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Research Article

Flora of Eber Stream Basin (Afyonkarahisar)

Mustafa Kargıoğlu[1], Hasan Ketenci[1], Seda Kaya Köse[2*]

[1] Afyon Kocatepe University, Faculty of Science and Letters, Department of Biology, Afyonkarahisar, Türkiye. ror.org/03a1crh56

[2] Independent researcher, Çünür, Isparta, Türkiye.

*Corresponding author:
sedakaya1990@gmail.com

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Abstract: The research explores the vascular plant flora of the Eber Stream Basin and adjacent areas on the northern slopes of the Sultan Mountains. In total, 588 vascular plant taxa from 82 families and 331 genera were recorded during the study. Of these, 22 taxa are newly recorded for the flora of Afyonkarahisar. The study also revealed that 68 taxa are endemic, corresponding to an endemism rate of 11.67%. The phytogeographical distribution of the identified taxa is as follows: Mediterranean element 76 taxa (12.85%), Euro-Siberian element 73 taxa (12.35%), Irano-Turanian element 71 taxa (12.01%), and taxa with unknown phytogeographical status 371 taxa (62.77%). Additionally, Onobrychis cornuta (L.) Desv. communities were recorded for the first time within the scope of this study at elevations between 1900 and 2100 meters on Toprak Tepe, located in the research area. With this finding, the presence of the species within the provincial boundaries of Afyonkarahisar has been documented in the scientific literature for the first time.

Keywords: *Eber Stream Basin, Flora, Endemic, Plant systematics, Türkiye*

I. INTRODUCTION

The Sultan Mountains constitute one of the most important mountainous regions of Türkiye in terms of plant diversity, endemic richness, and environmental heterogeneity. Several researchers have identified the Sultan Mountains as one of Türkiye's 122 Important Plant Areas (IPA) and Key Biodiversity Areas (KBA) (Özhatay et al., 2005; Eken et al., 2006). In particular, the northern slopes facing Lake Akşehir and Lake Eber are floristically rich, hosting numerous endemic taxa as well as plant species of Euro-Siberian origin. For example, *Corylus avellana* L., a Euro-Siberian species, forms extensive stands in valley habitats. The phytosociological structure of *Corylus avellana* communities was presented by Kargıoğlu at a biology congress held in Samsun (Kargıoğlu, 1998). Additionally, in the Kapıkayası region, natural stands of another Euro-Siberian species, *Corylus colurna* L., are found. This species has developed individuals with notably large trunks, with some specimens reaching a trunk circumference of up to 380 cm.

In the northern part of the Sultan Mountain range, particularly between elevations of 1400 and 1800 meters, stands of *Quercus vulcanica* Boiss. & Heldr. ex Kotschy (Kasnak oak), a Mediterranean element, are notably prominent. *Quercus vulcanica* extends vertically up to 1900 m, marking the upper forest limit in certain areas, and occurs above forests dominated by *Pinus nigra* J.F.Arnold (Black pine) and *Cedrus libani* (Taurus cedar). Furthermore, in a previous study, we demonstrated that *Quercus vulcanica*, much like Euro-Siberian species, prefers moist and cool habitats (Kargıoğlu, 2018). This finding enhances our understanding of the floristic diversity and ecological significance of the Sultan Mountains.

The first researcher to record collecting plant specimens from the Sultan Mountains is Bornmüller (1899) (Baytop & Dökmeci, 1978). Subsequently, several prominent local and foreign botanists collected specimens from the region (Baytop & Dökmeci, 1978). Furthermore, a floristic list specific to the Sultan Mountains was published by Baytop and Dökmeci (1978), as referenced by Çakırer (1984). In 1982, a comprehensive phytosociological and phytoecological study was conducted in the Sultan Mountains– Doğanhisar region of Konya (Ocakverdi & Çetik, 1982). In 2022, the plant species richness and diversity of the Sultan Mountains were published (Kaya Köse, 2024; Kaya Köse & Şenkul, 2023).

Following these earlier publications, many botanical investigations have been carried out in the Sultan Mountains. Among these, the studies led by Kargıoğlu and the graduate theses conducted under his supervision hold particular significance for documenting the local flora of the region (Başhan, 2019; Kargıoğlu, 2018; Kargıoğlu & Başhan, 2023; Kargıoğlu et al., 2007; 2008; Ketenci, 2022).

The Sultan Mountains form a mountain range approximately 100 km in length and 25 km in width, comprising numerous peaks. In the northern part of the region, there are four main streams and the four distinct basins formed by them. The flora of one of these basins, the Deresinek Basin, was studied in detail by Başhan (2019).

Adjacent to the Deresinek Basin, the Eber Stream Basin - selected as the focal area of the present study-stands out as a floristically unexplored region. Such studies have the potential to make significant contributions to the floristic diversity of Türkiye through the discovery of new species and records in previously unstudied areas. The rich flora of the Sultan

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Mountains, characterized by a high number of endemic taxa and a unique topography, played a decisive role in selecting this unexplored part of the region for floristic investigation.

The study area, the Eber Stream Basin, is situated within the administrative limits of Eber village in the Çay district of Afyonkarahisar province. It encompasses the stream bed extending from Gelincikana Hill to Lake Eber, along with the surrounding slopes along this corridor. To the north and northeast of the area lie Lake Eber and Lake Akşehir. In accordance with the grid system employed in Davis's Flora of Turkey and the East Aegean Islands, the region is situated within grid square B3 (Davis, 1965-1985). From a phytogeographical perspective, the Eber Stream Basin is situated within the Irano-Turanian floristic region (Figure 1).

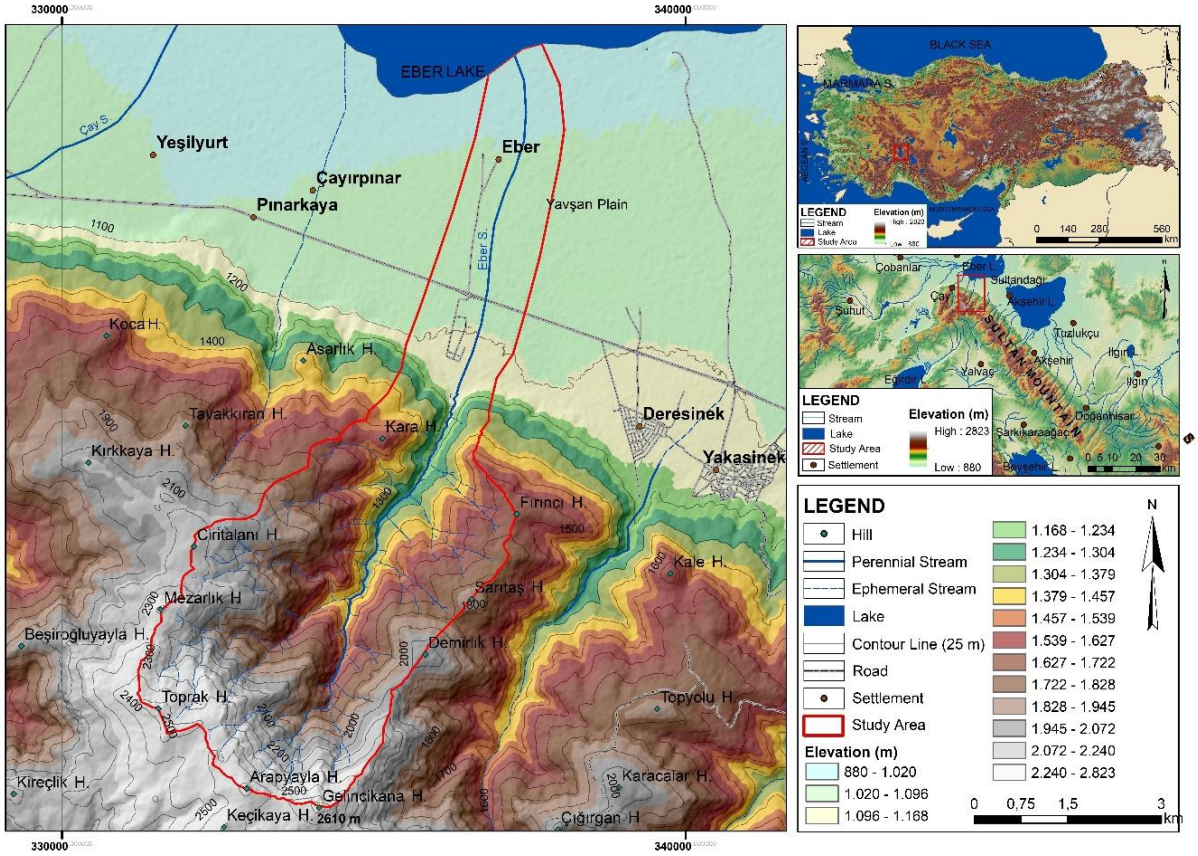


Figure 1. *Location* map of the study area.

II. MATERIALS AND METHODS

The study material includes 960 plant specimens collected during field surveys carried out from 2019 to 2021, covering the vegetation periods between March and November. These specimens were collected from 14 sampling stations (Table 1) representing various habitats within the Eber Stream Basin, at elevations ranging from 1000 to 2610 m, where the floristic composition varies under different ecological conditions.

Plant specimens collected during the fieldwork conducted throughout the vegetation period in the study area were pressed and dried using standard herbarium techniques. Prior to collection, the specimens were documented by photographing them in their natural habitats. Elevation, habitat characteristics, and collection dates of the specimens were meticulously recorded. For identification, the primary reference was Davis's comprehensive 'Flora of Turkey and the East Aegean Islands' (Davis, 1965 - 1985; Davis et al., 1988). Additionally, Boissier's 'Flora Orientalis' (Boissier, 1867-1888) and publications on the Turkish flora by Güner and colleagues were also consulted (Güner et al., 2000; Güner et al., 2012). The collected plants were dried according to scientific principles, packaged in cardboard, and preserved in the herbarium of the Faculty of Science and Literature at Afyon Kocatepe University.

In preparing the list, the families recognized in the APG III (Angiosperm Phylogeny Group) system were taken into consideration (Christenhusz et al., 2011a; 2011b; 2011c; Reveal & Chase, 2011). Differing from APG III, this study adopts the sequence Lycopodiophyta, Pteridophyta, and Spermatophyta at the division level. In the lower taxonomic categories, APG III was followed, and Spermatophyta was arranged in two subdivisions: Pinophytina and Magnoliophytina. The families within these divisions and subdivisions, the genera within the families, and the taxa within the genera are presented entirely in alphabetical order.

Table 1. Sampling stations where field studies were conducted.

1.	B3 Afyonkarahisar: Çay district, NE of Lake Eber, Yavşan Plain, area around protected *Vuralia turcica*
2.	B3 Afyonkarahisar: Çay district, Eber Village, roadside and garden margins
3.	B3 Afyonkarahisar: Çay district, Eber Basin, SW of Kara H.
4.	B3 Afyonkarahisar: Çay district, Eber Village – Earthquake houses area, surroundings of the village
5.	B3 Afyonkarahisar: Çay district, NW of Fırıncı H.
6.	B3 Afyonkarahisar: Çay district, Sultan Mountains, Arapyayla H.
7.	B3 Afyonkarahisar: Çay district, Sultan Mountains, Toprak H.
8.	B3 Afyonkarahisar: Çay district, Sultan Mountains, Demirlik H.
9.	B3 Afyonkarahisar: Çay district, west side of Gelincikana H.
10.	B3 Afyonkarahisar: Çay district, summit of Gelincikana H.
11.	B3 Afyonkarahisar: Çay district, north-west stream bed of Gelincikana H.
12.	B3 Afyonkarahisar: Çay district, Sarıtaş H., west and northwest slopes
13.	B3 Afyonkarahisar: Çay district, Ciritalanı H., east slopes
14.	B3 Afyonkarahisar: Çay district, Eber Basin, banks of Eber Stream

The highest point of the Sultan Mountains is Gelincikana Hill, which stands at an elevated height of 2610 metres. Other significant peaks arranged along the mountain range from northwest to southeast include Sultandede Hill (2311 m), Mezarlık Hill (2274 m), Toprak Hill (2519 m), Cığırgan Hill (2308 m), Demirlik Hill (2020 m), Mercansivri Hill (2276 m), Gedik Hill (2181 m), Taşpınar Plateau (2300 m), Başyurt Hill (2424 m), Batman Hill (1993 m), and Tekke Mountain (2169 m) (Figure 1) (Atalay, 1977).

Beyond its topographic features, the geological structure of the Sultan Mountains is another key factor influencing the physical and ecological characteristics of the region. The Sultan Mountains form a Paleozoic massif mainly consisting of epimetamorphic schists, with interbedded lens- and wedge-shaped layers of quartzite and limestone. Several of these layers run parallel to the structural axis of the range (Atalay, 1977). The lithological and geological age characteristics of the study area are shown in Figure 2.

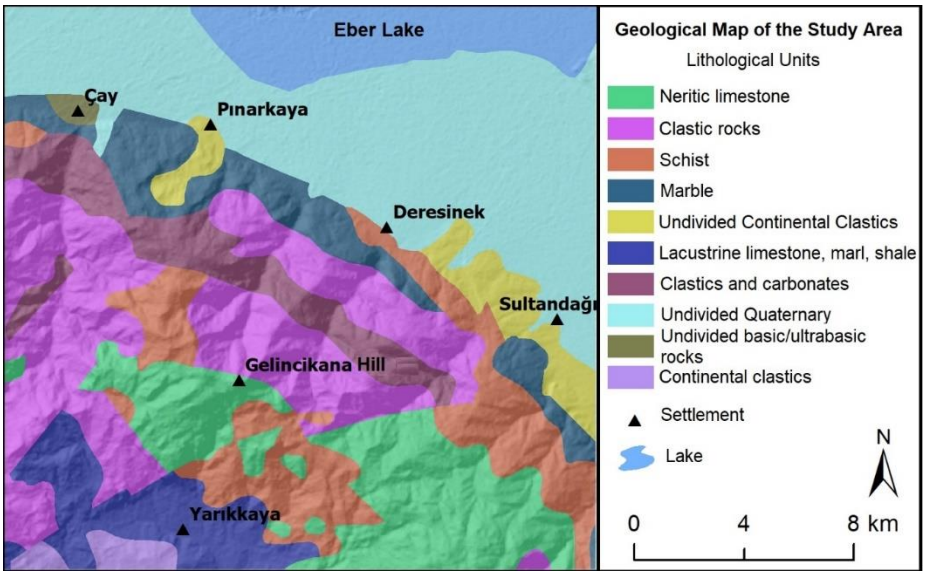


Figure 2. *Lithological* map of the research area (Redrawn from MTA, 2003).

The average elevation of the Sultan Mountains is approximately 2000 m. Due to this altitude; the mountain range acts as a natural barrier against winds blowing from the north and south. This phenomenon particularly contributes to the development of rich floral diversity in the northeastern part of the mountain. Lake Akşehir and Lake Eber, located to north of the Sultan Mountains, increase the humidity of the prevailing winds from that direction, resulting in greater plant diversity in the northern slopes compared to the southern ones. Additionally, the Sultan Mountains, together with the Lake Akşehir and Lake Eber, contribute to the formation of local climatic zones in the surrounding area.

Climate data (temperature and precipitation values) obtained from meteorological stations located in Akşehir and Çay are presented in Table 2.

Table 2. Climatological data for the Akşehir and Çay districts, focusing on mean temperature and total precipitation (MGM, 1950–2015; 2001–2015).

Stations	Meteorological elements	Months												Annual
		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	
Akşehir 1950-2015	Avg. temperature (°C)	1.2	2.4	6.2	11.3	15.8	19.7	23.0	22.8	18.7	13.0	7.5	3.2	12.1
	Avg. precipitation (mm)	65.9	61.0	66.9	60.3	56.9	45.0	17.3	11.4	18.5	45.3	52.8	69.0	570.3
Çay 2001-2015	Avg. temperature (°C)	0.7	2.1	6.4	10.9	15.8	19.8	23.5	23.5	18.5	12.9	7.2	2.2	12
	Avg. precipitation (mm)	39.9	41.9	41.4	47.0	35.8	18.9	7.4	8.1	17.7	32.4	32.9	53.5	344

III. RESULTS

The findings of this study resulted in the identification of a total of 588 taxa, classified into 331 genera and 82 families (Appendix 1). Among these taxa, 3 belong to the division Pteridophyta, while 585 belong to the division Magnoliophyta. Within the classification of Magnoliophyta, 8 taxa are categorised under the subdivisions Pinophytina, while 580 are classified under the subclass Magnoliophytina (Appendix 1). Figure 3a and Figure 3b presents the distribution of plant taxa by families and genera. The results indicate that the most represented families are Asteraceae and Fabaceae, while the most species-rich genera are *Astragalus* and *Silene* (Figure 3a and 3b).

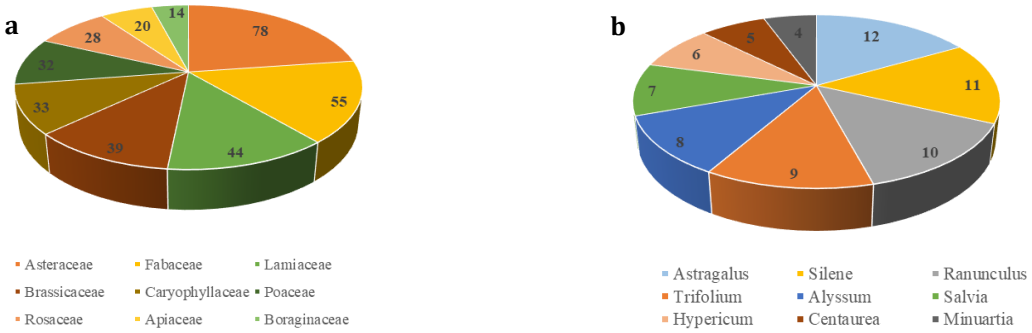


Figure 3. *Distribution* of plant taxa in the Eber Stream basin according to families (a) and genera (b).

An examination was conducted of the phytogeographical distribution of the 588 taxa identified in the study area; 76 taxa are representative of the Mediterranean phytogeographical region, 73 taxa of the Euro-Siberian region, and 71 taxa of the Irano-Turanian phytogeographical region. The phytogeographical affiliations of the remaining 368 taxa could not be determined.

A total of 68 taxa identified in the study area are endemic, corresponding to an endemism rate of 11.56%. The distribution of endemic plant taxa according to IUCN categories (Ekim et al., 2000) is displayed in Table 3. The spatial distribution of endemic plant taxa identified within the boundaries of the Eber Stream Basin is presented in Figure 4. Figure 5 provides photographic documentation of endemic plant taxa identified during field investigations.

Table 3. The following table sets out the IUCN categories of endemic plant species that have been identified in the Eber Stream Basin.

Species	IUCN Categories	Species	IUCN Categories
Bellevalia tauri	LC	*Colutea melanocalyx*	EN
Achillea phrygia	LC	*Genista aucheri*	LC
Achillea teretifolia	LC	*Hedysarum pestalozzae*	LC
Cirsium libanoticum subsp. *lycaonicum*	LC	*Lathyrus laxiflorus* subsp. *angustifolius*	VU
Cyanus reuterianus var. *phrygia*	LC	*Helichrysum arenarium* subsp. *aucheri*	LC

Table 3. (cont) The following table sets out the IUCN categories of endemic plant species that have been identified in the Eber Stream Basin.

Onopordum anatolicum	LC	*Vuralia turcica*	CR
Tragopogon aureus	LC	*Quercus vulcanica*	NT
Tripleurospermum callosum	LC	*Hypericum aviculariifolium*	LC
Onosma ambigens	LC	*Iris kerneriana*	LC
Onosma armena	LC	*Iris schachtii*	LC
Onosma bornmuelleri	LC	*Marrubium astracanicum* subsp. *macrodon*	LC
Alyssum lepidotum	LC	*Alyssum pateri* subsp. *pateri*	LC
Aubrieta alshehbazii	CR	*Marrubium parviflorum* subsp. *oligodon*	LC
Aubrieta pinardii	LC	*Micromeria cristata* subsp. *phrygia*	LC
Erysimum kotschyanum	LC	*Origanum sipyleum*	LC
Asyneuma compactum var. *compactum*	NT	*Phlomis nissolii*	LC
Asyneuma michauxioides	LC	*Salvia cadmica* var. *cadmica*	LC
Asyneuma limoniifolium subsp. *pestalozzae*	LC	*Sideritis phrygia*	NT
Asyneuma linifolium subsp. *linifolium*	EN	*Linum cariense*	LC
Campanula ajugifolia	LC	*Linum hirsutum* subsp. *anatolicum* var. *anatolicum*	LC
Dianthus balansae	LC	*Acer hyrcanum* subsp. *sphaerocaryum*	VU
Dianthus leucophaeus	LC	*Papaver pilosum* subsp. *sparsipilosum*	LC
Eremogone acerosa	LC	*Linaria genistifolia* subsp. *confertiflora*	LC
Minuartia leucocephaloides	LC	*Festuca pinifolia* var. *phrygia*	LC
Minuartia pestalozzae	NT	*Ranunculus reuterianus*	LC
Paronychia dudleyi	NT	*Rhamnus petiolaris*	LC
Silene caryophylloides subsp. *masmenaea*	NT	*Rhamnus thymifolia*	LC
Euphorbia anacampseros var. *anacampseros*	LC	*Alchemilla holocycla*	LC
Astragalus campylosema subsp. *campylosema*	LC	*Amelanchier parviflora* var. *parviflora*	LC
Astragalus mesogitanus	LC	*Asperula stricta* subsp. *latibracteata*	LC
Astragalus sibthorpianus	LC	*Scrophularia cryptophila*	VU
Astragalus strictispinis	NT	*Verbascum insulare*	LC
Astragalus tmoleus var. *bounacanthus*	LC	*Verbascum krauseanum*	LC
Marrubium globosum	LC	*Verbascum phrygium*	NT

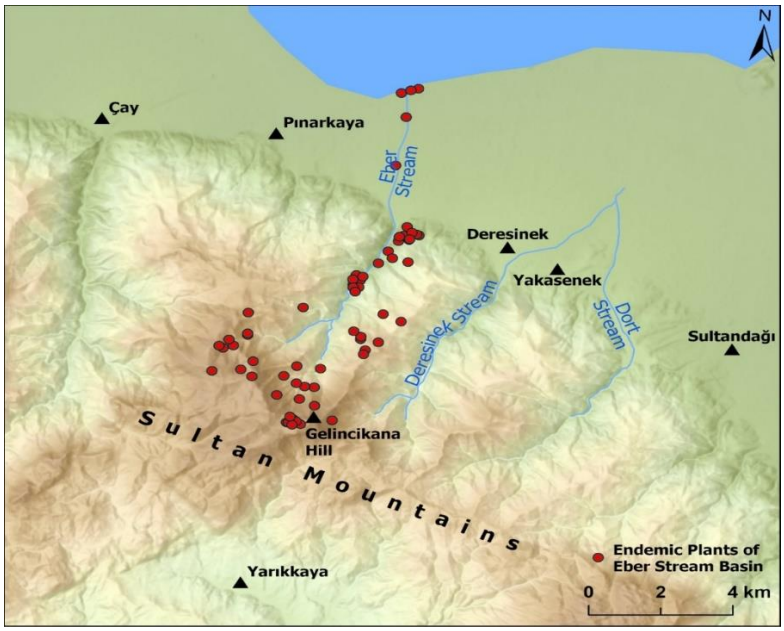


Figure 4. *Distribution* map of the Eber Stream basin.

The plant taxa identified in this study were classified based on the Checklist of the Plants of Turkey (Vascular Plants) published according to Güner et al. (2012) and are presented below. In Appendix-1, an asterisk ("*") preceding a taxon name indicates that the taxon is a cultivated species, while a double asterisk ("**") denotes that the taxon represents a new record for the flora of Afyonkarahisar. The plant taxa obtained as a result of the research are provided in the Appendix.



Figure 5. Photographs of endemic plant species occurring in the Eber Stream Basin. a) *Colutea melanocalyx* Boiss. & Heldr. subsp. *melanocalyx* b) *Vuralia turcica* (Kit Tan, Vural & Küçüködük) Uysal & Ertuğrul c) *Acer hyrcanum* Fisch. & C.A.Meyer subsp. *sphaerocaryum* Yalt. d) *Aubrieta alshehbazii* Dönmez, Uğurlu & M.A.Koch, e) *Lathyrus laxiflorus* (Desf.) O. Kuntze subsp. *laxiflorus* f) *Scrophularia cryptophila* Boiss. & Heldr, M.Kargıoğlu & İ. Baygül.

IV. DISCUSSION AND CONCLUSIONS

The present study provides a comprehensive assessment of the vascular plant flora of the Eber Stream Basin, with the species recorded in the region systematically documented. The findings reveal the floristic diversity of the basin and highlight the biological richness of the region. The floristic diversity of the basin may be related to the region's topographic diversity, microclimatic differences, and proximity to wetlands.

The study resulted in the documentation of 588 vascular plant taxa, classified into 331 genera and 82 families, within the geographical area encompassed by the Eber Stream Basin. This species richness indicates a remarkable level of diversity when compared to the floristic values reported in nearby areas such as the Sultan Mountains, Akdağ, and Başkomutan Historical National Park. A total of 461 taxa were identified in Doğanhisar (Ocakverdi, 1984), 667 taxa in

Başkomutan Historical National Park (Ekim et al., 1985), 603 taxa in Ahır Mountain (Kargıoğlu, 2003), and 776 taxa in Barla Mountain (Bekat, 1987), all located in regions close to the study area. Table 4 presents the total number of taxa identified in the Eber Stream Basin, along with their distribution characteristics according to family classification. The comparison reveals that the Fabaceae family is dominant in the Barla and Ahır Mountains, while the Asteraceae family is represented by the highest number of taxa in the Deresinek Basin (Sultan Mountains), Doğanhisar (Sultan Mountains), Başkomutan Historical National Park, Akdağ, Maymun, Kumaralar, and Emir Mountains (Akçiçek, 2003; Aytaç & Vural, 1990; 1991; Bekat, 1987; Çırpıcı, 1989; Ekim et al., 1985; Gemici, 1990; Kargıoğlu, 2003; Kargıoğlu & Başhan, 2023; Kocabıçak et al., 2009; Köse & Ocak, 2004; Ocakverdi, 1984). The Asteraceae and Fabaceae families, which have the highest number of species in the Turkish flora, also have a similarly high representation in the Eber Stream Basin flora. It has been determined that the Eber Stream Basin shares very similar characteristics with the geographically close Doğanhisar and Emir Mountains. A comparison of floristic studies conducted in the study area reveals that the genera with the highest number of taxa are *Astragalus*, *Centaurea*, *Trifolium*, *Silene*, *Alyssum*, and *Ranunculus* (Akçiçek, 2003; Aytaç & Vural, 1990; 1991; Bekat, 1987; Çırpıcı, 1989; Ekim et al., 1985; Gemici, 1990; Kargıoğlu, 2003; Kargıoğlu & Başhan, 2023; Kocabıçak et al., 2009; Köse & Ocak, 2004; Ocakverdi, 1984).

Table 4. Families with the highest taxon numbers: Comparison between the study area and neighboring regions (Akçiçek, 2003; Aytaç & Vural, 1991; Bekat, 1987; Çırpıcı, 1989; Ekim et al., 1985; Gemici, 1990; Kargıoğlu, 2003; Kargıoğlu & Başhan, 2023; Kocabıçak et al., 2009; Köse &Ocak, 2004; Ocakverdi, 1984).

Family	Eber Stream Basin	Doğanhisar	Başkomutan Historical National Park	Barla Mountain	Murat Mountain	Akdağ	Ahırdağı	Maymun Mountain	Kumalar Mountain	North of Emir Mountain	Southern Emir Mountains	Deresinek Basin
Total Taxa	588	461	667	776	890	1058	603	481	898	495	522	455
Asteraceae	78	55	89	87	113	136	65	81	104	53	58	54
Fabaceae	55	48	81	109	65	105	77	41	77	51	53	35
Brassicaceae	39	24	29	48	60	67	34	26	50	36	29	33
Apiaceae	20	17	26	34	34	44	19	17	36	19	16	15
Lamiaceae	44	35	45	56	52	61	50	41	71	44	52	32
Caryophyllaceae	33	27	41	43	55	52	31	12	42	30	31	15
Boraginaceae	14	11	20	25	27	24	18	17	33	17	20	13
Rosaceae	28	14	30	22	42	38	21	14	42	17	18	27
Poaceae	32	45	47	43	31	62	33	20	89	38	26	16

The findings obtained in the study conducted in the Eber Stream Basin have also made significant contributions to the knowledge of the Afyonkarahisar flora. As part of the study, 22 new taxa were documented in the Afyonkarahisar flora list (Table 5). Table 5 presents the plant taxa recorded during the field surveys.

Table 5. Species newly added to the flora of Afyonkarahisar.

Species	Phytogeographical Region	Endemism	Species	Phytogeographical Region	Endemism
Eupatorium cannabinum	Euro-Siberian		*Lathyrus laxiflorus*	Mediterranean element	
Alyssum alyssoides	-		*Trifolium aureum*	Euro-Siberian	
Anchonium elichrysifolium	-		*Hypericum linarioides*	-	
Thlaspi ochroleucum	-		*Orobanche arenaria*	-	
Asyneuma michauxioides	E. Mediterranean (Mountain) element		*Digitalis cariensis*	Mediterranean element	
Minuartia erythrosepala	-		*Polygonum bistorta*	Euro-Siberian	
Petrorhagia cretica	-		*Androsace villosa*	Euro-Siberian	
Silene caryophylloides	-	Endemic	*Primula auriculata*	Irano-Turanian	
Sedum hispanicum	Irano-Turanian		*Alchemilla holocycla*	Irano-Turanian	
Astragalus lineatus	-		*Crataegus pentagyna*	Euro-Siberian	
Cytisus austriacus	Euro-Siberian		*Viola tricolor*	-	

Following the field studies, 68 taxa were identified (Figure 6). The majority of these taxa fall under the LC (Least Concern) category (54 taxa), followed by 8 taxa in the NT (Near Threatened) category. Furthermore, three taxa are classified as EN (Endangered), two taxa as VU (Vulnerable), and two taxa as CR (Critically Endangered). The species *Aubrieta alshehbazii* Dönmez, Uğurlu & M.A. Koch and *Vuralia turcica*, classified in the CR category, provide unequivocal evidence of the conservation value of the Eber Stream Basin in terms of its flora. The distribution of these species as narrow endemics is indicative of the region's significant importance in terms of endemism and habitat uniqueness. It is imperative to acknowledge the ecological significance of *Vuralia turcica* (Kit Tan, Vural & Küçüködük) Uysal & Ertuğrul, which is endemic to wetland ecosystems, and Aubrieta alshehbazii, which is found in rocky slopes and transition zones. The preservation of these habitats is paramount for ensuring the long-term viability and biodiversity of the region.

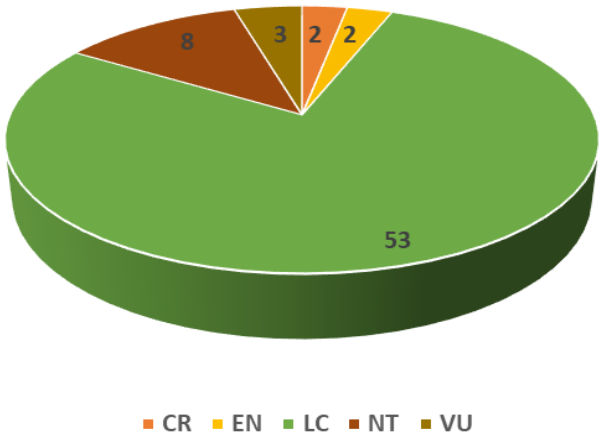


Figure 6. Distribution of endemic plants according to IUCN categories.

This study has comprehensively revealed the floristic composition of the Eber Stream Basin within the Sultan Mountains and made a significant contribution to the region's plant diversity by adding 22 new taxa to the flora of Afyonkarahisar province. These newly identified taxa allow for the updating and enrichment of floristic knowledge at both local and national levels. Additionally, the identification of *Onobrychis cornuta* (L.) Desv. communities between 1900 and 2100 m elevation on Toprak Tepe-within Afyonkarahisar's geographical boundaries-for the first time through this study represents a meaningful finding for the regional floristic diversity. The presence of these communities indicates the ecological uniqueness of the area.

Corylus avellana (hazelnut) communities, occasionally observed on the slopes of the Eber Stream bed, serve as a significant example reflecting the influence of microclimatic conditions in the region. The ability of this species to persist outside its natural distribution area demonstrates the decisive role of microclimatic factors on local biodiversity.

Another important factor influencing the floristic diversity of the study area is Gelincikana Peak, the highest point of the Sultan Mountains at 2610 meters. The high altitude and unique climatic conditions of this peak have led to differentiation of the plant species identified here from more common taxa, contributing to the floristic uniqueness of the region.

In general, *Pinus nigra* and *Quercus vulcanica* species were observed to be dominant in the study area. This dominance is plays a key role shaping the forest structure and ecosystem composition of the region.

The present study, conducted in the Eber Stream Basin, directly contributes to conservation planning at the local level. The data obtained provides a solid foundation for the conservation and sustainable management of the region's biological diversity, while also providing scientific data support for global discussions in the fields of biogeography, taxonomy, and conservation science.

DECLARATIONS

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Plagiarism Statement: This article has been reviewed for plagiarism, and no cases of plagiarism have been found.

Use of AI Tools: The authors declare that no Artificial Intelligence (AI) tools were used in the preparation of this article.

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APPENDİX 1

PTERIDOPHYTA
EQUISETIDAE
1. EQUISETACEAE
1. Equisetum
1.Equisetum giganteum L.12, K. 10681.
2.ASPLENIACEAE
2. Asplenium
2.Asplenium ceterach L.12, K. 10671.
3.CYSTOPTERIDACEAE
3.Cystopteris
3.Cystopteris fragilis (L.) Bernh. 11, K.10758.
MAGNOLIOPHYTA
PINOPHYTINA
GNETIDAE
4.EPHEDRACEAE
4. Ephedra
4.Ephedra major Host subsp. *majör.* 3, K. 10918.
PINIDAE
5.CUPRESSACEAE
5.Juniperus
5.Juniperus communis L. var. *saxatilis* Pall.
3, K. 10669.
6.Juniperus excelsa M. Bieb. subsp. *excelsa*
3, K. 10637.
7.Juniperus foetidissima Willd. 3, K. 10919.
8.Juniperus oxycedrus L. subsp. *oxycedrus* var. *oxycedrus* f. *oxycedrus.* 3, K. 10631.
6.PINACEAE
6.Cedrus
9.Cedrus libani A.Rich. var. *libani.*
3, K. 10920. Med. (mountain) element.
7. Pinus
10.Pinus nigra J.F.Arnold. subsp. *pallasiana* (Lamb.) Holmboe var. *pallasiana.* 3, K. 10921.
11.Pinus sylvestris L. var. *hamata* Steven. 3, K. 10922. Euro-Sib.element.
MAGNOLIOPHYTINA
MAGNOLIDAE
Monocotyledonae and dicotyledonae are included (Güner 2012).
7.ACANTHACEAE
8.Acanthus
12.Acanthus hirsutus Boiss. subsp. *hirsutus*.
5, K. 10355.
8.ADOXACEAE
9.Sambucus
13.Sambucus nigra L. 3, K. 10670.
10.Viburnum
14.Viburnum lantana. L. 3, K. 10153.
9.ALISMATACEAE
11.Alisma
15.Alisma lanceolatum With.1, K. 10598.
10.AMARANTHACEAE
12.Chenopodium
16.Chenopodium botrys L. 4, K. 10431.
17.Chenopodium foliosum Asch. 8, K. 10549.
13.Noaea
18.Noaea mucronata (Forssk.) Aschers. & Schweinf. subsp. *mucronata.* 4, K. 10916.
11.AMARYLLIDACEAE
14.Allium
19.Allium paniculatum L. subsp. *paniculatum.* 5, K. 10737. Med. element.
20.Allium scorodoprasum L. subsp. *rotundum* (L.) Stearn. 2, K. 10232.
15.Galanthus
21.Galanthus gracilis Celak. 3, K. 10705.
12.ANACARDIACEAE
16.Pistacia
22.Pistacia palaestina Boiss*.* 3, K. 10634.
E. Med. element.
13.APIACEAE
17.Angelica
23.Angelica sylvestris L. var. s*ylvestris.* 7, K. 10883. Euro-Sib.element.
18.Astrantia
24.Astrantia maxima Pall. subsp. *haradjianii* (Grintz.) Rech.f. 3, K. 10923.
19.Berula
25.Berula erecta (Huds.) Coville. 1, K. 10583.
20.Bifora
26.Bifora radians M.Bieb. 2, K. 10275.
21.Bunium
27.Bunium microcarpum (Boiss.) Freyn & Bornm. ex Freyn subsp. *microcarpum.* 5, K. 10187. Med. element.
22.Caucalis
28.Caucalis platycarpos L. 3, K. 10158.
23.Conium
29.Conium maculatum L.1, K. 10261.
24.Daucus
30.Daucus carota L.2, K. 10456.
25.Echinophora
31.Echinophora tenuifolia L. subsp. *sibthorpiana* (Guss.) Tutin. 2, K. 10609.
Ir-Tur. element.
32.Echinophora tournefortii Jaub. & Spach.
2, K. 10903. Irano-Turanian element.
26.Ferulago
33.Ferulago trachycarpa Boiss. 11, K. 10796. E. Med. element.
27.Heracleum
34.Heracleum platytaenium Boiss. 14, K. 10867. Euro-Sib.element.
28.Johrenia
35.Johrenia dichotoma DC. 7, K. 10892.
Ir-Tur. element.
29.Malabaila
36.Malabaila secacul (Mill.) Boiss. subsp. s*ecacul.* 4, K. 10165.
30.Pastinaca
37.Pastinaca sativa L. subsp. *urens* (Req. ex Gren. & Godr.) Celak. 2, K. 10897.
31. Physocaulis
38. *Physocaulis nodosus* (L.) Tausch. 3, K. 10240.
32.Pimpinella
39.Pimpinella tragium Vill. subsp. *polyclada* (Boiss. & Heldr.) Tutin. 12, K. 10678.

33.Scandix
40.Scandix pecten-veneris L. 3, K. 10142.
34.Smyrnium
41.Smyrnium connatum Boiss. & Kotschy.
8, K. 10384. Med. element.
35.Torilis
42.Torilis japonica (Houtt.) DC. 2, K. 10231.
14.APOCYNACEAE
36.Cynanchum
43.Cynanchum acutum L. subsp. *acutum.*
2, K. 10458.
37.Vinca
44.Vinca herbacea Waldst. & Kit. 5, K. 10354.
15.ARACEAE
38.Lemna
45.Lemna minor L. 1, K. 10092.
46.Lemna trisulca L.1, K. 10594.
16.ASPARAGACEAE
39.Asparagus
47.Asparagus tenuifolius Lam. 3, K. 10924.
Euro-Sib.element.
40.Bellevalia
48.Bellevalia tauri Feinbrun. 5, K. 10196.
End. "LC". Med. element.
41.Muscari
49.Muscari neglectum Guss. ex Ten. 3, K. 10713.
50.Muscari tenuiflorum Tausch. 11, K. 10819.
42.Ornithogalum
51.Ornithogalum armeniacum Baker. 8, K. 10382. E. Med. element.
52.Ornithogalum oligophyllum E.D. Clarke. 6, K. 10202.
43.Polygonatum
53.Polygonatum orientale Desf. 3, K. 10925. Euro-Sib.element.
44.Scilla
54.Scilla bifolia L. 3, K. 10116. Med. element.
17.ASTERACEAE
45.Achillea
55.Achillea arabica Kotschy. 5, K. 10733.
Ir-Tur. element.
56.Achillea grandifolia Friv. 5, K. 10730.
57.Achillea millefolium L. subsp. *millefolium* var. *millefolium.* 14, K. 10861. Euro-Sib.element.
58.Achillea nobilis L. subsp. *neilreichii* (A.Kern.) Velen. 2, K. 10267. Euro-Sib.element.
59.Achillea phrygia Boiss. & Balansa, 7, K. 10891. End. "LC". Ir-Tur. element.
60.Achillea setacea Waldst. & Kit. 2, K. 10273. Euro-Sib.element.
61.Achillea teretifolia Willd. 5, K. 10473.
End. "LC". Ir-Tur. element.
46.Anthemis
62.Anthemis cretica L. subsp. *anatolica* (Boiss.) Grierson. 3, K. 10297.
63.Anthemis cretica L. *pontica* (Willd.) Grierson, 6, K. 10413.
47.Arctium
64.Arctium minus (Hill) Bernh.1, K. 10626.
Euro-Sib.element.
48.Artemisia
65.Artemisia campestris L. var. *campestris.*
2, K. 10455.
49.Aster
66.Aster alpinus L. 6, K. 10406.
50.Bellis
67.Bellis perennis L. 1, K. 10089. Euro-Sib.element.
51.Bidens
68.Bidens tripartita L.1, K. 10602.
52.Cardopatium
69.Cardopatium corymbosum (L.) Pers.
1, K. 10588. E. Med. element.
53.Carlina
70.Carlina oligocephala Boiss. & Kotschy subsp. *oligocephala.* 7, K. 10940.
54.Carthamus
71.Carthamus dentatus (Forssk.) Vahl. 2, K. 10905.
55.Centaurea
72.Centaurea iberica Trev. ex Spengel. 1, K. 10263.
73.Centaurea kotschyi (Boiss. & Heldr.) Hayek var. *persica* (Boiss.) Wagenitz. 11, K. 10814.
74.Centaurea solstitialis L. subsp. *solstitialis.* 1, K. 10443.
75.Centaurea urvillei DC. subsp. *stepposa* Wagenitz. 8, K. 10396.
76.Centaurea virgata Lam. 3, K. 10926. Ir-Tur. element.
56.Chondrilla
77.Chondrilla juncea L. 1, K. 10442.
57.Cichorium
78.Cichorium intybus L. 1, K. 10441.
58.Cirsium
79.Cirsium arvense (L.) Scop. 2, K. 10896.
80.Cirsium creticum d'Urv. subsp. *creticum.*
1, K. 10590. Med. element.
81.Cirsium libanoticum DC. subsp. *lycaonicum* (Boiss. & Heldr.) P.H.Davis & Parris, 2, K. 10097. End. "LC". Med. element.
59.Conyza
82.Conyza canadensis (L.) Cronquist. 2, K. 10630.
60.Cota
83.Cota tinctoria (L.) J.Gay ex Guss. var. *tinctoria,* 14, K. 10849.
61.Crepis
84.Crepis commutata (Spreng.) Greuter. 14, K. 10827.
85.Crepis foetida L. subsp. *rhoeadifolia* (M.Bieb.) Čelak. 5, K. 10322.
62.Crupina
86.Crupina crupinastrum (Moris) Vis. 3, K. 10927.
63.Cyanus
87.Cyanus depressus (M.Bieb.) Soják. 2, K. 10226.
88.Cyanus pichleri (Boiss.) Holub subsp. *pichleri.* 6, K. 10407.
89.Cyanus reuterianus (Boiss.) Holub var. *phrygia* Boram. 6, K. 10415.
End. "LC". E. Med. element.
90.Cyanus triumfettii (All.) Dostál ex Á.Löve & D.Löve subsp. *triumfettii.* 6, K. 10209.
64.Doronicum
91.Doronicum orientale Hoffm. 3, K. 10928.
65.Echinops
92.Echinops pungens Trautv. var. *pungens.*
5, K. 10480. Ir-Tur. element.
66.Erigeron
93.Erigeron acris L. subsp. *pycnotrichus* (Vierh.) Grierson. 14, K. 10844.Euro-Sib.element.
67.Eupatorium

94.**_Eupatorium cannabinum_ L. 3, K. 10668. Euro-Sib.element

68.Filago

95.Filago arvensis L. 5, K. 10725.

69.Helichrysum

96.Helichrysum arenarium (L.) Moench subsp. _aucheri_ (Boiss.) P.H.Davis & Kupicha, 9, K. 10496. End. "LC". Ir-Tur. element.

97.Helichrysum plicatum DC. subsp. _plicatum._ 3, K. 10577.

70.Hieracium

98.Hieracium pannosum Boiss. 7, K. 10885. E. Med. element.

71.Inula

99.Inula anatolica Boiss. 5, K. 10475.

100.Inula britannica L. 3, K. 10575.
Euro-Sib.element.

101.Inula oculus-christi L.10, K. 10567.
Euro-Sib.element.

102.Inula salicina L.7, K. 10889.
Euro-Sib.element.

72.Jurinea

103.Jurinea consanguinea DC. 5, K. 10332.

73.Lactuca

104.Lactuca intricata Boiss. 7, K. 10881.
E. Med. (Mountain) element.

105.Lactuca viminea (L.) J.Presl & C.Presl.
8, K. 10870.

74.Lapsana

106.Lapsana communis L. subsp. _adenophora_ (Boiss.) Rech.f. 3, K. 10485.

107.Lapsana communis L. subsp. _pisidica_ (Boiss. & Heldr.) Rech.f. 14, K. 10850.

75.Leontodon

108.Leontodon crispus Vill. subsp. _asper_ (Waldst. & Kit.) Röhl var. _asper._ 5, K. 10723. Euro-Sib.element.

76.Matricaria

109.Matricaria chamomilla L. var. _recutita_ (L.) Fiori. 4, K. 10437.

77.Onopordum

110.Onopordum anatolicum Boiss. & Heldr. ex Eig. 1, K. 10445. End. 'LC'. İran-Turan element.

78.Picnomon

111.Picnomon acarna (L.) Cass. 4, K. 10470.

79.Picris

112.Picris pauciflora Willd. 1, K. 10593.
Med. element.

80.Pilosella

113.Pilosella piloselloides (Vill.) Soják subsp. _magyarica_ (Peter) S.Bräut. & Greuter. 13, K. 10746.

81.Pulicaria

114.Pulicaria dysenterica (L.) Bernh. subsp. _dysenterica._ 3, K. 10909.

82.Rhaponticum

115.Rhaponticum repens (L.) Hidalgo. 2, K. 10452. Ir-Tur. element.

83.Scorzonera

116.Scorzonera cana (C.A.Mey.) Griseb. var. _radicosa_ (Boiss.) D.F. Chamb. 9, K. 10518.

84.Senecio

117.Senecio vernalis Waldst. & Kit. 4, K. 10179.

118.Senecio vulgaris L. 3, K. 10929

85.Solidago

119.Solidago virgaurea L. subsp. _virgaurea_
7, K. 10886. Euro-Sib.element.

86.Sonchus

120.Sonchus asper (L.) Hill subsp. _glaucescens_ (Jord.) Ball. 4, K. 10440.

87.Tanacetum

121.Tanacetum parthenium (L.) Sch. Bip. 14, K. 10852.

88.Taraxacum

122.Taraxacum buttleri Soest. 2, K. 10707.

123.Taraxacum macrolepium Schischk. 2, K. 10111.

124.Taraxacum scaturiginosum G.E. Haglund. 2, K. 10222.

89.Tragopogon

125.Tragopogon aureus Boiss.7, K. 10890.
End. "LC". Euro-Sib.element

126.Tragopogon dubius Scop. 2, K. 10095.

90.Tripleurospermum

127.Tripleurospermum callosum (Boiss. & Heldr.) E. Hossain, 1, K. 10262. End. "LC".

91.Tussilago

128.Tussilago farfara L. 11, K. 10798. Euro-Sib.element

92.Xanthium

129.Xanthium orientale L. subsp. _italicum_ (Moretti) Greuter. 1, K. 10618.

130.Xanthium spinosum L. 3, K. 10640.

93.Xeranthemum

131.Xeranthemum annuum L.14, K. 10847.

18.BERBERIDACEAE

94.Berberis

132.Berberis crataegina DC. 4, K. 10175.

19.BETULACEAE

95.Corylus

133.Corylus avellana L. var. _avellana._ 3, K. 10663. Euro-Sib.element.

134.Corylus colurna L. 12, K. 10933. Euro-Sib.element.

20.BORAGINACEAE

96.Anchusa

135.Anchusa azurea Mill. var. _azurea._ 2, K. 10281.

97.Asperugo

136.Asperugo procumbens L. 2, K. 10102.
Euro-Sib.element.

98.Buglossoides

137.Buglossoides arvensis (L.) I. M. Johnst. subsp. _sibthorpiana_ (Griseb.) R. Fern. 7, K. 10422.

138.Buglossoides incrassata (Guss.) I. M. Johnst. subsp. _incrassata._ 3, K. 10113.
Med. element.

99.Cynoglossum

139.Cynoglossum creticum Mill. 2, K. 10269.

100.Echium

140.Echium italicum L. 1, K. 10621.
Med. element.

101.Heliotropium

141.Heliotropium dolosum De Not. 4, K. 10429.

102.Myosotis

142.Myosotis alpestris F.W. Schmidt subsp. _alpestris._ 6, K. 10400.

143.Myosotis ramosissima Rochel. 11, K. 10756.

103.Onosma

144.Onosma ambigens Lacaita. 3, K. 10245. End. "LC". Ir-Tur. element.
145.Onosma armena DC. 6, K. 10410.
End. "LC".
146.Onosma bornmuelleri Hausskn. & Bornm. 11, K. 10804. End. "LC". Ir-Tur. element.
147.Onosma hebebulba DC. 5, K. 10351.
Ir-Tur. element.
148.Onosma heterophylla Griseb.11, K. 10824. Euro-Sib.element.

21.BRASSICACEAE

104.Aethionema

149.Aethionema cordatum (Desf.) Boiss. 11, K. 10816.

105.Alyssum

150.******Alyssum alyssoides* (L.) L. 8, K. 10378.
151.Alyssum desertorum Stapf. 8, K. 10542.
152.Alyssum lepidotum Boiss. 5, K. 10344. End. "LC".
153.Alyssum minutum Schlecht. ex DC. 7, K. 10211.
154.Alyssum murale Waldst. & Kit. subsp. *murale* var. *murale.* 12, K. 10786.
155.Alyssum pateri Nyár. subsp. *pateri.* 9, K. 10517. End. "LC". İran-Turan element.
156.Alyssum sibiricum Willd. 14, K. 10856.
157.Alyssum simplex Rudolph. 4, K. 10432.

106.Anchonium

158.******Anchonium elichrysifolium* (DC.) Boiss. subsp. *elichrysifolium* var. *elichrysifolium.* 11, K. 10817.

107.Arabis

159.Arabis caucasica Willd. subsp. *caucasica.* 6, K. 10397.
160.Arabis sagittata (Bertol.) DC. 13, K. 10747.

108.Aubrieta

161.******Aubrieta alshehbazii* Dönmez, Uğurlu & M. A. Koch, 11, K. 10755. End. "CR".
162.Aubrieta pinardii Boiss. 6, K. 10402.
End. "LC".

109.Barbarea

163.Barbarea plantaginea DC.13, K. 10752.

110.Brassica

164.Brassica elongata Ehrh. 2, K. 10628.

111.Calepina

165.Calepina irregularis (Asso) Thell. 2, K. 10703.

112.Capsella

166.Capsella bursa-pastoris (L.) Medik. 6, K. 10418.
167.Capsella rubella Reut. 3, K. 10143. Med. element.

113.Clypeola

168.Clypeola jonthlaspi L. 5, K. 10371.

114.Descurainia

169.Descurainia sophia (L.) Webb ex Prantl subsp. *sophia.* 2, K. 10106.

115.Draba

170. Draba verna L. 3, K. 10717.
171.Draba heterocoma Fenzl. 5, K. 10934.

116.Erysimum

172.Erysimum cuspidatum (M.Bieb.) DC. 3, K. 10317.
173.Erysimum kotschyanum J.Gay. 11, K. 10800. End. "LC".
174.Erysimum repandum L. 8, K. 10379.
175.Erysimum smyrnaeum Boiss. & Bala. 14, K. 10846.

117.Euclidium

176.Euclidium syriacum (L.) Aiton, 3, K. 10162.

118.Fibigia

177.Fibigia eriocarpa (DC.) Boiss. 3, K. 10122.

119.Iberis

178.Iberis sempervirens L. 10, K. 10569.

120.Lepidium

179.Lepidium draba L. subsp. *chalepense* (L.) P. Fourn. 2, K. 10100.
180.Lepidium latifolium L. 2, K. 10287.
181.Lepidium perfoliatum L. 2, K. 10104.

121. Noccaea

182. Noccaea ochroleuca (Boiss. & Heldr.) F.K. Mey. 9, K. 10501.

122.Rapistrum

183.Rapistrum rugosum (L.) All. 2, K. 10276.

123.Sisymbrium

184.Sisymbrium altissimum L. 2, K. 10101.
185.Sisymbrium loeselii L. 2, K. 10093.
186.Sisymbrium officinale (L.) Scop. 3, K. 10789.

124.Thlaspi

187.Thlaspi perfoliatum L. 3, K. 10115

22.CAMPANULACEAE

125.Asyneuma

188.Asyneuma compactum (Boiss. & Heldr.) Damboldt var. *compactum.* 6, K. 10206. End "NT". E. Med. (Mountain) element.
189.Asyneuma limonifolium (L.) Janch. subsp. *pestalozzae* (Boiss.) Damboldt. 9, K. 10510. End. "LC".
190.Asyneuma linifolium (Boiss. & Heldr.) Bornm. subsp. *linifolium.* 8, K. 10385.
End. "EN". E. Med. (Mountain) element.
191.******Asyneuma michauxioides* (Boiss.) Damboldt. 3, K. 10112. End. "LC". E. Med. (Mountain) element.
192.Asyneuma rigidum (Willd.) Grossh. subsp. *rigidum.* 11, K. 10813. Ir-Tur. element.

126.Campanula

193.Campanula ajugifolia Schult. 7, K. 10884. End. "LC". Ir-Tur. element.
194.Campanula cymbalaria Sm. 5, K. 10935.
195.Campanula lyrata Lam. subsp. *lyrata.*
5, K. 10936.

127.Legousia

196.Legousia speculum-veneris (L.) Durande ex Vill. 5. K. 10740. Med. element.

23.CANNABACEAE

128.Celtis

197.Celtis planchoniana K.I.Chr. 2, K. 10939.

24.CAPRIFOLIACEAE

129.Centranthus

198.Centranthus longiflorus Steven subsp. *longiflorus.* 5, K. 10328. Ir-Tur. element.

130.Cephalaria

199.Cephalaria transsylvanica (L.) Schrad.
5, K. 10937.

131.Lonicera

200.Lonicera caucasica Pall. 3, K. 10256.
201.Lonicera etrusca Santi var. *etrusca.* 5, K. 10343. Med. element.

132.Morina

202.Morina persica L. var. *persica.* 5, K. 10347. Ir-Tur. element.

133.Scabiosa

203.Scabiosa argentea L. 4, K. 10290.

204.Scabiosa columbaria L. subsp. *ochroleuca* (L.) Celak var. *webbiana* (Don) Matthews. 10, K. 10560.

134.Valerianella

205.Valerianella coronata (L.) DC. 3, K. 10137.

135.Valeriana

206.Valeriana dioscoridis Sm. 3, K. 10150.
E. Med. element.

25.CARYOPHYLLACEAE

136.Arenaria

207.Arenaria serpyllifolia L. subsp. *serpyllifolia.*8, K. 10540.

137.Cerastium

208.Cerastium banaticum (Rochel) Steud. subsp. *banaticum.* 5, K. 10338.
209.Cerastium gracile Dufour. 3, K. 10715.

138.Dianthus

210.Dianthus anatolicus Boiss. 3, K. 10306.
211.Dianthus balansae Boiss. 7, K. 10875.
End. "LC".
212.Dianthus leucophaeus Sm. 11, K.10755. End."LC".
213.Dianthus micranthus Boiss. & Heldr. 5, K. 10736.
214.Dianthus zonatus Fenzl var. *zonatus*. 5, K. 10724.

139.Eremogone

215.Eremogone acerosa (Boiss.) Ikonn. 7, K., 10874. End. "LC".

140.Holosteum

216.Holosteum umbellatum L. var. *umbellatum.* 3, K. 10714.

141.Minuartia

217.**Minuartia erythrosepala* (Boiss.) Hand.-Mazz. var. *erythrosepala.* 10, K. 10554.
218.Minuartia juniperina (L.) Maire & Petitm. 5, K. 10932.
219.Minuartia leucocephaloides (Bornm.) Bornm. 5, K. 10345. End. "LC". Med. element.
220.Minuartia pestalozzae (Boiss.) Bornm.
11, K.10757. End. "NT".

142.Moenchia

221.Moenchia mantica (L.) Bartl. 7, K. 10887.

143.Paronychia

222.Paronychia carica Chaudhri var. *carica.* 5, K. 10363.
223.Paronychia chionaea Boiss. subsp. *chionea* var. *chionaea.* 7, K. 10880.
224.Paronychia dudleyi Chaudhri,10, K. 10561.End. "CD".Ir-Tur. element

144.Petrorhagia

225.**Petrorhagia cretica* (L.) P. W. Ball & Heywood. 5, K. 10477.

145.Saponaria

226.Saponaria pumilio Boiss.11, K. 10808.
E. Med. element.

146.Silene

227.Silene argentea Ledeb. 5, K. 10334.
Ir-Tur. element
*228.**Silene caryophylloides* (Poir.) Otth subsp. *masmenaea* (Boiss.) Coode & Cullen
10, K. 10558. End. "NT".
229.Silene compacta Fisch. ex Hornem. 14, K. 10830.
230.Silene conica L. 8, K. 10785.
231.Silene dichotoma Ehrh. subsp. *racemosa* (Otth) Graebn. & P. Graebn. 5, K. 10325.
232.Silene italica (L.) Pers. subsp. *italica.* 3, K. 10123. Med. element.
233.Silene latifolia Poir. subsp. *eriocalycinae* (Boiss.) Greuter & Burdet. 3, K. 10484.
234.Silene odontopetala Fenzl. 10, K. 10568. E. Med. element.
235.Silene subconica Friv.13, K. 10745.
236.Silene supina M.Bieb. subsp. *pruinosa* (Boiss.) Chowdhuri. 3, K. 10293.
237.Silene vulgaris (Moench) Garcke var. *macrocarpa* (Turril) Coode & Cullen. 2, K. 10103.

147.Stellaria

238.Stellaria media (L.) Vill. 13, K. 10751.

148.Velezia

239.Velezia rigida L. 12, K. 10787.

26.CELASTRACEAE

149.Euonymus

240.Euonymus latifolius (L.) Mill. subsp. *latifolius.* 3, K. 10644. Euro-Sib.element.

150.Parnassia

241.Parnassia palustris L. 14, K. 10845.

27.CISTACEAE

151.Cistus

242.Cistus laurifolius L. 5, K. 10353. Med. element.

152.Fumana

243.Fumana procumbens (Dunal) Gren. & Godr. 5, K. 10356.

153.Helianthemum

244.Helianthemum ledifolium (L.) Mill. 8, K. 10536.
245.Helianthemum ovatum Dun. 5, K. 10191.
246.Helianthemum salicifolium (L.) Mill. 4, K. 10171

28.COLCHICACEAE

154.Colchicum

247.Colchicum atticum Spruner ex Tommas. 3, K. 10127. E. Med. element.
248.Colchicum triphyllum Kunze, 6, K. 10204. Med. element.

29.CONVOLVULACEAE

155.Calystegia

249.Calystegia sepium (L.) R.Br. subsp. *sepium.* 1, K. 10596.

156.Convolvulus

250.Convolvulus arvensis L.2, K. 10611.
251.Convolvulus lineatus L. 2, K. 10216.

157.Cuscuta

252.Cuscuta campestris Yunck. 2, K. 10610.

30.CORNACEAE

158.Cornus

253.Cornus mas L.14, K. 10941. Euro-Sib.element.

31.CRASSULACEAE

159.Rosularia

254.Rosularia sempervivum (M.Bieb.) A.Berger subsp. *sempervivum.* 11, K. 10803. Ir-Tur. element.

160.Sedum

255.Sedum album L. 14, K. 10859.
256.Sedum amplexicaule DC. subsp. *tenuifolium* (Sm.) Greuter & Burdet. 14, K. 10857. Med. element.
257.**Sedum hispanicum* L. 10, K. 10563.
Ir-Tur. element.
258.Sedum pallidum M.Bieb. 7, K. 10876.
Euro-Sib.element.
259.Sedum urvillei DC. 14, K. 10858.

161.Umbilicus

260.Umbilicus luteus (Huds.) Webb & Berthel.14, K. 10863.

32.CYPERACEAE

162.Cyperus

261.Cyperus glaber L.1, K. 10604.

163.Scirpoides

262.Scirpoides holoschoenus (L.) Soják subsp. *holoschoenus.* 1, K. 10324.

33.ELAEAGNACEAE

164.Elaeagnus

263.Elaeagnus angustifolia L. var. *angustifolia.* 1, K. 10624.

34.EUPHORBIACEAE

165.Euphorbia

264.Euphorbia anacampseros Boiss. var. *anacampseros.* 8, K. 10383. End. "LC".

265.Euphorbia falcata L. subsp. *macrostegia* (Bornm.) O. Schwartz. 5, K. 10370. E. Med. element.

266.Euphorbia helioscopia L. subsp. *helioscopia.* 2, K. 10704.

267.Euphorbia kotschyana Fenzl. 4, K. 10466. E. Med. (Mountain) element.

268.Euphorbia stricta L. 1, K. 10587. Euro-Sib.element.

269.Euphorbia szovitsii Fisch. & Mey. var. *szovitsii.* 3, K. 10910. Ir-Tur. element.

35.FABACEAE

166.Anthyllis

270.Anthyllis vulneraria L. subsp. *pulchella* (Vis.) Bornm. 9, K. 10520.

167.Astragalus

271.Astragalus angustifolius Lam. subsp. *angustifolius.* 10, K. 10564.

272.Astragalus campylosema Boiss. subsp. *campylosema.* 3, K. 10296. End. "LC". Ir-Tur. element.

273.Astragalus glycyphylloides DC. 14, K. 10853. Euro-Sib.element.

274.**_Astragalus lineatus_ Lam. var. _lineatus._ 10, K. 10562.

275.Astragalus mesogitanus Boiss. 3, K. 10812.End. "LC". Ir-Tur. element.

276.Astragalus microcephalus Willd. subsp. *microcephalus.* 3, K. 10487. Ir-Tur. element.

277.Astragalus odoratus Lam. 2, K. 10233.

278.Astragalus ponticus Pall. 2, K. 10271.

279.Astragalus sibthorpianus Boiss. 11, K. 10810. End. "LC". E. Med. element.

280.Astragalus strictispinis Boiss. 8, K. 10547. End. "NT".

281.Astragalus tigridis Boiss. 5, K. 10358. Ir-Tur. element.

282.Astragalus tmoleus Boiss. var. *bounacanthus* (Boiss.) D. F. Chamb. 9, K. 10523. End.

168.Colutea

283.Colutea melanocalyx Boiss. & Heldr. subsp. *melanocalyx.* 14, K. 10838. End. "EN". E. Med. element.

169.Cytisus

284.**_Cytisus austriacus_ L. 9, K. 10500. Euro-Sib.element.

285.Cytisus hirsutus L. 3, K. 10310.

286.Cytisus pygmaeus Willd. 11, K. 10757. Euro-Sib.element.

170.Galega

287.Galega officinalis L. 1, K. 10260.

171.Genista

288.Genista aucheri Boiss. 5, K. 10352.
End. "LC". Ir-Tur. element.

172.Hedysarum

289.Hedysarum pestalozzae Boiss. 5, K. 10333. End. "LC". Ir-Tur. element.

173.Lathyrus

290.Lathyrus cicera L. 3, K. 10148.
Med. element.

291.**_Lathyrus laxiflorus_ (Desf.) O.Kuntze subsp. _angustifolius_ (Post ex Dinsm.) Davis
8, K. 10553. End. "VU". E. Med. element.

292.Lathyrus laxiflorus (Desf.) O. Kuntze subsp. *laxiflorus.* 13, K. 10748.

293.Lathyrus pratensis L. 4, K. 10916.
Euro-Sib.element.

294.Lathyrus digitatus (M.Bieb.) Fiori. 12, K. 10942. E. Med. element.

295.Lathyrus nissolia L. 12, K. 10943.

174.Lotus

296.Lotus aegaeus (Griseb.) Boiss. 3, K. 10313.

297.Lotus corniculatus L. var. *tenuifolius* L.
14, K. 10836.

175.Medicago

298.Medicago brachycarpa M.Bieb. 5, K. 10726. Ir-Tur. element.

299.Medicago lupulina L. 5, K. 10327.

300.Medicago orbicularis (L.) Bartal. 14, K. 10788.

301.Medicago sativa L. subsp. *sativa.* 4, K. 10914.

302.Medicagox varia Martyn. 1, K. 10264.

176.Melilotus

303.Melilotus albus Medik. 2, K. 10454.

304.Melilotus officinalis (L.) Desr. 2, K. 10230.

177.Onobrychis

305.Onobrychis cornuta (L.) Desv. 11, K. 10754. Ir-Tur. element.

306.Onobrychis oxyodonta Boiss.var. *oxyodonta.* 2, K. 10938.

178.Ononis

307.Ononis spinosa L. subsp. *leiosperma* (Boiss.) Sirj. 1, K. 10448.

179.Robinia

308.Robinia pseudoacacia L. 4, K. 10166.

180.Securigera

309.Securigera varia (L.) Lassen. 3, K. 10149. E. Med. element.

181.Trifolium

310.Trifolium arvense L. var. *arvense.* 13, K. 10743.

311.**_Trifolium aureum_ Pollich. subsp. _aureum._ 12, K. 10690. Euro-Sib.element.

312.Trifolium diffusum Ehrh. 14, K. 10840.

313.Trifolium dubium Sibth. 14, K. 10831.

314.Trifolium grandiflorum Schreb. 3, K. 10159. E. Med. element.

315.Trifolium nigrescens Viv. subsp. *nigrescens.* 2, K. 10223.

316.Trifolium nigrescens Viv. subsp. *petrisavii* (Clementi) Holmboe. 8, K. 10395.

317.Trifolium ochroleucum Huds. 8, K. 10552.

318.Trifolium pratense L. var. *pratense.* 14, K. 10833.

182.Vicia

319.Vicia cracca L. subsp. *stenophylla* Vel.
3, K. 10295.

320.Vicia peregrina L. 2, K. 10105.

321.Vicia sativa L. subsp. *sativa.* 2, K. 10270.

322.Vicia sativa L. subsp. *nigra* (L.) Ehrh. var. *nigra*. 14, K. 10841.
323.Vicia villosa Roth subsp. *dasycarpa* (Ten.) Cav. 5, K. 10732.

183. Vuralia

324. Vuralia turcica (Kit Tan, Vural & Küçüködük) Uysal & Ertuğrul. 1, K. 10085. End. "CR". E. Med. element.
Note: This species, previously known as *Thermopsis turcica*, was transferred from the genus *Thermopsis* to the genus *Vuralia* as a result of research by Uysal et al. (2014).

36.FAGACEAE

184.Quercus

325.Quercus cerris L. 13, K. 10695. Med. element.
326.Quercus infectoria Oliv. subsp. *veneris* (A.Kern.) Meikle. 3, K. 10636.
327.Quercus pubescens Willd. subsp. *pubescens.* 3, K. 10652.
328.Quercus vulcanica Boiss. & Heldr. ex Kotschy. 12, K. 10687. End. "NT". E. Med. element.

37.GENTIANACEAE

185.Centaurium

329.Centaurium erythraea Rafn. subsp. *turcicum* (Velen.) Melderis. 14, K. 10835.

38.GERANIACEAE

186.Erodium

330.Erodium cicutarium (L.) L Hér. subsp. *cicutarium.* 2, K. 10219.

187.Geranium

331.Geranium lucidum L. 3, K. 10120.
332.Geranium purpureum Vill. 12, K. 10691.
333.Geranium pyrenaicum Burm. f. 3, K. 10124.

39.HYPERICACEAE

188.Hypericum

334.Hypericum avicullariifolium Jaub. & Spach. 8, K. 10783. End."LC". E. Med. element.
335.**_Hypericum linarioides_ Bosse subsp. *linarioides.* 9, K. 10512.
336.Hypericum lydium Boiss. 14, K. 10839.
337.Hypericum scabrum L. 8, K. 10872. Ir-Tur. element.
338.Hypericum origanifolium Willd.var. *origanifolium.* 11, K. 10761.
339.Hypericum perforatum L. subsp. *perforatum.* 3, K. 10908.

40.IRIDACEAE

189.Crocus

340.Crocus chrysanthus (Herb.) Herb. 6, K. 10203.
341.Crocus pallasii Goldb. subsp. *pallasii.* 13, K. 10700.
342.Crocus speciosus M. Bieb. subsp. *speciosus.* 7, K. 10945.

190.Gladiolus

343.Gladiolus italicus Mill. 11, K. 10818.

191.Iris

344.Iris kerneriana Asch. & Sint. ex Baker. 5, K. 10731. End. "LC". Euro-Sib.element.
345.Iris orientalis Mill. 1, K. 10086.
346.Iris pseudacorus L. 1, K. 10087.
347.Iris schachtii Markgr. 8, K. 10421. End. "LC". Ir-Tur. element.

41.JUGLANDACEAE

192.Juglans

348.Juglans regia L. 14, K. 10864.

42.JUNCACEAE

193.Juncus

349.Juncus inflexus L. 1, K. 10944.

43.LAMIACEAE

194.Ajuga

350.Ajuga chamaepitys (L.) Schreb. subsp. *chia* (Schreb.) Arcang. 6, K. 10409.

195.Ballota

351.Ballota nigra L. subsp. *anatolica* P. H. Davis. 1, K. 10451. Ir-Tur. element.

196.Clinopodium

352.Clinopodium graveolens (M.Bieb.) Kuntze subsp. *graveolens.* 8, K. 10386.
353.Clinopodium vulgare L. subsp. *vulgare.* 3, K. 10765.

197.Lamium

354.Lamium amplexicaule L. var. *amplexicaule.* 3, K. 10244.
355.Lamium garganicum L. subsp. *striatum* (Sm.) Hayek var. *striatum.* 10, K. 10573. Med. element.
356.Lamium purpureum L. var. *purpureum.* 8, K. 10381. Euro-Sib.element.

198.Lycopus

357.Lycopus europaeus L. 1, K. 10603. Euro-Sib.element.

199.Marrubium

358.Marrubium astracanicum Jacq. subsp. *macrodon* (Bornm.) P. H. Davis. 9, K. 10490. End. "LC".
359.Marrubium globosum Montbret & Aucher ex Benth. subsp. *globosum.* 5, K. 10472. End. "LC". Ir-Tur. element
360.Marrubium parviflorum Fisch. & C. A. Mey. subsp. *oligodon* (Boiss.) Seybold. 3, *Q.* K. 10764. End. "LC". Ir-Tur. element

200.Mentha

361.Mentha aquatica L. 1, K. 10584.
362.Mentha longifolia (L.) L. subsp. *typhoides* (Briq.) Harley. 14, K. 10481.

201.Micromeria

*363.**Micromeria cristata* (Hampe) Griseb. subsp. *phrygia* P. H. Davis. 7, K. 10882. End. "LC". Med. element.
364.Micromeria myrtifolia Boiss. & Hohen.
3, K. 10319.

202.Nepeta

365.Nepeta cataria L. 2, K. 10459. Euro-Sib.element.
366.Nepeta nuda L. subsp. *nuda.* 8, K. 10390. Euro-Sib.element.

203.Origanum

367.Origanum sipyleum L. 3, K. 10930. End. "LC". E. Med. element.
368.Origanum vulgare L. subsp. *hirtum* (Link) Ietsw. 3, K. 10931. E. Med. element.

204.Phlomis

369.Phlomis armeniaca Willd. 8, K. 10530. Ir-Tur. element.
370.Phlomis nissolii L. 5, K. 10474.
End. "LC". Ir-Tur. element.
371.Phlomis pungens Willd. var. *pungens.* 4, K. 10425.

205.Prunella

372.Prunella vulgaris L.14, K. 10842. Euro-Sib.element.

206.Salvia

373.Salvia aethiopis L. 6, K. 10398.
374.Salvia cadmica Boiss. var. *cadmica.* 3, K. 10133. End. "LC".
375.Salvia candidissima Vahl subsp. *occidentalis* Hedge. 5, K. 10346.
376.Salvia frigida Boiss. 11, K. 10799. Ir-Tur. element.
377.Salvia sclarea L. 3, K. 10300.

378.Salvia tomentosa Mill. 3, K. 10299. Med. element.
379.Salvia virgata Jacq. 2, K. 10457. Ir-Tur. element.

207.Scutellaria

380.Scutellaria albida L. subsp. *albida.* 14, K. 10848. E. Med. element.
381.Scutellaria orientalis L. subsp. *alpina* (Boiss.) 0. Schwarz var. *alpina.* 6, K. 10408.

208.Sideritis

382.Sideritis phrygia Bornm.13, K. 10753
End. "NT". Ir-Tur. element.

209.Stachys

383.Stachys annua (L.) L. subsp*. annua* var. *annua.* 9, K. 10488.
384.Stachys byzantina K.Koch. 9, K. 10525. Euro-Sib.element.
385.Stachys lavandulifolia Vahl. 11, K. 10802.

210.Teucrium

386.Teucrium chamaedrys L. subsp. *chamaedrys.* 8, K. 10551.
387.Teucrium orientale L. var. *orientale.* 5, K. 10367. Ir-Tur. element.
388.Teucrium polium L. subsp. *polium.* 4, K. 10172.
389.Teucrium scordium L. subsp. *scordium.* 14, K. 10906. Euro-Sib.element.

211.Thymus

390.Thymus longicaulis C.Presl subsp. *chaubardii* (Rchb.f.) Jalas. 3, K. 10304.
Med. element.
391.Thymus longicaulis C.Presl subsp. *longicaulis.* 9, K. 10508. Euro-Sib.element.
392.Thymus sipyleus Boiss. 3, K. 10320.

212.Ziziphora

393.Ziziphora tenuior L. 3, K. 10139. Ir-Tur. element.

44.LILIACEAE

213.Fritillaria

394.Fritillaria pinardii Boiss. 11, K. 10801.
Ir-Tur. element.

214.Gagea

395.Gagea bohemica (Zauschn.) Schult. & Schult. f. 14, K. 8159.
396.Gagea foliosa (C. Presl) Schult. & Schult. f. 9, K. 8307.
397.Gagea granatelli (Parl.) Parl. 14, K. 8282.Med. element.

45.LINACEAE

215.Linum

398.Linum cariense Boiss. 6, K. 10412. End. "LC". Ir-Tur. element.
399.Linum hirsutum L. subsp. *anatolicum* var. *anatolicum.* 5, K. 10326. End. "LC". Ir-Tur. element.

46.LYTHRACEAE

216.Lythrum

400.Lythrum salicaria L. 1, K. 10601. Euro-Sib.element.

47.MALVACEAE

217.Althaea

401.Althaea cannabina L. 2, K. 10461.
402.Althaea officinalis L.1, K. 10589.

218.Malva

403.Malva sylvestris L.2, K. 10221.

48.MORACEAE

219.Ficus

*404.*Ficus carica* L. subsp. *carica.* Observed Med. element.

220.Morus

405.**Morus alba* L. 14, K. 10650.
406.**Morus nigra* L.14, K. 10666.

49.OLEACEAE

221.Fraxinus

407.Fraxinus angustifolia Vahl subsp. *angustifolia.* 14, K. 10253.

222.Jasminum

408.Jasminum fruticans L. 14, K. 10154.
Med. element.

223.Ligustrum

409.Ligustrum vulgare L.14, K. 10469. Euro-Sib.element.

50.ONAGRACEAE

224.Epilobium

410.Epilobium dodonaei Vill. 4, K. 10464.
Euro-Sib.element.
411.Epilobium hirsutum L. 2, K. 10580.
412.Epilobium lanceolatum Sebast. & Mauri. 11, K. 10791.

51.ORCHIDACEAE

225.Dactylorhiza

413.Dactylorhiza iberica (M.Bieb. ex Willd.) Soó. 14, K. 10837. E. Med. element.

226.Orchis

414.Orchis palustris Jacq. subsp. *palustris*
1, K. 10258.

52.OROBANCHACEAE

227.Euphrasia

415.Euphrasia pectinata Ten. 5, K. 10329.
Euro-Sib.element.

228.Odontites

416.Odontites vulgaris Moench. 2, K. 10449. Euro-Sib.element.

229.Orobanche

417.***Orobanche arenaria* Borkh. 10, K. 10559.
418.Orobanche caryophyllacea Sm. 10, K. 10566.
419.Orobanche grisebachii Reut. 2, K. 10284. E. Med. element.
420.Orobanche schultzii Mutel. 5, K. 10727.Med. element.

230.Parentucellia

421.Parentucellia latifolia (L.) Caruel subsp. *latifolia.* 5, K. 10366. Med. element.

53.PAEONIACEAE

231.Paeonia

422.Paeonia mascula (L.) Mill. subsp. *mascula.*3, K. 10646.

54.PAPAVERACEAE

232.Corydalis

423.Corydalis solida (L.) Clairv. subsp. *solida.* 8, K. 10200.

233.Fumaria

424.Fumaria officinalis L. subsp. *officinalis.* 3, K. 10129.

234.Glaucium

*425.Glaucium leiocarp*um Boiss. 4, K. 10434.

235.Hypecoum

426.Hypecoum pseudograndiflorum Petrovic. 2, K. 10218.

236.Papaver

427.Papaver dubium L. subsp. *dubium.* 3, K. 10128.
428.Papaver hybridum L. 2, K. 10224.
429.Papaver macrostomum Boiss. & A. Huet. 3, K. 10257. Ir-Tur. element.
430.Papaver pilosum Sibth. & Sm. subsp. *sparsipilosum* (Boiss.) Kadereit. 7, K. 10215. End. "LC".

55.PHYLLANTHACEAE

237.Andrachne

431.Andrachne telephioides L. 5, K. 10362.

56.PLANTAGINACEAE

238.Chaenorhinum

432.Chaenorhinum minus (L.) Lange subsp. *minus.* 4, K. 10430.

239.Digitalis

433.*******Digitalis cariensis* Boiss. ex Benth. 5, K. 10339. E. Med. element.

434.Digitalis ferruginea L. subsp. *ferruginea.* 5, K. 10471. Euro-Sib.element.

240.Globularia

435.Globularia orientalis L. 4, K. 10289.
Ir-Tur. element.

436.Globularia trichosantha Fisch. & C.A. Mey. subsp. *trichosantha.* 4, K. 10288.
Ir-Tur. element.

241.Linaria

437.Linaria genistifolia (L.) Mill. subsp. *confertiflora* (Boiss.) P.H.Davis. 8, K. 10782. End. "LC". Ir-Tur. element.

438.Linaria simplex DC. 11, K. 10811. Med. element.

242.Plantago

439.Plantago atrata Hoppe. 6, K. 10399.

440.Plantago holosteum Scop. 11, K. 10805.Med. element.

441.Plantago lanceolata L. 2, K. 10225.

442.Plantago major L. subsp. *intermedia* (Gilib.) Lange. 2, K. 10205.

243.Veronica

443.Veronica anagallis-aquatica L.7, K. 10423.

444.Veronica chamaedrys L. 3, K. 10574.
Euro-Sib.element.

445.Veronica pectinata L. var. *glandulosa* Riek ex M. A. Fisch. var. *pectinata.* 2, K. 10266.

446.Veronica triloba Opiz. 3, K. 10126.

57.PLUMBAGINACEAE

244.Acantholimon

447.Acantholimon acerosum (Willd.) Boiss. subsp. *acerosum* var. *acerosum.* 4, K. 10468. Ir-Tur. element.

448.Acantholimon puberulum Boiss. & Balansa subsp. *puberulum.* 8, K. 10541. Ir-Tur. element.

245.Limonium

449.Limonium gmelinii (Willd.) Kuntze. 2, K. 10608. Euro-Sib.element.

246.Plumbago

450.Plumbago europaea L. 12, K. 10693. Euro-Sib.element.

58.POACEAE

247.Aegilops

451.Aegilops triuncialis L. subsp. *triuncialis.* 2, K. 10286.

248.Apera

452.Apera intermedia Hack. 4, K. 10428. Ir-Tur. element.

249.Avena

453.Avena barbata Pott ex Link subsp.*barbata.* 4, K. 10427. Med. element.

250.Briza

454.Briza humilis M. Bieb. 3, K. 10114.

251.Bromus

455.Bromus commutatus Schrad. 2, K. 10278.

456.Bromus japonicus Thunb. subsp. *japonicus.* 5, K. 10373.

457.Bromus scoparius L. 14, K. 10766.

458.Bromus squarrosus L. 3, K. 10237.

459.Bromus tectorum L. 4, K. 10183.

460.Bromus tomentellus Boiss. subsp. *tomentellus.* 10, K. 10556. Ir-Tur. element.

252.Calamagrostis

461.Calamagrostis pseudophragmites (Haller) Koeler. 5, K. 10376. Euro-Sib.element.

253.Cynodon

462.Cynodon dactylon (L.) Pers. var. *villosus* Regel. 2, K. 10899.

254.Cynosurus

463.Cynosurus echinatus L. 14, K. 10829. Med. element.

255.Dactylis

464.Dactylis glomerata L. subsp. *hispanica* (Roth) Nyman. 4, K. 10164.

256.Echinaria

465.Echinaria capitata (L.) Desf. 4, K. 10174.

257.Echinochloa

466.Echinochloa crus-galli (L.) P. Beauv. 1, K. 10597.

258.Elymus

467.Elymus hispidus (Opiz) Melderis subsp. *hispidus*. 2, K. 10277.

259.Festuca

468.Festuca pinifolia (Hack. ex Boiss.) Bornm. var. *phrygia* (St.-Yves) Markgr.-Dann. 9, K. 10493. End. "LC".

469.Festuca valesiaca Schleich. ex Gaudin. 8, K. 10393.

260.Hordeum

470.Hordeum bulbosum L. 4, K. 10167.

471.Hordeum murinum L. subsp. *leporinum* (Link) Arcang. 2, K. 10274. Ir-Tur. element.

261.Koeleria

472.Koeleria pyramidata (Lam.) P. Beauv. 5, K. 10337. Euro-Sib.element.

262.Melica

473.Melica ciliata L. subsp. *ciliata.* 12, K. 10672.

263.Milium

474.Milium vernale M.Bieb. subsp. *vernale.* 3, K. 10117. Med. element.

264.Phleum

475.Phleum exaratum Griseb. subsp. *exaratum.* 4, K. 10168.

476.Phleum montanum K.Koch subsp. *serrulatum* (Boiss.) Doğan. 5, K. 10735. E. Med. element.

477.Phleum pratense L. 8, K. 10391. Euro-Sib.element.

265.Phragmites

478.Phragmites australis (Cav.) Trin. ex Steud. 1, K. 10625. Euro-Sib.element.

266.Poa

479.Poa bulbosa L. 4, K. 10169.

267.Polypogon

480.Polypogon monspeliensis (L.) Desf. 1, K. 10599.

268.Stipa

481.Stipa holosericea Trin. 5, K. 10199. Ir-Tur. element.

269.Taeniatherum

482.Taeniatherum caput-medusae (L.) Nevski subsp. *crinitum* (Schreb.) Melderis. 3, K. 10600. Ir-Tur. element.

59.POLYGALACEAE

270.Polygala

483.Polygala anatolica Boiss. & Heldr. 5, K. 10335.

484.Polygala supina Schreb. subsp. *supina.* 3, K. 10321.

60.POLYGONACEAE

271.Atraphaxis

485.Atraphaxis billardieri Jaub. & Spach var. *billardieri*. 5, K. 10741. Ir-Tur. element.

272.Polygonum

486.Polygonum alpinum All. 9, K. 10515. Euro-Sib.element.

487.***Polygonum bistorta* L. subsp. *bistorta.* 11, K. 10792. Euro-Sib.element

488. Polygonum patulum M.Bieb. subsp. patulum. 14, K. 10907.

273.Rumex

489.Rumex acetosella L. 6, K. 10419.

490.Rumex crispus L. 2, K. 10108.

491.Rumex scutatus L. 13, K. 10749.

61.PORTULACEAE

274.Portulaca

492.Portulaca oleracea L. 2, K. 10417.

62.POTAMOGETONACEAE

275.Groenlandia

493.Groenlandia densa (L.) Fourr. 1, K. 10585. Euro-Sib.element.

63.PRIMULACEAE

276.Anagallis

494.Anagallis arvensis L. var. *caerulea* (L.) Gouan. 2, K. 10283.

277.Androsace

495.***Androsace villosa* L. 6, K. 10207. Euro-Sib.element.

278.Lysimachia

496.Lysimachia vulgaris L. 4, K. 10912.

279.Primula

497.Primula acaulis (L.) L. subsp. *acaulis* 14, K. 10711. Euro-Sib.element.

498.***Primula auriculata* Lam. 11, K. 10797. Ir-Tur. element.

64.RANUNCULACEAE

280.Adonis

499.Adonis aestivalis L. subsp. *aestivalis.* 2, K. 10227.

281.Delphinium

500.Delphinium peregrinum L. 3, K. 10486. Med. element.

282.Eranthis

501.Eranthis hyemalis (L.) Salisb. 14, K. 10711.

283.Nigella

502.Nigella arvensis L. var*. glauca* Boiss. 2, K. 10901.

284.Ranunculus

503.Ranunculus brutius Ten. 12, K. 10527. Euro-Sib.element.

504.Ranunculus damascenus Boiss. & Gaill. 7, K. 10214. Ir-Tur. element.

505.Ranunculus ficaria L. subsp. *ficariiformis* Rouy & Foucaud. 2, K. 10702.

506.Ranunculus illyricus L. subsp. *illyricus.* 9, K. 10491.

507.Ranunculus isthmicus Boiss. *stepporum* P. H. Davis. 2, K. 10251.

508.Ranunculus pedatus Waldst. & Kit. subsp. *pedatus.* 9, K. 10519.

509.Ranunculus repens L. 2, K. 10255.

510.Ranunculus reuterianus Boiss. 11, K. 10759. End. "LC".

511.Ranunculus sceleratus L. 1, K. 10265.

512.Ranunculus trichophyllus Chaix ex Vill. 1, K. 10090.

285.Thalictrum

513.Thalictrum minus L. var. *minus.* 11, K. 10793.

65.RESEDACEAE

286.Reseda

514.Reseda lutea L. var. *lutea.* 5, K. 10348.

66.RHAMNACEAE

287.Frangula

515.Frangula dodonei Ard. subsp. *dodonei.* 14, K. 10667.

288.Rhamnus

516.Rhamnus petiolaris Boiss. & Balansa. 3, K. 10643. End. "LC".

517.Rhamnus rhodopea Velenovsky. 14, K. 10635.

518.Rhamnus thymifolia Bornm. 14, K. 10315.End. "LC".

67.ROSACEAE

289.Agrimonia

519.Agrimonia eupatoria L. subsp. *eupatoria*. 4, K. 10915.

290.Alchemilla

520.***Alchemilla holocycla* Rothm. 7, K. 10888. End. "LC". Ir-Tur. element.

291.Amelanchier

521.Amelanchier parviflora Boiss. var. *parviflora.* 3, K. 10246. End. "LC". E. Med. element.

292.Amygdalus

522.**Amygdalus communis* L. 14, K. 10633.

293.Cerasus

523.**Cerasus avium* (L.) Moench. 14, K. 10865.

524.**Cerasus vulgaris* Mill. 14, K. 10866.

294.Cotoneaster

525.Cotoneaster nummularius Fisch. & C.A.Mey. 3, K. 10247.

295.Crataegus

526.Crataegus azarolus L. var. *azarolus.* 13, K. 10699.

527.Crataegus monogyna Jacq. var. *monogyna.* 1, K. 10622.

528.Crataegus orientalis Pall. ex M. Bieb. subsp. *orientalis.* 12, K. 10692.

529.***Crataegus pentagyna* Waldst. & Kit. ex Willd. 12, K. 10688. Euro-Sib.element

296.Geum

530.Geum urbanum L. 14, K. 10121.Euro-Sib.element.

297.Malus

531.Malus sylvestris (L.) Mill. subsp. *orientalis* var. *orientalis.* 14, K. 10665.

298.Mespilus

532.Mespilus germanica L.14, K. 10533. Euro-Sib.element.

299.Potentilla

533.Potentilla recta L. 2, K. 10099.

534.Potentilla reptans L. 2, K. 10096.

535.Potentilla speciosa Willd. 7, K. 10878.

300.Prunus

536.Prunus divaricata Ledeb. subsp. *divaricata* 13, K. 10697.

537.Prunus spinosa L. 3, K. 10649. Euro-Sib.element.

301.Pyracantha

538.Pyracantha coccinea M. Roem. 14, K. 10642. Euro-Sib.element.

302.Pyrus

*539.**Pyrus communis* L. subsp. *sativa* (DC.) Hegi. 14, K. 10647.

540.Pyrus elaeagnifolia Pall. subsp. *elaeagnifolia.* 3, K. 10656.

303.Rosa

541.Rosa canina L. 14, K. 10250.

542.Rosa pulverulenta M. Bieb. 11, K. 10820.

304.Rubus

543.Rubus sanctus Schreb. 1, K. 10623.

305.Sanguisorba

544.Sanguisorba minor L. subsp. *balearica* (Bourg. ex Nyman) Muñoz Garm. & C.Navarro. 2, K. 10094.

306.Sorbus

545.Sorbus torminalis (L.) Crantz var. *torminalis.* 14, K. 10661.

546.Sorbus umbellata Fritsch. 3, K. 10307.

68.RUBIACEAE

307.Asperula

547.Asperula stricta Boiss. subsp. *latibracteata* (Boiss.) Ehrend. 5, K. 10364. End. "LC". Ir-Tur. element.

308.Crucianella

548.Crucianella angustifolia L. 14, K.10843. Med. element.

309.Cruciata

549.Cruciata taurica (Pall. ex Willd.) Ehrend. 5, K. 10365. Ir-Tur. element.

310.Galium

550.Galium heldreichii Halácsy. 5, K. 10369. E. Med. element.

551.Galium incanum Sm. subsp. *elatius* (Boiss.) Ehrend. 3, K. 10235. Ir-Tur. element.

552.Galium spurium L. subsp. *spurium.* 5, K. 10190. Euro-Sib.element.

553.Galium verum L. subsp. *glabrescens* Ehrend. 12, K. 10680. Ir-Tur. element.

554.Galium verum L. subsp. *verum.* 1, K. 10444. Euro-Sib.element.

311.Rubia

555.Rubia tinctorum L. 2, K. 10629. Ir-Tur. element.

69.SALICACEAE

312.Populus

556.Populus alba L. var. *alba.* 1, K. 10615.

557.Populus tremula L. subsp. *tremula.* 14, K. 10658.

313.Salix

558.Salix alba L. subsp. *alba.* 14, K. 10660.
Euro-Sib.element.

559.Salix cinerea L. var. *cinerea.*14, K. 10677. Euro-Sib.element.

70.SANTALACEAE

314.Viscum

560.Viscum album L. subsp. *albüm.* 1, K. 10612.

71.SAPINDACEAE

315.Acer

561.Acer hyrcanum Fisch. & C.A.Mey. subsp. *sphaerocaryum* Yalt. 3, K. 10653. End. "VU". E. Med. element.

562.Acer monspessulanum L. subsp. *monspessulanum.* 13, K. 10696.

563.Acer platanoides L. 14, K. 10662. Euro-Sib.element.

564.Acer tataricum L. subsp. *tataricum.* 3, K. 10641.

72.SCROPHULARIACEAE

316.Scrophularia

565.Scrophularia cryptophila Boiss. & Heldr. 7, K. 10497. End. "LC". E. Med. element.

317.Verbascum

566.Verbascum glomeratum Boiss. 2, K. 10904. Ir-Tur. element.

567.Verbascum insulare Boiss. & Heldr. 2, K. 10895. End. "LC". Ir-Tur. element.

568.Verbascum krauseanum Murb. 9, K. 10545. End. "NT". Ir-Tur. element.

569.Verbascum lasianthum Boiss. 2, K. 10460.

570.Verbascum phrygium Bornm. 9, K. 10526. End. "CD". Ir-Tur. element.

571.Verbascum splendidum Boiss. 8, K. 10873. E. Med. element.

73.SIMAROUBACEAE

318.Ailanthus

572.Ailanthus altissima (Mill.) Swingle. 2, K. 10900.

74.SOLANACEAE

319.Hyoscyamus

573.Hyoscyamus niger L. 14, K. 10763.

320.Solanum

574.Solanum americanum Mill. 2, K.10902.

575.Solanum dulcamara L. 1, K. 10606. Euro-Sib.element.

75.TAMARICACEAE

321.Myricaria

576.Myricaria germniaca (L.) Desv. 14, K. 10750.

322.Tamarix

577.Tamarix parviflora DC. 1, K. 10613. Med. element.

76.THYMELAEACEAE

323.Daphne

578.Daphne oleoides Schreb. subsp. *oleoides.* 9, K. 10494.

77.ULMACEAE

324.Ulmus

579.Ulmus glabra Huds. 3, K. 10664. Euro-Sib.element.

78.URTICACEAE

325.Parietaria

580.Parietaria judaica L. 3, K. 10119.

326.Urtica

581.Urtica dioica L. subsp. *dioica.* 1, K. 10607. Euro-Sib.element.

79.VERBENACEAE

327.Verbena

582.Verbena officinalis L. var. *officinalis.* 2, K. 10285.

80.VIOLACEAE

328.Viola

583.Viola alba Besser subsp. *dehnhardtii* (Ten.) W. Becker. 13, K. 10694.

584.Viola suavis M. Bieb. 3, K. 10716.

585.****Viola tricolor* L.11, K. 10762.

81.XANTHORRHOEACEAE

329.Asphodeline

586.Asphodeline taurica (Pall.) Endl. 9, K. 10495. E. Med. element.

82.ZYGOPHYLLACEAE

330.Tribulus

587.Tribulus terrestris L. 2, K. 10917.

331.Zygophyllum

588.Zygophyllum fabago L.4, K. 10915. Ir-Tur. element.