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Necattin TÜRKMEN

Atabay DÜZENLİ

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Research Article

The Flora of Dörtyol and Erzin Districts of Hatay Province in Turkey

Necattin TÜRKMEN, Atabay DÜZENLİ
Çukurova University, Faculty of Science and Arts, Department of Biology, Adana-TURKEY

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Abstract: The plants listed in this study were collected in the districts of Dörtyol and Erzin (Hatay) between 1989 and 1992. The study area, situated at the middle of Amanos Mountains, has a climate typical of its topographic structure and geographical position in the Mediterranean region. During floristic studies, 629 vascular plant taxa, belonging to 328 genera and 98 families were determined. The distribution of these taxa according to phytogeographic regions are as follows: 29.9% Mediterranean, 10.3% Euro-Siberian, 5.8% Irano-Turanian and 54.0% cosmopolitan and unknown. The number of endemic taxa are 47 (15 of them is local endemic) and the endemism rate is 7.5%.

Key Words: Flora, Amanos Mountains, Phytogeographical Region.

Dörtyol - Erzin (Hatay) Florası

Özet: Bu Çalışmada verilen bitkiler 1989-1992 yılları arasında Dörtyol-Erzin (Hatay)'den toplanmıştır. Toros sıradağlarının güneye doğru bir uzantısı olan Amanos dağlarının orta bölümünde yer alan araştırma alanı coğrafik konumu ve topoğrafik yapısıdan kaynaklanan tipik bir iklime sahiptir. Çalışmalar sonucu bölgede 98 familya ve 328 cinse ait 629 vasküler bitki taksonu belirlenmiştir. Bu taksonların fitocoğrafik bölgelere dağılımları şöyledir: Akdeniz %29.9, Avrupa-Sibirya %10.3, İran Turan %5.8, Çok bölgeli ve bilinmeyenler %54.0'dir. Endemiklerin toplam sayısı 47 (15'i yöresel) olup endemizm oranı %7.5'dir.

Anahtar Sözcükler: Flora, Amanos Dağları, Fitocoğrafik Bölge.

Introduction

The study area (the districts of Dörtyol and Erzin in Hatay) which comprises 86 256 ha. lies on the western slopes of the Amanos Mountains. This area is bordered by the Mediterranean Sea to the west, the district of Osmaniye (Adana) to the north, the district of Hassa (Hatay) to the east and the district of İskenderun (Hatay) to the south. The study area, one the water retaining basins in Turkey, is known as "Dörtyol Deliçay Basin" (1). The research area falls within C6 of the grid system adopted by Davis (2) (Fig 1).

The altitude of the area increases from to 2240 m from west to east. The altitude of Mığır Tepe is 2240 m., which is the highest point in the area. The Erzin, Özerli, Deliçay and Payas streams, which originate in the research area, flow to İskenderun Gulf (1).

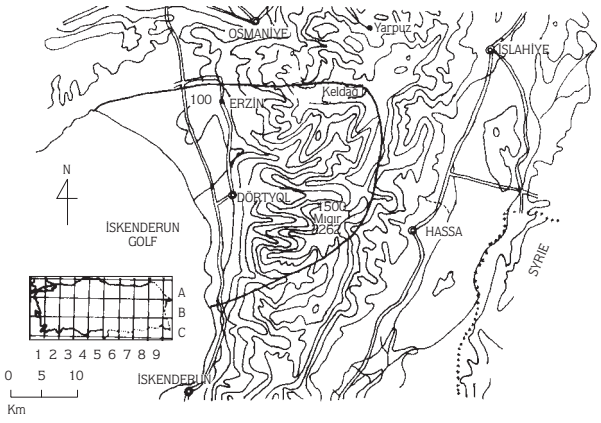


Fig. 1. Location of the Study Area.

The slopes of the area generally face the west and southwest. The topographic structure is very steep and broken.

The geological structure of the area is formed from Mesozoic and Cretaceous limestones, Upper Cretaceous ultra-basic rocks (Gabro and Serpentine) and Tertiary marls. The plains in the area consist of Quaternary alluvial materials (3).

Common soil formations distinguished in the area are as follows: Brown *Calcarousless* soils, Brown Forest soils, Terrarosa soils, Reddish - Brown Mediterranean soils, Colluvial soils and mixed land types (3).

The study area has a Mediterranean climate, the main characteristics of which are drought and both summers and rainy and temperature winters. The annual precipication varies from 1019 to 1500 mm., depending on the altitude and type of hills. The seasonal precipitation regime during the year is as follows: Winter, Spring, Autumn, and Summer. This is a typical first variant of the East Mediterranean climate. Snowfall rarely occurs except on the higher ground above 1000 m from the beginning of December until the end of March. In the study area, the annual mean temperature is 19.1 ºC. The maximum mean temperature (M) is 32.2ºC, August. The minimum mean temperature (m) is 6.8 ºC, in January. The ombro thermic diagram of the study area was prepared according to climate data (4) obtained from Dörtyol Meteorological Station (Fig. 2).

According to Emberger, the precipitation-temperature coefficient (Q2= 137, m = 6.8) indicates a Mediterranean climate with humid and hot weather.

The study area lies within the Mediterranean phytogeographical region. Three main vegetation types can be distinguished in the study area:

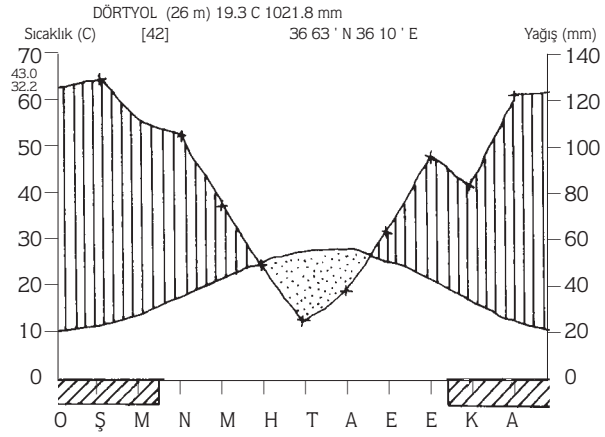


Figure 2. Ombrothermic Diagram of Dörtyol.

1. Macchie vegetation, from 50 to 600 m., consists of evergreen shrubs. Common species include *Quercus coccifera* L. *(Fagaceae), Erica manipuliflora* Salibs. *(Ericaceae), Rhamnus punctatus* Boiss. var. *angustifolius* Post *(Rhamnaceae), Pistacia terebinthus* L. subsp. *palaestina* (Boiss) Engler *(Anacardiaceae), Cotinus coggyrea* Scop. *(Anacardiaceae), Phyllyrea latifolia* L. subsp. *orientalis* Sebst. *(Oleceae), Myrtus communis* L. subsp. *communis (Myrtaceae), Arbutus andrachne* L. *(Ericaceae), Styrax officinalis* L. *(Styracaeae), Calicotome villosa* (Poiret) Link *(Leguminosae)* and *Cistus creticus* L. *(Cistaceae).*

2. Forest vegetation, from 350 to 1900 m., occupies different zones depending on local climate conditions, altitude and position. Tekkoz and Kengerlidüz in this belt have designated "Special Protected Areas" by the Turkish Ministry of Forestry. The common tree species in this belt are as follows: *Fagus orientalis* Lipsky. *(Fagaceae), Pinus brutia* Ten. *(Pinaceae), Quercus cerris* L. var. *cerris (Fagaceae), Pinus nigra* Arnold. subsp. *pallasiana* (Lamb.) Holmb. *(Pinaceae), Carpinus orientalis* Miller *(Corylaceae), Cedrus libani* A. Rich. *(Pinaceae)* and *Abies cilicica* (Anto. et Kotschy), Carr. *(Pinaceae).*

3. Steppe vegetation is mostly found just above the timberline at 1900 m. The dominant species of this plant belt are as follows: *Acantholimon libanoticum* Boiss. *(Plumbaginaceae), Marrubium globosum* Mont. et Auch. ex Benth. subsp. *glubosum (Labiatae), Astragalus macrourus* Fisch. et Mey. *(Leguminosae), Ferula elaeochytris* Korovin *(Umbelliferae), Rosa pulverulenta* Bieb. *(Rosaceae), Cerasus prostrata* (Lab.) Ser. var. *prostrata (Rosaceae), Cotoneaster nummularia* Fisch. et Mey. *(Rosaceae), Vincetoxicum tmoleum* Boiss. *(Ascalepiadaceae), Asperula stricta* Boiss. susbsp. *monticola* Ehrend. *(Rubiaceae), Thymus kotschyanus* Boiss. & Hohen var. *glabrescens* Boiss. *(Labiatae), Verbascum amanum* Boiss. *(Scrophulariaceae), Asphodelina damascena* (Boiss.) Baker subsp. *damascena (Liliaceae), Echinops ritro* L. *(Compositae)* and *Eremurus spectabilis* Bieb. *(Liliaceae).*

The study area has not been subjected to detailed floristic study before but has been studied phytosociologically as part of the Amanos Mountains in 1967 by Akman (3).

Materials and Methods

The materials of this investigation were comprised 629 plant specimens collected in Dörtyol and Erzin (Hatay Province) in the Amanos Mountains during a

study of postfire regeneration in *Pinus brutia* forest ecosystems by Türkmen. All the plant specimens were identified according to the Flora of Turkey (2,5). All the herbarium specimens are kept at the Herbarium at the Science and Arts Faculty of Çukurova University (ADA). The list of plant taxa follows the sequence of families, genera and species adopted in Flora of Turkey (2). The flora is listed in the appendix. After the name of every species in the list, the geographical location (the area lies entirely within "C6 Hatay", which is been omitted from the citation), habitat, collection date, phytogeographical region and collection number are stated. An asterisk (*) in front of a plant name indicates a new record for the C6 grid square.

The abbreviations used are as follows: Med. = Mediterranean element, Euro-Sib. = Euro-Siberian element, Ir. - Tur. = Irano - Turanian element, Comsm. = Cosmopolitan and End. = Endemic species.

Discussion and Conclusion

During the floristic studies of the districts of Dörtyol and Erzin in the province of Hatay, carried out between 1989 and 1992, a total of 629 vascular plant taxa belonging to 328 genera and 98 families were recorded. The distribution of plant taxa according to phytogeographical regions is as follows: Mediterranean, 188 (29.9%); Euro-Siberian, 65 (10.3 %); Irano-Turanian, 37 (5.8%); Cosmopolitan and unknown, 340 (54.0%). The number of total endemic taxa is 47 and nearly one out of three of these (15 taxa) is peculiar to the study area (Amanos Mountains). Most of the phytogeographical elements are naturally of Mediterranean origin as a result of the area being situated in the Mediterranean region. The fact that the ratio of Euro-Siberian elements is rather high, these taxa having migrated south by means of the Anatolian Diagonal in the Ice Age of the Pleistocene Age, reveals the humid climatic conditions in study area (6).

The comparison of the distribution of phytogeographical elements in the study area and neighbouring regions is as follows:

Floristic Region	Present Study	Akman (1973)	Düzenli (1990)	Türkmen (1989)
Mediterranean	29.9	65.0	42.6	36.4
Euro-Siberian	10.3	7.0	1.6	2.6
Irano-Turanian	5.8	2.5	2.2	3.1
Cosmopolitan and Unknown	54.0	25.5	54.4	56.9
Endemic	7.5	3.0	2.2	4.8

Our results are similar to those of Akman (3), among others (7,8). Both studies were carried out in similar climatic, edaphic and orographic conditions. The fact that the proportion of Mediterranean elements in Akman's study is greater than in ours can be attributed to his acceptance than most of the plant species he collected were adapted to the Mediterranean climate. Although the study areas of Türkmen (7) and Düzenli (8) are within the Mediterranean region, the proportion of Euro-Siberian elements in their studies shows great deviation compared to ours due to different climatic and orographic conditions.

On the northern slopes of Mığır Mountain *Fagus orientalis* formations, which are widespread especially in the Euro-Siberian floristic region of Turkey, constitute a large community on the intrusive bedrock at 1 600 to 1900 m. From a phytosociological perspective, this is a very interesting Euro-Siberian exclave in the area . The presence of *Fagus orientalis* in the study area may be due to local microlima in the study area, the existence of many small streams, the İskenderun Gulf, the orographic precipitation and foggy days, which make the humidity rather higher than in other Mediterranean regions.

The families representing the highest number of species are *Leguminosae,* 77 (12.2%); *Compositae,* 67 (10.7%); *Gramineae,* 44 (7.0%); *Labiatae,* 38 (6.0%); Cruciferae, 30 (4.8%); *Liliaceae,* 29 (4.6%); *Rosaceae,* 25 (4.0%); *Scrophulariaceae,* 21 (3.3%); *Umbelliferae,* 20 (3.2) and *Caryophyllaceae,* 20 (3.2%).

The genera with the highest number of species are *Trifolium* L. 13, *Astragalus* L. 8, Vicia L. 8, *Verbascum* L. 7, *Silene* L. 7, *Euphorbia* L. 7, *Thlaspi* L. 7, *Alyssum* L. 6, *Galium* L. 6 and *Hypericum* L.

After careful studies of the relevant papers on this district (9, 10, 11), a total of 42 (6.7%) can be stated as being new records for the C6 square (12).

Silene flavescens Waldst. & Kit. (*Caryophyllaceae),* has been reported Banat (Jugoslavia), and is distributed in the Balkans, Bulgaria, Romania and Hungary but has only been recorded on Lesvos Island in Flora of Turkey (2). With this study, it is now confirmed within mainland Turkey.

References

1. Dörtyol Deliçay Havzası Etüdü ve Avam Projesi. Orman Bakanlığı Orm. Gen. Müd., AGM Makro Plan Çalışmaları-495 (1981).
2. Davis, P.H.,ed., Flora of Turkey and The East Aegean Islands. vol. 1-9, Edinburgh Univ. Press, Edinburgh (1965-1985).
3. Akman, Y., Contribution A L'Etude De La Flore Les Montagnes De L'Amanus (I,II,III). Communications De La Faculte Des Sciences De L'Universite D'Ankara, Serie C, 1-164 (1973).
4. Ekstrem Sıcaklık ve Yağış Değerleri. Meteoroloji Bülteni, Meteor. Gen. Müd. Yayını, Ankara 1984).
5. Davis, P.H., Mill, R.R., Tan, K., (eds.), Flora of Turkey and East Aegean Islands. 10, (Supplement), University Press Edinburgh (1988).
6. Davis, P.H., Harper, P.C., Hedge, I.C., Distribution Patterns in Anatolia with Particular Reference to Endemizm. Plant Life SW Asia, 15-27, Edinburgh (1971).
7. Türkmen, N., Düzenli, A., Çukurova Üniversitesi Kampus Alanının Doğal Bitkileri, Hayat Formları ve Habitatları. Y. Lisans Tezi, Ç.Ü.Fen Bil. Enst., Fen ve Müh. Bil. Dergisi, 3, 151-163 (1989).
8. Düzenli, A., Türkmen, N., Çakan, H., Çukurova Bölgesindeki Maki Vejetasyonunun Floristik Özellikleri. X. Ulusal Biyoloji Kongresi, Erzurum, 18-20 Temmuz 1990, Botanik Bildirileri Kitabı, 2, 243-255 (1990).
9. Donner, J., Distribution Maps to P.H.Davis, Flora of Turkey, 1-10. Linzer Biol. Beitr. 22/2, 381-515 (1990).
10. Duman, H., Vural, M., C6 Kares İçin Yeni Floristik Kayıtlar. Doga-Tr. J. of Botany, 15, 201-213 (1991).
11. Yıldız, B., C6 Karesi İçin Yeni Kayıtlar. Cumhuriyet Üniv., Fen-Edb. Fak. Fen Bil. Derg. 2, Sivas (1984).
12. Türkmen, N., Düzenli, A., New Floristic Records for Square C6 (Hatay). Ot Sist. Botanik Derg., 2, 1, 111-116 (1995).

APPENDIX

THE PLANT LIST

PTERIDOPHYTA

EQUISETACEAE

*Equisetum palustre L.

Dörtyol, around Çökek, streamside, 550 m, 8.5.1992, Türkmen 428.

ADIANTACEAE

Adiantum capillis-veneris L.

Dörtyol, around Çökek, Rillside, 650 m, 8.5.1990, Türkmen 416.

HYPOLEPIDACEAE

Pteridium aquilinum (L.) Kuhn

Dörtyol, around Topaktaş Q.cerris forest, 1070 m,26.6.1989, Türkmen 425.

ASPLENIACEAE

Asplenium trichomanes L.

Dörtyol, between Mışmış and Gücük, roadside, 1350 m, 4.6.1990, Türkmen 421.

A. adiantum-nigrum L.

Erzin, east of Başlamış Village, Rillside, 800 m, 27.12.1990, Türkmen 420.

Ceterach officinarum DC.

Dörtyol, streamside, 650 m, 8.5.1990, Türkmen 422.

Phyllitis sclopenendrium (L.) Newm.

Dörtyol, around Ciğersiz spring, mixed forest, wet areas,1050 m, 27.12.1991, Türkmen 423.

ATHYRIACEAE

Athyrium filix-foemina (L.) Roth.

Dörtyol, around Topaktaş roadside, 1550 m, 28.9.1990, Türkmen 424.

ASPIDIACEAE

Polystichum setiferum (Forssk.) Woynar.

Dörtyol, around Kapulu, roadside, 1080 m, 29.5.1991, Türkmen 419.

Dryopteris filix-mas (L.) Schott.

Erzin, top slopes of Keldağ, rocky areas, 2100 m, 27.8.1991, Türkmen 417.

D. pallida (Bory) Fomin.

Erzin, top slopes of Keldağ, rocky areas, 2100 m, 27.8.1991, Med. Türkmen 418.

POLYPODIACEAE

Polypodium vulgare L. subsp. vulgare

Dörtyol, around Tekkoz, mixed forest, Hillside, 800 m, 24.4.1989, Türkmen 427.

P. australe Feé.

Erzin, east of Başlamış Village, Hillside, 800 m, 27.12.1990, Türkmen 426.

SPERMATOPHYTA

GYMNOSPERMAE

PINACEAE

Abies cilicica (Ant.& Kotschy) Carr. subsp. cilicica

Dörtyol, around Akelma, F. orientalis forest, 1550 m, 31.5.1990, Med., Türkmen 431.

Cedrus libani A.Rich.

Dörtyol, around Karagöz, mixed forest, 1650 m, 31.5.1990, Med., Türkmen 432.

Pinus nigra Arnold. subsp. pallasiana (Lamb.) Holmboe

Erzin, around Kengerlidüz, mixed forest, 1700 m, 11.9.1989, Türkmen 434.

P. brutia Ten.

Erzin, east of Başlamış Village, P. brutia forest, 650 m, 5.4.1990, Türkmen 433.

TAXACEAE

Taxus baccata L.

Dörtyol, around Karagöz, degraded forest, 1700 m, 29.5.1991, Türkmen 435.

CUPRESSACEAE

Juniperus oxycedrus L. subsp. oxycedrus

Erzin, top slopes of Keldağ, stony areas, 2100 m, 28.6.1990, Türkmen 429.

EPHEDRACEAE

Ephedra campylopoda C.A.Meyer

Dörtyol, streamside, 20 m, 27.9.1990, Türkmen 430.

ANGIOSPERMAE

DICOTYLEDONES

RANUNCULACEAE

Clematis vitalba L.

Erzin, around İçme, streamside, 300 m, 31.8.1990, Türkmen 825.

C. flammula L.

Betveen Dörtyol and Erzin, degraded macchie, 150 m, 3.6.1990, Med., Türkmen 824.

Adonis annua L.

Between Dörtyol and Erzin, onion field, 150 m, 3.6.1990, Türkmen 823.

Ranunculus cuneatus Boiss.

Dörtyol, around Karagöz, steppe, 1660 m, 31.5.1990, Türkmen 827.

R. chius DC.

Dörtyol, around Çökek, stremside, 850 m, 8.5.1990, Türkmen 826.

Thalictrum orientale Boiss.

Dörtyol, betveen Mışmış and Gücük, mixed forest roadside,1200 m, 4.6.1990, Med., Türkmen 828.

PAEONIACEAE

Paeonia mascula (L.) Miller subsp. **mascula**

Dörtyol, around Kırıkelma, F.orientalis forest, 1500 m, 30.5.1991, Türkmen 793.

141**PAPAVERACEAE**

Papaver rhoeas L.

Erzin, east of Başlamış Village, macchie, 450 m, 4.5.1990, Türkmen 796.

P. syriacum Boiss. & Blanche

Erzin, east of Başlamış Village, P. brutia forest roadside, 500 m, 30.5.1990, Türkmen 797.

Hypecoum procumbens L.

Erzin, around İçme, degraded macchie, 300 m, 2.4.1992, Med., Türkmen 795.

Corydalis rutifolia (Sibth.& Sm.) DC. subsp. **erdelii** (Zucc.) Cullen & Davis

Dörtyol, top slopes of Mığır, stony areas, 1800-2100 m, 4.6.1992, Türkmen 794.

CRUCIFERAE (BRASSICACEAE)

Raphanus raphanistrum L.

Dörtyol, garden border, 70 m, 7.5.1990, Türkmen 603.

Cardaria draba (L.) Desv. subsp. **draba**

Dörtyol, around Karagöz, steppe, 1660m, 31.5.1990, Türkmen 596.

Isatis candolleana Boiss.

Dörtyol, around Kirmenkaya, Q.cerris forest, 1720m, 31.5.1990, Ir.-Tur., End., Türkmen 601.

Iberis taurica DC.

Dörtyol, around Kirmenkaya, roadside, 1720 m, 31.5.1990, Türkmen 600.

***I. spruneri** Jord.

Erzin, around İçme, degraded macchie, 300 m, 2.4.1990, Med., Türkmen 599.

Aethionema capitatum Boiss. & Ball.

Erzin, top slopes of Keldağ, stony areas, 2000 m, 28.6.1990, End., Türkmen 585.

Thlaspi kotschyanum Boiss. & Hohen.

Dörtyol, around Karamezla, F. orientalis forest, 1750 m, 30.5.1991, Türkmen 609.

T. violascens Boiss.

Erzin, around İçme, macchie, 400 m, 28.5.1991, End., Türkmen 612.

T. annuun Koch

Erzin, east of Başlamış Village, P. brutia forest roadside, 700 m, 28.3.1991, Türkmen 606.

T. densiflorum Boiss. et Kotschy

Dörtyol, around Karamezla, F. orientalis forest, 1750 m, 30.5.1991, End., Türkmen 607.

***T. praeocox** Wulf

Dörtyol, between Mışmış and Gücük, clearing of F.orientalis forest, 1350 m, 4.6.1990, Euro-Sib., Türkmen 611.

T. elegans Boiss.

Erzin, around Tekkoz, mixed forest roadside, 900 m, 31.5.1991, Med., End., Türkmen 608.

T. oxyceras (Boiss.) Hedge

Erzin, around Tekkoz, mixed forest roadside, 950 m, 31.5.1991, Türkmen 610.

Capsella bursa-pastoris (L.) Medik.

Erzin, around Karaoluk, clearing of F. orientalis forest, 1300 m, 26.6.1989, Türkmen 595.

Neslia apiculata Fisch.

Erzin, around Karaoluk, clearing of F. orientalis forest, 1300 m, 26.6.1989, Türkmen 602.

Ricotia sinuata Boiss. & Heldr.

Dörtyol, around Çökek, P. brutia forest, 850 m, 8.5.1990, Med., End., Türkmen 604.

Alyssum desertorum Stapf. var. **prostratum** Dudley

Erzin, top slopes of Keldağ, stony areas, 2000 m, 28.6.1990, Türkmen 588.

A. strigosum Banks & Sol. subsp. **strigosum**

Erzin, around İçme, macchie, 300 m, 2.4.1990, Türkmen 591.

A. condensatum Boiss. & Hauss. subsp. **flexibile** (Nyar) Dudley

Erzin, top slopes of Keldağ, 1700-2100 m, 28.6.1990, End., Türkmen 587.

A. murale Waldst. & Kit. var. **haradjianii** (Rech.) Dudley

Dörtyol, streamside, 30 m, 2.8.1990, End., Türkmen 589.

A. cassium Boiss.

Erzin, around Kengerlidüz, steppe, 1650-2000 m, 28.6.1990, Med., Türkmen 586.

A. samariferum Boiss. & Hsusskn.

Erzin, top slopes of Keldağ, stony areas, 1800-2100 m, 27.8.1991, Türkmen 590.

Arabis turrita L.

Between Dörtyol and Erzin, clearing of F. orientalis ferest, 1350 m, 4.6.1990, Türkmen 594.

A. caucasica Willd. subsp. **caucasica**

Erzin, around Tekkoz, mixed forest roadside, 900 m, 31.5.1991, Türkmen 593.

A. caucasica Willd. subsp. **brevifolia** (DC.) Cullen

Erzin, top slopes of Keldağ, stony areas, 2100 m, 28.6.1990, Med., Türkmen 592.

Turritis glabra L.

Dörtyol, between Mışmış and Gücük, F. orientalis forest, 1350 m, 4.6.1990, Türkmen 613.

T. laxa (Sibth. & Sm.) Hayek

Dörtyol, top slopes of Mığır, stony areas, 2100 m, 4.6.1990, Türkmen 614.

Erysimum goniocaulon Boiss.

Dörtyol, around Karagöz, mixed forest, 1700 m, 29.5.1991, Türkmen 598.

E. alpestre Kotschy ex Boiss.

Dörtyol, top slopes of Mığır, stony areas, 2000 m, 4.6.1990, Ir.-Tur., End., Türkmen 597.

Sisymbrium altissimum L.

Between Dörtyol and Erzin, wheat field, 100 m, 3.6.1990, Türkmen 605.

CAPPARACEAE

Capparis spinosa L. var. **spinosa**

Between Dörtyol and Çökek, roadside, 250 m, 8.5.1990, Türkmen 471.

CISTACEAE

Cistus creticus L.

Erzin, east of Başlamış Village, macchie, 450 m, 3.5.1990, Med., Türkmen 498.

C. salviifolius L.

Dörtyol, around Çardak, roadside, 1400 m, 31.5.1990, Türkmen 499.

Helianthemum nummularium (L.) Miller subsp. **tomentosum** (Scop.) Schnz et Thellung

Dörtyol, around Tekkoz, mixed forest, 1000 m, 31.5.1991, Türkmen 503.

H. ledifolium (L.) Miller var. **microcarpum** Willk.

Dörtyol, around Karamezla, clearing of F. orientalis forest, 1760 m, 28.8.1991, Türkmen 502.

Fumana arabica (L.) Spach var. **arabica**

Erzin, east of Başlamış Village, macchie, 500 m, 30.5.1990, Türkmen 501.

F. thymifolia (L.) Variot var. **thymifolia**

Between Dörtyol and Erzin, degraded macchie, 100 m, 3.6.1990, Med., Türkmen 500.

VIOLACEAE

Viola alba Besser subsp. **dehnardtii** (Ten.) Becker

Erzin, east of Başlamış Village, P. brutia forest, rillsides, 800 m, 5.4.1990, Türkmen 939.

V. shieana Becker

Dörtyol, around Tekkoz, P. nigra forest, 1000 m, 31.5.1991, Türkmen 940.

POLYGALACEAE

Polygala supina Schreb.

Erzin, around Tekkoz, mixed forest roadside, 900 m, 31.5.1991, Türkmen 807.

P. comosa Schkur

Erzin, around Tekkoz, roadside, 900 m, 31.5.1991, Türkmen 806.

PORTULACACEAE

Portulaca oleracea L.

Dörtyol, dry stream bed, 30 m, 2.8.1990, Türkmen 817.

CARYOPHYLLACEAE

Arenaria leptoclados (Reichb.) Gauss.

Dörtyol, around Topaktaş roadside, 1400 m, 28.9.1990, Türkmen 475.

Minuartia tchihatchewii (Boiss.) Hand.-Mazz.

Dörtyol, top slopes of Mığır, stony areas, 2140 m, 28.8.1991, End., Türkmen 483.

M. mesogitana (Boiss.) Hand.-Mazz. subsp. **mesogitana**

Erzin, east of Başlamış Village, macchie, 500 m, 5.4.1990, Med., Türkmen 482.

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

Erzin, top slopes of Keldağ, stony areas, 1700-2100 m, 28.6.1990, Türkmen 481.

Moehringia trinervia (L.) Clairv.

Dörtyol, around Karamezla, F. orientalis forest, 1550 m, 30.5.1991, Türkmen 484.

Cerastium saccardoanum Dirat

Dörtyol, top slopes of Mığır, stony areas, 2100 m, 4.6.1990, Ir.-Tur., Türkmen 477.

C. glomeratum Thuill.

Erzin, east of Başlamış Village, macchie, 500m, 5.4.1990, Cosm., Türkmen 476.

Telephium imperati L. subsp. **orientale** (Boiss.) Nyman

Erzin, top slopes of Keldağ, stony areas, 2100 m, 27.8.1991, Türkmen 493.

Dianthus polycladus Boiss.

Erzin, top slopes of Keldağ, stony areas, 2000 m, 27.8.1991, Med., Türkmen 479.

D. orientalis Adams

Dörtyol, top slopes of Mığır, stony areas, 2100 m, 28.9.1990, Türkmen 478.

Petrorhagia velutina (Guss.) Ball & Heyward

Dörtyol, around Gücük, clearing of P. nigra forest, 1400 m, 4.6.1990, Türkmen 485.

Gypsophila libanotica Boiss.

Erzin, top slopeps of Keldağ, stony areas, 2100 m, 27.8.1991, Med, Türkmen 480.

Vaccaria pyramidata var. **grandiflora** (Fisch. ex DC.) Cullen

Dörtyol, roadsides, 70 m, 7.5.1990, Türkmen 494.

Silene italica (L.) Pers.

Dörtyol, around Akelma, Q. cerris forest, 1550 m, 31.5.1990, Türkmen 490.

S. confertiflora Chowdh.

Erzin, east of Başlamış Village, P. brutia forest roadside, 800 m, 31.8.1991, Türkmen 488.

S. odontopetala Fenzl

Dörtyol, top slopes of Mığır, stony areas, 2140 m, 28.8.1991, Türkmen 491.

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

Dörtyol, around Tekkoz, mixed forest, 1000 m, 31.5.1991, Türkmen 492.

***S. flavescens** Waldst. & Kit.

Dörtyol, around Karamezla, clearing of F. orientalis forest, 1750 m, 30.5.1991, Türkmen 489. (It is first record from Anatolia).

S. compacta Fischer

Dörtyol, around Tohtak, Q. cerris forest roadside, 1450 m, 3.7.1990, Türkmen 487.

S. aegyptiaca (L.) L.fil. subsp. **aegyptiaca**

Dörtyol, top slopes of Mığır, stony areas, 2100 m, 4.6.1990, Türkmen 486.

ILLECEBRACEAE

Herniaria hirsuta L.

Dörtyol, top slopes of Mığır, stony areas, 1750-2150 m, 28.9.1990, Türkmen 656.

Paronychia argentea Lam var. **scariossima** Post

Erzin, around İçme, degraded macchie, 300 m, 2.4.1990, Med., Türkmen 657.

Scleranthus annuus L. subsp. **annuus**

Dörtyol, around Karamezla, F. orientalis forest, 1750 m, 30.5.1991, Türkmen 658.

POLYGONACEAE

***Polygonum persicaria** L.

Dörtyol, dry stream bed, 20 m, 27.9.1990, Türkmen 810.

P. aviculare L.

Erzin, east of Başlamış Village, P. brutia forest roadside, 700 m, 25.7.1991, Cosm., Türkmen 808.

P. polycnemoides Saub. & Spach

Dörtyol, top slopes of Mığır, stony areas, 2100 m, 4.6.1990, Ir.-Tur., Türkmen 811.

P. convolvulus L.

Erzin, east of Başlamış Village, P. brutia forest, Hillside, 700 m, 25.7.1991, Türkmen 809.

Rumex acetosella L.

Dörtyol, around Kirmenkaya, Q. cerris forest, 1720 m, 31.5.1990, Cosm., Türkmen 812.

R. angustifolius Campd. subsp. **angustifolius**

Dörtyol, around Karagöz, steppe, 1660 m, 31.5.1990, Ir.- Tur., Türkmen 813.

R. conglomeratus Murray

Erzin, around Karaoluk, clearing of F. orientalis forest, 1300 m, 26.6.1989, Türkmen 815.

R. chalepensis Miller

Dörtyol, around Çökek, rillsides, 850 m, 8.5.1992, Türkmen 814.

R. pulcher L.

Erzin, east of Başlamış Village, degraded macchie, 450 m, 30.5.1990, Türkmen 816.

CHENOPODIACEAE

Chenopodium foliosum (Moench.) Aschers.

Dörtyol, dry stream bed, 20 m, 29.11.1990, Türkmen 497.

***Ch. album** L. subsp. **album** var. **album**

Erzin, east of Başlamış Village, roadsides, 350 m, 22.8.1991, Türkmen 496.

AMARANTHACEAE

***Amaranthus chlorostachys** Willd.

Dörtyol, dry stream bed, 20 m, 29.11.1990, Türkmen 438.

***A. lividus** L.

Erzin, around İçme, field borders 400 m, 31.8.1990, Türkmen 438.

A. blitoides S. Wats.

Dörtyol, dry stream bed, 30 m, 2.8.1990, Türkmen 437.

PHYTOLACCACEAE

Phytolacca pruniosa Fenzl

Dörtyol, around Karamezla, F. orientalis forest roadside, 1760 m, 28.8.1991, Med, Türkmen 798.

TAMARICACEAE

Tamarix smyriensis Bunge

Dörtyol, streamsides, 30 m, 2.8.1990, Türkmen 907.

GUTTIFERAE (HYPERICACEAE)

Hypericum elongatum Ledeb. subsp. **microcalycinum** (Boiss.& Heldr.) Robson

Dörtyol, around Karagöz, steppe, 1660 m, 31.5.1990, Ir.-Tur., Türkmen 651.

H. confertum Choisy subsp. **stenobotrys** (Boiss.) Holmb.

Erzin, top slopes of Keldağ, stony areas, 1700-2100 m, 28.6.1990, Türkmen 650.

H. thymifolium Banks. et Sol.

Erzin, east of Başlamış Village, macchie, 600 m, 22.8.1991, Med., Türkmen 655.

H. montbreti Spach

Erzin, east of Başlamış viilage, P. brutia forest, 750 m, 27.6.1991, Türkmen 652.

H. origanifolium Willd.

Dörtyol, around Karagöz, steppe, 1660 m, 31.5.1990, Türkmen 653.

H. perforatum L.

Dörtyol, around Domuzdamı, roadside, 1250 m, 28.8.1991, Türkmen 654.

MALVACEAE

Malva neglecta Waldr.

Dörtyol, around Ufacık, roadside, 1540 m, 31.5.1990, Türkmen 780.

Alcea apterocarpa (Fenzl.) Boiss.

Dörtyol, around Topaktaş rocky areas, 1650 m, 28.6.1990, Ir.-Tur., End., Türkmen 778.

Althaea cannabina L.

Dörtyol, around Kozludere, degraded forest, 350 m, 3.7.1990, Türkmen 779.

TILIACEAE

Tilia argentea Desf.

Dörtyol, around Pekmezci, mixed forest, 1060 m, 30.5.1991, Euro-Sib., Türkmen 910.

LINACEAE

Linum aroanium Boiss. & Orph.

Erzin, around Tekkoz, mixed forest, 900 m, 31.5.1991, Türkmen 775.

L. bienne Miller

Erzin, top slopes of Keldağ, stony areas, 1850 m, 27.8.1991, Med., Türkmen 776.

GERANIACEAE

Geranium purpureum Vill.

Dörtyol, around Çökek, streamside, 650 m, 8.5.1990, Türkmen 648.

G. robertianum L.

Dörtyol, around Karamezla, F. orientalis forest 1750 m, 30.5.1991, Türkmen 649.

G. molle L. subsp. **molle**

Erzin, garden edges, 250 m, 2.4.1990, Türkmen 647.

G. columbinum L.

Dörtyol, around Çökek, streamside, 650 m, 8.5.1990, Türkmen 645.

G. libanoticum Schenk

Dörtyol, around Gücük, F. orientalis forest, 1650 m, 4.6.1990, Türkmen 646.

Erodium acaule (L.) Becherer & Thell.

Erzin, around İçme, roadside, 300 m, 27.2.1991, Med., Türkmen 644.

OXALIDACEAE

Oxalis corniculata L.

Erzin, east of Kızlarçayı Village, streamside, 700 m, 22.8.1991, Cosm., Türkmen 792.

ZYGOPHYLLACEAE

Tribulus terrestris L.

Dörtyol, around BOTAŞ, roadside, 70 m, 3.7.1990, Türkmen 942.

ACERACEAE

Acer platanoides L.

Erzin, around Kengerlidüz, mixed forest, 1750 m, 28.6.1990, Euro-Sib., Türkmen 436.

STAPHYLACEAE

Staphylea pinnata L.

Dörtyol, around Tekkoz, mixed forest, 1000 m, 30.5.1991, Türkmen 905.

VITACEAE

Vitis sylvestris Gmelin

Erzin, around İçme, streamside, 350 m, 30.5.1991, Türkmen 941.

RHAMNACEAE

Paliurus spina-christi Miller

Erzin, around İçme, streamside, 300 m, 26.9.1990, Türkmen 829.

Rhamnus libanoticus Boiss.

Dörtyol, top slopes of Mığır, rocky areas, 2150 m, 28.8.1991, Türkmen 831.

Rh. alaternus L.

Erzin, around İçme, streamside, 350 m, 28.5.1991, Med., Türkmen 830.

Rh. punctatus Boiss. var. **angustifolius** Post

Erzin, around İçme, degraded macchie, 400 m, 26.9.1991, Med., Türkmen 832.

AQUIFOLIACEAE

Ilex colchica Poj.

Dörtyol, around Tekkoz, mixed forest, 1000 m, 31.5.1991, Euro-Sib., Türkmen 445.

ANACARDIACEAE

Rhus coriaria L.

Erzin, around Kengerlidüz, clearing of mixed forest, 1700 m, 28.6.1990, Türkmen 442.

Cotinus coggyria Scop.

Erzin, east of Başlamış Village, macchie, 550 m, 30.5.1990, Türkmen 440.

Pistacia terebinthus L. subsp. **palaestina** (Boiss.) Engler

Erzin, east of Başlamış Village, macchie, 550 m, 28.6.1990, Türkmen 441.

CELASTRACEAE

Euanymus latifolius (L.) Mill. subsp. **latifolius**

Dörtyol, around Tekkoz, mixed forest, 1000 m, 31.5.1991, Euro-Sib., Türkmen 495.

LEGUMINOSAE (FABACEAE)

Ceratonia siliqua L.

Erzin, east of Başlamış Village, macchie, 330 m, 27.2.1991, Med., Türkmen 708.

Cercis siliquastrum L. subsp. **hebecarpa** (Bornm.) Yalt.

Erzin, east of Kızlarçayı Village, P. brutia forest, 650 m, 17.4.1989, Türkmen 709.

Prosopis farcta (Banks & Sol.) Macbride

Between Dörtyol and Erzin, field margin 150 m, 3.6.1990, Türkmen 746.

Sophora jaubertii Spach

Dörtyol, around Kapulu, clearing of mixed forest, 1050 m, 20.7.1990, Euro-Sib., Türkmen 749.

Chamaecytisus hirsutus (L.) Link

Erzin, east of Başlamış Village, P. brutia forest, 550 m, 30.5.1990, Türkmen 711.

C. drepanolobus (Boiss.) Rothm.

Erzin, east of Başlamış Village, P. brutia forest, 650 m, 30.5.1990, Med., End., Türkmen 710.

Gonocytisus angulatus (L.) Spach

Erzin, east of Başlamış Village, macchie, 450 m, 27.6.1990, Med., Türkmen 722.

Genista lydia Boiss. var. **lydia**

Dörtyol, around İçkoz, P. nigra forest, 1550 m, 29.5.1991, Türkmen 721.

G. lydia Boiss. var. **antiochia** (Boiss.) P. Gibbs.

Erzin, east of Başlamış Village, macchie, 500 m, 5.4.1990, Med., Türkmen 720.

G. anatolica Boiss.

Erzin, east of Başlamış Village, macchie, 400 m, 27.6.1990, Med., Türkmen 719.

Spartium junceum L.

Erzin, east of Başlamış Village, macchie, 500 m, 28.6.1990, Med., Türkmen 750.

Calicotome villosa (Poiret) Link

Between Dörtyol and Erzin, macchie, 100 m, 2.4.1992, Med., Türkmen 1044.

Lupinus angustifolius L. subsp. **angustifolius**

Dörtyol, garden border, 35 m, 5.4.1990, Türkmen 733.

Colutea cilicica Boiss. et Bal.

Erzin, around Kengerlidüz, mixed forest, 1600 m, 11.9.1989, Türkmen 712.

Astragalus hamosus L.

Dörtyol, roadsides, 70 m, 7.5.1990, Türkmen 704.

A. macrourus Fisch. & Mey.

Dörtyol, around Karagöz, steppe, 1660 m, 31.5.1990, Ir.- Tur., Türkmen 705.

A. depressus L.

Dörtyol, top slopes of Mığır, stony areas, 1950 m, 4.6.1992, Türkmen 702.

***A. glycyphyllos** L. subsp. **glycyphylloides** (DC.) Matws.

Dörtyol, around Akelma, P. nigra forest, 1550 m, 31.5.1990, Ir.-Tur., Türkmen 703.

A. russelii Banks & Sol.

Dörtyol, around Karagöz, steppe, 1660 m, 31.5.1990, Ir.-Tur., Türkmen 706.

A. antiochinus Post

Dörtyol, around Karagöz, steppe, 1660 m, 31.5.1990, Med., End., Türkmen 700.

A. schizopterus Boiss.

Dörtyol, around Kirmenkaya, Q. cerris forest, 1720 m, 31.5.1990, Med., End., Türkmen 707.

A. campylosema Boiss. subsp. **campylosema**

Dörtyol, around Karagöz, steppe, 1660 m, 31.5.1990, Ir.- Tur., End., Türkmen 701.

Psoralea bituminosa L.

Dörtyol, around Tekkoz, mixed forest roadside, 950 m, 31.5.1991, Med., Türkmen 747.

Vicia crocea (Desf.) B. Fedtsch.

Dörtyol, around Gücük, F. orientalis **forets**, 1350-1850 m, 4.6.1990, Euro-Sib., Türkmen 769.

V. cracca L. subsp. **cracca**

Erzin, east of Başlamış Village, macchie, 550 m, 20.5.1990, Euro-Sib., Türkmen 768.

*V. canescens Lab. subsp. canescens

Dörtyol, around Tekkoz, mixed forest, 1000 m, 31.5.1991, End., Türkmen 767.

*V. villosa Roth subsp. eriocarpa (Hausskn.) P.W.Ball

Erzin, east of Başlamış Village, P. brutia forest roadside, 650 m, 5.6.1990, Türkmen 774.

V. lunata (Boiss. & Bal.) Boiss. var. grandiflora Plitm.

Dörtyol, around Çardak, roadsides, 1400 m, 31.5.1990, Türkmen 772.

V. hybrida L.

Between Dörtyol and Erzin, wheat field, 100 m, 3.6.1990, Türkmen 771.

V. grandiflora Scop. var. grandiflora

Dörtyol, around Çardak, roadsides, 1400 m, 31.5.1990, Med., Türkmen 770.

V. sativa L. subsp. sativa

Between Dörtyol and Erzin, wheat field, 100 m, 31.5.1990, Cosm., Türkmen 773.

Lens ervoides (Brign.) Grande

Erzin, east of Başlamış Village, macchie, 450 m, 5.4.1990, Med., Türkmen 729.

Lathyrus niger (L.) Bernh. subsp. niger

Dörtyol, around Tekkoz, mixed forest, 1000 m, 31.5.1990, Euro-Sib., Türkmen 727.

L. spathulatus Cel.

Erzin, east of Başlamış Village, macchie, 500 m, 5.4.1990, Med., Türkmen 728.

L. laxiflorus (Desf.) Kuntze subsp. angustifolius (Post ex Dinsm.) Davis

Dörtyol, around Topaktaş F. orientalis forest, 1500 m, 30.5.1990, Med., End., Türkmen 726.

L. annuus L.

Dörtyol, roadsides, 70 m, 7.5.1992, Med., Türkmen 724.

L. aphaca L. var. modestus P.H.Davis

Between Dörtyol and Çökek, macchie, 450 m, 8.5.1992 Med., Türkmen 725.

Ononis reclinata L.

Between Dörtyol and Erzin, degraded macchie, 100 m, 3.6.1990, Med., Türkmen 744.

O. spinosa L. subsp. leiosperma (Boiss.) Sirj.

Dörtyol, around Kozludere, clearing of P. brutia forest, 450 m, 26.6.1989, Türkmen 745.

O. phyllocephala Boiss.

Erzin, east of Başlamış Village, degraded macchie, 550 m, 30.5.1990, Med., Türkmen 743.

Trifolium campestre Schreb.

Erzin, around Karaoluk, clearing of F. orientalis forest, 1300 m, Türkmen 754.

T. fragiferum L. var. pulchellum Lange

Erzin, top slopes of Keldağ, stony areas, 2000 m, 3.7.1990, Türkmen 756.

T. physoides Stev. ex Bieb. var. physoides

Dörtyol, around Çardak, roadsides, 1400 m, 31.5.1990, Med., Türkmen 760.

T. physoides Stev. ex Bieb. var. psilocalyx Boiss.

Dörtyol, around Karagöz, steppe, 1660 m, 31.5.1990, Med., Türkmen 761.

T. resupinatum L. var. microcephalum Zoh.

Dörtyol, around Kırıkelma, clearing of F. orientalis forest, 1500 m, 30.5.1991, Türkmen 763.

T. tomentosum L.

Dörtyol, around Topaktaş Q. cerris forest, 1070 m, 26.6.1989, Türkmen 764.

T. davisii Hossain

Dörtyol, around Çökek, P. brutia forest roadside, Med., End., Türkmen 755.

T. lucanicum Gasp.

Erzin, around Karaoluk, clearing of F. orientalis, 1300 m, 26.61989, Med., Türkmen 759.

T. hirtum All.

Erzin, around Tekkoz, mixed forest roadside, 850 m, 31.5.1991, Med., Türkmen 757.

T. lappaceum L.

Erzin, east of Başlamış Village, macchie, 550 m, 31.5.1990, Med., Türkmen 758.

T. arvense L. var. arvense

Erzin, east of Başlamış Village, macchie, 550 m, 30.5.1990, Türkmen 753.

T. angustifolium L. var. angustifolium

Erzin, east of Başlamış Village, macchie, 550 m, 30.5.1990, Türkmen 752.

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

Dörtyol, around Çökek, streamside, 650 m, 8.5.1990, Med., Türkmen 762.

Melilotus indica (L.) All.

Between Dörtyol and Erzin, roadside, 100 m, 3.6.1990, Türkmen 740.

M. elegans Salzm.

Dörtyol, around Çökek, streamside, 650 m, 8.5.1990, Med., Türkmen 739.

*Trigonella spruneriana Boiss. var. sibthorpii (Boiss.) Hub.- Mor.

Erzin, east of Başlamış Village, macchie, 500 m, 5.4.1990, Med., Türkmen 765.

T. kotschyi Fenzl

Between Dörtyol and Erzin, macchie, 100 m, 3.6.1990, Ir.-Tur., Türkmen 766.

Medicago lupulina L.

Erzin, east of Başlamış Village, P. brutia forest, 700 m, 27.6.1991, Türkmen 735.

M. coronota (L.) Bart.

Between Dörtyol and Çökek, macchie, 450 m, 8.5.1990, Med., Türkmen 734.

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

Dörtyol, around Çökek, macchie, 450 m, 8.5.1990, Türkmen 736.

M. polymorpha L. var. vulgaris (Benth.) Shinners

Between Dörtyol and Erzin, roadside, 100 m, 3.6.1990, Türkmen 737.

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

Between Dörtyol and Erzin, macchie, 100 m, 3.6.1990, Türkmen 736.

Cytisopsis dorycniifolia Jaub. & Spach. subsp. dorycniifolia

Erzin, top slopes of Keldağ, stony areas, 2000 m, 27.6.1990, Türkmen 713.

Dorycnium hirsutum (L.) Ser.

Erzin, east of Kızlarçayı Village, P. brutia forest, 600 m, 5.6.1990, Med., Türkmen 717.

D. graecum (L.) Ser.

Erzin, east of Başlamış Village, P. brutia forest, 700 m, 30.5.1990, Euro-Sib., Türkmen 716.

D. pentaphyllum Scop. subsp. **haussknechtii** (Boiss.) Gams

Erzin, east of Kızlarçayı Village, macchie, 550 m, 28.5.1991, Türkmen 718.

Lotus peregrinus L. var. **peregrinus**

Between Dörtyol and Erzin, macchie, 130 m, 3.6.1990, Türkmen 732.

L. angustissimus L.

Between Dörtyol and Çökek, macchie, 350 m, 8.5.1990, Türkmen 730.

L. corniculatus L. var. **corniculatus**

Dörtyol, around Karagöz, steppe, 1480 m, 3.7.1990, Türkmen 731.

Tetragonolobus purpureus Moench

Erzin east of Başlamış Village, macchie, 500 m, 5.4.1990, Med., Türkmen 751.

Hymenocarpus circinnatus (L.) Savi

Erzin, around İçme, macchie, 500 m, 5.4.1990, Med., Türkmen 723.

Coronilla emerus L. subsp. **emerus** (Boiss. & Sprun.) Uhrova

Erzin, east of Kızlarçayı Village, macchie, 500 m, 5.4.1990, Türkmen 714.

C. parviflora Willd.

Between Dörtyol and Erzin, macchie, 150 m, Med., Türkmen 715.

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

Between Dörtyol and Erzin, macchie, 150 m, 3.6.1990, Med.,Türkmen 748.

Onobrychis caput-galli (L.) Lam.

Between Dörtyol and Erzin, macchie, 100 m, 3.6.1990, Med. Türkmen 741.

O. gracilis Besser

Between Dörtyol and Erzin, roadside, 100 m, 3.6.1990, Türkmen 742.

Alhagi mannifera Desv.

Dörtyol, around BOTAŞ, roadside, 70 m, 5.8.1990, Türkmen 699.

ROASCEAE

Prunus spinosa L. subsp. **dasyphylla** (Schur) Domin

Dörtyol, around Tekkoz, mixed forest, 950 m, 2.5.1990, Eoro-Sib., Türkmen 840.

P. divaricata Ledeb. subsp. **divaricata**

Dörtyol, around Tekkoz, mixed forest, 950 m, 2.5.1990, Türkmen 847.

Cerasus prostrata (Lab.) Ser. var. **prostrata**

Erzin, top slopes of Keldağ, 2100 m, 28.6.1990, Türkmen 833.

Rubus sanctus Schreber

Erzin, around İçme, streamside, 350 m, 30.5.1990, Türkmen 854.

R. canescens DC. var. **glabratus** (Godron) Davis et Meikle

Erzin, around Akoluk, Q. cerris forest, 1250 m, 27.8.1991, Euro-Sib., Türkmen 853.

Potentilla calycina Boiss. and Bal.

Dörtyol, around Ufacık, Q. cerris forest roadside, 1530 m, 31.5.1990, Med., End., Türkmen 843.

P. kotschyana Fenzl

Dörtyol, around Karamezla, Q. cerris forest, 1750 m, 30.6.1991, Med., Türkmen 844.

***P. aucheriana** Th. Wolf

Dörtyol, around Karagöz, steppe, 1660 m, 31.5.1990, Ir.-Tur., Türkmen 842.

P. speciosa Willd. var. **discolor** Hal.

Dörtyol, east of Rabat Village, F. orientalis forest, 1430 m, 4.6.1990, Türkmen 846.

P. micrantha Remond ex DC.

Dörtyol, east of Rabat Village, mixed forest roadside, 1400 m, 4.6.1990, Türkmen 845.

Geum urbanum L.

Dörtyol, around Kırıkelma, clearing of F. orientalis forest, 1440 m, 3.7.1990, Euro-Sib., Türkmen 840.

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

Erzin, around Karaoluk, clearing of F. orientalis forest, 1300 m, 26.6.1989, Türkmen 855.

Rosa pulverulenta Bieb.

Erzin, top slopes of Keldağ, stony areas, 2000 m, 26.6.1990, Türkmen 852.

R. canina L.

Dörtyol, around Kapulu, roadside, 1080 m, 29.5.1991, Türkmen 851.

Cotoneaster nummularia Fisch. & Mey.

Erzin, top slopes of Keldağ, rocky areas, 2100 m, 28.6.1990, Türkmen 834.

Fragaria vesca L.

Dörtyol, around Topaktaş roadside, 1220 m, 28.8.1991, Türkmen 839.

Pyracantha coccinea Roemer

Dörtyol, around Tekkoz, mixed forest, 1000 m, 31.5.1991, Türkmen 849.

Crataegus orientalis Pallas ex Bieb. var. **orientalis**

Dörtyol, around Kırıkelema, F. orientalis forest, 1650 m, 28.9.1990, Türkmen 838.

***C. atrosanguinea** Pojark.

Dörtyol, around Domuzdamı, mixed forest, 1250 m, 28.8.1991, Ir.-Tur., Türkmen 835.

C. monogyna Jacq. subsp. **monogyna**

Erzin, east of Başlamış Village, macchie, 500 m, 30.5.1990, Türkmen 837.

C. monogyna Jacq. subsp. **azarella** (Gris.) France

Erzin, top slopes of Keldağ, stony areas, 2100 m, 27.8.1991, Türkmen 836.

Sorbus umbellata (Desf.) Fritsch var. **cretica** (Lindl.) Schn.

Erzin, around Kengerlidüz, mixed forest, 1750 m, 11.6.1989, Türkmen 857.

S. torminalis (L.) Crantz. var. **torminalis**

Erzin, east of Başlamış Village, P. brutia forest, 800 m, 30.5.1990, Euro-Sib., Türkmen 856.

Malus sylvestris Miller subsp. **orientalis** (A.Uglitz.) Browicz var. **orientalis**

Dörtyol, around Kırıkelma, F. **orientalis** forest 1500 m, 30.5.1991, Türkmen 841.

Pyrus syriaca Boiss. var. **syriaca**

Between Dörtyol and Erzin, field border, 150 m, 5.6.1990, Türkmen 850.

MYRTACEAE

Myrtus communis L. subsp. **communis**

Erzin, around İçme, macchie, 450 m, 27.6.1990, Türkmen 782.

PUNICACEAE

Punica granatum L.

Erzin, around İçme, streamside, 350 m, 28.5.1991, Türkmen 821.

ONAGRACEAE

Epilobium montanum L.

Erzin, top slopes of Keldağ, stony areas, 2000 m, 27.8.1991, Euro-Sib., Türkmen 787.

CRASSULACEAE

Rosularia libanotica (Lab.) Muirhead

Erzin, top slopes of Keldağ, rocky areas, 2100 m, 27.8.1991, Med., Türkmen 579.

Sedum album L.

Dörtyol, top slopes of Mığır, rocky areas, 2100 m, 31.5.1990, Türkmen 580.

S. caespitosum (Cav.) DC.

Erzin, top slopes of Keldağ, rocky areas, 2100 m, 3.7.1990, Med., Türkmen 581.

S. hispanicum L. var. **hispanicum**

Dörtyol, around Akelma, clearing of Q. cerris forest, 1530 m, 31.5.1990, Türkmen 582.

S. pallidum Bieb. var. **pallidum**

Dörtyol, around Tekkoz, mixed forest, 900 m, 31.5.1991, Türkmen 583.

S. rubens L.

Erzin, top slopes of Keldağ, rocky areas, 2000 m, 28.6.1990, Med., Türkmen 584.

UMBELLIFERAE (APIACEAE)

Sanicula europaea L.

Dörtyol, east of Rabat Village, F. orientalis forest, 1350 m, 4.6.1990, Euro-Sib., Türkmen 927.

***Eryngium giganteum** Bieb.

Erzin, top slopes of Keldağ, stony areas, 1950 m, 3.7.1990, Türkmen 920.

E. falcatum Delar

Erzin, east of Başlamış Village, P. brutia forest, 800 m, 27.6.1990, Med., Türkmen 919.

E. creticum Lam.

Dörtyol, roadside, 70 m, 25.7.1991, Med., Türkmen 918.

Bunium ferulaceum Sm.

Dörtyol, around Karagöz, steppe, 1660 m, 31.5.1990, Med., Türkmen 914.

Smyrnium connatum Boiss. & Kotschy

Dörtyol, around Çardak, steppe, 1400 m, 31.5.1991, Med., Türkmen 928.

Lecokia cretica (Lam.) DC.

Erzin, around Karaoluk, F. orientalis forest, 1300 m, 26.6.1989, Türkmen 926.

Bupleurum intermedium Poiret

Between Dörtyol and Erzin, onion field, 150 m, 3.6.1990, Türkmen 915.

Ammi majus L.

Dörtyol, around BOTAŞ, roadside, 70 m, 3.7.1990, Med., Türkmen 913.

Cnidium silaifolium (Jacq.) Simonkai subsp. **orientalis** (Boiss.) Tutin

Dörtyol, top slopes of Mığır, stony areas, 2140 m, 28.8.1991, Türkmen 916.

Ferula elaeochytris Korovin

Erzin, top slopes of Keldağ, stony areas, 1800-2000 m, 28.6.1990, Med., Türkmen 921.

Ferulago cassia Boiss.

Erzin, east of Başlamış Village, P. brutia forest, 800 m, 27.6.1991, Med., Türkmen 922.

F. trachycarpa Boiss.

Erzin, top slopes of Keldağ, stony areas, 1850 m, 28.6.1990, Med., Türkmen 923.

Ainsworthia trachycarpa Boiss.

Dörtyol, around Tekkoz, mixed forest, 900 m, 31.5.1991, Med., Türkmen 912.

Laser trilobium (L.) Borkh.

Dörtyol, around Tekkoz, mixed forest, 1000 m, 31.5.1991, Türkmen 924.

Laserpitium glaucum Post

Dörtyol, around Kırıkelma, clearing of P. nigra forest, 1540 m, 3.7.1992, Med., Türkmen 925.

Torilis arvensis (Huds.) Link subsp. **arvensis**

Erzin, east of Başlamış Village, **P. brutia** forest, 800 m, 27.6.1991, Türkmen 929.

T. arvensis (Huds.) Link subsp. **neglecta** (Sprengel) Thellung

Dörtyol, around Domuzdamı, roadside, 1250 m, 28.8.1991, Türkmen 930.

Turgeniopsus foeniculacea (Fenzl.) Boiss.

Dörtyol, around Akelma, Q. cerris forest, 1550 m, 31.5.1991, Türkmen 931.

Daucus guttatus Sm.

Erzin, around İçme, macchie, 450 m, 27.6.1990, Türkmen 917.

ARALIACEAE

Hedera helix L.

Erzin, around Karaoluk, F. orientalis forest, 1300 m, 26.6.1989, Türkmen 447.

CORNACEAE

Cornus sanguinea L. subsp. **australis** (C.A.Mey.) Jav.

Dörtyol, around Çökek, mixed forest, 1070 m, 26.6.1989, Euro-Sib., Türkmen 575.

C. mas L.

Dörtyol, around Çökek, mixed forest, 1070 m, 26.6.1989, Euro-Sib., Türkmen 574.

CAPRIFOLIACEAE

Sambucus ebulus L.

Erzin, around Kengerlidüz, mixed forest roadside, 1600 m, 11.9.1989, Euro-Sib., Türkmen 473.

S. nigra L.

Dörtyol, east of Rabat Village, mixed forest, 1000 m, 4.6.1992, Euro-Sib., Türmen 474.

***Lonicera xylosteum** L.

Dörtyol, around Çökek, in ditch, 950 m, 8.5.1990, Türkmen 472.

VALERIANACEAE

Valeriana alliariifolia Adams

Dörtyol, around Kapulu, mixed forest, 1080 m, 29.5.1991, Türkmen 935.

DIPSACEAE

Cephalaria taurica Szabo

Erzin, east of Başlamış Village, P. brutia forest roadside, 400 m, 31.8.1990, Med., End., Türkmen 618.

Scabiosa columbaria L. subsp. **columbaria** var. **intermedia** (Post) Matws.

Dörtyol, around Tohtak, mixed forest, 1200 m, 28.8.1991, Türkmen 620.

S. columbaria L. subsp. **ochroleuca** (L.) Coulter var. **webbiana** (Don) Matws

Erzin, top slopes of Keldağ, stony areas, 2000 m, 27.8.1991, Türkmen 621.

S. kurdica Post

Dörtyol, around Tekkoz, mixed forest, 1050 m, 2.7.1992, Med., End., Türkmen 622.

S. calocephala Boiss.

Between Dörtyol and Erzin, degraded macchie, 100 m, 3.6.1990, Türkmen 619.

COMPOSITAE (ASTERACEAE)

Xanthium spinosum L.

Dörtyol, streamside, 30 m, 2.8.1990, Türkmen 569.

X. strumarium L. subsp. **cavenillesii** (Scho.) D.Love & P.Dansr.

Erzin, east of Başlamış Village, P. brutia forest roadside, 600 m, 31.8.1990, Türkmen 570.

Pallenis spinosa (L.) Cass.

Erzin, east of Başlamış Village, macchie, 500 m, Med.,Türkmen 549.

Inula salicina L.

Dörtyol, around Tohtak, mixed forest, 1400 m, 28.8.1990, Euro-Sib., Türkmen 540.

I. vulgaris (Lam.) Trevisan

Erzin, east of Başlamış Village, P. brutia forest roadside, 800 m, 26.9.1990, Euro-Sib., Türkmen 541.

***I. anatolica** Boiss.

Erzin, top slopes of Keldağ, stony areas, 2100 m, 27.8.1991, End., Türkmen 539.

Pulicaria dysenterica (L.) Bernh.

Dörtyol, streamside, 30 m, 27.9.1990, Türkmen 556.

Helichrysum plicatum DC. subsp. **plicatum**

Erzin, top slopes of Keldağ, stony areas, 1900 m, 28.6.1990, Türkmen 536.

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

Erzin, top slopes of Keldağ, stony areas, 2120 m, 28.6.1990, Türkmen 536.

Galatella amani (Post) Grierson

Erzin, top slopes of Keldağ, stony areas, 2100 m, 27.8.1991, Med., End., Türkmen 532.

Conyza canadensis (L.) Cronquist

Dörtyol, garden border 70 m, 27.9.1990, Türkmen 526.

C. bonariensis (L.) Cronquist

Dörtyol, garden edege, 60 m, 27.9.1990, Türkmen 525.

Bellis perennis L.

Dörtyol, around Karagöz, steppe, 1660 m, 30.5.1990, Euro-Sib., Türkmen 508.

Doronicum orientale Hoffm.

Dörtyol, around Karagöz, mixed forest, 1700 m, 29.5.1991, Türkmen 528.

Senecio vernalis Waldst & Kit.

Dörtyol, around Çardak, roadside, 1400 m, 31.5.1991, Türkmen 562.

Calendula arvensis L.

Erzin, around İçme, field border, 320 m, 2.4.1990, Türkmen 509.

Eupotarium cannabinum L.

Dörtyol, around Tohtak, mixed forest, waste areas, 1200 m, 28.8.1991, Türkmen 531.

Anthemis tinctoria L. var. **tinctoria**

Dörtyol, around Ciğersiz çeşme, mixed forest, 1050 m, 29.8.1991, Türkmen 506.

Leucocyclus formosus Boiss. subsp. **amanicus** (Rech.fil.) Hub.-Mor. & Grierson

Dörtyol, around Karagöz, steppe, 1660 m, 31.5.1990, Med., End., Türkmen 547.

Achillea grandiflora Friv.

Erzin, east of Başlamış Village, mixed forest, 800 m, 30.5.1990, Türkmen 505.

***A. coarctata** Poir.

Erzin, top slopes of Keldağ, rocky areas, 2100 m, 31.5.1990, Türkmen 504.

Chrysanthemum segetum L.

Dörtyol, garden border, 70 m, 7.5.1991, Med., Türkmen 522.

Arctium minus (Hill) Bernh. subsp. **pubens** (Babington) Arenes

Dörtyol, around Kocadüz, roadside, 800 m, 29.8.1991, Euro-Sib., Türkmen 507.

***Onopordum acanthium** L.

Erzin, top slopes of Keldağ, stony areas, 1950 m, 28.6.1990, Türkmen 548.

Silybum marianum (L.) Gaertner

Erzin, around İçme, field border, 320 m, 2.4.1990, Türkmen 563.

Cirsium leuconeurum Boiss. & Hausskn.

Dörtyol, top slopes of Mığır, stony areas, 2120 m, 28.8.1991, Türkmen 524.

Picnomon acarna (L.) Cass.

Erzin, around Kengerlidüz, clearing of mixed forest, 1650 m, 11.9.1989, Med., Türkmen 550.

Ptilostemon diacantha (Lab.) Greuter

Dörtyol, streamside, 30 m, 2.8.1990, Med., Türkmen 555.

Carduus nutans L. subsp. **nutans**

Between Dörtyol and Erzin, roadside, 150 m, 3.6.1990, Türkmen 511.

C. pycnocephalus L. subsp. **albidus** (Bieb.) Kazmi

Erzin, around İçme, field border, 300 m, 2.4.1990, Türkmen 512.

Tyrimnus leucographus (L.) Cass.

Between Dörtyol and Erzin, in cavity, 150 m, Med., Türkmen 567.

Centaurea lycopifolia Boiss. & Kotschy

Erzin, east of Başlamış Village, macchie, 550 m, 30.5.1990, Med., End., Türkmen 518.

C. cataonica Boiss. & Hausskn.

Erzin, east of Başlamış Village, macchie, 500 m, 27.6.1991, End., Türkmen 517.

C. babylonica (L.) L.

Erzin, east of Başlamış Village, roadside, 600 m, 27.6.1991, Med., Türkmen 515.

C. ptosimopappa Hayek

Erzin, east of Başlamış Village, P. brutia forest, 800 m, 23.6.1989, Med., End., Türkmen 519.

C. solstitialis L. subsp. **solstitialis**

Between Dörtyol and Erzin, degraded macchie, 150 m, 3.7.1990, Türkmen 520.

C. calcitrapa L. subsp. **calcitrapa**

Dörtyol, streamside, 30 m, 2.8.1991, Med., Türkmen 516.

***C. aegialophila** Wagenitz

Erzin, around İçme, field border, 300 m, 2.4.1990, Med., Türkmen 514.

Cardopatium corymbosum (L.) Pers.

Dörtyol, around BOTAŞ, roadside, 70 m, 3.7.1990, Med., Türkmen 510.

Carlina oligocephala Boiss. & Kotschy subsp. **oligocephala**

Erzin, top slopes of Keldağ, stony areas, 2000 m, 27.8.1991, Türkmen 513.

Echinops ritro L.

Erzin, top slopes of Keldağ, stony areas, 2000 m, 27.8.1991, Türkmen 529.

E. viscosus DC. subsp. **bithynicus** (Boiss.) Rech. fil.

Erzin, around İçme, roadside, 25.7.1991, Türkmen 530.

Cichorium pumilum Jack

Erzin, east of Başlamış Village, degraded macchie, 700 m, 25.7.1991, Med., Türkmen 523.

Scorzonera cana (C.A.Meyer) Hoffm. var. **cana**

Dörtyol, around Karagöz, steppe, 1660 m, 31.5.1990, Cosm., Türkmen 559.

S. cana (C.A.Meyer) Hoffm. var. **radicosa** (Boiss.) Chamb.

Dörtyol, top slopes of Mığır, stony areas, 2100 m, 4.6.1990, Türkmen 560.

S. mollis Bieb. subsp. **szowitzii** (DC.) Chamb.

Dörtyol, top slopes of Mığır, stony areas, 2100 m, 4.6.1990, Ir.-Tur., Türkmen 561.

Hypochoeris radicata L. var. **heterocarpa** Moris

Dörtyol, around Çökek, stremside, 650 m, 8.5.1990, Euro-Sib., Türkmen 536.

Leontodon hispidus L. var. **hispidus**

Erzin, top slopes of Keldağ, stony areas, 2000 m, 27.8.1991, Türkmen 546.

Picris amalecitana (Boiss.) Eig

Erzin, east of Başlamış Village, roadside, 700 m, 25.7.1991, Med., Türkmen 551.

Helminthotheca echioides (L.) Holub.

Erzin, east of Kızlarçayı Village, Hillside, 700 m, 22.8.1990, Türkmen 534.

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

Erzin, around İçme, roadside, 320 m, 28.3.1991, Med., Türkmen 568.

Hedypnois cretica (L.) Dum.-Cours.

Between Dörtyol and Erzin, roadside, 100 m, 3.6.1990, Med., Türkmen 533.

Rhagadiolus stellatus (L.) Gaertner var. **edulis** (Gaert.) DC.

Dörtyol, around Çökek, streamside, 650 m, 8.5.1990, Med., Türkmen 558.

Sonchus oleraceus L.

Dörtyol, around Tekkoz, mixed forest roadside, 900 m, 31.5.1991, Türkmen 564.

***Reichardia intermedia** (Schultz Bip.) Hayek

Erzin, around İçme, degraded macchie, 300 m, 2.4.1990, Med., Türkmen 557.

Hieracium laevigatum Willd.

Dörtyol, around Ciğersiz çeşme, mixed forest, 1050 m, 29.8.1991, Euro-Sib., Türkmen 537.

Pilosella hoppeana (Schul.)C.H. & F.W.Schultz subsp. **troica**

Erzin, top slopes of Keldağ, stony areas, 2100 m, 27.8.1991, Türkmen 554.

***P. hoppeana** (Schultes) C.H. & F.W.Schultz subsp. **isaurica** Hub.-Mor.

Dörtyol, around Tohtak, Q. cerris forest, 1400 m, 4.6.1990, Ir.-Tur., End., Türkmen 553.

P. echioides (Lumn.) C.H. & F.W. Schultz subsp. **procera** (Fries) Sell & West

Erzin, top slopes of Keldağ, stony areas, 2000 m, 3.7.1990, Türkmen 552.

Steptorhampus tuberosus (Jacq.) Grossh.

Between Dörtyol and Erzin, degraded macchie, 100 m, 3.6.1990, Türkmen 565.

Lactuca saligna L.

Erzin, east of Başlamış Village, P. brutia forest roadside, 650 m, 25.7.1991, Türkmen 542.

L. serriola L.

Erzin, east of Başlamış Village, P. brutia forest roadside, 600 m, 31.8.1990, Euro-Sib., Türkmen 543.

Lapsana communis L. subsp. **psidica** (Boiss. & Heldr.)Rech.fil.

Erzin, around Karaoluk, F. orientalis forest, 1300 m, 6.3.1989, Türkmen 545.3

L. communis L. subsp. **intermedia** (Bieb.) Hayek

Dörtyol, around Çardak, roadside, 1400 m, 31.5.1990, Türkmen 544.

Taraxacum sintensii Dahlst.

Dörtyol, around Karamezla, clearing of F. orientalis forest, 1750 m, 30.5.1991, Türkmen 566.

Condrilla juncea L. var. **juncea**

Dörtyol, roadside, 60 m, 29.11.1991, Türkmen 521.

Crepis reuterana Boiss. subsp. **reuterana**

Erzin, east of Başlamış Village, P. brutia forest, 750 m, 31.5.1990, Med., Türkmen 527.

CAMPANULACEAE

Campanula trachelium L. subsp. **athoa** (Boiss. & Heldr.) Hayek

Erzin, east of Başlamış Village, P. brutia forest roadside, 650 m, 25.7.1991, Euro-Sib., Türkmen 468.

C. rapunculus L. var. **rapunculus**

Between Dörtyol and Erzin, in cavity, 100 m, 3.6.1990, Euro-Sib., Türkmen 466.

C. retrorsa Labill.

Erzin, east of Başlamış Village, P. brutia forest roadside, 700 m, 27.6.1991, Türkmen 467.

Asyneuma virgatum (Labill.) Bornm. subsp. **virgatum**

Erzin, top slopes of Keldağ, stony areas, 2100 m, 27.8.1991, Türkmen 465.

Michauxia campanuloides L'Herit. ex Aiton

Erzin, east of Başlamış Village, P. brutia forest roadside, 700 m, 23.6.1989, Med., Türkmen 470.

Legousia speculum-veneris (L.) Chaix

Dörtyol, around Çökek, P. brutia forest, 800 m, 8.5.1990, Med., Türkmen 469.

ERICACEAE

Erica manipuliflora Salisb.

Erzin, east of Başlamıs Village, P. brutia forest, 800 m, 26.6.1990, Med., Türkmen 625.

Arbutus unedo L.

Erzin, east of Başlamış Village, macchie, 500 m, 10.10.1989, Türkmen 624.

A. andrachne L.

Erzin, east of Başlamış Village, macchie, 500 m, 10.10.1989, Türkmen 623.

PRIMULACEAE

Primula vulgaris Huds. subsp. **vulgaris**

Erzin, east of Başlamış Village, mixed forest, 800 m, 5.4.1990, Euro-Sib., Türkmen 820.

Cyclamen coum Miller var. **coum**

Erzin, east of Başlamış Village, Hillside, 650 m, 27.2.1989, Türkmen 819.

Anagallis arvensis L. var. **caerulea** (L.) Gouan

Erzin, east of Başlamış Village, macchie, 500 m, 5.4.1990, Türkmen 818.

STYRACACEAE

Styrax officinalis L.

Erzin, east of Başlamış Village, P. brutia forest, 750 m, 18.8.1989, Türkmen 906.

OLEACEAE

Jasminum fruticans L.

Erzin, around İçme, macchie, 450 m, 31.5.1990, Med., Türkmen 784.

Fraxinus ornus L. subsp. **cilicica** (Lingels.) Yalt.

Erzin, east of Başlamış Village, P. brutia forest, 550 m, 31.8.1990, Med., End., Türkmen 783.

Olea europaea L. var. **sylvestris** (Miller) Lehr.

Erzin, around İçme, degraded macchie, 250 m, 27.5.1991, Med., Türkmen 785.

Phillyrea latifolia L. subsp. **orientalis** Sebst.

Erzin, around İçme, macchie, 350 m, 31.8.1990, Med., Türkmen 786.

APOCYNACEAE

Nerium oleander L.

Erzin, around İçme, streamside, 350 m, 30.5.1990, Med., Türkmen 443.

Vinca major L. subsp. **major**

Dörtyol, garden border, 100 m, 8.5.1990, Med., Türkmen 444.

ASCLEPIADACEAE

Vincetoxicum tmoleum Boiss.

Dörtyol, top slopes of Mığır, stony areas, 2100 m, 28.9.1991, Ir.-Tur., Türkmen 1043.

GENTIANACEAE

***Blackstonia perfoliata** (L.) Hudson subsp. **serotina** (W.Koch ex Reichb.) Vollmann

Between Dörtyol and Erzin, macchie, 150 m, 3.6.1990, Türkmen 642.

Centaurium erythraea Rafin. subsp. **turcicum** (Velen) Melderis

Erzin, east of Başlamış Village, macchie, 500 m, 27.6.1990, Türkmen 643.

CONVOLVULACAE

Calystegia silvatica (Kit.) Griseb.

Dörtyol, around Çökek, streamside, 650 m, 8.5.1990, Türkmen 571.

Convolvulus dorycnium L. subsp. **oxycephalus** (Boiss.) Rech.fil

Dörtyol, around BOTAŞ, roadside, 70 m, 3.7.1992, Med., Türkmen 573.

C. arvensis L.

Dörtyol, around Tohtak, roadside, 1450 m, 29.5.1991, Cosm., Türkmen 572.

CUSCUTACEAE

***Cuscuta campestris** Yuncker

Dörtyol, around BOTAŞ, roadside, on Alhagi mannifera, 70 m, 3.7.1990, Cosm., Türkmen 616.

C. brevistyla A.Braun

Erzin, top slopes of Keldağ, on Marrubium globosum, 2000 m, 28.6.1990, Türkmen 615.

BORAGINACEAE

Heliotrophium europaeum L.

Between Dörtyol and Erzin, onion field, 150 m, 3.6.1992, Med., Türkmen 456.

Myosotis alpestris F.W.Schmidt.

Dörtyol, top slopes of Mığır, stony areas, 2000 m, 4.6.1990, Türkmen 459.

M. lithospermifolia (Willd.) Hornem.

Dörtyol, around Ufacık, Q. cerris forest, 1530 m, 31.5.1990, Euro-Sib., Türkmen 454.

***Paracaryum lithospermifolium** (Lam.) Grande subsp. **cariense** (Boiss.) R.Mill var. **cariense**

Dörtyol, top slopes of Mığır, stony areas, 2000 m, 4.6.1990, Med., Türkmen 462.

Cynoglossum creticum L.

Erzin, east of Başlamış Village, macchie, 500 m, 5.4.1990, Türkmen 453.

C. montanum L.

Dörtyol, around Karamezla, clearing of F. orientalis forest, 1750 m, 30.5.1991, Türkmen 455.

Lithospermum purpurocaeruleum L.

Dörtyol, around Çökek, P. brutia forest, 750 m, 8.5.1990, Euro-Sib., Türkmen 458.

Buglossoides arvensis (L.) Johnston

Erzin, around İçme, field border, 300 m, 28.3.1991, Türkmen 452.

Lithodora hispidula (Sm.) Griseb. subsp. **versicolor** Meikle

Erzin, around İçme, macchie, 150 m, 27.6.1990, Med., Türkmen 457.

Onosma frutescens Lam

Dörtyol, top slopes of Mığır, stony areas, 2000 m, 4.6.1990, Med., Türkmen 460.

O. tauricum Patlas ex Willd. var. **tauricum**

Dörtyol, around Karagöz, steppe, 1660 m, 31.5.1990, Türkmen 461.

Symphytum brachycalix Boiss.

Dörtyol, around Karamezla, F. orientalis forest, 1750 m, 30.5.1991, Med., Türkmen 463.

Brunnera orientalis (Scheyk) Johnston

Dörtyol, around Akelma, Q. cerris forest, 1530 m, 31.5.1990, Euro-Sib., Türkmen 451.

Anchusa undulata L. subsp. **hybrida** (Ten.) Coutinho

Dörtyol, around Karagöz, steppe, 1660 m, 31.5.1990, Türkmen 450.

A. strigosa Labill.

Dörtyol, garden border, 30 m, 2.8.1990, Türkmen 449.

SOLANACEAE

Solanum nigrum L. subsp. **nigrum**

Dörtyol, streamside, 30 m, 2.8.1990, Cosm., Türkmen 904.

S. dulcamara L.

Dörtyol, around Ciğersiz çeşme, Hillside, 1050 m, 29.8.1991, Euro-Sib., Türkmen 903.

S. elatum Moench

Erzin, east of Başlamış Village, P. brutia forest roadside, 550 m, 30. 5.1990, Türkmen 902.

Physalis alkekengi L.

Erzin, east of Kızlarçayı Village, Hillside, 650 m, 22.8.1991, Türkmen 901.

Atropa belladonna L.

Erzin, nort slopes of Keldağ, F. orientalis forest roadside, 1800 m, 27.8.1991, Euro-Sib., Türkmen 899.

Datura innoxia Miller

Dörtyol, streamside, 30 m, 27.9.1990, Türkmen 900.

SCROPHULARIACEAE

Verbascum linearilobium (Boiss.) Hub.-Mor.

Erzin, east of Başlamış Village, P. brutia forest roadside, 700 m, 25.7.1991, Med., End., Türkmen 891.

V. cedreti Boiss.

Dörtyol, around Akelma, Q. cerris forest, 1550 m, 31.5.1990, Med., Türkmen 888.

V. sinuatum L. var. **adenosephalum** Murb.

Dörtyol, pasture, 70 m, 17.8.1990, Med., Türkmen 892.

V. caesareum Boiss.

Erzin, top slopes of Keldağ, stony areas, 1850 m, 27.8.1991, Med., End., Türkmen 887.

V. amanum Boiss.

Dörtyol, top slopes of Mığır, stony areas, 2100 m, 28.9.1990, Med., Türkmen 886.

V. galileum Boiss.

Erzin, east of Başlamış Village, P. brutia forest roadside, 550 m, 27.12.1990, Med., Türkmen 890.

V. cheiranthifolium Boiss. var. **asperilum** (Boiss.) Murb.

Dörtyol, around Çardak, steppe, 1400 m, 31.5.1991, End., Türkmen 889.

Scrophularia scopolii (Hoppe ex) Pers. var **scopolii**

Dörtyol, around Mışmış, clearing of F. orientalis forest, 1400 m, 4.6.1990, Türkmen 884.

S. xanthoglossa Boiss.

S. Erzin, top slopes of Keldağ, stony areas, 2000 m, 28.6.1990, Ir.-Tur., Türkmen 885.

Anarrhinum orientale Bentham

Erzin, around Kengerlidüz, mixed forest, 1700 m, 28.6.1990, Ir.-Tur., Türkmen 878.

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

Between Dörtyol and Erzin, degraded macchie, 150 m, 3.6.1990, Türkmen 883.

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

Dörtyol, roadside, 70 m, 7.5.1990, Med., Türkmen 882.

Kickxia commutata (Bernh. ex Reichb.) Frit. subsp. **graeca** (Bor & Chamb.) R.Fernand.

Dörtyol, streamside, 30 m, 2.8.1990, Türkmen 880.

Veronica arvensis L.

Dörtyol, around Çökek, streamside, 650 m, 8.5.1990, Euro-Sib., Türkmen 893.

V. persica Poiret

Erzin, garden border, 250 m, 2.4.1990, Türkmen 897.

V. cymbalaria Bodard

Erzin, garden border, 250 m, 2.4.1990, Med., Türkmen 894.

V. leiocarpa Boiss.

Dörtyol, around Çökek, P. brutia forest, 400 m, 30.5.1991, Med., Türkmen 895.

V. orientalis Boiss. Miller subsp. **nimordi** (Reichter ex Stapf.) M.A.Fischer

Dörtyol, around Karagöz, steppe, 1660 m, 31.3.1990, End., Türkmen 896.

Wulfenia orientalis Boiss.

Dörtyol, around Tekkoz, mixed forest roadside, 1000 m, 4.6.1990, Med., Türkmen 898.

Bellardia trixago (L.) All.

Between Dörtyol and Erzin, degraded macchie, 150 m, 3.6.1990, Türkmen 879.

Lesquereuxia syriaca Boiss. & Reuter

Erzin, east of Başlamış Village, P. brutia forest, 750 m, 23.6.1989, Med., Türkmen 881.

OROBANCHACEAE

Phelypaea coccinea (Bieb.) Poiret

Dörtyol, around Kirmenkaya, Q. cerris forest, 1710 m, 31.5.1990, Ir.-Tur., Türkmen 791.

Orobanche crenata Forsskal

Erzin, around Kengerlidüz, mixed forest, 1750 m, 28.6.1990, Türkmen 790.

O. caryophyllacaea Smith

Erzin, around İçme, P. brutia forest, 300 m, 2.4.1990, Türkmen 789.

O. anatolica Boiss. & Reuter

Dörtyol, around Kırıkelma, F. orientalis forest, 1500 m, 30.5.1991, Türkmen 788.

VERBENACEAE

***Phyla nodiflora** (L.) Greene

Dörtyol, streamside, 30 m, 2.8.1990, Türkmen 936.

Verbena officinalis L.

Dörtyol, streamside, 20 m, 2.8.1990, Türkmen 937.

Vitex agnus-castus L.

Erzin, around İçme, streamside, 350 m, 2.8.1990, Med., Türkmen 938.

LABIATAE (LAMIACEAE)

Ajuga orientalis L.

Dörtyol, top slopes of Mığır, stony areas, 2000 m, 4.6.1990, Türkmen 661.

A. chamaepitys (L.) Schreber subsp. **chia** (Schreber) Arcangeli var. **ciliata** Briq.

Dörtyol, around Tekkoz, mixed forest, 1000 m, 31.5.1991, Türkmen 660.

Teucrium polium L. var. **vulgare** Bentham

Erzin, top slopes of Keldağ, stony areas, 2000 m, 27.8.1991, Türkmen 692.

***Scutulleria rubicunda** Hormem subsp. **brevibracteata** (Stapf.) Edmond

Between Dörtyol and Erzin, in ditch, 100 m, 3.6.1990, Med., End., Türkmen 685.

S. glaphyrostachys Rech. fil.

Dörtyol, around Kırıkelma, rocky areas, 1540 m, 3.7.1990, Med., End., Türkmen 684.

S. salviifolia Bentham

Erzin, top slopes of Keldağ, rocky areas, 2100 m, 3.7.1990, End., Türkmen 686.

Phlomis viscosa Poiret

Erzin, south slopes of Keldağ, stony areas, 1800 m, 27.8.1991, Med., Türkmen 677.

P. longifolia Boiss. & Bal. var. **bailanica** (Vierh.) Hub.-Mor.

Erzin, around Tekkoz, mixed forest, 900 m, 31.5.1991, Med., End., Türkmen 676.

Lamium garganicum L. subsp. **nepetifolium** (Boiss.) R. Mill.

Dörtyol, around Kapulu, roadside, 900 m, 29.5.1991, Med., End., Türkmen 666.

L. garganicum L. subsp. **reniforme** (Montbret & Aucher ex Bentham) R. Mill.

Dörtyol, top slopes of Mığır, stony areas, 2100 m, 4.6.1992, Türkmen 667.

L. macrodon Boiss. & Huet

Dörtyol, top slopes of Mığır, stony areas, 2000 m, 4.6.1992, Ir.-Tur., Türkmen 668.

L. maculatum L. var. **maculatum**

Dörtyol, around Kırıkelma, F. orientalis forest, 1750 m, 30.5.1991, Euro-Sib., Türkmen 669.

Ballota nigra L. subsp. **nigra** (Fiori & Beg.) Petzak

Dörtyol, streamside, 40 m, 29.11.1990, Med., Türkmen 662.

Marrubium globosum Montbret et Aucher ex Bentham subsp. **globosum**

Erzin, top slopes of Keldağ, stony areas, 2100 m, 11.9.1989, Ir.-Tur., End., Türkmen 670.

Sideritis libanotica Labill. subsp. **libanotica**

Dörtyol, top slopes of Mığır, stony areas, 2130 m, 28.8.1991, Med., Türkmen 687.

S. perfoliata L. var. **condensata** Boiss.

Erzin, top slopes of Keldağ, stony areas, 2000 m, 26.9.1990, Türkmen 688.

Stachys pinetorum Boiss. & Bal.

Erzin, east of Başlamış Village, P. brutia forest roadside, 650 m, 27.6.1991, Med., Türkmen 691.

S. annua (L.) L. subsp. **ammophila** (Boiss. & Bl.) Samuel.

Erzin, around İçme, field border, 300 m, 28.3.1991, Med., Türkmen 689.

S. diversifolia Boiss.

Erzin, east of Başlamış Village, P. brutia forest, 830 m, 26.9.1990, Med., Türkmen 690.

***Melissa officinalis** L. subsp. **officinalis**

Dörtyol, around Domuzdamı, roadside, 1250 m, 28.8.1991, Türkmen 671.

Nepeta cilicica Boiss.

Erzin, top slopes of Keldağ, rocky areas, 2000 m, 3.7.1990, Med., Türkmen 673.

Prunella vulgaris L.

Dörtyol, around Bülke, P. brutia forest, 660 m, 29.5.1991, Euro-Sib., Türkmen 679.

P. orientalis Bornm.

Dörtyol, east of Kuyuluk Village, P. brutia forest, 450 m, 2.7.1990, Türkmen 678.

Origanum syriacum L. var. **bevanii** (Holmes) Leswaart

Erzin, east of Başlamış Village, macchie, 400 m, 31.8.1990, Med., Türkmen 675.

O. laevigatum Boiss. var. **laxum** Post

Erzin, around İçme, P. brutia forest, 750 m, 14.11.1989, Med., Türkmen 674.

Satureja amani P.H.Davis

Dörtyol, around Kırıkelma, rocky areas, 1650 m, 20.5.1991, Med., End., Türkmen 683.

Calamintha grandiflora (L.) Moench

Erzin, north slopes of Keldağ, F. orientalis forest, 1850 m, 27.8.1991, Euro-Sib., Türkmen 663.

C. nepeta (L.) Savi subsp. **nepeta**

Erzin, east of Başlamış Village, P. brutia forest, 850 m, 2.8.1990, Med., Türkmen 664.

Clinopodium vulgare L. subsp. **arundanum** (Boiss.) Nyman

Dörtyol, around Tohtak, mixed forest, 1200 m, 28.8.1991, Türkmen 665.

Thymus leuchotrichus Hal. var. **austroanatolicus** Jales

Erzin, top slopes of Keldağ, rocky areas, 2000 m, 28.6.1990, Türkmen 695.

T. kotschyanus Boiss. & Hohen var. **glabrescens** Boiss.

Erzin, top slopes of Keldağ, stony areas, 2000 m, 27.8.1991, Ir.-Tur., Türkmen 694.

T. sipyleus Boiss. subsp. **sipyleus** var. **sipyleus**

Dörtyol, around Karagöz, steppe, 1660 m, 31.5.1990, End., Türkmen 696.

Thymbra spicata L. var. **spicata**

Between Dörtyol and Erzin, degraded macchie, 150 m, 3.6.1990, Med., Türkmen 693.

Mentha pulegium L.

Dörtyol, around Pekmezci, rocky areas, 940 m, 3.7.1990, Türkmen 672.

Ziziphora capitata L. subsp. **orientalis** Samuel. ex Rech.

Dörtyol, around Karagöz, steppe, 1660 m, 31.5.1990, Ir.-Tur., Türkmen 697.

Salvia tomentosa Miller

Erzin, east of Başlamış Village, P. brutia forest, 800 m, 30.5.1990, Med., Türkmen 681.

S. viridis L.

Between Dörtyol and Erzin, degraded macchie, 150 m, 3.6.1990, Med., Türkmen 682.

S. glutinosa L.

Dörtyol, around Kırıkelma, clearing of F. orientalis forest, 1700 m, 28.8.1991, Euro-Sib., Türkmen 680.

PLUMBAGINACEAE

Acanthalimon libanoticum Boiss.

Dörtyol, top slopes of Mığır, stony areas, 2160 m, 28.9.1990, Med., Türkmen 805.

***A. acerosum** (Willd.) Boiss. var. **brachystachyum** Boiss.

Erzin, top slopes of Keldağ, stony areas, 2100 m, 27.8.1991, Ir.-Tur., End., Türkmen 804.

PLANTAGINACEAE

Plantago major L. subsp. **intermedia** (Gilib.) Lange

Dörtyol, around Ciğersiz çeşme, Hillside, 1050 m, 29.8.1991, Türkmen 801.

***P. holosteum** Scop.

Erzin, top slopes of Keldağ, stony areas, 2000 m, 27.8.1991, Med., Türkmen 799.

P. lanceolata L.

Erzin, around İçme, macchie, 500 m, 30.5.1990, Türkmen 800.

*P. scabra Moench

Dörtyol, garden border, 40 m, 2.8.1990, Türkmen 802.

THYMELAECEAE

Daphne sericea Vahl

Erzin, around İçme, macchie, 350 m, 5.4.1990, Med., Türkmen 909.

D. oleoides Schreb. subsp. oleoides

Dörtyol, top slopes of Mığır, stony areas, 2100 m, 28.9.1990, Türkmen 908.

LAURACEAE

Laurus nobilis L.

Dörtyol, around Sarısu, Hillside, 1000 m, 28.9.1990, Med., Türkmen 698.

SANTALACEAE

Thesium bergeri Zucc.

Erzin, east of Başlamış Village, macchie, 450 m, 27.6.1990, Med., Türkmen 877.

Osyris alba L. var. serotinia Griseb.

Erzin, east of Başlamış Village, macchie, 31.5.1990, Med., Türkmen 876.

LORANTHACEAE

Loranthus europaeus Jacq.

Dörtyol, around Tohtak, on Q. cerris, 1460 m, 3.7.1990, Türkmen 777.

RAFLESIACEAE

Cytinus hypocistis L. subsp. kermesinus (Guss.) Waldts.

Dörtyol, around Tekkoz, mixed forest, 1050 m, 31.5.1991, Med., Türkmen 822.

EUPHORBIACEAE

Mercurialis annua L.

Erzin, garden border, 250 m, 2.4.1990, Türkmen 633.

M. ovata Sternb. & Hoppe

Dörtyol, around Kırıkelma, F. orientalis forest, 1500 m, 30.5.1991, Euro-Sib., Türkmen 634.

Euphorbia supina Rafin

Between Dörtyol and Erzin, roadside, 100 m, 3.6.1990, Türkmen 632.

E. rhytidosperma Boiss. & Bal.

Dörtyol, around İçkoz, P. nigra forest, 1550 m, 29.5.1991, Med., End., Türkmen 631.

E. apios L. var. lamprocarpa Boiss.

Erzin, east of Başlamış Village, P. brutia forest, 830 m, 5.4.1990, Med., Türkmen 626.

E. helioscopia L.

Erzin, around İçme, field border, 250 m, 27.2.1991, Türkmen 628.

E. peplus L. var. peplus

Dörtyol, around Çökek, streamside, 650 m, 8.5.1990, Türkmen 630.

E. falcata L. subsp. falcata var. falcata

Erzin, east of Başlamış Village, P. brutia forest roadside, 700 m, 25.7.1991, Türkmen 627.

E. macrostegia Boiss.

Erzin, east of Başlamış Village, P. brutia forest, 800 m, 25.7.1991, Türkmen 629.

BUXACEAE

Buxus sempervirens L.

Dörtyol, around Tekkoz, mixed forest, Hillside, 1080 m, 29.5.1991, Euro-Sib., Türkmen 464.

URTICACEAE

Urtica urens L.

Erzin, garden border, 250 m, 2.4.1990, Türkmen 934.

U. dioica L.

Dörtyol, around Karagöz, garden border, 1660 m, 31.5.1990, Euro-Sib., Türkmen 933.

Parietaria judaica L.

Erzin, garden border, 250 m, 2.4.1990, Türkmen 932.

MORACEAE

Ficus carica L. subsp. carica

Erzin, east of Başlamış Village, Hillside, 650 m, 25.7.1991, Türkmen 781.

ULMACEAE

Ulmus glabra Hudson

Dörtyol, around Tekkoz, mixed forest, 850 m, 2.5.1990, Euro-Sib., Türkmen 911.

JUGLANDACEAE

Juglans regia Miller

Erzin, around Kengerlidüz, mixed forest, 1650 m, 2.5.1990, Türkmen 659.

PLATANACAE

Platanus orientalis L.

Erzin, around içme, streamside, 350 m, 5.4.1990, Türkmen 803.

FAGACEAE

Fagus orientalis Lipsky.

Erzin, around Kengerlidüz, mixed forest, 1700 m, 11.9.1989, Euro-Sib., Türkmen 636.

*Castanea sativa Miller

Dörtyol, around Tekkoz, mixed forest, 850 m, 2.7.1990, Euro-Sib., Türkmen 635 (cultivated).

Quercus petraea (Mat.) Liebl. subsp. pinnatiloba (C. Koch) Menitsby

Erzin, around Kengerlidüz, mixed forest, 1650 m, 11.9.1989, End., Türkmen 641.

Q. infectoria Oliver subsp. boissieri (Reuter) O. Schwarz

Erzin, east of Başlamış Village, P. brutia forest, 500 m, 9.11.1989, Türkmen 639.

Q. cerris L. var. cerris

Erzin, around Kengerlidüz, mixed forest, 1650 m, 11.9.1989, Med., Türkmen 637.

Q. libani Oliver

Dörtyol, around Tohtak, Q. cerris forest, 1350 m, 9.11.1989, Ir.-Tur., Türkmen 640.

Q. coccifera L.

Erzin, east of Başlamıs Village, macchie, 500 m, 27.6.1990, Med., Türkmen 638.

CORYLACEAE

Carpinus orientalis Miller

Erzin, east of Başlamış Village, mixed forest, 650 m, 2.7.1990, Türkmen 576.

Ostrya carpinifolia Scop.

Dörtyol, around Tekkoz, mixed forest, 1000 m, 28.3.1990, Med., Türkmen 578.

Corylus avellana L. var. avellana

Dörtyol, around Fındıkderesi, streamside, 1080 m, 29.5.1991, Euro-Sib., Türkmen 577.

BETULACEAE

Alnus glutinosa (L.) Gaertn. subsp. barbata (C.A.Meyer) Yalt.

Dörtyol, near Kuyuluk Village, streamside, 500 m, 31.5.1991, Euro-Sib., türkmen 448.

SALICACEAE

Salix alba L. subsp. **micans** (Anderson) Rech. fil.

Dörtyol, around Karagöz, wetland, 1480 m, 3.7.1990, Euro-Sib., Türkmen 874.

S. pedicellata Desf. subsp. **pedicellata**

Dörtyol, east of Kuyuluk Village, Hillside, 550 m, 31.5.1991, Med., Türkmen 875.

Populus tremula L.

Erzin, around Kengerlidüz, mixed forest, 1650 m, 30.5.1990, Euro-Sib., Türkmen 873.

RUBIACEAE

Putoria calabrica (L. fil.) DC.

Erzin, east of Başlamış Village, P. brutia forest, Hillside, 600 m, 30.8.1991, Med., Türkmen 869.

Sherardia arvensis L.

Erzin, east of Başlamış Village, macchie, 500 m, 5.4.1990, Med., Türkmen 872.

Crucianella latifolia L.

Between Dörtyol and Erzin, degraded macchie, 150 m, 3.6.1990, Med., Türkmen 861.

***Asperula stricta** Boiss. subsp. **monticola** Ehrend.

Erzin, top slopes of Keldağ, stony areas, 2000 m, 3.7.1990, Med., End., Türkmen 859.

A. stricta Boiss. subsp. **stricta**

Erzin, east of Başlamış Village, P. brutia forest, 650 m, 3.7.1990, Med., Türkmen 860.

A. cymulosa (Post) Post

Erzin, east of Başlamış Village, P. brutia forest, Med., End., Türkmen 858.

Galium odoratum (L.) Scop.

Dörtyol, around Mışmış F. orientalis forest, 1400 m, 4.6.1990, Euro-Sib., Türkmen 866.

G. verum L. subsp. **verum**

Between Dörtyol and Erzin, roadside, 150 m, 3.6.1990, Euro-Sib., Türkmen 868.

G. album Miller subsp. **amani** Ehrend. et Schönb.-Tem.

Dörtyol, around Akelma, Q. cerris forest, 1530 m, 31.5.1990, Türkmen 863.

G. incanum Sm. subsp. **elatius** (Boiss.) Ehrend.

Erzin, top slopes of Keldağ, stony areas, 2000 m, 28.6.1990, Ir.-Tur., Türkmen 865.

G. aparine L.

Dörtyol, around Çardak, roadside, 1400 m, 31.5.1990, Türkmen 864.

***G. tenuissimum** Bieb. subsp. **tenuissimum**

Between Dörtyol and Erzin, field border, 150 m, 3.6.1990, Türkmen 867.

***Cruciata laevipes** Opiz

Between Dörtyol and Erzin, degraded macchie, 150 m, 3.6.1990, Euro-Sib., Türkmen 862.

Rubia rotundifolia Banks & Sol.

Dörtyol, east of Kuyuluk Village, P. brutia forest, 450 m, 2.7.1990, Med., Türkmen 870.

R. tenuifolia d.Urv. subsp. **brachypoda** (Boiss.) Ehrend.

Erzin, around İçme, macchie, 450 m, 17.4.1990, Med., Türkmen 871.

MONOCOTYLEDONES

ARACEAE

Arum dioscoridis Sm. var. **liepoldtii** (Scott) Engler

Dörtyol, garden border, 90 m, 5.4.1990, Med., Türkmen 446.

LILIACEAE

Smilax excelsa L.

Dörtyol, around Kapulu, mixed forest, 1070 m, 26.6.1989, Euro-Sib., Türkmen 1028.

S. aspera L.

Erzin, east of Başlamış Village, P. brutia forest, 750 m, 26.6.1990, Türkmen 1027.

Ruscus aculeatus L. var. **angustifolius** Boiss.

Dörtyol, around Çökek, P. brutia forest, 750 m, 26.6.1989, Türkmen 1024.

Danae racemosa (L.) Moench

Dörtyol, around Tekkoz, mixed forest, Hillside, 1000 m, 31.5.1991, Türkmen 1011.

Asparagus acutifolius L.

Erzin, around İçme, macchie, 500 m, 31.8.1990, Med., Türkmen 1006.

Polygonatum orientale Desf.

Dörtyol, around Mışmış F. orientalis forest, 1400 m, 4.6.1990, Euro-Sib., Türkmen 1023

P. multiflorum All.

Dörtyol, around Kırıkelma, F.orientalis forest, 1500 m, 30.5.1991, Türkmen 1022.

Asphodelus aestivus Brot.

Between Dörtyol and Erzin, degraded macchie, 150 m, 3.6.1990, Med., Türkmen 1009.

Eremurus spectabilis Bieb.

Dörtyol, top slopes of Mığır, stony areas, 2100 m, 4.6.1990, Ir.-Tur., Türkmen 1012.

Asphodelina globifera J.Gay ex Baker

Dörtyol, around Karagöz, steppe, 1660 m, 31.5.1990, Med., Türkmen 1008.

A. damascena (Boiss.) Baker subsp. **damascena**

Dörtyol, top slopes of Mığır, stony areas, 1950 m, 4.6.1992, Ir.-Tur., Türkmen 1007.

***Allium sipyleum** Boiss.

Erzin, top slopes of Keldağ, stony areas, 2000 m, 27.8.1991, Med., Türkmen 1005.

A. ampeloprasum L.

Dörtyol, field border, 150 m, 3.6.1990, Med., Türkmen 1001.

A. scorodoprasum L. subsp. **rotundum** (L.) Stearn

Dörtyol, around Karagöz, steppe, 1480 m, 3.7.1990, Med., Türkmen 1004.

A. calyptratum Boiss.

Dörtyol, top slopes of Mığır, stony areas, 2000 m, 4.6.1990, Med., Türkmen 1002.

A. lycaonicum Siehe ex Hayek

Erzin, around Karaoluk, clearing of F. orientalis forest, 1300 m, 26.6.1989, Türkmen 1003.

Urginea maritima L.

Dörtyol, streamside, 30 m, 27.9.1990, Med., Türkmen 1029.

Scilla melaine Speta

Erzin, east of Başlamıs Village, mixed

forest, 650 m, 28.3.1991, Med., Türkmen 1026.

S. autumnalis L.

Erzin, around İçme, macchie, 400 m, 26.9.1991, Türkmen 1025.

Ornithogalum ulophyllum Hand.-Mazz.

Dörtyol, around Karagöz, steppe, 1660 m, 31.5.1990, Türkmen 1021.

O. oligophyllum E.D. Clarke

Erzin, around Kengerlidüz, clearing of P. nigra forest, 1700 m, 23.5.1992, Türkmen 1020.

Muscari comosum (L.) Mill.

Erzin, around Kengerlidüz, mixed forest, 1700 m, 28.6.1990, Türkmen 1017.

M. tenuiflorum Tousch.

Dörtyol, around Çökek, P. brutia forest, 800 m, 8.5.1990, Türkmen 1019.

M. neglectum Guss.

Dörtyol, top slopes of Mığır, stony areas, 1950 m, 3.6.1990, Türkmen 1018.

Fritillaria acmopetale Boiss. subsp. **acmopetale**

Dörtyol, around Gücük, clearing of F. orientalis forest, 1400-1700 m, 4.6.1990, Med., Türkmen 1013.

F. hermonis Fenzl subsp. **amana** Rix

Dörtyol, top slopes of Mığır, stony areas, 2000 m, 4.6.1990, Med., Türkmen 1014.

F. pinardii Boiss.

Erzin, around Kengerlidüz, P. nigra forest, 1700 m, 23.5.1990, Ir.-Tur., Türkmen 1015.

Gagea fibrosa (Desf.) Schultes & Schultes. fil.

Erzin, around İçme, macchie, 300 m, 2.4.1992, Türkmen 1016.

Colchicum trodii Kotschy

Dörtyol, around Karamezla, clearing of F. orientalis forest, 1750 m, 28.9.1990, Med., Türkmen 1010.

IRIDACEAE

Iris unguicularis Poiret

Erzin, east of Başlamış Village, P. brutia forest, 750 m, 5.4.1990, Med., Türkmen 998.

Gynandriris sisyrinchium (L.) Parl.

Erzin, around İçme, macchie, 400 m,5.4.1990, Türkmen 997.

Crocus kotschyanus C.Koch subsp. **kotschyanus**

Dörtyol, top slopes of Mığır, stony areas, 1920 m, 28.9.1990, Türkmen 994.

Gladiolus italicus Miller

Erzin, east of Başlamış Village, P. brutia forest, 750 m, 30.5.1990, Türkmen 996.

G. anatolicus (Boiss.) Stapf

Dörtyol, around Kocadüz, mixed forest, 1050 m, 2.7.1990, Med., End., Türkmen 995.

ORCHIDACEAE

Cephalanthera kurdica Bornm. ex Kranzlin

Dörtyol, around Tekkoz, mixed forest, 1000 m, 31.5.1991, Ir.-Tur., Türkmen 1032.

C. rubra (L.) L.C.M. Richard

Dörtyol, around Bülke, P. brutia forest, 1000 m, 31.5.1991, Türkmen 1034.

C. longifolia (L.) Fritsch

Dörtyol, around Mışmış F. orientalis forest, 1350 m, 4.6.1990, Euro-Sib., Türkmen 1033.

C. damasonium (Miller) Druce

Dörtyol, around Kırıkelma, F. orientalis forest, 1500 m, 30.5.1991, Euro-Sib., Türkmen 1031.

Epipactis helleborine (L.) Crantz

Dörtyol, around Kocadüz, mixed forest, 1050 m, 2.7.1990, Türkmen 1037.

Limodorum abortivum (L.) Swartz

Dörtyol, around Akelma, F. orientalis forest, 1520 m, 31.5.1991, Türkmen 1038.

Platanthera bifolia (L.) L.C.M. Richard

Dörtyol, around İçkoz, P. nigra forest, 1550 m, 29.5.1991, Euro-Sib., Türkmen 1041.

Anacamptis pyramidalis (L.) L.C.M. Richard

Dörtyol, around Kocadüz, mixed forest, 1050 m, 2.7.1992, Türkmen 1030.

Orchis morio L. subsp. **syriaca** Camus & al.

Erzin, around İçme, macchie, 300 m, 2.4.1992, Med., Türkmen 1040.

O. mascula (L.) subsp. **pinetorum** (Boiss. & Kotschy) G.Camus

Dörtyol, around Gücük, F. orientalis forest, 1800 m, 4.6.1990, Med., Türkmen 1039.

Dactylorhiza saccifera (Brong.) Soo'

Dörtyol, around Tekkoz, mixed forest, 850 m, 2.7.1990, Med., Türkmen 1036.

D. osmanica (L.) Soo' var. **osmanica**

Dörtyol, around Atkayası, mixed forest, 880 m, 29.5.1991, Ir.-Tur., End., Türkmen 1035.

DIOSCAREACEAE

Tamus communis L. subsp. **communis**

Dörtyol, around Tohtak, mixed forest, 1070 m, 26.6.1989, Türkmen 617.

TYPHACEAE

***Typha angustifolia** L.

Dörtyol, around BOTAŞ, irrigation canal, 70 m, 3.7.1992, Türkmen 1042.

JUNCACEAE

Juncus inflexus L.

Dörtyol, around Tohtak, mixed forest, 1200 m, 28.8.1991, Türkmen 999.

Luzula forsteri (Sm.) DC.

Dörtyol, around Akelma, Q. cerris forest, 1530 m, 31.5.990, Euro-Sib., Türkmen 1000.

CYPERACEAE

***Cyperus rotundus** L.

Dörtyol, around BOTAŞ, field border, 70 m, 3.7.1990, Türkmen 948.

Bolboschoenus maritimus (L.) Palla var. **cymosus**

Dörtyol, salty places near sea, 20 m, 27.9.1990, Türkmen 943.

Scirpoides holoschoenus (L.) Sojak

Erzin, east of Başlamış Village, P. brutia forest roadside, 650 m, 25.7.1991, Türkmen 949.

Carex divulsa Stokes subsp. **divulsa**

Dörtyol, around Çökek, streamside, 650 m, 8.5.1990, Euro-Sib., Türkmen 945.

C. pendula Hudson

Dörtyol, around Kapulu, roadside, 1080 m, 29.5.1991, Euro-Sib., Türkmen 947.

C. flacca Schreber subsp. **serrulata** (Biv.) Greuter

Erzin, east of Başlamış Village, macchie, 500 m, 5.4.1990, Med., Türkmen 946.

C. distans L.

Erzin, east of Başlamış Village, P. brutia forest roadside, 650 m, 31.10.1991, Euro-Sib., Türkmen 944.

GRAMINEAE (POACEAE)

Brachypodium pinnatum (L.) P. Beauv.

Erzin, east of Başlamış Village, P. brutia forest, 800 m, 30.5.1990, Türkmen 955.

Aegilops speltoides Tausch var. **speltoides**

Between Dörtyol and Erzin, roadside, 150 m, 3.6.1990, Türkmen 951.

***Ae. neglecta** Req. ex Bertol.

Between Dörtyol and Erzin, degraded macchie, 150 m, 3.6.1990, Med., Türkmen 950.

Hordeum bulbosum L.

Dörtyol, top slopes of Mığır, stony areas, 1950 m, 31.5.1990, Türkmen 974.

Bromus intermedius Guss.

Erzin, around İçme, macchie, 500 m, 30.5.1990, Türkmen 957.

B. squarrosus L.

Dörtyol, around Tekkoz, mixed forest, 1000 m, 26.6.1989, Türkmen 959.

B. scoparius L.

Dörtyol, around Akelma, Q. cerris forest, 1530 m, 31.5.1990, Türkmen 958.

B. tectorum L.

Dörtyol, around Tekkoz, mixed forest roadside, 900 m, 31.5.1991, Türkmen 961.

B. sterilis L.

Dörtyol, around Tekkoz, mixed forest roadside, 900 m, 31.5.1991, Türkmen 960.

Agrostis stolonifera L.

Dörtyol, around Akelma, Q. cerris forest, 1530 m, 31.5.1990, Euro-Sib., Türkmen 952.

Alepocurus gerardii Vill. var. **gerardii**

Erzin, top slopes of Keldağ, stony areas, 2100 m, 27.8.1991, Med., Türkmen 953.

Phleum montanum C.Koch subsp. **montanum**

Erzin, top slopes of Keldağ, stony areas, 2100 m, 28.6.1990, Türkmen 981.

Lolium rigidum Gaudin var. **rigidum**

Dörtyol, around Tekkoz, mixed forest roadside, 31.5.1991, Türkmen 976.

***Vulpia fasciculata** (Forsskal) Fritsch

Dörtyol, around Tekkoz, mixed forest, 900 m, 31.5.1991, Med., Türkmen 993.

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

Erzin, around Karaoluk, clearing of F. orientalis forest, 1300 m, 26.6.1989, Türkmen 962.

Poa annua L.

Dörtyol, around Kırıkelma, F. orientalis forest, 1500 m, 30.5.1991, Cosm., Türkmen 984.

P. timoleontis Heldr. ex Boiss.

Erzin, around İçme, degraded macchie, 300 m, 2.4.1990, Med., Türkmen 986.

P. bulbosa L.

Dörtyol, top slopes of Mığır, stony areas, 2100 m, 4.6.1990, Türkmen 985.

Eromopoa songarica (Schrenk) Roshev.

Dörtyol, around Çardak, roadside, 1400 m, 31.5.1990, Ir.-Tur., Türkmen 973.

Dactylis glomerata L. subsp. **glomerata**

Erzin, east of Başlamış Village, P. brutia forest roadside, 700 m, 31.10.1991, Türkmen 967.

D. glomerata L. subsp. **hispanica** (Roth) Nyman

Erzin, around İçme, P. brutia forest, 800 m, 30.5.1990, Türkmen 968.

Cynosurus echinatus L.

Erzin, top slopes of Keldağ, 1700-2000 m, 28.6.1990, Med., Türkmen 966.

Briza minor L.

Dörtyol, around Çökek, streamside, 650 m, 8.5.1992, Türkmen 956.

Echinaria capitata (L.) Scop.

Dörtyol, roadside, 30 m, 5.4.1990, Türkmen 971.

Melica uniflora Retz

Erzin, east of Başlamış Village, P. brutia forest, 700 m, 3.6.1989, Euro-Sib., Türkmen 979.

M. eligulata Boiss.

Erzin, near Kızlarçayı Village, Hillside, 700 m, 22.8.1991, Med., Türkmen 977.

M. minuta L.

Erzin, east of Başlamış Village, P. brutia forest, 750 m, 30.5.1990, Med., Türkmen 978.

Stipa holosericea Trin

Erzin, around Kengerlidüz, mixed forest, 1650 m, 11.8.1989, Ir.-Tur., Türkmen 990.

Piptatherum coerulescens (Desf.) P. Beauv.

Dörtyol, around Çökek, streamside, 700 m, 8.5.1990, Türkmen 983.

Arundo donax L.

Dörtyol, streamside, 70 m, 26.9.1990, Türkmen 954.

Phragmites australis (Cav.) Trin. ex Steudel

Erzin, around Toprakkale, marshy place, 70 m, 17.10.1990, Euro-Sib., Türkmen 982.

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

Dörtyol, around Çökek, degraded macchie, 350 m, 8.5.1990, Türkmen 965.

Crypsis alopecuroides (Piller & Mitterp.) Schrader

Dörtyol, around Kapulu, Q. cerris forest, 1070 m, 26.6.1989, Türkmen 964.

***Tragus racemosus** (L.) All.

Dörtyol, streamside, 20 m, 2.8.1990, Türkmen 992.

***Echinochloa colonum** (L.) Link

Dörtyol, around BOTAŞ, roadside, 70 m, 3.7.1990, Türkmen 972.

Digitaria sanguinalis (L.) Scop.

Dörtyol, roadside, 30 m, 29.11.1990, Türkmen 970.

Paspalum paspaloides (Michx.) Schribner

Dörtyol, streamside, 20 m, 27.9.1990, Türkmen 980.

Saccharum ravennae (L.) Murray

Dörtyol, streamside, 30 m, 27.9.1990, Türkmen 987.

S. strictum (Host) Sprengel

Erzin, east of Başlamış Village, P. brutia forest, 800 m, 25.7.1991, Türkmen 988.

Sorghum halepense (L.) Pers. var. **halepense**

Between Dörtyol and Erzin, field border, 150 m, 3.6.1990, Türkmen 989.

Chrysopogon gryllus (L.) Trin.

Erzin, east of Başlamış Village, macchie, 500 m, 30.5.1990, Türkmen 963.

Dicanthium annulatum (Forsskal.) Stapf.

Dörtyol, around Çökek, roadside, 450 m, 8.5.1992, Ir.-Tur., Türkmen 969.

Hyparrhenia hirta (L.) Stapf.

Dörtyol, garden border, 60 m, 29.11.1990, Türkmen 975.

Themeda triandra Forsskal.

Erzin, around İçme, macchie, 500 m, 2.8.1990, Türkmen 991.