Hc.
***S. candidissima*** Vahl
Muş: Malazgirt, Bahçe Tuzlası, salty places, 06 vii 2006, 39° 23' 977" N 42° 28' 114" E, 1587 m, LFM 1382, Ir.-Tur., Hc.
***S. virgata*** Jacq.
Muş: Malazgirt, Karıncalı village surooundings, steppe, 11 vii 2006, 39° 22' 216" N 42° 18' 024" E, 1794 m, LFM 1753, Hc.
***S. verticillata*** L. subsp. ***verticillata***
Muş: Malazgirt, Kardeşler village, alluvial steppe, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1811 m, LFM 1513, Eu.-Sib., Hc.
***S. verticillata*** L. subsp.***amasiaca*** (Freyn & Bornm.) Bornm.
Muş: Malazgirt, Kuruca village, steppe, 11 vii 2006, 39° 21' 232" N 42° 22' 749" E, 1682 m, LFM 1800, Ir.-Tur.?, Hc.

**PLUMBAGINACEAE**
***Plumbago europaea*** L.
Muş: Malazgirt, Bahçe Tuzlası, salty places, 23 viii 2006, 39° 24' 018" N 42° 28' 179" E, 1579 m, LFM 2405, Eu.-Sib., Hc.
***Acantholimon bracteatum*** (Girard) Boiss. var. ***capitatum*** (Sosn.) Bokhari
Erzurum: N of Karaçoban, Kırımkaya villages, Güzelbaba mountain, steppe, 05 vi 2006, 39° 21' 663" N 42° 10' 670" E, 1776 m, LFM 839, Ir.-Tur., Hc.
▲***A. venustum*** Boiss. var. ***venustum***
Muş: Malazgirt, between Yolgözler and İyikomşu villages, steppe, 14.07.2007, 39° 25' 287" N 42° 13' 621" E, 1744 m, LFM 3240, Ir.-Tur., Kh.
***A. acerosum*** (Willd.) Boiss. var. ***acerosum***
Muş: Malazgirt, Y. Kıcık village 1 km forward, steppe, 17 vii 2006, 39° 17' 410" N 42° 23' 353" E, 1904 m, LFM 1853, Ir.-Tur., Kh.
***A. caryophyllaceum*** Boiss.
Muş: Malazgirt, Karadere village surroundings, steppe, 01.08.2007, 39° 23' 641" N 42° 12' 306" E, 1750 m, LFM 3414, Kh.
***A. dianthifolium*** Bokhari
Muş: Malazgirt, between İyikomşu and Kırımkaya village surroundings (Radar), steppe, 01.08.2007, 39° 15' 250" N 42° 03' 700" E, 2095 m, LFM 3334a, Ir.-Tur., Kh. **"VU"**
***A. glumaceum*** (Jaub. & Spach.) Boiss.

Muş: Malazgirt, between İyikomşu and Kırımkaya village surroundings (Radar), steppe, 01.08.2007, 39° 15' 250" N 42° 03' 700" E, 2095 m, LFM 3334b, Ir.-Tur., Kh.
***A. calvertii*** Boiss. var. ***calvertii***
Muş: Malazgirt, 2 km SW of Kuruca village, steppe, 11 vii 2006, 39° 21' 434" N 42° 21' 448" E, 1850 m, LFM 1842, **END.,** Ir.-Tur., Kh. **"LC"**

**PLANTAGINACEAE**
***Plantago major*** L. subsp. ***intermedia*** (Gilib.) Lange
Muş: Malazgirt, Bahçe (Seydan) lake surroundings, streamside, 23 viii 2006, 39° 23' 366" N 42° 29' 082" E, 1686 m, LFM 2442, Hc.
***P. media*** L.
Muş: Malazgirt, NW of Hasanpaşa village (Karagölmez district), stream bed, 05.09.2007, 39° 19' 936" N 42° 28' 281" E, 1808 m, LFM 3747, Hc.
***P. atrata*** Hoppe
Erzurum: Karaçoban, Kırmızı Tuzla surroundings, humid places, 29 iv 2006, 39° 41' 765" N 42° 04' 854" E, 1747 m, LFM 113, Hc.
***P. anatolica*** Tutel & R.Mill
Muş: Malazgirt, N of Ağılbaşı village, humid places, 21.05.2007, 39° 23' 910" N 42° 22' 483" E, 1801 m, LFM 2727, **END.,** Ir.-Tur., Hc. **"NT"**
***P. lanceolata*** L.
Muş: Malazgirt, S of Kardeşler village, streamside, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1800 m, LFM 1309, Hc.

**THYMELAEACEAE**
***Thymelaea passeriana*** (L.) Cosson
Muş: Malazgirt, between Beşdam and Sırtdüzü villages, steppe, 02.09.2007, 39° 21' 439" N 42° 15' 293" E, 1489 m, LFM 3707, Th.
***Diarthron vesiculosum*** (Fisch. & Mey. ex Kar. & Kir.) C.A. Mey.
Muş: Malazgirt, between Y. Kıcık and A.Kıcık villages, steppe, 17 vii 2006, 39° 13' 088" N 42° 24' 073" E 1650 m, LFM 2066b, Ir.-Tur., Th. **"VU"**

**SANTALACEAE**
***Thesium billardieri*** Boiss.
Muş: Malazgirt, Bademözü village surroundings, meadows, 21.05.2007, 39° 24' 712" N 42° 26' 095" E, 1766 m, LFM 2684, Hc.

**ARISTOLOCHIACEAE**
***Aristolochia bottae*** Jaub. & Spach
Muş: Malazgirt, between Yolgözler and İyikomşu villages, steppe, 27 v 2006, 39° 25' 138" N 42° 13' 697" E,1743 m, LFM 335, Ir.-Tur., Cr.

**EUPHORBIACEAE**
***Euphorbia macrocarpa*** Boiss. & Buhse
Muş: Malazgirt, north slopes in the of the hills eastern of Karıncalı village, steppe, 10.06.2007, 39° 22' 294" N 42° 17' 842" E, 1702 m, LFM 2913, Ir.-Tur., Hc.
***E. eriophora*** Boiss.
Muş: Malazgirt, Kaz lake surroundings, steppe, 17 vii 2006, 39° 20' 604" N 42° 19' 882" E, 1731 m, LFM 2032, Ir.-Tur., Th.
***E. szovitsii*** Fisch. & Mey. var. ***kharputensis*** Aznav. ex M.S. Khan
Muş: Malazgirt, Yapraklı village surroundings, steppe, 27 v 2006, 39° 21' 031" N 42° 15' 978" E, 1591 m, LFM 186, Ir.-Tur., Th.
▲***E. aulacosperma*** Boiss.
Erzurum: Karaçoban, Kırmızı Tuzla surroundings, steppe, 03 vi 2006, 39° 17' 377" N 42° 06' 329" E, 1592 m, LFM 757, Th.
***E. falcata*** L. subsp. ***falcata*** var. ***falcata***
Muş: Malazgirt, between Yolgözler and İyikomşu villages, steppe, 14.07.2007, 39° 25' 287" N 42° 13' 621" E, 1744 m, LFM 3259, Th.
***E. denticulata*** Waldst. & Kit Tan
Muş: Malazgirt, A. Kıcık village surroundings, steppe, 12.05.2007, 39° 16' 121" N 42° 22' 928" E, 1742 m, LFM 2625, Ir.–Tur., Kh.
***E. macroclada*** Boiss.
Muş: Malazgirt, Bahçe Tuzlası, salty places, 02.09.2007, 39° 24' 002" N 42° 28' 249" E, 1580 m, LFM 3725, Ir.-Tur., Hc.
***E. cheiradenia*** Boiss. & Hohen.
Muş: Malazgirt, Karıncalı valleys, steppe, 17 vii 2006, 39° 17' 410" N 42° 23' 353" E, 1904 m, LFM 1913, Ir.-Tur., Hc.
***E. virgata*** Waldst. & Kit
Muş: Malazgirt, SE of Karıncalı village, slopes around Kazgölü road, steppe, 23 vi 2006, 39° 21' 216" N 42° 20' 024" E, 1760 m, LFM 1108, Hc.

**URTICACEAE**
***Urtica dioica*** L.
Muş: Malazgirt, S of Kardeşler village, humid places, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1811 m, LFM 1412, Eu.-Sib., Hc.
***Parietaria judaica*** L.
Muş: Malazgirt, between Hasanpaşa and Kardeşler village, streamside-rocky, 23 viii 2006, 39° 21' 826" N 42° 23' 806" E, 1722 m, LFM 2386, Hc.
***P. lusitanica*** L.
Muş: Malazgirt, Yapraklı village surroundings, steppe, 27 v 2006, 39° 21' 031" N 42° 15' 978" E, 1591 m, LFM 162, Med., Th.

**SALICACEAE**
***Salix alba*** L.
Muş: Malazgirt, Karıncalı village, humid places, 29 v 2006, 39° 22' 485" N 42° 16' 298" E, 1509 m, LFM 672, Eu.-Sib., Fh.
***S. armenorossica*** A. Sku.
Muş: Malazgirt, S of Kardeşler village, streamside, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1800 m, LFM 1322, Eux., Fh.
***S. elbursensis*** Boiss.
Muş: Malazgirt, between Beşdam and Sırtdüzü villages, streamside, 02 ix 2007, 39° 21' 439" N 42° 15' 293" E, 1489 m, LFM 3666a, Hyrcano-Euxin, Fh.
***S. caprea*** L.
Muş: Malazgirt, NW of Koçali village, stream side, 16 iv 2006, 39° 21' 925" N 42° 29' 772" E, 1785 m, LFM 055, Fh.
***S. pseudodepressa*** A. Skv.
Muş: Malazgirt, between Beşdam and Sırtdüzü villages, streamside, 02 ix 2007, 39° 21' 439" N 42° 15' 293" E, 1489 m, LFM 3666b, Eux., Fh.

**RUBIACEAE**
***Crucianella gilanica*** Trin. subsp. ***transcaucasica*** (Ehrend.) T.N. Papov & Takht ex Takht. & Fed.
Muş: Malazgirt, Laladağ, steppe-fallowing lands, 18 viii 2007, 39° 17' 949" N 42° 23' 599" E, 2055 m, LFM 3557, Ir.-Tur., Hc.
***C. macrostachya*** Boiss.
Erzurum: Karaçoban, Kırmızı Tuzla surroundings, steppe, 30 vii 2006, 39° 17' 412" N 42° 06' 330" E, 1576 m, LFM 2272, Th.
***Asperula laxiflora*** Boiss.
Muş: Malazgirt, north slopes in the of the hills eastern of Karıncalı village, steppe, 10 vi 2007, 39° 22' 294" N 42° 17' 842" E, 1702 m, LFM 2927, Eux. (mt.), Hc.
***A. glomerata*** (M. Bieb.) Griseb. subsp. ***eriantha*** (Hausskn. ex Bornm.) Ehrend.
Muş: Malazgirt, Karıncalı valley, steppe, 26 v 2007, 39° 23' 028" N 42° 17' 045" E, 1590 m, LFM 2830, Hc.
***A. stricta*** Boiss. subsp. ***latibracteata*** (Boiss.) Ehrend.
Muş: Malazgirt, Kardeşler village, alluvial steppe, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1811 m, LFM 1508, **END.,** Ir.-Tur., Hc. **"LC"**
***A. arvensis*** L.
Erzurum: between Karaçoban and Kırmızı tuzla, fields, 2 iv 2006, 39° 21' 512" N 42° 15' 442" E, 1500 m, LFM 501, Med., Th.
***A. setosa*** Jaub. & Spach
Muş: Malazgirt, Karagöz village surroundings, steppe, 16 vi 2007, 39° 17' 380" N 42° 06' 427" E, 1583 m, LFM 3220, Ir.-Tur., Th.
***Galium boreale*** L.

Muş: Malazgirt, S of Kardeşler village, humid places, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1811 m, LFM 1418, Hc.
***G. rivale*** (Sm.) Griseb.
Muş: Malazgirt, Bahçe (Seydan) lake surroundings, humid places, 23 viii 2006, 39° 23' 366" N 42° 29' 082" E, 1686 m, LFM 2474, Eu.Sib., Hc.
***G. verum*** L. subsp. ***verum***
Muş: Malazgirt, Y. Kıcık village surroundings, steppe, 17 vii 2006, 39° 17' 410" N 42° 23' 353" E, 1904 m, LFM 1944, Eu. Sib., Hc.
***G. verum*** L. subsp. ***glabrescens*** Ehrend.
Muş: Malazgirt, S of Kardeşler village, steppe, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1811 m, LFM 1417, Hc.
***G. mite*** Boiss. & Hohen.
Muş: Malazgirt, between Beşdam and Sırtdüzü villages, steppe, 02 ix 2007, 39° 21' 439" N 42° 15' 293" E, 1489 m, LFM 3712, Ir.-Tur., Hc.
***G. spurium*** L. subsp. ***spurium***
Muş: Malazgirt, Yapraklı village surroundings, streamside, 27 v 2006, 39° 21' 031" N 42° 15' 978" E, 1591 m, LFM 390, Eu.-Sib., Th.
***G. tricornutum*** Dandy
Muş: Malazgirt, Güzelbaba mountain, steppe, 29 v 2006, 39° 21' 663" N 42° 10' 670" E, 1776 m, LFM 508, Medit., Th.
***G. nigricans*** Boiss.
Erzurum: N of Karaçoban, Kırımkaya villages, Güzelbaba mountain, steppe, 05 vi 2006, 39° 21' 663" N 42° 10' 670" E, 1776 m, LFM 841, Ir.-Tur., Th.
***Callipeltis cucullaria*** (L.) Stev.
Muş: Malazgirt, Yapraklı village surroundings, steppe, 27 v 2006, 39° 21' 031" N 42° 15' 978" E, 1591 m, LFM 553, Th.

***MONOCOTYLEDONES***
**BUTOMACEAE**
***Butomus umbellatus*** L.
Muş: Malazgirt, S of Kuruca village, rush bed-marshy place, 23 vi 2006, 39° 19' 950" N 42° 23' 749" E, 1670 m, LFM 1152, Eu.-Sib., Cr. (Hidrofit)

**ALISMATACEAE**
***Alisma lanceolatum*** With.
Erzurum: Karaçoban, Kırmızı Tuzla surroundings, streamside, 30 vii 2006, 39° 17' 412" N 42° 06' 330" E, 1576 m, LFM 2258, Cr. (Hidrofit)
***Sagittaria sagittifolia*** L.
Muş: Malazgirt, SE of Laladağ village, around Sarıgöl, meadow-swamp, 18 viii 2007, 39° 18' 379" N 42° 25' 858" E, 1969 m, LFM 3426, Cr. (Hidrofit)

**JUNCAGINACEAE**
***Triglochin palustris*** L.
Muş: Malazgirt, N of Kaz lake, meadow, 10 vi 2007, 39° 20' 891" N 42° 19' 449" E, 1775 m, LFM 3023, Hc.

**POTAMOGETONACEAE**
***Potamogeton nodosus*** Poir.
Muş: Malazgirt, SE of Laladağ village, around Sarıgöl, in the water, 18 viii 2007, 39° 18' 379" N 42° 25' 858" E, 1969 m, LFM 3431, Hc.
***P. lucens*** L.
Muş: Malazgirt, Bahçe (Seydan) lake, in the water, 23 viii 2006, 39° 23' 366" N 42° 29' 082" E, 1686 m, LFM 2428, Hc.
***P. panormitanus*** Biv.
Muş: Malazgirt, 2 km SW of Kuruca village, in the water, 11 vii 2006, 39° 21' 434" N 42° 21' 448" E, 1850 m, LFM 1818, Hc.
***P. berchtoldii*** Fieber
Muş: Malazgirt, between A.Kıcık and Y.Kıcık villages, wet places, 18 viii 2007, 39° 16' 951" N 42° 23' 140" E, 1848 m, LFM 3619a, Hc.
***P. trichoides*** Cham. & Schltdl.
Muş: Malazgirt, Kuruca village, in the water, 11 vii 2006, 39° 21' 237" N 42° 22' 747" E, 1684 m, LFM 1795, Hc.
***P. pectinatus*** L.
Muş: Malazgirt, Doğanbey village lake, in the water, 30 vii 2006, 39° 17' 894" N 42° 08' 915" E, 1585 m, LFM 2170, Hc.
***Groenlandia densa*** (L.) Fourr.
Erzurum: Karaçoban, 2 km to Kırmızı Tuzla, edge of pool, 30 vii 2006, 39° 18' 537" N 42° 06' 155" E, 1681 m, LFM 2078, Hc.

**LEMNACEAE**
***Lemna minor*** L.
Muş: Malazgirt, SE of Bahçe village , in the water, 2 iv 2006, 39° 23' 578" N 42° 28' 993" E, 1668 m, LFM 034. Cr.
***L. turionifera*** Landolt
Muş: Malazgirt, between A.Kıcık and Y.Kıcık villages, wet places, 18 viii 2007, 39° 16' 951" N 42° 23' 140" E, 1848 m, LFM 3625, Cr.

**ZANNICHELLIACEAE**
***Zannichellia palustris*** L. subsp. ***repens*** (Boenn.) Uotila
Muş: Malazgirt, Bahçe (Seydan) lake, in the water, 23 viii 2006, 39° 23' 366" N 42° 29' 082" E, 1686, LFM 2449, Cr. (Hidrofit)

**ARACEAE**
***Arum conophalloides*** Kotschy ex Schott var. ***virescens*** (Stapf.) Engl.
Muş: Malazgirt, Güzelbaba mountain, steppe, 01 viii 2007, 39° 23' 722" N 42° 12' 235" E, 1720 m, LFM 3373, Ir.-Tur., Cr.

**LILIACEAE**
***Asparagus officinalis*** L.
Muş: Malazgirt, Karıncalı valley, streamside, 26 x 2006, 39° 21' 456" N 42° 15' 582" E, 1552 m, LFM 2572, Cr.
***A. persicus*** Baker
Erzurum: Karaçoban, Kırmızı Tuzla surroundings, steppe, 29 iv 2006, 39° 41' 765" N 42° 04' 854" E, 1747 m, LFM 108, Ir.-Tur., Cr.
***Eremurus spectabilis*** M. Bieb.
Erzurum: S of Karaçoban, Kırmızı Tuzla, steppe, 03 vi 2006, 39° 15' 171" N 42° 06' 431" E, 1555 m, LFM 781, Ir.-Tur., Cr.
***Allium callidictyon*** C.A. Mey.
Muş: Malazgirt, between Yolgözler and İyikomşu villages, steppe, 14 vii 2007, 39° 25' 287" N 42° 13' 621" E, 1744 m, LFM 3242, Ir.-Tur., Cr.
***A. stamineum*** Boiss.
Muş: Malazgirt, Yeniköy surroundings, steppe, 17 vii 2006, 39° 15' 002" N 42° 24' 173" E, 1904 m, LFM 1979, E. Medit., Cr.
***A. charaulicum*** Fomin
Muş: Malazgirt, between Yolgözler and İyikomşu villages, steppe, 14 vii 2007, 39° 25' 287" N 42° 13' 621" E, 1744 m, LFM 3241, Ir.-Tur., Cr.
***A. atroviolaceum*** Boiss.
Muş: Malazgirt, N of Kardeşler village, steppe, 06 vii 2006, 39° 21' 865" N 42° 25' 537" E, 1672 m, LFM 1356, Cr.
***A. pustulosum*** Boiss. & Hauskn.
Muş: Malazgirt, Kardeşler village, alluvial steppe, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1811 m, LFM 1639, Ir.-Tur., Cr.
***A. stearnianum*** Koyuncu, N. Özhatay & Kollmann subsp. ***vanense***Kollmann & Koyuncu
Muş: Malazgirt, Karıncalı village surroundings, steppe, 14 vii 2007, 39° 22' 564" N 42° 15' 556" E, 1598 m, LFM 3288, **END.,** Ir.-Tur., Cr. **"NT"**
***A. scorodoprassum*** L. subsp. ***rotundum*** (L.) Stearn
Muş: Malazgirt, between Y. Kıcık and A.Kıcık villages, stony slopes, 17 vii 2006, 39° 13' 088" N 42° 24' 073" E 1650 m, LFM 2040, Medit., Cr.
***A. artvinense*** Miscz.
Erzurum: NE of Karaçoban, Kırımkaya villages, Güzelbaba mountain, steppe, 11 vi 2006, 39° 19' 864" N 42° 13' 472" E, 1663 m, LFM 888, Ir.-Tur., Cr.

***A. vineale*** L.
Muş: Malazgirt, Kuruca village, steppe, 11 vii 2006, 39° 20' 692" N 42° 23' 296" E, 1705 m, LFM 1773, Cr.
***A. affine*** Ledeb.
Muş: Malazgirt, S of Kardeşler village, fields, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1800 m, LFM 1314, Ir.-Tur., Cr.
▲***A. guttatum*** Steven subsp. ***sardoum*** (Moris) Stearn
Muş: Malazgirt, SE of Laladağ village, around Sarıgöl, meadows drying up in summer 18 viii 2007, 39° 18' 379" N 42° 25' 858" E, 1969 m, LFM 3578, Medit., Cr.
***A.dictyoprasum*** C.A. Mey.
Muş: Malazgirt, Karadere village surroundings, steppe, 01 viii 2007, 39° 23' 641" N 42° 12' 306" E, 1750 m, LFM 3421, Ir.-Tur., Cr.
***A. cardiostemon*** Fisch. & C.A. Mey.
Muş: Malazgirt, W of Kaz gölü village, meadows, 10 vi 2007, 39° 20' 706" N 42° 21' 500" E, 1764 m, LFM 3042, Ir.-Tur., Cr.
***A. kharputense*** Freyn & Sint.
Muş: Malazgirt, between Kaz lake and Kuruca village, steppe, 10 vi 2007, 39° 21' 259" N 42° 21' 253" E, 1824 m, LFM 3051, Ir.-Tur., Cr.
***Scilla siberica*** Haw. subsp. ***armena*** (Grossh) Mordak
Muş: Malazgirt, Laladağ surroundings, meadows, 12 v 2007, 39° 18' 261" N 42° 23' 248" E, 1989 m, LFM 2661, Ir.-Tur., Cr.
***Puschkinia scilloides*** Adams
Muş: Malazgirt, W of Koçali village, fields, 16 iv 2006, 39° 21' 925" N 42° 29' 665" E, 1657 m, LFM 056, Cr.
▲***Ornithogalum pyreanicum*** L.
Muş: Malazgirt, north slopes in the of the hills eastern of Karıncalı village, steppe, 10 vi 2007, 39° 22' 294" N 42° 17' 842" E, 1702 m, LFM 2946, Cr.
***O. narbonense*** L.
Muş: Malazgirt, S of Laladağ village, meadow, 23 vi 2006, 39° 18' 450" N 42° 25' 098" E, 2000 m, LFM 1141, Medit., Cr.
***O. arcuatum*** Steven
Erzurum: Karaçoban, Kırmızı Tuzla surroundings, steppe, 03 vi 2006, 39° 17' 377" N 42° 06' 329" E, 1592 m, LFM 751a, Ir.-Tur., Cr.
***O. oligophyllum*** E.D. Clarke
Muş: Malazgirt, between A. Kıcık and Y.Kıcık village, meadows, 12 v 2007, 39° 16' 935" N 42° 23' 248" E, 1822 m, LFM 2658, Cr.
***O. platyphyllum*** Boiss.
Muş: Malazgirt, Karıncalı village, steppe, 29 v 2006, 39° 22' 485" N 42° 16' 298" E, 1509 m, LFM 729, Ir.-Tur., Cr.
***O. armeniacum*** Baker
Muş: Malazgirt, between Karıncalı and Yapraklı villages, steppe, 27 v 2006, 39° 21' 706" N 42° 15' 403" E, 1520 m, LFM 444, E. Medit., Cr.
***Muscari comosum*** (L.) Mill.
Muş: Malazgirt, Yapraklı village surroundings, steppe, 27 v 2006, 39° 21' 031" N 42° 15' 978" E, 1591 m, LFM 453, Medit., Cr.
***M. longipes*** Boiss.
Erzurum: Karaçoban, Karakol, Karagöz village surroundings, steppe, 20 vi 2006, 39° 19' 864" N 42° 13' 472" E, 1663 m, LFM 1041, Ir.-Tur., Cr.
***M. armeniacum*** Leichtlin ex Baker
Muş: Malazgirt, E of Karıncalı village, hills around Kazgölü road, steppe, 23 iv 2007, 39° 22' 281" N 42° 17' 756" E, 1732 m, LFM 2598, Cr.
***Bellevalia fominii*** Woronow
Muş: Malazgirt, Yolgözler village, steppe, 29 v 2006, 39° 23' 413" N 42° 15' 562" E, 1691 m, LFM 531, Ir.-Tur., Cr. **"VU"**
***B. longistyla*** (Miscz.) Grossh.
Erzurum: Karaçoban, Kırmızı Tuzla surroundings, steppe, 29 iv 2006, 39° 41' 765" N 42° 04' 854" E, 1747 m, LFM 101, Ir.-Tur., Cr. **"VU"**
***B. pycnantha*** (K.Koch) Losinsk.
Muş: Malazgirt, between A. Kıcık and Y.Kıcık village, meadows, 12 v 2007, 39° 16' 935" N 42° 23' 248" E, 1822 m, LFM 2659, Cr.
***Fritillaria armena*** Boiss.
Muş: Malazgirt, NE of A. Kıcık village, steppe, 12 v 2007, 39° 16' 628" N 42° 23' 454" E, 1763 m, LFM 2672, **END.,** Ir.-Tur., Cr. **"LC"**
***F. assyriaca*** Baker subsp. ***assyriaca***
Erzurum: Karaçoban, Kırmızı Tuzla surroundings, steppe, 29 iv 2006, 39° 41' 765" N 42° 04' 854" E, 1747 m, LFM 097, Ir.-Tur., Cr.
***Tulipa armena*** Boiss.var. ***armena***
Erzurum: Karaçoban, Kırmızı Tuzla surroundings, steppe, 29 iv 2006, 39° 41' 765" N 42° 04' 854" E, 1747 m, LFM 087, **END.**, Ir.-Tur., Cr. **"CR"**
***T. sintenisii*** Baker
Erzurum: Karaçoban, Karakol, Karagöz village surroundings, humid place, 20 vi 2006, 39° 19' 864" N 42° 13' 472" E, 1663 m, LFM 1018; Muş: Malazgirt, NE of A. Kıcık village, steppe, 12 v 2007, 39° 16' 628" N 42° 23' 454" E, 1763 m, LFM 2669; 196, LFM 2746, **END**., Ir.-Tur., Cr. **"LC"**
▲***Gagea reticulata*** (Pallas) Schult. & Schult.f.
Muş: Malazgirt, NE of A. Kıcık village, steppe, 12 v 2007, 39° 16' 628" N 42° 23' 454" E, 1763 m, LFM 2671, Ir.-Tur., Cr.
***G. taurica*** Steven
Muş: Malazgirt, between Hasanpaşa and Koçali villages, humid place, 29 iv 2006, 39° 08' 797" N 42° 32' 533" E,1531 m, LFM 128, Ir.-Tur., Cr.
***G. bulbifera*** (Pall.) Schult. & Schult.f.
Muş: Malazgirt, between Çat and Karıncalı villages, steppe-rocky places, 16 iv 2006, 39° 21' 925" N 42° 29' 665" E, 1650 m, LFM 058, Eu.-Sib., Cr.
***G. luteoides*** Stapf
Muş: Malazgirt, between Çat and Karıncalı villages, steppe-rocky places, 16 iv 2006, 39° 21' 925" N 42° 29' 665" E, 1650 m, LFM 083, Cr.
***G. fistulosa*** Ker-Gawler
Muş: Malazgirt, Güzelbaba mountain slopes, steppe, 29 iv 2007, 39° 24' 562" N 42° 14' 536" E, 1702 m, LFM 2603, Cr.
***G. glacialis*** C. Koch
Muş: Malazgirt, NW of Beşçatak village, roadside, 2 iv 2006, 39° 12' 582" N 42° 29' 504" E, 1567 m, LFM 001, Cr.
***Colchicum szovitsii*** Fisch. & C.A.Mey.
Muş: Malazgirt, between Beşçatak and Dirimpınar villages, road side, 2 iv 2006, 39° 13' 906" N 42° 27' 827" E, 1558 m, LFM 004, Ir.-Tur., Cr.
***C. kotschyi*** Boiss.
Erzurum: S of Karaçoban, Kırmızı Tuzla, steppe, 03 vi 2006, 39° 15' 171" N 42° 06' 431" E, 1555 m, LFM 786, Ir.-Tur., Cr.
***Merendera trigyna*** (Steven ex Adam) Stapf
Muş: Malazgirt, between Konakkuran and Hasanpaşa villages, fields, 2 iv 2006, 39° 17' 313" N 42° 30' 466" E, 1512 m, LFM 009, Ir.-Tur., Cr.
***M. kurdica*** Bornm.
Muş: Malazgirt, S Hasanpaşa village, fields, 2 iv 2006, 39° 18' 844" N 42° 30' 240" E, 1520 m, LFM 010, Ir.-Tur., Cr.

**IRIDACEAE**
***Iris iberica*** Hoffm. subsp. ***elegantissima*** (Sosn.) Takht. & Fedorov
Muş: Malazgirt, E of Yolgözler village (Yolgözler Plateau) steppe, 27 v 2006, 39° 23' 413" N 42° 15' 562" E, 1691 m, LFM 244, Ir.-Tur., Cr.
***I. reticulata*** M. Bieb. var. ***reticulata***
Muş: Malazgirt, between Beşçatak and Dirimpınar villages, road side, 2 iv 2006, 39° 13' 906" N 42° 27' 827" E, 1558 m, LFM 005, Ir.-Tur., Cr.
***I. caucasica*** Hoffm. subsp. ***turcica*** B.Mathew
Muş: Malazgirt, A. Kıcık village surroundings, steppe, 12 v 2007, 39° 16' 121" N 42° 22' 928" E, 1742 m, LFM 2626, Ir.-Tur., Cr.
***Crocus biflorus*** Mill. subsp. ***tauri*** (Maw) B.Mathew
Muş: Malazgirt, E of Seydan (Bahçe) Lake, fields, 2 iv 2006, 39° 22' 682" N 42° 29' 890" E, 1808 m, LFM 030, Ir.-Tur., Cr.
***C. cancellatus*** Herb. subsp. ***damascenus*** (Herb.) B.Mathew
Muş: Malazgirt, between Çat and Karıncalı villages, steppe-rocky places, 16 iv 2006, 39° 21' 925" N 42° 29' 665" E, 1650 m, LFM 073; Muş: Malazgirt, Karıncalı village urroundings, steppe, 26 x 2006, 39° 20' 850" N 42° 15' 703" E, 1501 m, LFM 2515, Ir.-Tur., Cr.
***Gladiolus atroviolaceus*** Boiss.
Muş: Malazgirt, Yapraklı village surroundings, meadow, 27 v 2006, 39° 21' 031" N 42° 15' 978" E, 1591 m, LFM 776, Ir.-Tur., Cr.

**ORCHIDACEAE**

***Orchis palustris*** Jacq.
Erzurum: Karaçoban, Karakol, Karagöz village surrounding, meadow, 20 vi 2006, 39° 19' 864" N 42° 13' 472" E, 1663 m, LFM 1033, Cr.
***Dactylorhiza iberica*** (M. Bieb. ex Willd.) Soó
Muş: Malazgirt, İyikomşu village surroundings, humid slopes, 14 vii 2007, 39° 26' 255" N 42° 13' 997" E, 1707 m, LFM 3332, E. Med., Cr.
***D. osmanica*** (Kl.) Soó var. ***osmanica***
Muş: Malazgirt, N of Kaz lake, meadow, 10 vi 2007, 39° 20' 891" N 42° 19' 449" E, 1775 m, LFM 3010, **END.,** Ir.-Tur., Cr. **"LC"**
***D. umbrosa*** (Kar. & Kir) Nevski
Muş: Malazgirt, Bademözü village surroundings, meadows, 21 v 2007, 39° 24' 712" N 42° 26' 095" E, 1766 m, LFM 2696, Ir.-Tur., Cr.

**SPARGANIACEAE**
***Sparganium erectum*** L. subsp. ***microcarpum*** (Neuman) Domin
Muş: Malazgirt, 300 m N of Bahçe village, streamside, 23 viii 2006, 39° 21' 542" N 42° 27' 897" E, 1637 m, LFM 2408, Eu-Sib., Hc.

**TYPHACEAE**
***Typha shuttleworthii*** W.Koch & Sond.
Muş: Malazgirt, between Kardeşler and Uyanık (Bastem) villages, streamside, 08 ix 2007, 39° 22' 309" N 42° 25' 152" E, 1621 m, LFM 3804, Hc. (Hidrofit)
***T. angustifolia*** L.
Muş: Malazgirt, Doğanbey village lake, in the water, 30 vii 2006, 39° 17' 894" N 42° 08' 915" E, 1585 m, LFM 2167, Hc.

**JUNCACEAE**
***Juncus inflexus*** L.
Muş: Malazgirt, 3 km NW of Hasanpaşa village, streamside, 23 viii 2006, 39° 22' 323" N 42° 29' 748" E, 1743 m, LFM 2319, Cr.
***J. bufonius*** L.
Muş: Malazgirt, road surroundings from Karıncalı village to Kaz Lake, stream side, 17 vii 2006, 39° 14' 726" N 42° 24' 165" E, 1646 m, LFM 1801, Th.
***J. articulatus*** L.
Muş: Malazgirt, S of Kardeşler village, streamside, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1800 m, LFM 1295, Eu.-Sib., Cr.

**CYPERACEAE**
***Cyperus longus*** L.
Muş: Malazgirt, Y. Kıcık village surroundings, wet places, 17 vii 2006, 39° 17' 410" N 42° 23' 353" E, 1904 m, LFM 1953, Cr.
***C. glaber*** L.
Muş: Malazgirt, Bahçe (Seydan) lake surroundings, streamside, 23 viii 2006, 39° 23' 366" N 42° 29' 082" E, 1686 m, LFM 2430a, Th.
***C. fuscus*** L.
Muş: Malazgirt, between Hasanpaşa and Kardeşler village, streamside-rocky, 23 viii 2006, 39° 21' 826" N 42° 23' 806" E, 1722 m, LFM 2401, Eu.-Sib., Th.
***Eleocharis quinqueflora*** (Hartmann) O. Schwarz
Muş: Malazgirt, Bademözü village surroundings, meadows, 21 v 2007, 39° 24' 712" N 42° 26' 095" E, 1766 m, LFM 2686, Cr.
***E. palustris*** (L.) Roemer & Schultes
Muş: Malazgirt, Kaz lake surroundings, streamside, 17 vii 2006, 39° 20' 604" N 42° 19' 882" E, 1731 m, LFM 2028, Cr.
***E. mitracarpa*** Steudel
Erzurum: Karaçoban, Kırmızı Tuzla surrounding, meadows, 30 vii 2006, 39° 17' 412" N 42° 06' 330" E, 1576 m, LFM 2266, Cr.
***E. uniglumis*** (Link) Schultes
Muş: Malazgirt, between Uyanık and Bahçe villages, humid meadows, 06 vii 2006, 39° 22' 794" N 42° 24' 602" E, 1737 m, LFM 1466, Cr.
***Schoenoplectus lacustris*** (L.) Palla subsp. ***tabernamontani*** (C.C. Gmel.) A.&D. Löve
Muş: Malazgirt, S of Kuruca village, rush bed-marshy place, 23 vi 2006, 39° 19' 950" N 42° 23' 749" E, 1670 m, LFM 1153, Cr.
***Bolboschoenus maritimus*** (L.) Palla var. ***maritimus***
Erzurum: Karaçoban, Kırmızı Tuzla surroundings, streamside, 30 vii 2006, 39° 17' 412" N 42° 06' 330" E, 1576 m, LFM 2260, Cr.
***Scirpoides holoschoenus*** (L.) Sojak
Muş: Malazgirt, Bahçe (Seydan) lake surroundings, humid places, 23 viii 2006, 39° 23' 366" N 42° 29' 082" E, 1686 m, LFM 2467, Cr.
***Blysmus compressus*** (L.) Panz. ex Link
Muş: Malazgirt, N of Kaz lake, meadow, 10 vi 2007, 39° 20' 891" N 42° 19' 449" E, 1775 m, LFM 3007a, Cr.
***Carex divisa*** Hudson
Erzurum: S of Karaçoban, Kırmızı Tuzla, steppe, 03 vi 2006, 39° 15' 171" N 42° 06' 431" E, 1555 m, LFM 780, Cr.
***C. stenophylla*** Wahlenb. subsp. ***stenophylloides*** (V.Krecz.) Egorova
Muş: Malazgirt, Karagöz village surroundings, steppe, 16 vi 2007, 39° 17' 380" N 42° 06' 427" E, 1583 m, LFM 3104, Euro-Sib., Hc.
***C. melanostachya*** M. Bieb. ex Willd.
Muş: Malazgirt, W of Kazgölü village, streamside-wet places, 23 vi 2006, 39° 20' 004" N 42° 21' 608" E, 1710 m, LFM 1249; Muş: Malazgirt, N of Kaz lake, meadow, 10 vi 2007, 39° 20' 891" N 42° 19' 449" E, 1775 m, LFM 3007b, Cr.
***C. riparia*** Curtis
Muş: Malazgirt, W of Kazgölü village, streamside-wet places, 23 vi 2006, 39° 20' 004" N 42° 21' 608" E, 1710 m, LFM 1247a, Hc. (Hidrofit)
***C. hordeistichos*** Vill.
Muş: Malazgirt, 3 km NW of Hasanpaşa village, meadows, 23 viii 2006, 39° 22' 323" N 42° 29' 748" E, 1743 m, LFM 2324, Hc.
▲***C. elata*** All. subsp. ***omskiana*** (Meinsh.) Jalas
Muş: Malazgirt, N of Kaz lake, meadow, 10 vi 2007, 39° 20' 891" N 42° 19' 449" E, 1775 m, LFM 3014, Eu.-Sib., Hc.
▲***C. orbicularis*** Boot subsp. ***kotschyana*** (Boiss. & Hohen) Kukkonen var. ***caucasica*** Ö. Nilsson
Muş: Malazgirt, N of Kaz lake, meadow, 10 vi 2007, 39° 20' 891" N 42° 19' 449" E, 1775 m, LFM 3008, Eux., Cr.

**POACEAE**
***Elymus repens*** (L.) Gould subsp. ***repens***
Muş: Malazgirt, Laladağ, humid places, 18 viii 2007, 39° 18' 315" N 42° 23' 707" E, 1997 m, LFM 3497, Cr.
***E. repens*** (L.) Gould subsp. ***elongatiformis*** (Drobov) Melderis
Erzurum: Karaçoban, Karakol, Karagöz village surroundings, steppe, 20 vi 2006, 39° 19' 864" N 42° 13' 472" E, 1663 m, LFM 940, Ir.-Tur., Cr.
***E. hispidus*** (Opiz) Melderis subsp. ***hispidus***
Muş: Malazgirt, between Doğanbey village and Karaçoban town, steppe, 30 vii 2006, 39° 19' 517" N 42° 08' 581" E, 1711 m, LFM 2239, Cr.
***E. hispidus*** (Opiz) Melderis subsp. ***podpyerae*** (Náb.) Melderis
Muş: Malazgirt, A. Kıcık village, steppe, 11 vii 2006, 39° 15' 220" N 42° 22' 839" E, 1642 m, LFM 1734; Muş: Malazgirt, Y. Kıcık village surroundings, humid places, 17 vii 2006, 39° 17' 410" N 42° 23' 353" E, 1904 m, LFM 1911, Ir.-Tur., Cr.
***E. hispidus*** (Opiz) Melderis subsp. ***barbulatus*** (Schur) Melderis
Muş: Malazgirt, Yeniköy surroundings, steppe, 17 vii 2006, 39° 15' 002" N 42° 24' 173" E, 1904 m, LFM 1991, Cr.
***Eremopyrum bonaepartis*** (Spreng.) Nevski subsp. ***hirsutum*** (Bertol.) Melderis
Erzurum: Karaçoban, Kırmızı Tuzla surroundings, steppe, 03 vi 2006, 39° 17' 377" N 42° 06' 329" E, 1592 m, LFM 745, Th.
▲***Aegilops tauschii*** Cosson subsp. ***tauschii***
Muş: Malazgirt, Yapraklı village surroundings, fields, 27 v 2006, 39° 21' 031" N 42° 15' 978" E, 1591 m, LFM 298, Ir.-Tur., Th. **"VU"**
***Secale montanum*** Guss.
Muş: Malazgirt, NW of Hasanpaşa village (Karagölmez district), steppe, 05 ix 2007, 39° 19' 936" N 42° 28' 281" E, 1808 m, LFM 3732, Hc.
***S. anatolicum*** Boiss.
Muş: Malazgirt, Yeniköy surroundings, steppe, 17 vii 2006, 39° 15' 002" N 42° 24' 173" E, 1904 m, LFM 2004, Hc.

***Psathyrostachys fragilis*** (Boiss.) Nevskii subsp. ***secaliniformis*** Tzvel.
Muş: Malazgirt, south slopes in the of the hills eastern of Karıncalı village, steppe, 10 vi 2007, 39° 22' 279" N 42° 17' 748" E, 1760 m, LFM 2987, Ir.-Tur., Hc.
***Hordeum violaceum*** Boiss. & Huet
Muş: Malazgirt, W of Kazgölü village, streamside-wet places, 23 vi 2006, 39° 20' 004" N 42° 21' 608" E, 1710 m, LFM 1260, Ir.-Tur., Hc.
***H. geniculatum*** All.
Muş: Malazgirt, S of Kardeşler village, fields, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1800 m, LFM 1329, Eu.-Sib., Th.
***H. bulbosum*** L.
Muş: Malazgirt, W of Kazgölü village, fields, 23 vi 2006, 39° 20' 004" N 42° 21' 608" E, 1730 m, LFM 1176, Cr.
***Taeniatherum caput-medusae*** (L.) Nevski subsp. ***crinitum*** (Schreb.) Melderis
Erzurum: N of Karaçoban, Kırımkaya villages, Güzelbaba mountain, steppe, 05 vi 2006, 39° 21' 663" N 42° 10' 670" E, 1776 m, LFM 841, Th.
***Henrardia persica*** (Boiss.) C.E. Hubbard var. ***persica***
Muş: Malazgirt, south slopes in the of the hills eastern of Karıncalı village, steppe, 10 vi 2007, 39° 22' 279" N 42° 17' 748" E, 1760 m, LFM 2975, Ir.-Tur., Th.
***Bromus japonicus*** Thunb subsp. ***japonicus***
Muş: Malazgirt, 1 km N of Kazgölü, meadows, 23 vi 2006, 39° 20' 572" N 42° 21' 708" E, 1730 m, LFM 1215; Muş: Malazgirt, Kardeşler village, alluvial steppe, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1811 m, LFM 1629, Th.
***B. scoparius*** L.
Muş: Malazgirt, N of Kaz lake, steppe, 10 vi 2007, 39° 20' 891" N 42° 19' 449" E, 1775 m, LFM 3020, Th.
***B. lanceolatus*** Roth
Erzurum: Karaçoban, Karakol, Karagöz village surroundings, humid place, 20 vi 2006, 39° 19' 864" N 42° 13' 472" E, 1663 m, LFM 1039, Th.
***B. danthoniae*** Trin
Erzurum: Karaçoban, Karakol, Karagöz village surroundings, steppe, 20 vi 2006, 39° 19' 864" N 42° 13' 472" E, 1663 m, LFM 958; Muş: Malazgirt, N of Kaz lake, meadow, 10 vi 2007, 39° 20' 891" N 42° 19' 449" E, 1775 m, LFM 2989; Muş: Malazgirt, Karagöz village surroundings, steppe, 16 vi 2007, 39° 17' 380" N 42° 06' 427" E, 1583 m, LFM 3199, Th.
***B. tectorum*** L. subsp. ***tectorum***
Muş: Malazgirt, Yapraklı village surroundings, steppe, 27 v 2006, 39° 21' 031" N 42° 15' 978" E, 1591 m, LFM 324, Th.
***B. tomentellus*** Boiss.
Muş: Malazgirt, Karıncalı valley, fields, 26 v 2007, 39° 22' 587" N 42° 17' 506" E, 1623 m, LFM 2878, Ir.-Tur., Kh.
***B. riparius*** Rehm
Muş: Malazgirt, north slopes in the of the hills eastern of Karıncalı village, humid places, 10 vi 2007, 39° 22' 294" N 42° 17' 842" E, 1702 m, LFM 2961, Hc.
***B. armenus*** Boiss.
Muş: Malazgirt, between A.Kıcık and Y.Kıcık villages, steppe, 10 vi 2007, 39° 17' 002" N 42° 23' 245" E, 1830 m, LFM 3069, **END.,** Ir.-Tur., Cr. **"NT"**
***B. inermis*** Leysser
Muş: Malazgirt, between A.Kıcık and Y.Kıcık villages, wet places, 18 viii 2007, 39° 16' 951" N 42° 23' 140" E, 1848 m, LFM 3618, Cr.
▲***Avena fatua*** L. var. ***glabrata*** Peterm.
Muş: Malazgirt, S of Kardeşler village, fields, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1800 m, LFM 1290, Eu.-Sib., Th.
***A. sterilis*** L. subsp. ***ludoviciana*** (Durieu) Gillet et Magne
Muş: Malazgirt, W of Kazgölü village, fields, 23 vi 2006, 39° 20' 004" N 42° 21' 608" E, 1800 m, LFM 1240, Th.
***Arrhenatherum kotschyi*** Boiss.
Muş: Malazgirt, between Karıncalı and Yapraklı villages, steppe, 27 v 2006, 39° 21' 706" N 42° 15' 403" E, 1520 m, LFM 465, Ir.-Tur., Cr.
***Trisetum flavescens*** (L.) P. Beauv.
Muş: Malazgirt, 1 km S of Laladağ village, meadows, 23 vi 2006, 39° 18' 450" N 42° 25' 095" E, 2000 m, LFM 1166, Eu.-Sib., Hk.
***Koeleria cristata*** (L.) Pers
Muş: Malazgirt, Yapraklı village surroundings, steppe, 27 v 2006, 39° 21' 031" N 42° 15' 978" E, 1591 m, LFM 240, Hc.
***Deschampsia caespitosa*** (L.) P. Beauv.
Muş: Malazgirt, N of Kaz lake, meadow, 10 vi 2007, 39° 20' 891" N 42° 19' 449" E, 1775 m, LFM 3009, Hc.
***Calamagrostis epigejos*** (L.) Roth.
Muş: Malazgirt, 1 km S of Laladağ village, meadows, 23 vi 2006, 39° 18' 450" N 42° 25' 095" E, 2000 m, LFM 1167, Eu.-Sib., Cr.
***Apera intermedia*** Hackel
Muş: Malazgirt, Yapraklı village surroundings, streamside, 27 v 2006, 39° 21' 031" N 42° 15' 978" E, 1591 m, LFM 572, Ir.-Tur., Th.
***Agrostis gigantea*** Roth
Muş: Malazgirt, S of Kardeşler village, streamside, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1800 m, LFM 1319, Eu.-Sib., Cr.
***A. stolonifera*** L.
Erzurum: Karaçoban, Karakol, Karagöz village surroundings, humid place, 20 vi 2006, 39° 19' 864" N 42° 13' 472" E, 1663 m, LFM 991a, Eu.-Sib., Cr.
▲***Polypogon maritimus*** Willd. subsp. ***subspathaceus*** (Req.) Aschers. & Graebn.
Muş: Malazgirt, 1 km SW of Kuruca village, humid meadows, 23 vi 2006, 39° 21' 177" N 42° 21' 813" E, 1830 m, LFM 1196; Muş: Malazgirt, 1 km N of Kazgölü, meadows, 23 vi 2006, 39° 20' 572" N 42° 21' 708" E, 1730 m, LFM 1225, E. Medit., Th.
***P. monspeliensis*** (L.) Desf.
Erzurum: Karaçoban, Kırmızı Tuzla surrounding, meadows, 30 vii 2006, 39° 17' 412" N 42° 06' 330" E, 1576 m, LFM 2292, Th.
***Zingeria biebersteiniana*** (Claus) P. Smirnov subsp. ***trichopoda*** (Boiss.) R.R. Mill.
Muş: Malazgirt, between Kaz lake and Kuruca village, steppe, 10 vi 2007, 39° 21' 259" N 42° 21' 253" E, 1824 m, LFM 3049, Ir.-Tur., Th.
***Phalaris arundinacea*** L.
Muş: Malazgirt, N of Kaz lake, meadow, 10 vi 2007, 39° 20' 891" N 42° 19' 449" E, 1775 m, LFM 3022, Cr.
▲***Alopecurus bulbosus*** Gouan
Muş: Malazgirt, Bademözü village surroundings, meadows, 21 v 2007, 39° 24' 712" N 42° 26' 095" E, 1766 m, LFM 2692, Cr.
***A. arundinaceus*** Poir.
Muş: Malazgirt, W of Kazgölü village, fields, 23 vi 2006, 39° 20' 004" N 42° 21' 608" E, 1800 m, LFM 1246b, Cr.
***Beckmannia eruciformis*** (L.) Host.
Muş: Malazgirt, SE of Laladağ village, around Sarıgöl, meadow-swamp, 18 viii 2007, 39° 18' 379" N 42° 25' 858" E, 1969 m, LFM 3430, Hc.
***Phleum pratense*** L.
Muş: Malazgirt, Laladağ, humid places, 18 viii 2007, 39° 18' 315" N 42° 23' 707" E, 1997 m, LFM 3498, Eu.-Sib., Cr.
▲***P. bertolonii*** DC.
Muş: Malazgirt, Kardeşler village, alluvial steppe, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1811 m, LFM 1634, Hc.
***P. montanum*** K.Koch subsp. ***montanum***
Muş: Malazgirt, S of Kardeşler village, fields, 06 vii 2006, 39° 20' 460" N 42° 27' 019" E, 1800 m, LFM 1327, Hc.
***P. montanum*** K.Koch subsp. ***serrulatum*** (Boiss.) M. Doğan
Muş: Malazgirt, between A.Kıcık and Y.Kıcık villages, steppe, 10 vi 2007, 39° 17' 002" N 42° 23' 245" E, 1830 m, LFM 3076, E. Med., Hc.
***P. phleoides*** (L.) Karsten
Muş: Malazgirt, 3 km to Karagöz village, steppe, 30 vii 2006, 39° 19' 846" N 42° 13' 808" E, 1623 m, LFM 2141, Eu.-Sib., Hc.
▲***P. exaratum*** Hochst. subsp. ***exaratum***
Muş: Malazgirt, between Karıncalı and Yapraklı villages, steppe, 27 v 2006, 39° 21' 706" N 42° 15' 403" E, 1520 m, LFM 417a, Th.
▲***P. boissieri*** Bornm.
Muş: Malazgirt, between Karıncalı and Yapraklı villages, steppe, 27 v 2006, 39° 21' 706" N 42° 15' 403" E, 1520 m, LFM 417b, Ir.-Tur., h.
***Festuca arundinacea*** Schreb. subsp. ***arundinacea***
Muş: Malazgirt, W of Kazgölü village, streamside-wet places, 23 vi 2006, 39° 20' 004" N 42° 21' 608" E, 1710 m, LFM 1253, Hc.
***Lolium persicum*** Boiss. & Hohen. ex Boiss.
Muş: Malazgirt, N of Kaz lake, meadow, 10 vi 2007, 39° 20' 891" N 42° 19' 449" E, 1775 m, LFM 2990, Ir.-Tur., Th.

***Poa trivialis*** L.
Erzurum: Karaçoban, Kırmızı Tuzla surroundings, steppe, 03 vi 2006, 39° 17' 377" N 42° 06' 329" E, 1592 m, LFM 744b, Hc
***P. pratensis*** L.
Muş: Malazgirt, between Kaz lake and Kuruca village, steppe, 10 vi 2007, 39° 21' 259" N 42° 21' 253" E, 1824 m, LFM 3045, Cr.
***P. timoleontis*** Heldr. ex Boiss.
Erzurum: Karaçoban, Kırmızı Tuzla surroundings, steppe, 29 iv 2006, 39° 41' 765" N 42° 04' 854" E, 1747 m, LFM 110, E. Med., Hc.
***P. bulbosa*** L.
Muş: Malazgirt, Yapraklı village surroundings, steppe, 27 v 2006, 39° 21' 031" N 42° 15' 978" E, 1591 m, LFM 295, Cr.
***Eremopoa multiradiata*** (Trautv.) Roshev.
Erzurum: Karaçoban, Karakol, Karagöz village surroundings, humid place, 20 vi 2006, 39° 19' 864" N 42° 13' 472" E, 1663 m, LFM 1038, Ir.-Tur., Th. **"VU"**
▲***E. attalica*** H. Scholz
Erzurum: NE of Karaçoban, Kırımkaya villages, Güzelbaba mountain, steppe, 11 vi 2006, 39° 19' 864" N 42° 13' 472" E, 1663 m, LFM 927, **END.,** E. Medit., Th. **"VU"**
***E. songarica*** (Schrenk) Roshev.
Erzurum: Karaçoban, Kırmızı Tuzla surroundings, steppe, 03 vi 2006, 39° 17' 377" N 42° 06' 329" E, 1592 m, LFM 761b, Ir.-Tur., Th.
***Catabrosella parviflora*** (Boiss. & Buhse) Alexeev ex R.R. Mill subsp. ***calvertii*** (Boiss.) Alexeev ex R.R. Mill
Erzurum: Karaçoban, Kırmızı Tuzla surroundings, steppe, 03 vi 2006, 39° 17' 377" N 42° 06' 329" E, 1592 m, LFM 759, Ir.-Tur., Hc.
***Catabrosa aquatica*** (L.) P. Beauv.
Muş: Malazgirt, S of Laladağ village, meadow, 23 vi 2006, 39° 18' 450" N 42° 25' 098" E, 2000 m, LFM 1261, Cr.
***Puccinelia grossheimiana*** (V. Krecz.) V. Krecz.
Muş: Malazgirt, Kuruca village, reedy-bed, 11 vii 2006, 39° 21' 237" N 42° 22' 747" E, 1684 m, LFM 1785, Hc.
***P. gigantea*** (Grossh.) Grossh.
Erzurum: Karaçoban, Kırmızı Tuzla surroundings, steppe, 30 vii 2006, 39° 17' 412" N 42° 06' 330" E, 1576 m, LFM 2214, Hc.
***Sclerochloa dura*** (L.) P. Beauv.
Muş: Malazgirt, Karıncalı village, humid places, 29 v 2006, 39° 22' 485" N 42° 16' 298" E, 1509 m, LFM 693, Eu.-Sib.?, Th.
***Dactylis glomerata*** L. subsp. ***hispanica*** (Roth.) Nyman
Muş: Malazgirt, 1 km N of Kazgölü, meadows, 23 vi 2006, 39° 20' 572" N 42° 21' 708" E, 1730 m, LFM 1226, Hc.
***Briza humilis*** M. Bieb.
Muş: Malazgirt, between Karıncalı and Yapraklı villages, steppe, 27 v 2006, 39° 21' 706" N 42° 15' 403" E, 1520 m, LFM 414, Th.
***Melica persica*** Kunth subsp. ***inaequiglumis*** (Boiss.) Bor
Erzurum: N of Karaçoban, Kırımkaya villages, Güzelbaba mountain, steppe, 05 vi 2006, 39° 21' 663" N 42° 10' 670" E, 1776 m, LFM 848, Hc.
***Glyceria plicata*** (Fries) Fries
Muş: Malazgirt, S of Laladağ village, meadow, 23 vi 2006, 39° 18' 450" N 42° 25' 098" E, 2000 m, LFM 1247b, Hc.
***Stipa holosericea*** Trin.
Muş: Malazgirt, Karıncalı valley, steppe, 26 v 2007, 39° 23' 028" N 42° 17' 045" E, 1590 m, LFM 2864, Ir.-Tur., Hc.
***S. arabica*** Trin. & Rupr.
Muş: Malazgirt, between İyikomşu and Kırımkaya village surroundings (Radar), steppe, 01 viii 2007, 39° 15' 250" N 42° 03' 700" E, 2095 m, LFM 3345, Ir.-Tur., Hc.
***S ehrenbergiana*** Trin. & Rupr.
Muş: Malazgirt, 2 km S of Laladağı village, steppe, 23 vi 2006, 39° 18' 072" N 42° 25' 308" E, 1900 m, LFM 1277, Ir.-Tur., Hc.
***S. pontica*** P. Smirnov
Muş: Malazgirt, N of Kazgölü, steppe, 23 vi 2006, 39° 20' 604" N 42° 21' 882" E, 1830 m, LFM 1124b, Hc.
***Phragmites australis*** (Cav.) Trin. ex Steudel
Muş: Malazgirt, Y. Kıcık village surroundings, wet places, 17 vii 2006, 39° 17' 410" N 42° 23' 353" E, 1904 m, LFM 1952, Eu.-Sib., Cr.
***Cynodon dactylon*** (L.) Pers. var. ***villosus*** Regel
Muş: Malazgirt, Yeniköy surroundings, steppe, 17 vii 2006, 39° 15' 002" N 42° 24' 173" E, 1904 m, LFM 1978, Hc.
***Echinochloa crus-galli*** (L.) P. Beauv
Muş: Malazgirt, between Beşdam and Sırtdüzü villages, streamside, 02 ix 2007, 39° 21' 439" N 42° 15' 293" E, 1489 m, LFM 3661, Th.
***E. colonum*** (L.) Link
Muş: Malazgirt, Bahçe (Seydan) lake surroundings, sandy places, 23 viii 2006, 39° 23' 366" N 42° 29' 082" E, 1686 m, LFM 2456, Th.
***Crypsis alopecuroides*** (Piller & Mitterp.) Schrader
Muş: Malazgirt, between Kardeşler and Uyanık (Bastem) villages, streamside, 08 ix 2007, 39° 22' 309" N 42° 25' 152" E, 1621 m, LFM 3806, Th.
***C. acuminata*** Trin subsp. ***acuminata***
Muş: Malazgirt, SE of Laladağ village, around Sarıgöl, steppe, 18 viii 2007, 39° 18' 379" N 42° 25' 858" E, 1969 m, LFM 3455, Th.
***C. aculeata*** (L.) Aiton
Muş: Malazgirt, between Doğanbey village and Karaçoban town, steppe, 30 vii 2006, 39° 19' 517" N 42° 08' 581" E, 1711 m, LFM 2209, Th.

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