



### The flora of Ilisu/Turkey (Hasankeyf) and its conservation

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#### Abstract

In this study, the flora of Ilisu (Hasankeyf) and its environs was examined. 472 taxa belonging to 279 genera and 64 families were identified. Except 2 taxa belong to *Gymnospermae*, the remaining 469 taxa are in *Angiospermae* group. The richest families are *Asteraceae* with 68 taxa, *Poaceae* 58, *Fabaceae* 57, *Brassicaceae* 31, *Apiaceae* 27, *Lamiaceae* 24, *Boraginaceae* 22, and *Caryophyllaceae* 21; as the major genera, *Trifolium* with 13 taxa, *Centaurea* 10, *Crepis* 9, *Bromus* and *Medicago* 8, each of *Aegilops*, *Vicia*, *Euphorbia* with 7 taxa, *Trigonella*, *Alyssum*, *Silene*, and *Polygonum* with 6 taxa, *Hordeum* with 5 taxa are the richest genera.

The therophytes with 252 taxa and hemicryptophytes with 129 taxa are dominant. The number of phanerophytes are 45 and chamephytes are 36. Herbaceous plants are 90.9 % . 5.1 % are shrubs and 4.0 % are trees. According to phytogeographic regions, 88 taxa are belong to Irano-Turan region while 51 taxa are Mediterranean element and 16 taxa are Euro-Sibirean element. 20 taxa are under threatened and these taxa are endemic and live only in this region.

**Key Words:** Ilisu, Hasankeyf, Flora, Steppe, Conservation

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#### Ilisu (Hasankeyf) florası ve korunması

#### Özet

Bu çalışmada Hasankeyf (Ilisu) ve çevresinin florası tespit edilmiştir. 279 cinse ait 472 takson ve 64 familya tanımlanmıştır. Gymnospermlere ait 2 takson dışındaki diğer 469 takson Angiospermlere aittir. En zengin familyalar 68 taksonla *Asteraceae*, 58 taksonla *Poaceae*, *Fabaceae* 57, *Brassicaceae* 31, *Apiaceae* 27, *Lamiaceae* 24, *Boraginaceae* 22 ve *Caryophyllaceae* 21; büyük cinsler olarak *Trifolium* 13 taksonla, *Centaurea* 10, *Crepis* 9, *Bromus* ve *Medicago* 8, *Aegilops*, *Vicia*, *Euphorbia* herbiri 7 taksonla, *Trigonella*, *Alyssum*, *Silene* ve *Polygonum* 6 taksonla, *Hordeum* 5 takson ile en zengin familyalardır.

Terofitler 252 ve Hemikriptofitler 129 taksonla baskındırlar. Fanerofitler 45 ve Kamefitler 36 üyeli olup, otsu bitkiler %90.9, çalılar %5.1 ve ağaçlar % 4.0'lük orana sahiptirler. Fitocoğrafik bölgelere göre dağılımı bakıldığında 88 takson İran-Turan, 51 takson Akdeniz ve 16 takson Avrupa-Sibirya elementidirler. 20 takson tehdit altında olup, endemiktirler ve sadece bu bölgede yaşamaktadırlar.

**Anahtar Kelimeler:** Ilisu, Hasankeyf, Flora, Step, Koruma

#### 1. Introduction

Ilisu (Hasankeyf) region has not been studied adequately in terms of flora and vegetation (Ertekin, 1991, 1994, 2002; Kaynak, 1989; Malyer, 1979; Walter, 1974). The steppe vegetation is dominant (Adigüzel and Aytaç, 2001; Aslan, 2002; Aslan and Turkmen, 2002; Aslan and Turkmen, 2003; Atamov et al., 2002; Aydın, 2004; Aydoğdu 2004; Çırpıcı, 1987; Ekim, et al., 2000; Ekim, 1994; Zohary, 1973; Akman, et al., 2001; Walter, 1962; Regel, 1963). Annual, xerophyte, stocky, hairy, rough and thorny herbaceous and shrubby plants are widespread. This area is under stress of grazing (Atamov et al., 2002). As a result of excessive using, the vegetation of pastures and the abundance of fodder

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plants and especially the productivity has decreased. Thus, many species of plants and associations have been influenced negatively.

The main aim of our research was to determine of the flora, identificate of the rare, endemic species and to put out the scientific proposals about the plants which are under threat of extincion.

Hasankeyf, of which medieval world culture, commerce, and politics of the whole becomes the focus is the ancient city of magnificent and mysterious. It is located within the boundaries of the Batman Province in the Southeastern Anatolia Region. Southeast Midyat Mountains are located on the south part and Raman Mountains are located on the north of the Hasankeyf. The altitude is 520 m. and 37 km away from Batman. River Fırat has an impact on the climate of the region. It provides the switching of the mild winter months. The average temperature is 25°C and the highest average temperature is between 40-43°C, the lowest average temperature varies between 6-8°C. The average 90 days of the year are rainy.

The upper sections of the working area is rocky and sloping, the current inclination is between 9-11%. The natural grasslands are found in eastern and western slopes where the inclination decrease. The pastures have many small stones and poor flora. The Irrigated lands are on the east slopes of the Fatik Mountains. The salinity was detected at the middle level on the irrigated lands where stayed the slopes of the mountains Fatik. Great soil groups are as follows; Colluvial soils, Brown soils, Reddish Brown soils, Bare rocks, and Debris. Colluvial soils covers the fields approximately 18%. Brown soils cover approximately 43% and Reddish Brown soils cover approximately 37%.

## 2. Material and methods

The plant specimens were gathered from Hasankeyf in the years 2006 and 2007, during the different vegetation seasons. Collector number was given and the specimens were dried according to standart herbarium methods. The Flora of Turkey and The East Agean Islands (Davis, et al., vol. 1-10, 1965-1988; Güner, et al., 2000 ), Flora of Palaestina ( Feinbrun-Dothan, 1978), and Flora of Iraq (Townsend and Guest, 1966-1980) were used to identify the plant samples. In the list of flora, the following details were given; family names, species names, autor(s), habitats of plants, altitudes, collection dates, collector numbers, endemism and the phytogeographic region element.

The endemic species were categorized according to IUCN Red Data Book Categories. (Ekim, et al., 2000) The abbreviations are as fallows; CR: Critically endangered, VU: Vulnerable, LC: Least concern, NT: Near threatened, NE: Not evaluated, DD: Data deficient, EN: Endangered. The following abbreviations are used in the text: Euro-Sib.: Euro-Siberian Element, Medit.: Mediterranean Element, and Ir.-Tur.: Irano-Turanian Element.

The list of plants was set out according to the order in the Flora of Turkey. The life forms of plant taxa were given according to Raunkier's system (1934) as Phanerophyte, Ph.; Chamaephyte, Ch.; Hemicryptophyte, Hk.; Therophyte, Th.

The information about the soil groups belong to province was taken from the Directorate of Agricultural Reform of city Batman (Anonymous, 1995, 2001).

## 3. Findings

### 3.1. Bioclimate and Vegetation

The climate data of Batman were assessed according to the weather station records. According to climate data (Table 1 and Figure 1), it has a long dry period from June to October in Batman. During this period, many perennial herbaceous plants, bushes and trees in the vegetation are alive. Therefore most of annual taxa are dry.

The river Fırat has an impact on the climate of the region. It provides the switching of the mild winter months. The average temperature is 25 °C and the highest temperature is between 40-43 °C, the lowest temperature varies between 6-8 °C. Nearly, 90 days of the year is rainy.

Table 1. The climatic data of Ihsu (Hasankeyf) region

Altitude (m.)	P (mm)	M (°C)	m (°C)	Q	PE	S	Precipitation regime	Bioclimate
550	501.2	46.8	-6.8	42.94	7.2	0.18	Winter, Sıpring Autumn, Summer	Semiarid with cold winter

M: The mean maximum temperature of hottest month (°C)

m: The mean minimum temperature of coldest month (°C)

P: The average annual rainfall (mm)

Q: Precipitation-temperature coefficient

PE: Total summer rainfall (June, July, August)

Q: Summer drought

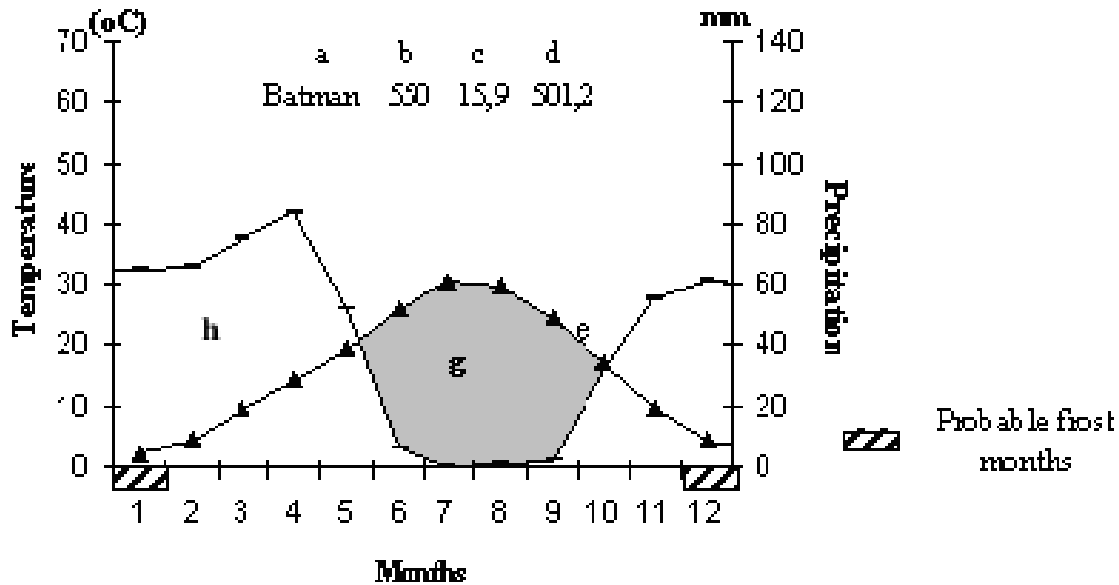


Figure 1. Ombrothermic Diagram of Batman, (a) meteorological station, (b) altitude (m), (c) average annual temperature (°C), (d) average annual precipitation (mm), (g) dry period, (e) precipitation graphic, (f) temperature graphic, (h) rainfall period

The dominant vegetation is steppe. Trees and bushes have been found sparsely as the spots forms. These have been found especially inside of stream beds and at the northern slopes. The populations of *Salix*, *Tamarix*, and *Populus* have been found at the bank of the river Fırat. In addition, the trees such as *Morus*, *Amygdalus*, *Ficus*, and *Ailanthus* have been found near the costal areas. The more common species as herbaceous plants belonging to *Phragmites*, *Arundo*, *Juncus*, *Schoenoplectus*, *Carex*, *Cynodon*, *Plantago*, *Polygonum* and *Verbascum* genera have been found near the bank of river Fırat. Shore up the river Fırat, the characteristic vegetation which consists of xeromorf plant associations has composed of *Graminea* and *Leguminosae* species commonly.

The species from these families like *Bromus*, *Avena*, *Hordeum*, *Briza*, *Botryochloa*, *Lolium*, *Agropyrum*, *Poa*, *Trigonella*, *Onobrychis*, *Trifolium*, *Astragalus*, *Vicia*, *Lathyrus* etc. are seen as scattered as small groups and associations. The vertical zonations can be seen at high altitudes. In this section, the dominant species is *Quercus brantii* obviously.

### 3.2. Analysis of flora

The samples collected from the pastures in the region were examined. 472 taxa belonging to 64 families and 279 genera were identified. Only 1 taxon belongs to Pteridophyta and 2 taxa belongs to the Gymnospermae. 99.4 % of the Spermatophyta was Angiospermae with 469 taxa. 87.4 % of them belong to the Dicotyledoneae and 12.5 % of the plants belong to the Monocotyledoneae (Table 2).

Table 2. The distribution of plant taxa according to the taxonomic groups

Taxonomic Groups	Number of Taxon	%
Pteridophyta	1	0.02
Spermatophyta	471	99.79
a) Gymnospermae	2	0.04
b) Angiospermae	469	99.36
I- Monocotiledone	59	12.50
II- Dicotiledone	410	87.40
Total	472	100.00

The richest families in the region are as follows; 14.4 % of the total flora belongs to Asteraceae with 68 taxa, Poaceae has 12.3 % with 58 taxa, Fabaceae has 12.1 % with 57 taxa, Brassicaceae has 6.6 % with 31 taxa, Apiaceae has 5.7 % with 27 taxa, Lamiaceae has 5.1 % with 24 taxa, Boraginaceae has 4.5 % with 22 taxa, and Caryophyllaceae has 4.5 % with 21 taxa

The richest genera are as follows; *Trifolium* has 13 taxa, *Centaurea* (10), *Crepis* (9), *Bromus* (8), *Medicago* (8), *Aegilops* (7), *Vicia* (7), *Euphorbia* (7), *Trigonella*, *Alyssum*, *Silene*, *Polygonum* (each of them with 6 taxa), *Hordeum* with 5 taxa, (Table 3.)

Table 3. The distribution of genera in the region

Line Number	Genera	Number of taxa belong to genera	%
1	<i>Trifolium</i>	13	2.8
2	<i>Centaurea</i>	10	2.1
3	<i>Crepis</i>	9	1.9
4	<i>Medicago</i>	8	1.7
5	<i>Bromus</i>	8	1.7
6	<i>Aegilops</i>	7	1.5
7	<i>Vicia</i>	7	1.5
8	<i>Euphorbia</i>	7	1.5
9	<i>Trigonella</i>	6	1.3
10	<i>Alyssum</i>	6	1.3
11	<i>Silene</i>	6	1.3
12	<i>Polygonum</i>	6	1.3
13	<i>Hordeum</i>	5	1.1
	Total	98	21.0
	The genera that contain 4 species	32	6.8
	The genera that contain 3 species	75	15.8
	The genera that contain 2 species	88	18.5
	The genera that contain 1 species	179	37.9
	Total	374	79.0
	Number of all species	472	100.0

It is seen clearly from the tables that the therophytes with 252 taxa and the hemicryptophytes with 129 taxa are dominant (80.7% of the total flora). However, the phanerophytes (45 taxa) and the chamephytes (36 taxa) have been representing significantly in the flora.

The finding of 51 taxa which belongs to Mediterranean phytogeographic region shows that this area is also under the influence of the Mediterranean climate. In addition, 16 taxa belonging to Euro-Siberian phytogeographic region has been found.

### 3.3. The properties of vegetation of Iisu (Hasankeyf) region

*Quercusetum brantiae* associations were distributed from 800 meters. In the stream beds, perennial woody species were seen like *Pistacia terebinthus*, *Amygdalus orientalis*, *A. communis*, *A. lysioides*, *Celtis australis*, *C. tournefortii*, *Crataegus monagyna*, *C. aronia*, *Paliurus spina-christi* as microgroups. These groups were seen in the form of spots in steppe vegetation. The species of *Poaceae*, *Lamiaceae*, *Fabaceae*, *Apiaceae*, *Asteraceae* family are common according to richness and number of individuals. Usually the associations of these families are widespread. The covering of plants is varied between 50-80% due to excessive grazing. In the vegetation, the spiny plants like *Echinops*, *Carthamus*, *Xanthium*, *Cousarinia*, *Astragalus* etc., hairy like *Onosma*, *Echium*, *Anchusa*, *Scandix* etc., etheric oiled like *Teucrium*, *Salvia*, *Stachys*, *Thymus*, *Mentha*, *Marrubium* etc., and milky like *Euphorbia*, *Tragopogon*, *Scorzonera* etc. were seen. Between the steppe and shrubby, woody zone *Dactylis glomerata*, *Pterosephalus strictus*, *Paliurus spina-christi* are the characteristic species forming of associations.

The anthropogenic effects were seen clearly. These are excessive grazing, cutting of trees for different aims and converting of pastures into fields.

### 3.4. The conservation of Iisu (Hasankeyf) flora and endemic taxa

As a result of excessive and irregular grazing and destroying of area, it is likely to extinction or to fall critic situations of large number of plants in the region.

At the end of our research, 22 taxa are determined which are under threatened (Table 4). As seen in table 4, *Alyssum dasycarpum* Stepph. ex Willd. var. *minus* Born.ex.Dudly., and *Crucianella kurdistanica* Malinovsky taxa are in VU category but are not endemic. Other 20 taxa are endemic, and spread only in this region.

When these plants are evaluated according to life forms, it is seen that 3 of them are annual, 3 of them are biennial and 16 of them are perennial herbaceous. If they are evaluated according to Raunkier's life forms, 8 of them are therophytes, 12 are hemicryptophytes, and 2 are chamephytes. 18 of these plants belong to Irano-Turanian phytogeographic region and the others are unknown.

According to threat categories, 13 of them are in LR, 5 are in VU, and 2 are in EN categories (Table 5). The growing of *Centaurea consanguinea* DC. and *Hieracium tamderence* Hub.-Mor. and the other plants which are in other threatened categories are important in the Botany Garden of Harran University. they should be protected and should be stored their seeds. However, cultivation of these plants and the establishment of parcels which contain region's plants is important. All these activities are important respect of conservation. The following plants are important in this regard:

Table 4. The endemic and threatened taxa in Iisu (Hasankeyf) dam basin

Line number	Endemic and threatened taxa	IUCN threat categories	Life forms, phytogeographic region
1	<i>Papaver clavatum</i> Boiss. & Hausskn ex Boiss.	LR endemic	annual, Th., -
2	<i>Alyssum dasycarpum</i> Stepph. ex Willd. var. <i>minus</i> Born.ex.Dudly.,	VU -	annual, Th., -
3	<i>Silene brevicaulis</i> Boiss.	LR endemic	perennial, Th., Ir.-Tur. el.
4	<i>Hypericum capitatum</i> Choisy var. <i>capitatum</i>	VU endemic	annual, Th. Ir.-Tur. el.,
5	<i>Cicer echinospermum</i> P.H. Davis	VU endemic	perennial, Th., -
6	<i>Astragalus lamarckii</i> Boiss.	- endemic	perennial, Ch., -
7	<i>Genista aucheri</i> Boiss.	LR endemic	perennial, Hk., Ir.-Tur. el.
8	<i>Crepis macropus</i> Boiss & Heldr.	LR endemic	perennial, Ch., Ir.-Tur. el.
9	<i>Hieracium tamderence</i> Hub.-Mor.	EN endemic	perennial, Hk., Ir.-Tur. el.
10	<i>Centaurea kurdica</i> Reichardt	LR endemic	biennial, Th., Ir.-Tur. el.
11	<i>Centaurea sclerolepis</i> Boiss.	VU endemic	biennial, Th., Ir.-Tur. el.
12	<i>Centaurea consanguinea</i> DC.	EN endemic	perennial, Hk., Ir.-Tur. el.,
13	<i>Centaurea stapfiana</i> (Hand.-Mazz.) Wagenitz	LR endemic	perennial, Hk., Ir.-Tur. el.,
14	<i>Achillea nobilis</i> L. subsp. <i>kurdica</i> Hub.-Mor.	LR endemic	perennial, Hk., Ir.-Tur. el.,
15	<i>Achillea lycanica</i> Boiss. & Heldr.	LR endemic	perennial, Hk., Ir.-Tur. el.,
16	<i>Cousinia eriocephala</i> Boiss & Hausskn.	LR endemic	biennial, Hk., Ir.-Tur., el.,
17	<i>Alkanna trichophila</i> Hub.-Mor. var. <i>ardinensis</i> Hub.-Mor.	LR endemic	perennial, Hk., Ir.-Tur. el.,
18	<i>Moltkia aurea</i> Boiss.	LR endemic	perennial, Hk., Ir.-Tur. el.,
19	<i>Onosma polioxanthum</i> Rech.	LR endemic	perennial, Hk., Ir.-Tur. el.,
20	<i>Onosma bornmuelleri</i> Hausskn	LR endemic	perennial, Hk., Ir.-Tur. el.,
21	<i>Onosma roussaei</i> DC.	- endemic	perennial, Hk., Ir.-Tur. el.,
22	<i>Crucianella kurdistanica</i> Malinovsky	VU -	perennial, Th., Ir.-Tur. el.,

Table 5. The species under threat and their conservation

Threat Categories	Number of taxa	Proposal for Conservation
LR (Lower Risk)	13	Prevention of excessive grazing
EN (Endangered)	2	Prevention of excessive grazing
VU (Vulnerable)	5	Declaration as protected areas and prevention of grazing
Total:	20	

*Celtis tournefortii* Lam., *Celtis australis* L., *Rhamnus oleoides* L. subsp. *oleoides*., *Paliurus spina-christi* Miller, *Vincetoxicum canescens* (Willd.) Decne subsp. *canescens*, *Cerasus microcarpa* (C.A.Meyer) Boiss. subsp. *tortuosa* (Boiss.& Hausskn) Browicz, *Cerasus mahaleb* (L.) Miller var. *mahaleb*, *Rubus sametis* Schreber, *Crataegus aronia* (L.) Bosc. Ex DC var. *aronia*, *Rosa canina* L., *Cydonia oblonga* Miller, *Amygdalus lycioides* Spach, *Amygdalus orientalis* Miller, *Amygdalus communis* L., *Persica vulgaris* Miller, *Armeniaca vulgaris* Lam., *Potentilla recta* L., *Sanguisorba minor* Scap. subsp. *magnolii* (Spach) Briq., *Prunus spinosa* L., *Fraxinus excelsior* L. subsp. *excelsior*, *Fraxinus ornus* L. subsp. *cilicica* (Lingelsh.) Yalt., *Pistacia terebinthus* L. subsp. *palaestina* (Boiss.) Engler, *Rhus coriaria* L., *Quercus brantii* Lindley., *Ficus coerica* L. subsp. *rupestris* (Hausskn) Browicz, *Ficus carica* L. subsp. *carica*, *Morus nigra* L., *M. alba* L., *Tamarix smyrnensis* Bunge., etc.

#### 4. Results and discussion

The data obtained other studies in close regions are shown in Table 6 and the Table 7 (Aslan, M. 2002, Aydın, N. 2004, Aydođdu, M. 2004, Kaya, Ö.F. and Ertekin, A.S., 2009).

When we compare the performed flora studies in various sectors of South-East Anatolia region; *Asteraceae*, *Poaceae*, *Fabaceae*, *Brassicaceae*, *Lamiaceae*, *Apiaceae*, *Boraginaceae*, *Rosaceae*, and *Scrophulariaceae* families seem to be richer according to number of species. This region is richer than the other regions except Birecik region.

Table 6. The comparison of families and number of species in the region

Families	Birecikav enue	Birecik Basen	MountTek tek	Mount Kaşmer	MountKal ecik	Direkli Hills	Ilisu Basen
<i>Asteraceae</i>	46	74	38	31	25	25	68
<i>Poaceae</i>	32	31	13	26	13	21	58
<i>Fabaceae</i>	31	60	45	57	56	29	57
<i>Brassicaceae</i>	16	21	29	10	14	14	31
<i>Lamiaceae</i>	16	26	16	17	19	13	24
<i>Liliaceae</i>	13	11	5	11	5	8	8
<i>Apiaceae</i>	12	22	14	14	14	13	27
<i>Rosaceae</i>	10	11	6	4	7	8	14
<i>Boraginaceae</i>	8	11	8	8	7	7	22
<i>Scrophulariaceae</i>	6	12	10	4	6	7	13
Others	100	185	77	90	72	48	76
Total	290	464	261	282	230	192	472

*Trifolium*, *Centaurea*, *Medicago*, *Euphorbia*, *Bromus*, *Vicia*, *Trigonella* genera are rich but *Lathyrus*, *Anthemis*, *Allium* genera have fewer species

Table 7. The comparison of areas according to number of species of genera

Genera	Birecik Avenue	Birecik Basen	Mount Kalecik	Mount tek tek	Mount Kaşmer	Direkli Hills	Ilisu basen
<i>Astragalus</i>	8	5	11	5	7	3	2
<i>Trifolium</i>	2	16	7	14	13	5	13
<i>Euphorbia</i>	4	8	4	4	2	2	7
<i>Medicago</i>	2	3	2	2	2	2	8
<i>Lathyrus</i>	1	5	3	1	5	1	1
<i>Vicia</i>	4	5	8	3	5	7	7
<i>Trigonella</i>	5	6	6	5	5	2	6
<i>Centaurea</i>	4	7	3	4	6	4	10
<i>Bromus</i>	6	2	2	2	2	3	8
<i>Anthemis</i>	5	4	2	2	2	-	2
<i>Allium</i>	5	4	1	-	4	1	1
Total	46	64	49	42	53	30	65
Other Genera	244	400	189	219	209	160	374
Total	290	464	238	261	262	192	472

When we look at this study, the studied area seem to be similar Birecik basen. Because Birecik is side of river Euphrates and Birecik basen is under the influence of this river significantly. This effect is a major cause of richness of species. Ilisu basen and Birecik basen have similar ecosystems, so they have similar flora and vegetation. They are more humid than the others. Humidity is one of the most important ecologic factors. Other regions are much more arid areas. Steppe vegetation is widespread, so they have poor flora.

There is no significant difference in terms of soil types. All the Southeastern Anatolia region has marl bedrock, calcareous soils. One of the common features is presence of thin layer of soil in sloping areas. The negative effects of rain and wind erosion is very noticeable. Soils are accumulated at the slopes of the hills and flat areas and these areas are used for agriculture.

Human populations in these two basins is more than the other areas. This is a negative impact on flora. When the flora of Ilisu is compared to flora of Turkey, the low number of taxa is seen. So are the other parameters. At table 8, the number of taxa, number of endemic taxa, number of genera and families are seen.

Table 8. The comparison Ilisu Flora with the flora of Turkey

Taxonomic categories	Flora of Turkey	Flora of Ilisu (%)
Number of Taxon	10754	472 (% 4.3)
Number of Endemic Taxon	3708	20 (% 0.5)
Number of Genus	1223	374 (% 30.6)
Number of Family	173	62 (% 35.8)

Thin layer of soil, negative climate conditions (humidity and temperature parameters, such as extreme hot and dry), intense and negative impact of water, wind erosion, homogeneous geographical structure are the reasons for the poor flora and vegetation of Southeast Anatolian plateau. In these conditions, the abundance of plants can not be seen. Destruction of human beings in this region for centuries has led to the emergence of anthropogenic steppe. About 91% of the area is dominated by herbaceous formation is evidence of that.

The existence of scattered forest formations (*Quercusetum*) show the destroying of widespread forests once a time.

These results show that our research area belongs to Irano-Turan phytogeographic region and under influence of mediterranean climate.

## Proposals

The seeds of plants which are under threat like *Centaurea consanguinea* DC. and *Hieracium tamderence* Hub.-Mor. and others have to be collected and grown in Harran University's Botanic Garden. The seed bank has to be established.

The shrub and tree samples which live in the region have to be grown in Atatürk Arboretum of Harran University.

The education of indigenous people is important about collecting, growing, and conservation of these endemic plants.

## THE LIST OF FLORA OF ILISU DAM BASIN (HASANKEYF)

### PTERIDOPHYTA

#### Adiantaceae

*Adiantum capillus-veneris* L., Hasankeyf, Moist rocky, in stream beds, perennial herbaceous, 18.05.2007, V.Atamov, 3080, Hk.

### SPERMATOPHYTA

#### GYMNOSPERMAE

#### Cupressaceae

*Cupressus sempervirens* L., Hasankeyf, in garden, 550 m, 23.04.2007, M.Aslan, 3381, Ph.

*Thuja orientalis* L., Hasankeyf, in garden, 550 m, 23.04.2007, V.Atamov, 2262, Ph.

### ANGIOSPERMAE

#### MAGNOLIOPSIDA (DICOTYLEDONES)

#### Ranunculaceae

*Adonis flammea* Jacq., Hasankeyf, steppe area, 600 m., annual, 23.04.2007, V.Atamov, 3098, Th.

*A. glauda* Schott & Kotschy, Hasankeyf, in stream beds, 500 m, perennial, 23.04.2007, V.Atamov, 3075, 3096, Hk.

*Anemone albana* Stev., Hasankeyf, step alan, 520 m, perennial 23.04.2007, V.Atamov, 2241, Hk, Ir.Tur.el

*A. coronaria* L., Hasankeyf, in stream beds, 510 m. 23.04.2007, perennial, V.Atamov. 2, 36, 3083, Medit.el. Hk.

*Ceratocephalus falcatus* (L.) Pers., Hasankeyf, Steppe area, annual herbaceous, 18.05.2007, M.Aslan, 3064, Th.

*Consolida oliveriana* (DC.) Schröd., Hasankeyf, Tepebaşı Village, annual herbaceous, 23.04.2007, V.Atamov, 2240, Ir.Tur.el., Th.

#### Papaveraceae

*Fumaria asepalae* Boiss., Hasankeyf, 18.05.2007, annual, V.Atamov, 5, 9, 12, Ir.Tur.el., Th.

*F. vaillantii* Lois., Hasankeyf, annual, 18.05.2007, V.Atamov, 2242, Th.

*F. parviflora* Lam., Hasankeyf, annual, 18.05.2007, V.Atamov, 39, Th.

*Glaucium corniculatum* (L.) Rud. subsp. *corniculatum*, Hasankeyf, annual, 18.05.2007, V.Atamov, 322, Th.

*Hypecoum imberbe* Sibth & Sm., Hasankeyf, in stream beds, 500 m, perennial, 23.04.2007, V.Atamov, 3067, Hk.

*Papaver rhoeas* L., Hasankeyf, annual, 18.05.2007, V.Atamov, 46, 58, Th.

*P. argemone* L., Hasankeyf, annual, 18.05.2007, V.Atamov, 2243, Th.

*P. clavatum* Boiss. & Hausskn., Hasankeyf, annual, 18.05.2007, V.Atamov, 11, 3066, 3066a, 3066b, Th.,

**endemic, LR**

#### Brassicaceae

*Alyssum dasycarpum* Steph. ex Willd. var. *minus* Dudley, Hasankeyf, annual, 15.06.2007, V.Atamov, 3050, 3228, Th., **VU**

*A. desertorum* Staptf var. *desertorum*, Hasankeyf, steppe area, in stream beds, annual, 19.06.2007, V.Atamov, 2120, Th.

*A. hirsutum* Bieb., Hasankeyf, annual, 18.05.2007, V.Atamov, 168, Th.

*A. stapfii* Vierh., Hasankeyf, annual, 18.05.2007, V.Atamov, 2119, Ir.Tur.el., Th.

*A. strictum* Willd., Hasankeyf, annual, 18.05.2007, V.Atamov, 23, Ir.Tur.el., Th.

*A. szovitsianum* Fisch. & Mey., Hasankeyf, Tepebaşı village, annual, 22.06.2007, V.Atamov, 3244, Th.

*Biscutella didyma* L., Hasankeyf, annual, 18.05.2007, V.Atamov, 2121, Th.

*Brassica elongata* Ehrh., Hasankeyf, perennial, 18.05.2007, V.Atamov, 2116, Hk.  
*B. nigra* (L.) Koch. Hasankeyf, Tepebaşı village, annual, 18.05.2007, V.Atamov, 2118, Th.  
*Capsella bursa-pastoris* (L.) Medik., Hasankeyf, annual, 18.05.2007, V.Atamov, 19, 44, 48, 3085, Th.  
*Cardaria draba* (L.) Desv., subsp. *draba*, Hasankeyf, Tepebaşı village, perennial, 22.07.2007, V.Atamov, 3253, Hk.  
*Calepina irregularis* (Asso) Thell., Hasankeyf, in stream beds, 510 m., perennial, 23.04.2007, V.Atamov, 3063, Hk.  
*Cheiranthus cheiri* L., Hasankeyf, in stream beds, 300 m., perennial, 23.04.2007, V.Atamov, 2113, Hk.  
*Diplotaxis tenuifolia* (L.) DC., Hasankeyf, perennial, 18.05.2007, V.Atamov, 3045, Hk.  
*Enarthrocarpus arcuatus* Lab., Hasankeyf, in stream beds, 300 m., annual, 23.04.2007, V.Atamov, 3032, E. Medit. el., Th.  
*Erysimum repandum* L., Hasankeyf, annual, 18.05.2007, V.Atamov, 2122, Th.  
*E. smyrnaeum* Boiss. & Bal., Hasankeyf, perennial, 19.06.2007, V.Atamov, 2123, Hk.  
*Fibigia clypeata* (L.) Medik., Hasankeyf, in stream beds, 600m., perennial, 23.04.2007, V.Atamov, 2114, Hk.  
*Hirschfeldia incana* (L.) Lag.-Foss., Hasankeyf, biennial, 18.05.2007, V.Atamov, 4, 17, 3374, Th  
*Iberis attica* Jord., Hasankeyf, in stream beds, 300 m., annual, 23.04.2007, V. atamov, 2112, E.Medit.el., Th.  
*Lepidium campestre* (L.) R. Br., Hasankeyf, in stream beds, 600 m., annual, 23.04.2007, V.Atamov, 3059, 3065, Th.  
*Mathiola longipetala* (Vent.) DC. subsp. *bicornis* (Sibth. & Smith) P.W. Ball., Hasankeyf, Tepebaşı village, annual, 23.04.2007 V.Atamov, 3091, 3241, 3242, Medit.el., Th.  
*Malcolmia africana* L., Hasankeyf, in stream beds, 510 m., annual, 23.04.2007, V.Atamov, 23, 3011, 3025, 3060, Th.  
*M. micrantha* Boiss. & Reut., Hasankeyf, annual, 18.05.2007, V.Atamov, 12, Th.  
*M. incana* (L.) R.Br., Hasankeyf, perennial, 18.05.2007, V.Atamov, 2115, Hk.  
*Rorippa amphibia* (L.) Bess., Hasankeyf, 510 m., in stream beds, perennial, 23.04.2007, V.Atamov, 3095, Hk.  
*Sinapis alba* L., Hasankeyf, annual, 18.05.2007, V.Atamov, 35, 3301, Th.  
*S. arvensis* L., Hasankeyf, Tepebaşı village, annual, 18.05.2007, V.Atamov, 25, Th.  
*Sisymbrium orientale* L., Hasankeyf, annual, 18.05.2007, V.Atamov, 22, 90, Th.  
*S. loeselii* L., Hasankeyf, annual, 18.05.2007, V.Atamov, 3050, 3051, Th.

#### Violaceae

*Viola tricolor* L., Hasankeyf, annual, 18.05.2007, V.Atamov, 2263, Th.

#### Capparaceae

*Capparis ovata* Desf. var. *palaestina* Zoh., Hasankeyf, perennial, 22.06.2007, V.Atamov, 3238, 3238a, Ch.  
*Cleome ornithopodioides* L., Hasankeyf, perennial, 22.06.2007, V.Atamov, 2253, Hk.

#### Portulacaceae

*Portulaca oleracea* L., Hasankeyf, in stream beds, 500 m., annual., 18.05.2007, V.Atamov, 3207, 3233, Ir.-Tur.el., Th.

#### Caryophyllaceae

*Agrostemma githago* L., Hasankeyf Tepebaşı village, annual, 22.06.2007, M.Aslan, 2127, Th.  
*Cerastium anomalum* Waldst. & Kit., Hasankeyf, in stream beds, 510 m., annual, 23.04.2007, V.Atamov, 3099, Th.  
*C. dichotomum* L. subsp. *inflatum* (Link) Cullen, Hasankeyf, in stream beds, 520 m., annual, 23.04.2007, V.Atamov, 3049, Th.  
*Dianthus hymenolepis* Boiss., Hasankeyf, perennial, 18.05.2007, V.Atamov, 2125, Ir-Tur el., Hk  
*Gypsophila ruscifolia* Boiss., Hasankeyf, in stream beds, 520 m., perennial, 22.06.2007, E.Çetin, 3207, Ir.-Tur. el., Ch.  
*Minuartia hybrida* (Vill.) schischk. subsp. *hybrida*., Hasankeyf, annual, 18.05.2007, 3094, V.Atamov, Th.  
*M. hybrida* (Vill.) schischk. subsp. *turcica* McNeill, Hasankeyf, annual, 18.05.2007, 3093, V.Atamov, Th.  
*Sagina apetala* Ard., Hasankeyf, annual, 18.05.2007, 2132, Th. V.Atamov, 35, 3092, Th.  
*Saponaria officinalis* L., Hasankeyf, perennial, 18.05.2007, V.Atamov, 2124, Hk.  
*Silene armeria* L., Hasankeyf, 18.05.2007, annual, V.Atamov, 2126, Euro- Sib el., Th.  
*S. brevicaulis* Boiss., Hasankeyf, perennial, 14.06.2007, V. Atamov, 3245, 3257, Ir.-Tur. el., Th., **endemic, LR**  
*S. chaetodonta* Boiss., Hasankeyf, Tepebaşı village, annual, 22.06.2007, M.Aslan, 3228, Ir.-Tur. el., Th.  
*S. dichotoma* Ehrh. subsp. *sibthorpiana* (Reichb.) Rech., Hasankeyf, annual, 22.06.2007, M.Aslan, 13, 16, 32, 47, 3255, Th.,  
*Stellaria media* (L.) Vill. subsp. *media*, Hasankeyf, annual, 18.05.2007, E.Çetin, V.Atamov, 62, 62a, 62b, Th.  
*S. media* (L.) Vill. subsp. *pallida* (Dumort.) Aschers., Hasankeyf, annual, 18.05.2007, M.Aslan, V.Atamov, 2131, Th.  
*S. media* (L.) Vill. subsp. *pastii* Holmboe., Hasankeyf, annual, 18.05.2007, M.aslan, V.Atamov, 10, 36, Th.  
*Vaccaria pyramidata* Medik var. *grandiflora* (Fisch. ex DC.) Hayek, Hasankeyf, annual, 15.05.2007, M.Aslan, 2130,  
*V. pyramidata* Medik. var. *liniflora* (Boiss. & Hausskn.) Cullen, Hasankeyf, annual, 15.05.2007, M. Aslan, 3297, Th.  
*V. pyramidata* Medik var. *oxyodonta* (Boiss.) Zoh., Hasankeyf, annual, 15.05.2007, M.Aslan, 2129, Ir.Tur. el., Th.  
*Velezia rigida* L., Hasankeyf, in stream beds, 600 m., annual, 19.06.2007, V. Atamov, 3206, 3275, Th.

#### Illecebraceae

*Paronychia kurdica* Boiss. subsp. *kurdica* var. *kurdica*, Hasankeyf, perennial, 18.05.2007, V.Atamov, 13, 3267, Hk.

#### Polygonaceae

*Polygonum amphibium* L., Hasankeyf, in stream beds, 600 m., perennial, 19.06.2007, E.Çetin, 3215, Hk.  
*P. aviculare* L., Hasankeyf, 18.05.2007, annual, V.Atamov, 45, Th.  
*P. cognatum* Meissn., Hasankeyf, 18.05.2007, perennial, V.Atamov, 2245, Hk.  
*P. pulchellum* Lois., Hasankeyf, in stream beds, 510 m., annual, 23.04.2007, E.Çetin, 3012, Th.  
*P. salicifolium* Brouss. ex Willd., Hasankeyf, in stream beds, perennial, 19.06.2007, M.Aslan, 3193, Hk.  
*P. setosum* Jacq., Hasankeyf, in stream beds, 600 m., perennial, 19.06.2007, V.Atamov, 3145, Ir.Tur.el., Hk.  
*Rumex potentilla* L., Hasankeyf, perennial, 18.05.2007, V.Atamov, 3195, 3210, Hk.

#### Chenopodiaceae



*Chenopodium album* L. subsp. *album* var. *album*, Hasankeyf ,500 m., in stream beds, annual 23.04.2007, M.Aslan, 3154, 3154a, 3154b, Th.

*C. botrys* L., Hasankeyf, in stream beds, 600 m., annual, 19.06.2007, M.Aslan, 3173, 3219, Th.

*C. chenopodioides* (L.) Aellen., Hasankeyf , 600 m., annual, 19.06.2007, E.Çetin, 1317, Hk.

*C. murale* L., Hasankeyf, roadside, 600 m., annual, 9.06.2007, V.Atamov, 3146, 3183, Hk.

*Noaea mucronata* (Forssk.) Ascher. & Schweinf. subsp. *mucronata*, Hasankeyf, in stream beds, 600 m., annual, 19.06.2007, V.Atamov, 3196, Th.

*Salsola tragus* L., Hasankeyf, annual, 14.06.2007, V.Atamov, 3270, Hk.

#### Amaranthaceae

*Amarantus Albus* L., Hasankeyf, Annual, 18.05.2007, V.Atamov, 2163, Th.

*A. Refroflexus* L., Hasankeyf, annual, 18.05.2007, V.Atamov, 2162, Th.

#### Tamaricaceae

*Tamarix smyrnensis* Bunge., Hasankeyf, perennial, 14.06.2007, V.Atamov, 3274, Ph.

#### Guttiferae

*Hypericum capitatum* Choisy var. *capitatum*, Hasankeyf, annual, 14.06.2007, V.Atamov, 3254, Th. Ir.-Tur. el., endemic., VU

*H. perforatum* L., Hasankeyf, steppe area, perennial, 19.06.2007, E.Çetin, 3140, Hk.

*H. scabrum* L., Hasankeyf, Tepebaşı village, perennial, 22.06.2007, M.Aslan, 3252, Ir.-Tur. Hk.

#### Malvaceae

*Althaea officinalis* L., Hasankeyf, perennial, 15.05.2006, V.Atamov, 3143, 3143a, 3288, Hk.

*Malva neglecta* Wallr., Hasankeyf, instream beds, 600 m., annual, 19.06.2007, E.Çetin, 1313, 1374, Th.

*M. sylvestris* L., Hasankeyf, perennial, perennial, 18.05.2007, V.Atamov, 32, 49, 81, 81a, 81b, 81c, 81d, Hk.

*Malvella sherardiana* (L.) Jaub. & Spach., Hasankeyf, perennial, 19.06.2007, E.Çetin, 2244, Hk.

#### Geraniaceae

*Erodium ciconium* (L.) L' Herit. ex DC., Hasankeyf, annual, 18.05.2007, V.Atamov, 58, 88, Th.

*Geranium molle* L. subsp. *molle*, Hasankeyf, in stream beds, 510 m., annual, 23.04.2007, M. Aslan, 3078, Th.

*G. pyrenaicum* Burm., Hasankeyf, perennial, 18.05.2007, V.Atamov, 23, 44, Hk.

*G. rotundifolium* L., Hasankeyf, annual, 18.05.2007, V.Atamov, 25, 28, 37, 56, Th.

*G. sanguineum* L., Hasankeyf, perennial, 18.05.2007, V.Atamov, 2247, Euro. Sib., Hk.

#### Zygophyllaceae

*Peganum harmala* L., Hasankeyf, perennial, 18.05.2007, V.Atamov, 6, 18, 34, 40, Hk.

*Tribulus terrestris* L., Hasankeyf, in stream beds, 600 m., annual, 19.06.2007, V.Atamov, 3187, Th.

*Zygophyllum fabago* L., Hasankeyf, 18.05.2007, perennial, V.Atamov, 4, 5, 24, 24a, 24b, Ir.-Tur. el., Hk.

#### Aceraceae

*Acer monspessulanum* L. subsp. *microphyllum* (Boiss.) Bornm., Hasankeyf, Tepebaşı Village, perennial, 22.06.2007, V.Atamov, 3237, Ph.

*A. negundo* L., Hasankeyf, in stream beds, 510 m., perennial, 23.04.2007, V.Atamov, 3038, 3081, Ph.

#### Meliaceae

*Melia azederach* L., Hasankeyf, perennial, 18.05.2007, V.Atamov, 2257, Ph.

#### Vitaceae

*Parthenocissus quinquefolia* Planch., Hasankeyf, in stream beds, 500 m., perennial, 23.04.2007 V.Atamov, 3002, 3009, Ph.

*Vitis vinifera* L., Hasankeyf, in garden, 520 m., perennial, 23.04.2007 V.Atamov, 3141, Ph.

#### Rhamnaceae

*Rhamnus oleoides* L. subsp. *oleoides*, Hasankeyf, in garden, 510 m., perennial, 23.04.2007, V.Atamov, 2255, Ph.

*Paliurus spina-christi* Miller, Hasankeyf, Tepebaşı Village, perennial, 22.06.2007, V.Atamov, 3133, 3226, Ph.

#### Anacardiaceae

*Pistacia terebinthus* L. subsp. *palaestina* (Boiss.) Engler, Hasankeyf, perennial, 18.05.2007, V.Atamov, 2259, 2259a, 2259b, Ph.

*Rhus coriaria* L., Hasankeyf, Tepebaşı Village, perennial, 22.06.2007. V. Atamov, 3242, E. Medit.el., Ph.

*Schinus molle* L., Hasankeyf, 18.05.2007, perennial, V.Atamov, 2258, Ph.

#### Fabaceae

*Alhagi pseudalhagi* (Bieb.)

Desv., Hasankeyf, perennial, 14.06.2006, V. Atamov, 3209, Ir.-Tur. el., Ch.

*Amorpha fruticosa* L., Hasankeyf, perennial, 18.05.2007, V. Atamov, 4, 7, 3089, Ph.

*Anagyris foetida* L., Hasankeyf, Tepebaşı village, perennial, 22.06.2007, V. Atamov, 3240, 3229, Medit. el., Ch.

*Astragalus hamosus* L., Hasankeyf, 18.05.2007, annual, V. Atamov, 2, 41, 55, 55a, 55b, 3016, Th.

*A. lamarckii* Boiss., Hasankeyf, step 600 m., perennial, 15.05.2006, V. Atamov, 3184, 3226, Ch., Ir.-Tur. el.,

#### endemic

*A. microcephalus* Willd., Hasankeyf, step 600 m., perennial, 15.05.2006, V. atamov, 2179, Ir.-Tur. el., Ch.

*A. strictifolius* Boiss var. *strictifolius*, Hasankeyf, step 600 m., perennial, 15.05.2006, 3071, V. Atamov, Ch.

*Cerasus mahaleb* (L.) Miller var. *mahaleb*, Hasankeyf, perennial, 18.05.2007, V. Atamov, 23, Ph.

*C. microcarpa* (C.A.Meyer) Boiss. subsp. *tortuosa* (Boiss. & Hauskn) Browicz, Hasankeyf, Tepebaşı village, perennial, 22.06.2007, V. Atamov, 3247, Ir.-Tur. el., Ph.

*Cicer echinospermum* P.H. Davis., Hasankeyf, annual, 18.05.2007, V. Atamov, 2168, 2168a, 2168b, Th., **endemic, VU**

*Coronilla scorpioides* (L.) Koch., Hasankeyf, roadside, 600 m., annual, 14.06.2007, M.Aslan, 2165, 2165a, 2165b, Th.

*Crataegus aronia* (L.) Bosc. Ex DC var. *aronia*, Hasankeyf, Tepebaşı village, perennial, 29.07.2006, V. Atamov, 2109, P

*Genista anatolica* Boiss., Hasankeyf, perennial, 15.05.2006, V.Atamov, 3253, E.Medit. el., Ch.  
*G. aucheri* Boiss., Hasankeyf, steppe, 600 m., perennial, 19.06.2007, V.Atamov, 3220, 3221, Ch., Ir.-Tur el. **endemic, LR.**  
*Gleditsia triacanthos* L., Hasankeyf, in stream beds, 300 m., perennial, 23.04.2007, V.Atamov, 3063, Ph.  
*Glycyrrhiza glabra* (L.) var. *glandulifera* (Waldst & Kit.) Boiss., Hasankeyf, roadside, 600 m., perennial, 14.06.2007, M.Aslan, 2166, 2166a, Ch.  
*Hippocrepis unisiliquosa* L. subsp. *unisiliquosa*, Hasankeyf, annual, 18.05.2007, V.Atamov, 76, Hk.  
*Lotus corniculatus* L. var. *corniculatus*, Hasankeyf, in stream beds, 300 m., perennial, 23.04.2007, V.Atamov, 2182  
*L. gebelia* Vent. var. *gebelia*, Hasankeyf, steppe, 650 m., perennial, 19.06.2007, M. Aslan, 3202, Hk.  
*L. gebelia* Vent. var. *hirsutissimus* (Ledeb.) Deinsm., Hasankeyf, perennial, 18.05.2007, V.Atamov, 2167, 2167a, Ir.-Tur. el., Ch.  
*Medicago minima* (L.) Bart. var. *brevispina* Benth., Hasankeyf, annual, 18.05.2007, M.Aslan, 2183, Th.  
*M. minima* (L.) Bart. var. *minima*, Hasankeyf, annual, 18.05.2007, V.Atamov, 2170, 2170a, 2170b, Th.  
*M. orbicularis* (L.) Bart., Hasankeyf, annual, 15.05.2006, V.Atamov, 3182, Th.  
*M. polymorpha* L. var. *polymorpha*, Hasankeyf, roadside, 600 m, annual, 18.05.2007, M.Aslan, 2173, Th.  
*M. rigudula* (L.) All. var. *rigudula*, Hasankeyf, annual, 18.05.2007, V.Atamov, 2171, 2171a, Th  
*M. radiata* L. Hasankeyf, annual, 15.05.2006, V.Atamov, 3183, Ir.-Tur. el., Th.  
*M. rigudula* (L.) All. var. *cinerascens* (Jord.) Rouy, Hasankeyf, annual, 18.05.2007, V.Atamov, 2172, 2172a, Th.  
*M. tryncatula* (Gaertn.) var. *longeaculeata* Urb., Hasankeyf, annual, 18.05.2007, V.Atamov, 8, 53, 65, Medit el., Th.  
*Onobrychis capui-galli* (L.) Lam., Hasankeyf, annual, 18.05.2007, M. Aslan, 2184, Medit.el., Th.  
*Ononis pusilla* L., Hasankeyf, Tepebaşı village, perennial, 22.06.2007, V.Atamov, 3246, Ch.  
*O. spinosa* L. subsp. *leiosperma* (Boiss.) Sirj., Hasankeyf, perennial, 14.06.2007, M.Aslan, 2164, Ch.  
*Ornithopus sativus* Brot. subsp. *roseus* (Dufour) Dostal, Hasankeyf, roadside, 650 m., annual, 19.06.2007. , V.Atamov, 3448, Th.  
*Scorpiurus muricatus* L. var. *subvillosus* (L.) Fiori., Hasankeyf, annual, 18.05.2007, 14.06.2006, V.Atamov, 2188, 2169, 2169a, Medit. El., Th.  
*Trifolium angustifolium* L. var. *angustifolium*, Hasankeyf, annual, 15.05.2006, V.Atamov, 2178, Th.  
*T. angustifolium* L. var. *intermedium* (Guss.) Gib. & Belli, Hasankeyf, annual, 15.05.2006, V.Atamov, 3267, Th.  
*T. boisseri* Guss. ex. Boiss., Hasankeyf, annual, 18.05.2007, V.Atamov, 2175, E. Medit. el., Th.  
*T. bullatum* Boiss & Hauskn., Hasankeyf, annual, 18.05.2007, V.Atamov, 2177, Th.  
*T. campestre* Schreb., Hasankeyf, annual, 18.05.2007, V.Atamov, 14, 14a, 14b, 38, 46, Th.  
*T. hybridum* L. var. *hybridum*, Hasankeyf, perennial, 18.05.2007, V.Atamov, 18, 19, 24, 30, 32, 39, 3010, Hk.  
*T. nigrescens* Viv. subsp. *nigrescens* Petrisovii, Hasankeyf, annual, 18.05.2007, V.Atamov, 2176, Th.  
*T. pilulare* Boiss., Hasankeyf, annual, 18.05.2007, V.Atamov, 3029, 3042, Th.  
*T. repens* L. var. *repens*, Hasankeyf, in stream beds, 550 m., perennial, 23.04.2007, M. Aslan, 3052, Hk.  
*T. speciosum* Willd., Hasankeyf, annual, 18.05.2007, V.Atamov, 4, 27, 27a, 27b, 136, Th.  
*T. spumosum* L., Hasankeyf, annual, 18.05.2007, V.Atamov, 2174, 2176, 2176a, 2176b, Medit. el., Th.

*T. stellatum* L. var. *stellatum*, Hasankeyf, annual, 18.05.2007, V.Atamov, 37, 56, 3077, 3077a, 3092, 3092a, 3292, Th.  
*T. tomentosum* L., Hasankeyf, annual, 18.05.2007, V.Atamov, 13, 14, 48, 54, 82, 3025, Th.  
*Trigonella arcuata* C.A. Meyer., Hasankeyf, annual, 15.05.2006, V.Atamov, 3295, Th.  
*T. astroites* Fisch. & Mey., Hasankeyf, annual, 15.05.2006, V.Atamov, 2187, Ir.-Tur. el., Th.  
*T. coerulescens* (Bieb.) Hal., Hasankeyf, annual, 15.05.2006, V.Atamov, 2186, Ir.-Tur. el., Th.  
*T. monantha* C.A. Meyer subsp. *noeana* (Boiss.) Hub.-Mor., Hasankeyf, annual, 15.05.2006, V.Atamov, 2185, Ir.-Tur. el., Th.  
*T. spinosa* L., Hasankeyf, annual, 15.05.2006, V.Atamov, 3206, E.Medit. el., 500 m., annual, 23.04.2007, V.Atamov, 3094, Th.  
*Vicia hirsute* (L.) S.F. Gray, Hasankeyf, annual, 18.05.2007, V.Atamov, 2181, Th.  
*V. narbonensis* L. var. *narbonensis*, Hasankeyf, annual, 15.05.2006, V.Atamov, 3298, Th.  
*V. palaestina* Boiss., Hasankeyf, annual, 18.05.2007, V.Atamov, 30, 64, 64a, 64b, E.Medit. el., Th.  
*V. peregrina* L., Hasankeyf Tepebaşı village, annual, 22.06.2007, V.Atamov, 3018, 3290, Th.  
*V. sativa* L. subsp. *nigra* (L.) Ehrh., Hasankeyf, annual, 18.05.2007, V.Atamov, 16, 17, 18, 50, 53, 86, Th.  
*V. sativa* L. subsp. *sativa*, Hasankeyf, step 600 m., annual, 15.05.2006, V.Atamov, 3180, 3180a, 3180b, Th.

#### Rosaceae

*Amygdalus communis* L., Hasankeyf, in garden, 600 m., perennial, 19.06.2007, V.Atamov, 3017, 3030, Ph.  
*A. lycioides* Spach, Hasankeyf, perennial, 15.05.2006, V.Atamov, 3290, Ph.  
*A. orientalis* Miller, Hasankeyf, perennial, 15.05.2006, V.Atamov, 2110, Ir.-Tur.el., Ph.  
*Armeniaca vulgaris* Lam., Hasankeyf, steppe area, 500 m., perennial, 23.04.2007, V.Atamov, 3194, Ph.  
*Cydonia oblonga* Miller, Hasankeyf, in garden, 310 m., perennial, 23.04.2007, V.Atamov, 3093, Ph.  
*Persica vulgaris* Miller, Hasankeyf, perennial, 15.05.2006, V.Atamov, 2111, Ph.  
*Potentilla recta* L., Hasankeyf, steppe area, 700 m., perennial herbaceous, 19.06.2007, V.Atamov, 3142, Ch.  
*Prunus spinosa* L., Hasankeyf, roadside, 650 m., perennial, 19.06.2007, V.Atamov, 3132, Ph.  
*Rosa canina* L., Hasankeyf, Tepebaşı village, perennial, 22.06.2007, V.Atamov, 1, 11, 3233, Ph.  
*Rubus sanctus* Schreber, Hasankeyf, Tepebaşı village, perennial, 29.07.2006, V.Atamov, 2108, 3210, Ch.  
*Sanguisorba minor* Scap. subsp. *magnolii* (Spach) Briq., Hasankeyf, in stream beds, 600 m., perennial, 19.06.2007, V.Atamov, 3210, Hk.

#### Punicaceae

*Punica granatum* L., Hasankeyf, in garden and stream beds, perennial, 18.05.2007, V.Atamov, 10, 3061, Ph.

#### Onograceae

*Epilobium tetragonium* L. subsp. *tetragonium*, Hasankeyf, roadside, 650 m., perennial, 19.06.2007, V.Atamov, 2160, Hk.

#### Apiaceae

*Ainsworthia trachycarpa* Boiss., Hasankeyf, annual, 18.05.2007, V.Atamov,8,72, Medit. el., Th.  
*Anthriscus cerefolium* (L.) Hoffm., Hasankeyf, annual, 18.05.2007, V.Atamov, 22, 29, 3012, 3012a, Th.  
*Astrantia maxima* Pallas subsp. *haradjianii* (Grintz.) Rech, Hasankeyf, Tepebaşı Village, perennial, 22.06.2007, V.Atamov, 2216, Hk.  
*Bifora testiculata* (L.) Sprengel ex Schultes, Hasankeyf, annual, 15.05.2006, V.Atamov, 3152, 3156, 3293, Th.  
*Bupleurum aleppicum* Boiss., Hasankeyf, annual, 14.06.2007, V.Atamov, 2219, Ir.-Tur. el.  
*B. croceum* Fenzl, Hasankeyf, Tepebaşı village, annual, 22.06.2007, V.Atamov, 3220, Ir.-Tur. el.  
*Caucalis platycarpus* L., Hasankeyf, Tepebaşı village, annual, 22.06.2007, V.Atamov, 3261, Th.  
*Chaerophyllum libanoticum* Boiss & Kotschy, Hasankeyf, 18.05.2007, annual, V.Atamov, 14, 28, 66a, 66b, 42, E. Medit el., Th.  
*Echinophora tenuifolia* L. subsp. *sibthorpiana* (Guss.) Tutin, Hasankeyf, biennial, 14.06.2007, V.Atamov, 2220, Th.  
*Eryngium campestre* L., var. *virens* Link., Hasankeyf, in stream beds, 510 m., perennial, 23.04.2007, V.Atamov, 3064, Hk.  
*E. glomeratum* Lam., Hasankeyf, perennial, 14.06.2007, V.Atamov, 3263, Hk.  
*Ferulago macrocarpa* (Fenzl) Boiss., Hasankeyf, steppe, 600 m., perennial, 19.06.2007, V.Atamov, 3175, Ir.-Tur. el., Hk.  
*Foeniculum vulgare* Miller, Hasankeyf, perennial, 15.05.2006, V.Atamov, 2215, Hk.  
*Grammosciadium daucoides* DC., Hasankeyf, Tepebaşı Village, perennial, 22.06.2007, V.Atamov, 3245, Ir.-Tur. el., Hk.  
*Heracleum pastinacifolium* C. Koch, Hasankeyf, Tepebaşı Village, perennial, 22.06.2007, V.Atamov, 3258, Hk.  
*Lagoecia cuminoides* L., Hasankeyf, annual, 15.05.2006, V.Atamov, 3284, Medit el., Th.  
*Orlaya daucoides* (L.) Greuter, Hasankeyf, annual, 18.05.2007, V.Atamov, 3213, Th.  
*Prangos pabularia* Lindley, Hasankeyf Tepebaşı Village, perennial, 22.06.2007, V.Atamov 3215, Ir.-Tur. el., Hk.  
*Scaligeria meifolia* (Fenzl) Boiss., Hasankeyf, biennial, 15.05.2006, V.Atamov, 3214, Th.  
*Scandix iberica* Bieb., Hasankeyf, annual, 18.05.2007, V.Atamov, 57, Th.  
*S. stellata* Banks. & Sol., Hasankeyf, annual, 18.05.2007, V.Atamov, 15, 15a, 15b, 15c, Th.  
*Torilis arvensis* (Huds.) Link. subsp. *elongata* (Hoffmans & Link) Cannon, Hasankeyf, steppe, 600 m., annual, 19.06.2007, V.Atamov, 26, 39, 92, Medit. El., Th.  
*T. arvensis* (Huds) Link subsp. *neglecta* (Sprengel) Thellung, Hasankeyf, annual, 18.05.2007, V.Atamov, 3214a, 3214b, 3214c, Th.  
*T. leptophylla* (L.) Reichb, Hasankeyf, annual, 18.05.2007, V. Atamov, 3038, 3011, Th.  
*T. nodosa* (L.) Gaertner, Hasankeyf, Tepebaşı village, annual, 22.06.2007, V. Atamov, 2217, Th.  
*Tordylium aegyptiacum* (L.) Lam., Hasankeyf, annual, 18.05.2007, V.Atamov, 3218, E. Medit. el., Th.

#### Caprifoliaceae

*Lonicera caucasica* Pallas subsp. *orientalis* (Lam.) Chamb. & Long, Hasankeyf, perennial, 18.05.2007, V.Atamov, 2264, Ph., **endemic, LR**

#### Valerianaceae

*Valeriana dioscoridis* Sm., Hasankeyf, in stream beds, 500 m., perennial, 23.04.2007, V.Atamov, 3069, 3072, E. Medit. el., Hk.

*Valerianella carinata* Lois., Hasankeyf, in stream beds, 500 m., annual, 23.04.2007, V.Atamov, 2159, Th.

#### Dipsacaceae

*Cephalaria stapfii* Hausskn., Hasankeyf, steppe, 600 m., annual, 19.06.2007, V. Atamov, 3139, 3163, Th.  
*Dipsacus pilosus* L., Hasankeyf, biennial, 18.05.2007, V. Atamov, 3, Euro.-Sib. El., Th.  
*Knautia integrifolia* (L.) Bert. var. *bidens* (Sm.) Borbas, Hasankeyf, annual, 18.05.2007, V. Atamov, 2157, E. Medit. el., Th.  
*Pterocephalus plumosus* (L.) Coulter, Hasankeyf, annual, 18.05.2007, V. Atamov, 3070, 3231, 3232, 3333, Th.  
*Scabiosa argentea* L., Hasankeyf, steppe, 650 m., perennial, 19.06.2007, V. Atamov, 3171, 3254, Hk.  
*S. calocephala* Boiss., Hasankeyf, annual, 18.05.2007, V. Atamov, 2158, Ir.-Tur. el., Th.  
*S. rotata* Bieb., Hasankeyf, steppe, 600 m., annual, 19.06.2007, V. Atamov, 3181, Ir.-Tur. El., Th.

#### Asteraceae

*Achillea biebersteinii* Afan, Hasankeyf, perennial, 15.05.2006, V. Atamov, 43, 43a, 43b, 43c, 45, 83, 3053, Hk.  
*A. lycanica* Boiss. & Heldr., Hasankeyf, 15.05.2006, V. Atamov, 3250, Hk., Ir.-Tur. El., **endemic, LR**  
*A. nobilis* L. subsp. *kurdica* Hub.-Mor., Hasankeyf, in stream beds, 530 m. perennial, 23.04.2007, V. Atamov, 13, 13a, 13b, 13c, 3046, Hk., Ir.-Tur. El., **endemic, LR**  
*A. vermicularis* Trin., Hasankeyf, perennial, 15.05.2006, V. Atamov, 3299, Ir.-Tur. el., Hk.  
*Anthemis melanacme* Boiss. & Hausskn., Hasankeyf, steppe, 600 m., annual, 19.06.2007, M. Aslan, 2203, Ir.-Tur. el., Th.  
*Bellis perennis* L., Hasankeyf, perennial, 18.05.2007, V. Atamov, 2191, Euro. Sib. el., Hk.  
*Calendula arvensis* L., Hasankeyf, annual, 19.06.2007, V. Atamov, 3177, 3179, 3276, Th.  
*Carduus homulosus* Ehrh., Hasankeyf, biennial, 18.05.2007, V. Atamov, 2204, Th.  
*C. pycnocephalus* L. subsp. *albidus* (Bieb.) Kazmi., Hasankeyf, in stream beds, 510 m., annual, 23.04.2007, M. Aslan, 87, 89, 89a, 89b, 89c, 3040, Th.  
*C. pycnocephalus* L. subsp. *breviphyllarius* Davis, Hasankeyf, annual, 14.06.2007, V. Atamov, 3282, 3155, Th.  
*Carthamus lanatus* L., Hasankeyf, steppe, 600 m, annual, 19.06.2007, V. Atamov, 3176, Th.  
*Carlina biebersteinii* Bernh. ex Hornem., Hasankeyf, biennial, 18.05.2007, V. Atamov, 2205, Th  
*C. lanata* L., Hasankeyf, biennial, 18.05.2007, V. Atamov, 2206, 2026a, 2206b, Th.  
*C. vulgaris* L., Hasankeyf, biennial, 18.05.2007, V. Atamov, 3202, Medit. el., Th.  
*Catananche lutea* L., Hasankeyf, steppe, 600 m, annual, 19.06.2007, V. Atamov, 2208, 3220, Medit. el., Th.  
*Centaurea aggregata* Fisch. & Mey. subsp. *aggregata*, Hasankeyf, steppe, 600 m., biennial, 19.06.2007, M. Aslan, 3200, Th.  
*C. consanguinea* DC., Hasankeyf, steppe, 650 m., perennial, 23.04.2007, M. Aslan, 2210, Hk., Ir.-Tur. el., **endemic, EN**  
*C. hyalolepis* Boiss., Hasankeyf, biennial, 18.05.2007, V. Atamov, 2207, Ir.-Tur. el., Th.  
*C. iberica* Trev ex Sprengel., Hasankeyf, biennial, 18.05.2007, V. Atamov, 91, Medit. el., Th.  
*C. kurdica* Reichardt, Hasankeyf, biennial, 18.05.2007, V. Atamov, 3281, Th., Ir.-Tur. el., **endemic, LR**  
*C. pseudoscabiosa* Boiss & Buhse subsp. *pseudoscabiosa*, Hasankeyf, Tepebaşı village, 22.06.2007, V. Atamov, 2212.

- C. rigida* Banks & Sol, Hasankeyf, Tepebaşı Village, biennial, 22.06.2007, V. Atamov, 3236, Ir.-Tur. el., Th.
- C. sclerolepis* Boiss., Hasankeyf, biennial, 18.05.2007, V. Atamov, 3154, Ir.-Tur. el., **endemic, VU**
- C. solstitialis* L. subsp. *solstitialis*, Hasankeyf, annual, 14.06.2007, V. Atamov, 3243, Th.
- C. stapfiana* (Hand.-Mazz.) Wagenitz, Hasankeyf, Tepebaşı Village, perennial, 22.06.2007, V. Atamov, 3236, Hk., Ir.-Tur. el., **endemic, LR**
- C. triumfettii* All., Hasankeyf, Tepebaşı Village, biennial, 22.06.2007, V. Atamov, 3233, 3267, Th.
- Chondrilla juncea* L. var. *juncea*, Hasankeyf, annual, 18.05.2007, V. Atamov, 2189, Th.
- Cichorium intybus* L., Hasankeyf, Tepebaşı village, perennial, 22.06.2007, V. Atamov, 3248, Hk
- Crepis alpina* L., Hasankeyf, annual, 18.05.2007, V. Atamov, 2199, 2199a, 2199b, Th.
- C. foetida* L. subsp. *rheoadifolia* (Bieb.) Celak., Hasankeyf, annual, 18.05.2007, V. Atamov, 33, 33a, 33b, 38, Th.
- C. macropus* Boiss & Heldr., Hasankeyf, perennial, 18.05.2007, V. Atamov, 2192, Ir.-Tur. el., **endemic, LR**
- C. micrantha* Czer., Hasankeyf, annual, 18.05.2007, V. Atamov, 2198, Th.
- C. neglecta* L., Hasankeyf, perennial, 18.05.2007, V. Atamov, 60, Hk.
- C. pulchra* L. subsp. *pulchra*, Hasankeyf, annual, 18.05.2007, V. Atamov, 2194.
- C. sancta* (L.) Babcock, Hasankeyf, perennial, 18.05.2007, V. Atamov, 40, 40a, 49, 49a, Hk.
- C. zacintha* (L.) Babcock, Hasankeyf, annual, 18.05.2007, V. Atamov, 39, *Medit. el.*, Th.
- Cnicus benedictus* L. var. *benedictus*, Hasankeyf, annual, 18.05.2007, V. Atamov, 30, 61, 75, 75a, 75b, 75c, Th.
- Cousinia eriocephala* Boiss & Hausskn., Hasankeyf, steppe, 600 m., biennial, 19.06.2007, V. Atamov, 3201, Hk., Ir.-Tur. el., **endemic, LR**
- Crupina crupinastrum* (Moris) Vis., Hasankeyf, annual, 18.05.2007, V. Atamov, 3208, 3208a, 3208b, 3208c, Th.
- Erigeron acer* L. subsp. *pyncnotrichus* (Vierh.) Grierson, Hasankeyf, perennial, 19.06.2007, V. Atamov, 1311, 1311a, Hk.
- Filago pyramidata* L., Hasankeyf, steppe, 650 m., annual, 23.04.2007, M. Aslan, 3062, 3062a, Th.
- Gnaphalium luteo-album* L., Hasankeyf, Tepebaşı village, annual, 22.06.2007, V. Atamov, 3216, Th.
- Hieracium erythrocarpum* Peter., Hasankeyf, annual, 18.05.2007, V. Atamov, 13, *Euro.Sib. el.*, Th.
- H. tamderence* Hub.-Mor., Hasankeyf, perennial, 18.05.2007, V. Atamov, 2722, Hk., Ir.-Tur. el., **endemic, EN**
- Hyoseris scabra* L., Hasankeyf, annual, 18.05.2007, V. Atamov, 2196, *Medit. el.*, Th.
- Inula britanica* L., Hasankeyf, perennial, 18.05.2007, V. Atamov, 2213, Hk.
- I. oculus-christi* L., Hasankeyf, annual, 18.05.2007, V. Atamov, 3149, 3251, Th.
- Lactuca serriola* L., Hasankeyf, steppe, 600 m., biennial, 19.06.2007, V. Atamov, 38, 38a, 38b, 3237, *Euro.-Sib. el.*, Th.
- Matricaria aurea* (L.) Schultz., Hasankeyf, steppe, 600 m., annual, 19.06.2007, E. Çetin, 3234, Th.
- Micropus supinus* L., Hasankeyf, annual, 14.06.2007, V. Atamov, 3266, *Medit. el.*, Th.
- Notobasis syriaca* (L.) Cass., Hasankeyf, biennial, 18.05.2007, V. Atamov, 63, 63a, 63b, 63c, 3204, 3204a, 3204b, *Medit. el.*, Th.
- Pilosella verruculata* (Link) Sojak., Hasankeyf, perennial, 18.05.2007, V. Atamov, 2193 Hk.
- Pulicaria vulgaris* (L.) Gaertner, Hasankeyf, annual, 18.05.2007, V. Atamov, 3162, 3199, Th.
- Reichardia glauca* Matthews, Hasankeyf, perennial, 19.06.2007, V. Atamov, 3491, Ir.-Tur. el., Hk
- Rhagadiolus angulosus* (Jaub. & Spach) Kupicha., Hasankeyf, annual, 21.05.2007, M. Aslan, 2197, 2197a, Ir.-Tur. el.
- Scorzonera semicana* DC., Hasankeyf, perennial, 18.05.2007, V. Atamov, 2190, Ir.-Tur. el. Hk.
- Senecio bicolor* (Willd.) Tod var. *bicolor*, Hasankeyf, perennial, 18.05.2007, M. Aslan, 2201, Hk.
- S. vernalis* Waldst & Kit., Hasankeyf, annual, 18.05.2007, V. Atamov, 10, 3137, 3137a, 3072, Th.
- S. vulgaris* L., Hasankeyf, annual, 18.05.2007, V. Atamov, 3053, 3053a, Th.
- Slybum marianum* (L.) Gaertner, Hasankeyf, biennial, 18.05.2007, V. Atamov, 3182, *Medit. Th.*
- Sonchus asper* (L.) Hill., Hasankeyf, annual, 18.05.2007, V. Atamov, 2195, Th.
- Tanacetum argyrophyllum* (C. Koch) Tvetzel var. *subvirescens* (DC.) Grierson., Hasankeyf, perennial, 18.05.2007, E. Çetin, 2202, Hk.
- Taraxacum aleppicum* Dahlst., Hasankeyf, perennial, 18.05.2007, M. Aslan, 2211, 2211a, *E. Medit. el.*, Hk.
- Tragopogon longirostris* Bisch. ex Schultz var. *longirostris*, Hasankeyf, steppe, 650 m., annual, 23.04.2007, M. Aslan, 3289, 3289a, 3289b, 3289c, Th.
- Tripleurospermum oreades* (Boiss.) Rech. var. *tchihatchewii* (Boiss.) E. Hossain., Hasankeyf, steppe, 600 m., perennial, 19.06.2007, M. Aslan, 9, 9a, 9b, 9c, Hk.
- Xeranthemum cylindraceum* Sm., Hasankeyf, Tepebaşı Village, annual, 22.06.2007, V. Atamov, 3188, 3222, 3246, Th.
- Xanthium spinosum* L., Hasankeyf, annual, 15.05.2006, V. Atamov, 2209, 2209a, Th.
- X. strumarium* L. subsp. *cavanillesii* (Schauw) D. Löve & P. Dansereau, Hasankeyf, in stream beds, 500 m., annual, 19.06.2007, M. Aslan, 3211, 3211a, Th.

#### Campanulaceae

- Campanula erinus* L., Hasankeyf, annual, 18.05.2007, V. Atamov, 2105, *Medit. el.*, Th.
- C. flaccidula* Vakte, Hasankeyf, annual, 18.05.2007, V. Atamov, 2106, Th.
- C. retrorsa* Labill., Hasankeyf, annual, 18.05.2007, V. Atamov, 2107, Th.

#### Ericaceae

- Erica sativa* Miller, Hasankeyf, annual, 18.05.2007, V. Atamov, 2117, 2117a, 2117b, Th.

#### Oleaceae

- Fraxinus excelsior* L. subsp. *excelsior.*, Hasankeyf, in garden, 500 m., perennial, 23.04.2007, V. Atamov, 3019 *Euro.-Sib. el.*, Ph.
- F. ornus* L. subsp. *cilicica* (Lingelsh.) Yalt., Hasankeyf, in garden, 500 m., perennial, 23.04.2007, V. Atamov, 3034, 3097, *E. Medit. el.*, Ph.
- Ligustrum vulgare* L., Hasankeyf, in garden, 500 m., perennial, 23.04.2007, V. Atamov, 2252, 2252a, Ph.

#### Apocynaceae

- Nerium oleander* L., Hasankeyf, perennial, 22.06.2007, V. Atamov, 2256, *Medit. el.*, Ph.

#### Asclepiadaceae

*Vincetoxicum canescens* (Willd.) Decne subsp. *canescens*,  
Hasankeyf, perennial, 18.05.2007, V. Atamov, 3153, Ch.

#### Gentianaceae

*Gentiana asclepiadea* L., Hasankeyf, perennial, 18.05.2007,  
V. Atamov, 2251, Euro.-Sib.el., Th.

#### Convolvulaceae

*Calystegia sylvatica* (Kit.) Griseb., Hasankeyf, perennial,  
14.06.2007, V. Atamov, 3197, 3273, Ch

*Convolvulus arvensis* L., Hasankeyf, perennial, 14.06.2007,  
V. Atamov, 2249, Ch.

*C. reticulatus* Choisy in DC., Hasankeyf, perennial,  
14.06.2007, V. Atamov, 2252, 3257, Ir.-Tur.el., Ch.

#### Boraginaceae

*Alkanna orientalis* (L.) Boiss var. *orientalis*, Hasankeyf,  
perennial, 18.05.2007, V. Atamov, 78, Ir.-Tur. el., Hk.

*A. trichophila* Hub.-Mor. var. *ardinensis* Hub.-Mor.,  
Hasankeyf, steppe, 550 m., perennial, 23.04.2007, V.

Atamov, 3056, Hk., Ir.-Tur. el., **endemic, LR**

*A. trichophila* Hub.-Mor. var. *trichophila*, Hasankeyf,  
perennial, 18.05.2007, V. Atamov, 2230, 2230a, 2230b,  
2230c, Ir.-Tur. el., Hk.

*Anchusa aucheri* DC., Hasankeyf, annual, 18.05.2007, V.  
Atamov, 34, 84, Th.

*A. azurea* Miller var. *kurdica* (Gusul) Chamb., Hasankeyf,  
perennial, 18.05.2007, V. Atamov, 2232, 2232a, 2232b,  
2232c, Hk.

*A. strigosa* Labill., Hasankeyf, steppe, 650 m.,  
perennial, 19.06.2007, M. Aslan, 3130, Hk.

*Buglossoides arvensis* (L.) Johnston,  
Hasankeyf, perennial, 18.05.2007, V. Atamov, 2229, 2229a,  
Hk.

*Cynoglossum creticum* Miller, Hasankeyf, Tepebaşı  
Village, biennial, 22.06.2007, M. Aslan, 3250.

*Echium italicum* L., Hasankeyf, steppe, 600 m., biennial,  
19.06.2007, V. Atamov, 3161, 3168, Th.

*E. vulgare* L., Hasankeyf, steppe, 600

m., biennial, 19.06.2007, V. Atamov, 3158, 3324, Euro.-Sib. Th.

*Heliotropium circinatum* Griseb., Hasankeyf, steppe, 650 m.,  
annual, 19.06.2007, Ir.-Tur.el., M. Aslan, 3239, Th.

*H. europaeum* L., Hasankeyf, annual, 14.06.2007, V.  
Atamov, 3280, Th.

*H. ferrugineogriseum* Nab., Hasankeyf, steppe, 650 m.,  
annual, 19.06.2007, Ir.-Tur.el., M. Aslan, 3128, 3292, Th.

*Moltkia aurea* Boiss., Hasankeyf, perennial, 19.06.2007, V.  
Atamov, 14, 3151, Hk., Ir.-Tur. el., **endemic, LR**

*Myosotis ramosissima* Rochel ex Schultes subsp.

*ramosissima*, Hasankeyf, steppe, 650 m., annual, 19.06.2007,  
M. Aslan, 5, 5a, Th.

*Nonea caspica* (Willd.) G. Don, Hasankeyf, annual,  
18.05.2007, V. Atamov, 2265, 2265a, 2265b, Ir.-Tur. el., Th.

*N. pulla* (L.) DC. subsp. *scabriscquamata* A. Baytop,  
Hasankeyf, annual, 18.05.2007, V. Atamov, 26, 26a, 26b,  
26c, Ir.-Tur.el., Th.

*N. ventricosa* (Sm) Griseb., Hasankeyf,  
perennial, 18.05.2007, V. Atamov, 2231, Medit. el., Hk.

*Onosma bornmuelleri* Hausskn, Hasankeyf, perennial,  
18.05.2007, V. Atamov, 4, 4a, 4b, 4c, Ir.-Tur. el., **endemic,**

**LR**

*O. polioxanthum* Rech., Hasankeyf, in stream beds, 550,  
perennial, 23.04.2007, V. Atamov, 3076, Hk., Ir.-Tur. el.,

**endemic, LR**

*O. roussaei* DC., Hasankeyf, perennial, 18.05.2007,  
V. Atamov, 3051, Ir.-Tur. el., Hk., **endemic, LR**

*Symphytum kurdicum* Boiss & Hausskn, Hasankeyf,  
perennial, 18.05.2007, V. Atamov, 33, Ir.-Tur. el., Hk.

#### Solanaceae

*Capsicum annuum* L., Hasankeyf, annual, 14.06.2007, V.  
Atamov, 9, Th.

*Hyoscyamus albus* L., Hasankeyf, Tepebaşı Village, annual,  
22.06.2007, M. Aslan, 3015, 3268, 3243, Medit. el., Th.

*Lycium depressum* Stocks, Hasankeyf, in stream beds, 500  
m., perennial, 23.04.2007, M. Aslan, 3098, Ir.-Tur.el., Ph.

*Solanum nigrum* L. subsp. *schultesii* (Opiz) Wessely,  
Hasankeyf, Tepebaşı Village, annual, 22.06.2007, M. Aslan,  
2248, 3223, Th.

#### Scrophyllariaceae

*Paulownia tomentosa*, Sieb&Zucc Hasankeyf, perennial,  
18.05.2007, V. Atamov, 2235, Ph.

*Pseudolysimachion orchideum* (Crantz) T. Wraber,  
Hasankeyf, perennial, 18.05.2007, M. Aslan, 11, 11a, Hk.

*Russelia equisetiformis*, Hasankeyf, perennial, 18.05.2007,  
V. Atamov, 2236, Ph.

*Scrophularia striata* Boiss., Hasankeyf, in stream beds, 500  
m., perennial, 23.04.2007, M. Aslan, 2233, Ir.-Tur.el., Ch.

*S. umbrosa* Dum, Hasankeyf, 14.06.2007, perennial, V.  
Atamov, 3262, Euro.-Sib. el., Ch.

*Verbascum agrimoniifolium* (C. Koch) Hub.-Mor. subsp.  
*agrimoniifolium*, Hasankeyf, biennial, 18.05.2007, V.

Atamov, 3068, 3068a, 3068b, Th.

*V. lasianthum* Boiss. ex Bentham, Hasankeyf, steppe, 600  
m., biennial, 19.06.2007, M. Aslan, 3172, Th.

*V. sinuatum* L. var. *adenosepalum* Murb., Hasankeyf, in  
stream beds, 600 m., biennial, 19.06.2007, V. Atamov, 3159,  
E.Medit.el., Th.

*V. thapsus* L., Hasankeyf, in stream beds, 500 m., biennial,  
23.04.2007, V. Atamov, 2234, Euro.-Sib. el., Th.

*Veronica cymbalaria* Bodard, Hasankeyf, annual,  
18.05.2007, V. Atamov, 28, 29, 31, Medit.el., Th

*V. hederifolia* L., Hasankeyf, in stream beds, 500 m., annual,  
23.04.2007, E. Çetin, 3006, Th.

*V. polita* Fries, Hasankeyf, annual, 18.05.2007, V. Atamov,  
2, Th.

*V. reuterana* Boiss., Hasankeyf, 18.05.2007, annual, V.  
Atamov, 21, 43, 55, Ir.-Tur.el., Th.

#### Orobanchaceae

*Orobanche aegyptiaca* Pers., Hasankeyf, perennial,  
18.05.2007, V. Atamov, 2266, Ch.

*O. ramosa* L., Hasankeyf, perennial, 18.05.2007, V. Atamov,  
2102, 2102a, Ch.

#### Acanthaceae

*Acanthus dioscoridis* L. var. *dioscoridis*, Hasankeyf,  
Tepebaşı Village, perennial, 22.06.2007, V. Atamov, 3212,  
Ch.

#### Verbenaceae

*Verbena officinalis* L., Hasankeyf, perennial. 18.05.2007, V.  
Atamov, 2161, Hk.

#### Lamiaceae

*Ajuga chamaepitys* (L.) Schreber subsp. *laevigata* (Banks &  
Sol.) P.H. Davis, Hasankeyf, steppe 600 m., annual,  
19.06.2007, M. Aslan, 3285, 3285a, Ir.-Tur.el., Th.

*Ballota saxatilis* Sieber ex J.&C. Presl. subsp. *saxatilis*, Hasankeyf, Tepebaşı Village, perennial, 22.06.2007, V. Atamov, 2225, E. Medit. el., Hk.

*Galeopsis bifida* Boenn., Hasankeyf, Tepebaşı Village, annual, 22.06.2007 V. Atamov, 3250, Euro.-Sib. el., Th.

*Leonurus marrubiastrum* L., Hasankeyf, biennial, 18.05.2007, M. Aslan, 2228, Euro.-Sib. el. Th.

*Marrubium cuneatum* Russell., Hasankeyf, steppe, 600 m., perennial, 19.06.2007, 18.05.2007, V. Atamov, M. Aslan, 3160, 3160a, 3225, 3248, 3249, 80, 324, Ir.-Tur.el., Hk.

*Micromeria mollis* Benth., Hasankeyf, perennial, 18.05.2007, M. Aslan, 353, 353a, Ir.-Tur.el., Hk.

*Mentha longifolia* (L.) Hudson subsp. *typhoides* (Briq.) Harley var. *typhoides*., Hasankeyf, perennial, 18.05.2007, V. Atamov, 2226, Ch.

*Phlomis braguieri* Desf., Hasankeyf, perennial, 14.06.2007, V. Atamov, 3141, 3255, Ir.-Tur.el. Hk.

*Prunella vulgaris* L., Hasankeyf, perennial, 18.05.2007, M. Aslan, 2227, Euro.-Sib.el., Hk.

*Rosmarinus officinalis* L., Hasankeyf, perennial, 18.05.2007, V. Atamov, 2224, Medit.el., Ch.

*Stachys suffruticosa* Mentbret & Aucher., Hasankeyf, perennial, 18.05.2007, V. Atamov, Ch.

*Salvia palaestina* Benth., Hasankeyf, in stream beds, 600 m., perennial, 19.06.2007, M. Aslan, 3129, Ir.-Tur.el., Hk.

*Salvia syriaca* L., Hasankeyf, perennial, 18.05.2007, V. Atamov, 2222, Ir.-Tur.el., Hk.

*Sideritis libanotica* Labill. subsp. *kurdica* (Bornm.) Hub.-Mor., Hasankeyf, perennial, 18.05.2007, E. Çetin, 24, 31, 57, Ir.-Tur.el., Ch.

*S. montana* L. subsp. *montana*, Hasankeyf, annual, 18.05.2007, V. Atamov, 3048, 3048a, Medit.el., Th.

*S. syriaca* L., Hasankeyf, Tepebaşı village, 22.06.2007, V. Atamov, 32, 41, Th.

*Stachys longispicata* Boiss & Kotschy, Hasankeyf, steppe, 600 m, perennial, 19.06.2007, E. Çetin, 3132, 3226, 3244, Ir.-Tur.el., Hk.

*Teucrium chamaedrys* L. subsp. *sinuatum* (Celak.) Rech., Hasankeyf, steppe, 600 m., perennial, 19.06.2007 V. Atamov, 2223, Ir.-Tur.el., Hk.

*T. Multicaule* Montbret & Aucher Ex Benth., Hasankeyf, Tepebaşı Village, Perennial, 22.06.2007, V. Atamov, 3211, Ir.-Tur.El., Hk.

*T. Polium* L., Hasankeyf, Steppe, 600 M., Perennial, 19.06.2007, V. Atamov, 3136, 3203, 32065, Ch.

*Thymus Longicaulis* C. Presl Subsp. *Chaubardii* (Boiss & Heldr. Cx Reichb. Fil.) Jala. Var. *Chaubardii*, Hasankeyf, Steppe, 510 M. Perennial, 23.04.2007, M. Aslan, 3, 3a, 3b, 3c, 3059, Ch.

*T. Migricus* Klokov & Des.-Shost., Hasankeyf, Steppe Area, 510 M., Perennial, 23.04.2007, E.Çetin, 3065, Ir.-Tur.El., Ch.

*Ziziphora Capitata* L., Hasankeyf, Annual, 18.05.2007, V. Atamov, 51, 51a, Ir.-Tur.el., Th.

#### Plumbaginaceae

*Acantholimon acerosum* (Willd.) Boiss., var. *acerosum*, Hasankeyf, steppe, 600 m., perennial, 23.04.2007, V. Atamov, 3074, Ir.Tur.el., Ch.

#### Plantaginaceae

*Plantago major* L. subsp. *major*, Hasankeyf, in stream beds, 600 m., perennial, 19.06.2007, V. Atamov, 3236, Hk.

#### Thymelaeaceae

*Thymelaea Mesopotamica* (Jeffrey) Peterson, Hasankeyf, annual, 18.05.2007, V. Atamov, 42, Ir.Tur.el., Th.

#### Aristolochiaceae

*Aristolochia bottae* Joub. & Spach, Hasankeyf, in stream beds, 500 m., perennial, 18.05.2007, V. Atamov, 3217, Hk.

#### Euphorbiaceae

*Andrachne telephioides* L., Hasankeyf, Steppe area, 600m., perennial, 22.06.2007, E. Çetin, 3181, Hk.

*Chrozophora tinctoria* (L.) Rafin., Hasankeyf, Tepebaşı village, 560 m, annual, 19.06.2007, E. Çetin, 3208, Th.

*Euphorbia characias* L. subsp. *wulfenii* (Hoppe ex W. Koch.) A.R. Smith, Hasankeyf, Steppe area, 600m., perennial, 22.06.2007, E. Çetin, 3133, 3203, 3296, E.Medit.el., Hk.

*E. cyparissias* L., Hasankeyf, in stream beds, 310 m., perennial, 23.04.2007, E. Çetin, 3208, 3208a, 3208b, 3228, Euro.-Sib., Hk.

*E. falcata* L. subsp. *falcata* var. *falcata*, Hasankeyf, in stream beds, 600 m, annual, 14.06.2007, V. Atamov, 2238, Th.

*E. humifusa* Willd., Hasankeyf, in stream beds, 600 m, annual, 14.06.2007, V. Atamov, 2237, Th.

*E. lathyris* L., Hasankeyf, Steppe area, 600m., 22.06.2007, E. Çetin, 3188, 3259.

*E. macroclada* Boiss., Hasankeyf, Steppe area, 600 m., perennial, 22.06.2007, E. Çetin, 3224, Ir.-Tur.el., Hk.

*E. myrsinites* L., Hasankeyf, steppe, 600m., perennial, 22.06.2007, E. Çetin, 3183, 3227, Hk.

*E. peplis* L. var. *peplis*, Hasankeyf, in stream beds, 310 m., annual, 23.04.2007, E. Çetin, 3001, 3001a, 3001b, 3057, 3228, Medit. el., Th.

#### Urticaceae

*Parietaria judaica* L., Hasankeyf, perennial, 18.05.2007, V. Atamov, 21, 29, 74, 19, 61, 3023, 3044, Ch.

*Urtica dioica* L., Hasankeyf, perennial, 18.05.2007, V. Atamov, 2221, Euro.-Sib. el., Ch.

*U. pilulifera* L., Hasankeyf, annual, 18.05.2007, V. Atamov, 7, 15, 3037, Medit el., Th.

*U. urens* L., Hasankeyf, 18.05.2007, annual, V. Atamov, 35, 37, 38, Th.

#### Moraceae

*Ficus carica* L. subsp. *rupestris* (Hauskn) Browicz, Hasankeyf, in stream beds, 510 m, perennial, 23.04.2007, E.Çetin, 2254, Ir.-Tur.el., Ph.

*F. carica* L. subsp. *carica* var. *rapistrum*, Hasankeyf, in stream beds, 510 m, perennial, 23.04.2007, E.Çetin, 3158, 3159, 3186, Ph.

*Morus nigra* L., Hasankeyf, in stream beds, 510 m, perennial, 23.04.2007, E.Çetin, 8, 3039, 3047, Ph.

*M. alba* L., Hasankeyf, in stream beds, 510 m, perennial, 23.04.2007, E.Çetin, 3054, Ph.

#### Ulmaceae

*Celtis australis* L., Hasankeyf, perennial, 18.05.2007, M. Aslan, 2261, Medit.el., Ph.

*C. tournefortii* Lam., Hasankeyf, perennial, 18.05.2007, V. Atamov, 41, Ph.

#### Fagaceae

*Quercus brantii* Lindley., Hasankeyf, perennial, 14.06.2007, V. Atamov, 3150, 3157, 3247, 3256, Ph.

### Salicaceae

*Populus euphratica* Oliv., Hasankeyf, in stream beds, 500 m., perennial, 19.06.2007, E. Çetin, 3163, 3164, Ph.  
*P. nigra* L. subsp. *caudina* (Ten.) Bugala., Hasankeyf, Tepebaşı Village, perennial, 22.06.2007, E. Çetin, 3249, Ph.  
*Salix triandria* L. subsp. *bornmulleri* (Hauskn.) A. Skv., Hasankeyf, perennial, 18.05.2007, V. Atamov, 2250, 3166, 3167, Ph.

### Rubiaceae

*Crucianella kurdistanica* Malinovsky, Hasankeyf, steppe area, 600m., annual, 18.06.2007, E. Çetin, 32, Ir.-Tur.el., VU  
*C. latifolia* L., Hasankeyf, steppe, 600 m. annual, 18.05.2007, V. Atamov, 3218, Th.  
*Galium humifusum* (Willd.) Stapf., Hasankeyf, in stream beds, 500 m., perennial, 23.05.2007, V. Atamov, 3036, 3036a, 3036b, 3036c, 3008, 3294, Hk.  
*G. murale* (L.) All., Hasankeyf, steppe, 650 m., annual, 18.05.2007, V. Atamov, 2267, Medit.el., Th  
*G. nigricans* Boiss., Hasankeyf, steppe, annual, 600m., 18.06.2007, E. Çetin, 9,9a, 9b, Ir.-Tur.el., Th

### LILIOPSIDA (MONOCOTYLEDONES)

#### Liliaceae

*Allium neapolitanum* Cyr., Hasankeyf Tepebaşı village, perennial, 22.06.2007, V. Atamov, M. Aslan, 3219, Medit el.,  
*A. trachycolum* Wendelbo., Hasankeyf, steppe area, perennial, 19.06.2007, E. Çetin, 2103, Ir.-Tur.el., Ch.  
*Muscari comosum* (L.) Miller., Hasankeyf, perennial, 18.05.2007, V. Atamov, 2104, Medit el. Ch

#### Juncaceae

*Juncus effusus* L., Hasankeyf, Tepebaşı village, perennial, 22.06.2007, V. Atamov, 3239, Ch.

#### Cyperaceae

*Cyperus longus* L., Hasankeyf, in stream beds, 600 m, perennial, 14.06.2007, V. Atamov, 3204, Hk.  
*C. rotundus* L., Hasankeyf, in stream beds, 600 m, perennial, 14.06.2007, V. Atamov, 2268, Hk.

#### Poaceae

*Aegilops Biuncialis* Vis., Hasankeyf, Roadside, Annual, 19.06.2007, M. Aslan, 2148, Th.  
*A. Crassa* Boiss. Subsp. *Crassa*, Hasankeyf, İn Stream Beds, 600 M., Annual, 19.06.2007, V. Atamov, E. Çetin, 8, Ir.-Tur.El., Th.  
*A. Cylindrica* Host., Hasankeyf, Steppe, 600 M, Annual, 19.06.2007, M. Aslan, 3144, 3180, 3279, Ir.-Tur.El., Th.  
*A. Speltoides* Tausch Var. *Ligustica* (Savignone) Bornm., Hasankeyf, Annual, 19.06.2007, M. Aslan, 2146, Th.  
*A. Speltoides* Tausch Var. *Speltoides*, Hasankeyf, Annual, 19.06.2007, M. Aslan, 3178, Th.  
*A. Triuncialis* L., Hasankeyf, Roadside, Annual, 19.06.2007, M. Aslan, 2147, Th.  
*A. Umbellulata* Zhvkavsky Subsp. *Umbellulata*, Hasankeyf, Steppe, 600 M., Annual, 19.06.2007, V. Atamov, 3296, Ir.-Tur.El., Th.  
*Alopecurus Geniculatus* L., Hasankeyf, Perennial, 18.05.2007, V. Atamov, E. Çetin, 2153, Hk.

*A. Aequalis* Sobol., Hasankeyf, Roadside, Annual, 18.05.2007, V. Atamov, 36, 44, 44a, Euro.-Sib. El., Th.  
*Avena Barbata* Pott Ex Link. Subsp. *Barbata*, Hasankeyf, Annual, 18.05.2007, V. Atamov, 2150, Medit El., Th.  
*A. Eriantha* Durieu., Hasankeyf, Annual, 14.06.2007, V. Atamov, 3240, Th.  
*A. sterilis* L. subps. *sterilis*, Hasankeyf, annual, 18.05.2007, V. Atamov, 2151, Th.  
*Bromus diandrus* Roth., Hasankeyf, annual, 18.05.2007, V. Atamov, 20, 3189, 3189a, b, c., Th.  
*B. madritensis* L., Hasankeyf, annual, 18.05.2007, V. Atamov, 33, 3007, 3003, 3033, Th.  
*B. sterilis* L., Hasankeyf, annual, 18.05.2007, V. Atamov, 77, Th.  
*B. tectorum* L., Hasankeyf, annual, 18.05.2007, V. Atamov, 3203, Th.  
*B. rigidus* Roth., Hasankeyf, annual, 18.05.2007, V. Atamov, 28, Th.  
*B. squarrosus* L., Hasankeyf, steppe area, 650 m., annual, 19.06.2007, V. Atamov, 3212, Th.  
*B. scoparius* L., Hasankeyf, steppe area, 650 m., annual, 19.06.2007, V. Atamov, 17, Th.  
*B. japonicus* Thunb. subsp. *japonicus*, Hasankeyf, annual, 18.05.2007, M. Aslan, 2149, Th.  
*Brachypodium sylvaticum* (Hudson) P. Beauv., Hasankeyf, perennial, 18.05.2007, V. Atamov, 3136, Euro.-Sib.el., Hk.  
*Briza humilis* Bieb., Hasankeyf, annual, 18.05.2007, E. Çetin, 12, 54, 70, 70a, Th.  
*Bothriochloa ischaemum* (L.) Keng., Hasankeyf, Tepebaşı village, perennial, 22.06.2007, V. Atamov, 3234, Hk.  
*Cynodon dactylon* (L.) Pers. var. *villosus* Reql, Hasankeyf, perennial, 18.05.2007, E. Çetin, 2156, Hk.  
*Colpodium versicolor* (Steven) Schmalh., Hasankeyf, perennial, 18.05.2007, V. Atamov, 2138, Ir.-Tur.el., Hk.  
*Dactylis glomerata* L. subsp. *hispanica* (Roth.) Numan., Hasankeyf, steppe, 600 m., perennial, 19.06.2007, M. Aslan, V. Atamov, 3230, Hk.  
*Elymus hispidus* (Opiz) Melderis subsp. *barbulatus* (Schur) Melderis., Hasankeyf, roadside, steppe, 600 m., perennial, 19.06.2007, V. Atamov, 3147, 2145, Hk.  
*Eremopyrum triticum* (Gaertner) Nevski, Hasankeyf, roadside, 600 m., annual, 19.06.2007, M. Aslan, 41, Th.  
*Echinaria capitata* (L.) Desf., Hasankeyf, annual, 14.06.2007, V. Atamov, E. Çetin, 3115, a, Th.  
*Hordeum distichon* L., Hasankeyf, annual, 14.06.2007, V. Atamov, 2133, 2133a, b, c, Th.  
*H. murinum* L. subsp. *glaucum* (Stuedel) Tzvelev, Hasankeyf, in stream beds, 600 m, annual, 18.05.2007, 19.06.2007, M. Aslan, V. Atamov, 3198, 3198a, b, c, Th.  
*H. murinum* L. subsp. *leporinum* (Link.) Arc. var. *leporinum*, Hasankeyf, annual, 18.05.2007, M. Aslan, 3279, Th.  
*H. spontaneum* C. Koch, Hasankeyf, annual, 18.05.2007, V. Atamov, 43, 43a, b, c, Th.  
*Imperata cylindrica* (L.) Raeuschel., Hasankeyf, Tepebaşı village, perennial, 18.05.2007, V. Atamov, 2139, 2139a, Hk.  
*Lolium perenne* L., Hasankeyf, steppe, 600 m., perennial, 19.06.2007, V. Atamov, M. Aslan, 2142, Hk.  
*L. rigidum* Gaudin var. *rigidum*, Hasankeyf, steppe, 600 m., annual, 19.06.2007, V. Atamov, M. Aslan, 2143, 2143a, Th.  
*L. temulentum* L. var. *temulentum*, Hasankeyf, steppe, 600 m., annual, 19.06.2007, V. Atamov, M. Aslan, 2144, Th.  
*Melica ciliata* (L.) Desf. subsp. *ciliata*, Hasankeyf, Tepebaşı village, annual, 22.06.2007, V. Atamov, 3229, 3260, Th.  
*Poa annua* L., Hasankeyf, annual, 18.05.2007, V. Atamov, 34, Th.  
*P. bulbosa* L., Hasankeyf, perennial, 18.05.2007, V. Atamov, E. Çetin, 68, 71, Hk.  
*P. pratensis* L., Hasankeyf, in stream beds, 500 m., perennial, 23.04.2007, M. Aslan, V. Atamov, 3060, Hk.

*P. trivalis* L., Hasankeyf, perennial, 18.05.2007, V. Atamov, 3137,3137a,b,c, Hk.  
*Phalaris brachystachys* Link., Hasankeyf, annual, 18.05.2007, V. Atamov, 2152, Medit el., Th.  
*Phleum phleoides* (L.) Karsten., Hasankeyf, perennial, 18.05.2007, V. Atamov, 2154, Euro-Sib. el., Hk.  
*P. boissieri* Bormm., Hasankeyf, roadside, annual, 18.05.2007, V. Atamov, 2155, Ir.-Tur.el., Th.  
*Phragmites australis* (Cav.) Trin. ex Steudel., Hasankeyf,perennial, 14.06.2007,V. Atamov, 3272, Ch.  
*Piptatherum miliaceum* (L.) Cosson subsp. *thomasi* (Duby) Freitag., Hasankeyf, steppe, 600 m., perennial,14.06.2007, V. Atamov, 3222, 3265, Hk.  
*Secale cereale* L. var. *vavilovii* (Grossh.) Mayss., Hasankeyf, roadside, 600 m., biennial, 14.06.2007,V. Atamov, 3291, Th.

*S. montanum* Guss., Hasankeyf, in stream beds,510 m.,perennial,23.04.2007,V. Atamov, 3043, Hk.  
*Setaria italica* (L.) P. Beauv., Hasankeyf, in stream beds, 510 m., annual, 23.04.2007, E. Çetin, 3056, Th.  
*Sorghum halepense* (L.) Pers. var. *halepense*, Hasankeyf, Tepebaşı village, perennial, 22.06.2007, V. Atamov, 3235, 3235a, Hk.  
*Triticum aestivum* L., Hasankeyf, Tepebaşı village, annual,14.06.2007, V. Atamov, 2134, Th.  
*T. durum* Desf., Hasankeyf, Tepebaşı village, annual, 14.06.2007, V. Atamov, 2135, Th.  
*T. turgidum* L.,Hasankeyf, roadside, 600 m.,annual,19.06.2007, M. Aslan,3190, Th.  
*Vulpia persica* (Boiss. & Buhse) V. Krecz. & Bobrov., Hasankeyf, perennial, 18.05.2007, V. Atamov, 2140, Ir.-Tur. el., Hk.

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