

FLORA OF ŞANLIURFA DEPARTMENT OF ATATÜRK DAM BASIN

Mustafa Çetiner ^{1,a*}, Ahmet Zafer Tel ^{2,b*}, Murat Tak ^{1,c}

¹Agricultural Sciences (Interdisciplinary), Graduate School of Natural and Applied Sciences,
Iğdır University, Iğdır, Turkey

²Agricultural Sciences (Interdisciplinary), Graduate School of Natural and Applied Sciences,
Iğdır University, Iğdır, Turkey

*Corresponding Author:

E-mail: mcetiner0263@gmail.com

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a:  ORCID 0000-0003-0022-0321, b:  ORCID 0000-0002- 1204-3839, c:  ORCID 0000-0001-8929-0806

ABSTRACT. This study was conducted to research the Flora of Atatürk Dam Watershed (Şanlıurfa). 460 samples were collected from the research area between 2018 and 2019. These samples were taxonomically determined and 190 genera and 291 taxa belonging to 53 families were identified. 203 species, 49 subspecies and 39 varieties belong to these taxa. According to phytogeographical regions, taxa's distribution ratios are; Irano-Turanian element 27.1 % (79), Mediterranean element 9.3 % (27), East Mediterranean element 3.8 % (11), Euro-Siberian element 4.1 % (12) and unknown 55.7 % (162). In the study area, 9 (3.1 %) endemics and 7 rare taxa were determined. All the 291 taxa determined from the research area belong to Spermatophyta. 286 of Angiospermae 248 belong to Dicotyledones and 38 belong to Monocotyledones classes. The biggest five families by the number of the taxa that they contain are; Fabaceae (49), Asteraceae (49), Poaceae (21), Brassicaceae (20) and Lamiaceae (17). The biggest five genera found in the study area are; *Trifolium* L. (10), *Vicia* L. (7), *Astragalus* L. (6), *Centaurea* L. (5) and *Bromus* L. (5). *Campanula baskilensis* Behçet was defined second in this study after the type sample.

Keywords: Atatürk Dam, flora, Şanlıurfa, Turkey

INTRODUCTION

Southeastern Anatolia Region, which is one of the 7 geographical regions of Turkey, is surrounded by the borders of Iraq and Syria, located in the south of the arc formed by the Anti-Taurus Mountains, and covers an area with large plains. The altitude in the region decreases from 1100 meters to 400 meters towards south. The vegetation of the Southeastern Anatolia Region, located in the Mesopotamian sub-region of the Irano-Turanian floristic region, consists of 36% Iranian-Turanian and 32% Mediterranean (Eastern Mediterranean) origin plant groups. It is thought that about 33% of Turkey's plants grow in this region. Southeastern Anatolia Region is seen as the gene center of some wheat (barley and wild wheat) and leguminous (lentil and wild chickpea) plants. It was assumed that there is a softening in the climate of Şanlıurfa with the effect of the Atatürk Dam Lake. Due to the increase in the amount of moisture in the air the Atatürk Dam Lake, it was seen that the dry air was replaced by the humid air. Therefore, it can be predicted that the plant species that will adapt to the climate will increase. Information about the flora of the Southeastern Anatolia Region could not be sufficiently included in the work called Flora of Turkey. One of the main reasons for this is due to the lack of botanical excursions to the region.

According to Flora of Turkey, some foreign researchers such as Davis, Zohary, Kotschy, and Sintenis visited the study area and collected plant samples. Many floristic and taxonomic studies have been carried out around the study area [1, 2].

Atatürk Dam is located on the Fırat River between Şanlıurfa and Adıyaman provinces and is a dam for energy and irrigation purposes. It was built on the Fırat River within the GAP Project, 180 km downstream of the Karakaya Dam, 24 km away from the Bozova district of Şanlıurfa. The area of the lake formed after the dam is 817 km².

The reasons for choosing the Atatürk Dam Lake Basin (Şanlıurfa) as a research area are as follows:

- Failure to carry out a floristic study specific to the research area.
- Trying to identify taxa that may be in new registration status for C7 square according to Davis's Grid system.
- Comparing with other studies in the nearby regions and revealing the similarities and differences.

Some of the studies carried out in research area: Contributions to the flora of Nemrut Mountain Adıyaman/Turkey [3], Flora of Arat Mountain Şanlıurfa/Turkey [4], Perre (Pirin) Ancient City Adıyaman Vegetation Adıyaman/Turkey [5], The Flora of Kaşmer Dağı Şanlıurfa/Turkey [6], The Flora of Kuyulu erodin District Adıyaman/Turkey [7], Flora of Kalecik Mountain Şanlıurfa/Turkey [8], Flora of Harran University Osmanbey Campus Şanlıurfa/Turkey [9], Flora of Mezra region in Birecik district Şanlıurfa/Turkey [10], Contributions to the Flora of Fatik Mountain Şanlıurfa/Turkey [11], Flora of Tek Tek Mountains Şanlıurfa/Turkey [12], Flora of Direkli Hills Şanlıurfa/Turkey [13], A Floristic Research on Grass Vegetation in Çaylarbaşı Şanlıurfa/Turkey [14], Vegetation of Gölbaşı Lakes Adıyaman/Turkey [15]. The flora of Kizilkuyu wild life development area Şanlıurfa/Turkey [16], New floristic records for C7 square Nemrut Mountain Adıyaman/Turkey [17], Floristic composition of vegetation type in Ali Mountain and Ziyaret Hill Adıyaman/Turkey [18].

MATERIALS AND METHODS

To constitute research material, 291 plant specimens were gathered from Atatürk Lake Basin in Şanlıurfa between the years 2018 and 2020 during different vegetation seasons. Collector number was given and the specimens were dried according to standard herbarium methods. These plant samples were preserved in Adıyaman University Herbarium. Flora of Turkey was used as a basis for the identification of plants [1, 2]. Some plants that were difficult to diagnose were diagnosed with the help of experts in the field. The species found were listed below. The list of plants was set out according to the order in the Flora of Turkey. In the floristic list of this article, the following details were given: family name, species name and the author(s), habitat of plant, collection date, altitude, endemism, collector number and the phytogeographic region element.

The endemic species were categorized according to IUCN Red data categories. These abbreviations were given below: CR: Critically endangered, VU: Vulnerable, LC: Least concern, NT: Near threatened, NE: Not evaluated, DD: Data deficient, EN: Endangered, The following abbreviations are used in the text: Euro-Sib.: Euro-Siberian element, Ir.-Tur.: Irano-Turanian element, Medit.: Mediterranean element, End.: Endemic. Plant

samples were collected from 27 different points in the study area. The coordinates and altitudes of the stations where plant samples were collected in the study area were given below.

1. C7: Siverek, Siverek-Diyarbakır roadside, step, 580 m, 37° 22' 18" N - 38° 35' 33" E
2. C7: Bozova, Ş. Urfa-Adıyaman Fırat bridge, step, 37° 28' 16" N - 38° 18' 03" E
3. C7: Bozova, Atatürk Dam DSI campus, forest, 527 m, 37° 28' 16" N - 38° 18' 03" E
4. C7: Bozova, Ş. Urfa-Adıyaman Fırat bridge, step, 503 m, 37° 27' 12" N - 38° 16' 58" E
5. C7: Bozova, Ş. Urfa-Adıyaman Fırat bridge, step, 430 m, 37° 28' 34" N - 38° 16' 27" E
6. C7: Bozova, Dutluca village, 532 m, step, 37° 28' 01" N - 38° 21' 07" E
7. C7: Bozova, Atatürk Dam DSI campus, forest, 572 m, 37° 28' 19" N - 38° 17' 37" E
8. C7: Bozova, Atatürk Dam DSI campus, forest, 544 m, 37° 27' 34" N - 38° 18' 17" E
9. C7: Hilvan, Hilvan-Siverek roadside, step, 582 m, 37° 22' 18" N - 38° 35' 23" E
10. C7: Bozova, Yaslıca Hayal Park location, forest, 573 m, 37° 26' 09" N - 38° 23' 25" E
11. C7: Siverek, Siverek-Diyarbakır roadside, step, 585 m, 37° 22' 12" N - 38° 34' 44" E
12. C7: Hilvan, Hilvan-Siverek roadside, step, 577 m, 37° 22' 18" N - 38° 35' 23" E
13. C7: Bozova, Atatürk Dam DSI campus, forest, 491 m, 37° 27' 34" N - 38° 18' 17" E
14. C7: Bozova, Eskin village, step, 476 m, 37° 27' 06" N - 38° 17' 18" E
15. C7: Bozova, Atatürk Dam DSI campus, step, 610 m, 37° 28' 19" N - 38° 17' 37" E
16. C7: Siverek, Siverek-Diyarbakır roadside, step, 735 m, 37° 28' 20" N - 38° 48' 10" E
17. C7: Bozova, Ş. Urfa-Adıyaman roadside, step, 456 m, 37° 27' 06" N - 38° 17' 18" E
18. C7: Bozova, Ş. Urfa-Adıyaman Fırat bridge, grass, 374 m, 37° 28' 34" N - 38° 15' 27" E
19. C7: Bozova, Atatürk Dam campus, forest, 517 m, 37° 29' 30" N - 38° 12' 09" E
20. C7: Bozova, Atatürk Dam DSI campus, forest, 496 m, 37° 27' 34" N - 38° 18' 17" E
21. C7: Siverek, Siverek-Kahta Nissipi bridge, forest, 731 m, 37° 47' 35" N - 39° 14' 60" E
22. C7: Bozova, Bozova Çatak campus, garss, 573 m, 37° 23' 16" N - 38° 33' 57" E
23. C7: Bozova, Eskin Kaptaş campus, step, 456 m, 37° 27' 30" N - 38° 17' 14" E
24. C7: Hilvan, Hilvan-Siverek roadside, step, 560 m, 37° 22' 35" N - 38° 36' 60" E
25. C7: Bozova, Selamet village, step, 456 m, 37° 27' 06" N - 38° 17' 18" E
26. C7: Bozova, Selamet village, step, 476 m, 37° 27' 06" N - 38° 17' 18" E
27. C7: Bozova, Atatürk Dam campus, forest, 529 m, 36° 28' 12" N - 38° 18' 51" E

The author of each taxon was written by checking from the work of Brummitt and Powell [19]. The research area was located entirely within the C7 square. The life forms of all taxa were determined according to Raunkiaer [20]. The endangerment categories of endemic and rare taxa were determined according to the study of Ekim *et al.* [21].

Climate

Annual mean temperature is 17.8°C. The maximum mean temperature (M) is 38.1 °C in July. The minimum mean temperature (m) is 1.6°C in January. Annual rainfall is about 581.1 mm and the seasonal precipitation regime is Winter, Autumn, Spring, Summer (WASS). The ombrothermic diagram shows dry and rainy period (Fig. 2).

It is seen that the temperature values of Şanlıurfa and Adıyaman provinces located on both sides of the Atatürk Dam Lake are very close to each other. It is seen that the temperature values measured between April and September, which is the most suitable time period for flora studies, are suitable for both provinces. The monthly average highest temperature measured in Adıyaman is 31.1 °C, the average monthly highest temperature measured in Şanlıurfa is 31.9 °C, and it is July for both provinces (Table 1).

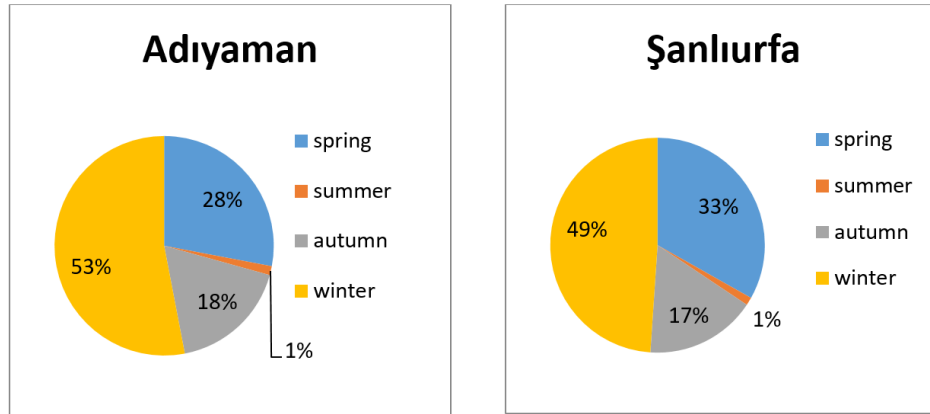


Fig. 1. Distribution of precipitation according to seasons in the vicinity of the study area

Table 1. Monthly and annual temperature averages of the immediate surroundings of the research area (°C)

Station	Observation Time	January	February	March	April	May	June	July	August	September	October	November	December	Annual
Şanlıurfa	1929-2018	5.5	7.0	10.8	16.1	22.1	28.1	31.9	31.3	26.8	20.2	12.8	7.5	18.3
Adıyaman	1963-2018	4.6	5.9	10.1	15.2	20.6	26.8	31.1	30.6	25.8	19.0	11.6	6.5	17.3

Considering the data taken from Şanlıurfa and Adıyaman stations, which are close to the research area, the season with the most precipitation is winter; It is seen that the season with the least precipitation is summer (Figure 1).

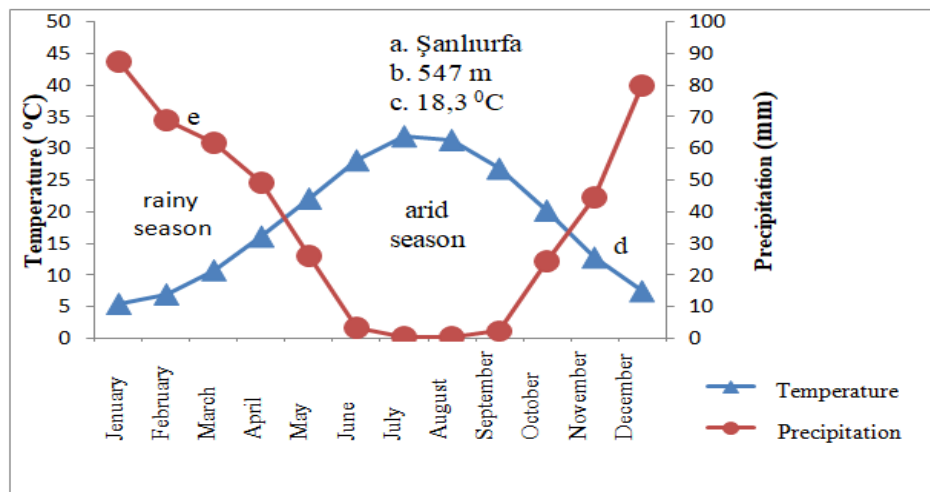


Fig. 2. Climate diagram of Şanlıurfa province (a: Meteorology station, b: Height of the station (m), c: Average annual temperature (°C), d: Temperature curve, e: Precipitation curve)

RESULTS AND DISCUSSION

460 plant samples were collected from the research area between 2018-2020 and as a result of their evaluation, 291 taxa belonging to 190 genera from 53 families were determined. Of these taxa, 203 were species, 49 were subspecies, and 39 were varieties. All of the plants in the study area belong to the Angiospermae and Gymnospermae subdivision of Spermatophyta divisions. 5 taxa belonging to the Gymnospermae division and 286 taxa belonging to Angiospermae division were identified. 248 of the Angiosperms belong to the class Dicotyledonae and 38 of them belong to the class Monocotyledonae.

The family order of the taxa defined in the research area was composed of the first five families Asteraceae (49), Fabaceae (49), Poaceae (21), Brassicaceae (20) and Lamiaceae (17). The fact that the Fabaceae family is the same in number as the Asteraceae family, that is, it does not overlap with other floristic studies in Turkey, may be due to the fact that the Southeastern Anatolia Region, in which the research area is located, is the gene center for legumes and grasses. Considering the family order, the taxa that take the first five places among the genera determined in the research area were *Trifolium* L. (10), *Vicia* L. (7), *Astragalus* L. (6), *Centaurea* L. (5) and *Bromus* L. (5). The results of the research were similar to the studies conducted in terms of the largest family and genus (Table 2).

Table 2. Comparison of the floristic studies carried out near the research area according to the first 3 families and the first 3 genera

No	Previous research	3 largest families%	genus – taxon numbers
1	Study Area	Fabaceae 16.8	<i>Trifolium</i> 10
		Asteraceae 16.8	<i>Vicia</i> 7
		Poaceae 7.2	<i>Astragalus</i> 6
2	[7]	Fabaceae 17.4	<i>Centaurea</i> 9
		Asteraceae 14.8	<i>Trifolium</i> 9
		Poaceae 10	<i>Astragalus</i> 8
3	[16]	Fabaceae 19.3	<i>Trifolium</i> 9
		Asteraceae 13.9	<i>Vicia</i> 7
		Brassicaceae 7.6	<i>Trigonella</i> 6
4	[9]	Fabaceae 15.7	<i>Trigonella</i> 7
		Asteraceae 14.2	<i>Trifolium</i> 6
		Poaceae 13.2	<i>Bromus</i> 6
5	[6]	Fabaceae 21.7	<i>Trifolium</i> 13
		Asteraceae 11.8	<i>Astragalus</i> 7
		Poaceae 9.9	<i>Medicago</i> 6
6	[14]	Fabaceae 21.9	<i>Trifolium</i> 9
		Asteraceae 10.6	<i>Vicia</i> 8
		Poaceae 10.05	<i>Centaurea</i> 5
7	[15]	Asteraceae 10	<i>Trifolium</i> 20
		Fabaceae 10	<i>Allium</i> 10
		Lamiaceae 7	<i>Vicia</i> 9

Flora of Kuyulu (Adıyaman) Erosion Site [7], Flora of Kaşmer Mountain [6], a floristic study on meadow vegetation of Çaylarbaşı (Şanlıurfa) [14] were among the first 3 families in the studies. When looked at, the family in the research area were the same, respectively.

Considering the phytogeographic region rankings of the taxa identified in the study area, Iran-Turan (79), Mediterranean (27), Euro-Siberian (12), E. Mediterranean (11) and the remaining 162 taxa were either not members of a certain phytogeographical region or they were widespread. This supports the view that the research area was in the Irano-Turanian phytogeographic region.

A general comparison of the flora study carried out in the research area and the floristic studies carried out in its immediate surroundings has been made. In general, the number of taxa varies between 200-300 in floristic studies (Table 3).

Table 3. Comparison of other floristic studies in the research area and its immediate surroundings

	Study area	[16]	[7]	[6]	[9]	[3]	[10]	[13]	[12]
Taxa	291	223	303	262	204	250	290	192	260
Family	53	40	45	47	34	44	54	33	47
Genera	190	149	182	156	129	149	183	120	175
Species	203	155	-	-	-	-	-	152	-
Sub. Species	49	37	-	-	-	-	-	25	-
Variety	39	31	-	-	-	-	-	15	-
Endemic	9	4	18	10	5	43	14	5	7
Irano-Turanian	79	69	84	94	64	101	88	121	85
Euro Siberia	12	2	1	5	7	2	6	2	3
Mediterranean	27	25	31	31	24	26	44	27	23
East Mediterranean	11	12	-	-	-	-	-	-	18
Unknown or widely distributed	162	115	187	132	103	121	152	42	131

The number of taxa, family and genus were very close to the Flora of Mezra locality [10] study (Table 3) and it was similar to the study of the Flora of the Kuyulu (Adıyaman) Erosion Area [7]. The number of endemic taxa was higher than the studies of Direkli Hills Flora [13], Kızılkuyu Wildlife Development Area [16], Tek Tek Mountains Flora [12] and Osmanbey Campus Flora [9]. The number of Ir.-Tur. taxa was close to the studies of Kızılkuyu Wildlife Development Area [16], Flora of Kuyulu (Adıyaman) Erosion Area [7], Flora of Osmanbey Campus [9] and Flora of Tek Tek Mountains [9]. The number of Avr.-Sib. taxa was higher than in other studies. In the study area, 9 endemics and 7 rare taxa were determined (Table 4).

Table 3. According to the study, the danger categories of endemic plants detected in the research area

No	Endemic Plants	IUCN Red Data Book
1	<i>Astragalus macrocephalus</i> Willd. subsp. <i>macrocephalus</i>	NT
2	<i>Campanula baskilensis</i> Behçet	CR
3	<i>Centaurea urvillei</i> DC. subsp. <i>nimrodus</i> (Boiss. & Hausskn.) Wagenitz	LC
4	<i>Hyacinthella siirtensis</i> B. Mathew	NT
5	<i>Linaria genistifolia</i> (L.) Miller var. <i>praealta</i> (Boiss.) Davis	NT
6	<i>Onosma isauricum</i> Boiss. & Heldr.	LC
7	<i>Phlomis armeniaca</i> Willd.	LC
8	<i>Scutellaria orientalis</i> L. subsp. <i>haussknechtii</i> (Boiss.) J. R. Edm.	LC
9	<i>Vebascum turcicum</i> B. Bani, Adigüzel & Karavel	CR
No	Rare Non-Endemic Plants	IUCN Red Data Book
1	<i>Astragalus brachystachys</i> DC.	EN
2	<i>Astragalus ruselli</i> Banks. & Sol.	VU
3	<i>Crucianella kurdistanica</i> Malin.	VU
4	<i>Ixiolirion tataricum</i> (Pall.) Herbert subsp. <i>tataricum</i>	VU
5	<i>Lathrus sylvestris</i> L.	VU
6	<i>Ranunculus dissectus</i> Bieb. subsp. <i>Dissectus</i>	EN
7	<i>Sideritis libanotica</i> Labill. subsp. <i>microchlamys</i> (Hand.-Mazz.) Hub.-Mor.	VU

CONCLUSION

This study contributes to the flora of Şanlıurfa and Adıyaman provinces and it is important to carry out phytosociological and phytoecological studies in the area. Efforts should be made to protect endemic and rare plants in the region. There are taxa in the danger category in the area, studies should be carried out to protect them.

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APPENDIX

The Floristic List

SPERMATOPHYTA

GYMNOSPERMAE

1. EPHEDRACEAE

1. *Ephedra campylopoda* C.A.Mey, 1, 01.05.2019, , H, Çet., 1355

2. *E.major* Host. subsp. *major*, 2, 10.03.2019, H, Çet., 1153

2. CUPRESSACEA

3. *Cupressus sempervirens* L., 3, 02.03.2019, Ph, Çet., 1150

4. *Thuja occidentalis* L., 3, 02.03.2019, Ph, Çet., 1149

3. PINACEAE

5. *Pinus brutia* Ten., 3, 21.03.2019, Ph, Çet., 1194

2. ANGIOSPERMAE

4. AMARANTHACEAE

6. *Amaranthus retroflexus* L., 4, 28.09.2018, Th, Çet., 1108

7. *Chenopodium album* L. subsp. *album* var. *album*, 5, 15.06.2018, Th, Çet., 1098

5. APIACEAE

8. *Ammi majus* L., 6, 11.05.2019, H, Çet., 1445

9. *Caucalis platycarpus* L., 7, 23.04.2019, Th, Çet., 1365

10. *Daucus carota* L., 8, 12.04.2019, Th, Çet., 1300

11. *Eryngium campestre* L. var. *virens* Link, 9, 07.06.2019, H, Çet., 1430

12. *E. creticum* Lam., 9, 07.06.2019, D. Akd., Th, Çet., 1429

13. *Lagoecia cuminoides* L., 1, 01.05.2019, Akd., Th, Çet., 1407

14. *Pimpinella kotschyana* Boiss., 9, 07.06.2019, Ir.Tur., Th, Çet., 1391

15. *Scandix iberica* M. Bieb., 5, 24.04.2018, Th, Çet., 1069

16. *S. pecten-veneris* L., 3, 17.03.2019, Th, Çet., 1189

17. *Smyrnum cordifolium* L., 3, 16.03.2019, Ir.-Tur., H, Çet., 1164

6. ARISTOLOCHIACEA

18. *Aristolochia bottae* Jaub.& Spach., 3, 04.05.2019, Ir.-Tur., H, Çet., 1362

7. ASTERACEAE

19. *Achillea aleppica* DC. subsp. *aleppica*, 10, 09.05.2018, Ir.-Tur., H, Çet., 1077

20. *A. millefolium* L. subsp. *millefolium* var. *millefolium*, 10, 09.05.2018, Th, Çet., 1277

21. *Anthemis altissima* L., 5, 18.04.2018, Th, Çet., 1063

22. *A. austriaca* Jacq., 3, 10.03.2019, Th, Çet., 1160

23. *A. hyalina* DC., 3, 16.03.2019, Th, Çet., 1174

24. *A. tinctoria* L. var. *tinctoria*, 11, 01.05.2019, H, Çet., 1375

25. *Bellis perennis* L., 12, 06.04.2019, Avr.-Sib., Th, Çet., 1244

26. *Calendula arvensis* (Vaill.) L., 13, 02.05.2018, Th, Çet., 1068

27. *Cnium benedictus* L. var. *benedictus* L., 8, 05.04.2019, Th, Çet., 1232

28. *Carduus pycnocephalus* L. subsp. *pycnocephalus*, 11, 01.05.2019, Akd., Th, Çet., 1044

29. *Carthamus dentatus* (Forssk.) Vahl, 6, 11.05.2019, Th, Çet., 1444

30. *Centaurea balsemita* Lam., 14, 12.05.2018, Ir.-Tur., Th, Çet., 1083

31. *C. iberica* Trev. ex Sprengeln, 8, 05.04.2019, Th, Çet., 1232

32. *C. solstitialis* L. subsp. *solstitialis*, 9, 14.05.2019, Th, Çet., 1409

33. *C. urvillei* DC. subsp. *nimrodus* (Boiss. & Hausskn.) Wagenitz, 15, 23.04.2019, End., Ir.-Tur., H, Çet., 1348

34. *C. virgata* Lam., 6, 11.05.2019, Ir.-Tur., H, Çet., 1443
35. *Cota tinctoria* (L.) J.Gay ex Guss. var. *tinctoria*, 7, 01.05.2019, Th, Çet., 1377
36. *Crepis capillaris* (L.) Wallr., 2, 04.05.2019, Th, Çet., 1392
37. *C. foetida* L. subsp. *rhoeadifolia* (M.Bieb.) Çelak., 16, 06.04.2019, Th, Çet., 1261-a
38. *C. sancta* (L.) Bornm., 17, 10.03.2018, Th, Çet., 1017
39. *Crupina crupinastrum* (Moris) Vis., 10, 09.05.2018, Th, Çet., 1076
40. *Echinops orientalis* Trautv., 2, 07.06.2019, Ir.-Tur., H, Çet., 1416
41. *Filago pyramidata* L., 12, 06.04.2019, Th, Çet., 1253
42. *Gundelia tournefortii* L. var. *armata* Freyn & Sint., 7, 01.05.2019, Ir.-Tur., H, Çet., 1379
43. *Inula britanica* L., 4, 28.09.2018, Avr.-Sib., H, Çet., 1104
44. *I. graveolans* (L.) Desf., 18, 374 m, 28.09.2018, Akd., H, Çet., 1101
45. *Lactuca serriola* L., 6, 11.05.2019, Avr.-Sib., H, Çet., 1446
46. *Morina persica* L., 2, 07.06.2019, Ir.-Tur., Th, Çet., 1417
47. *Notobasis syriaca* (L.) Cass., 5, 24.04.2018, Akd., Th, Çet., 1065
48. *Onopordum acanthium* L., 7, 01.05.2019, H, Çet., 1380
49. *Picnomon acarna* (L.) Cass., 6, 11.05.2019, Akd., Th, Çet., 1441
50. *Scolymus hispanicus* L., 2, 07.06.2019, Akd., H, Çet., 1414
51. *Scorzonera kotschyi* Boiss., 8, 12.04.2019, Ir.-Tur., H, Çet., 1296
52. *S. mollis* M.Bieb. subsp. *szowitzii* (DC.) D.F.Chamb., 12, 06.04.2019, Ir.-Tur., H, Çet., 1249
53. *S. papposa* DC., 7, 23.04.2019, Ir.-Tur., H, Çet., 1312
54. *Senecio vernalis* Waldst. & Kit., 19, 06.03.2018, Th, Çet., 1009
55. *S. vulgaris* L., 20, 01.02.2019, Th, Çet., 1117
56. *Serratula cerinthifolia* (Sm) Boiss., 9, 07.06.2019, Th, Çet., 1435
57. *Siebera pungens* (Lam.) DC., 10, 31.05.2018, Ir.-Tur., Th, Çet., 1090
58. *Sonchus asper* (L.) Hill subsp. *asper*, 2, 13.04.2019, H, Çet., 1310
59. *S. asper* (L.) Hill subsp. *glaucescens* (Jord.) Ball, 8, 12.04.2019, H, Çet., 1297
60. *Taraxacum officinale* F.H.Wigg., 10, 12.03.2018, H, Çet., 1020
61. *Trogopogon buphthalmoides* (DC.) Boiss. var. *buphthalmoides*, 7, 23.04.2019, Ir.-Tur., H, Çet., 1313
62. *T. longirostris* Sch. Bip. var. *longirostris*, 16, 06.04.2019, H, Çet., 1262-a
63. *Tripleurospermum maritimum* (L.) W.D.J. Koch, 22, 12.03.2018, H, Çet., 1024
64. *T. parviflorum* (Willd.) Pobed., 2, 25.03.2019, Th, Çet., 1210
65. *Xanthium strumarium* L. subsp. *strumarium*, 2, 02.09.2019, Th, Çet., 1464
66. *Xeranthemum annuum* L., 8, 06.04.2019, Th, Çet., 1239
67. *X. cylindraceum* Sm., 2, 25.03.2019, Th, Çet., 1205
- 8. BERBERIDACEAE**
68. *Berberis crataegina* DC., 7, 23.04.2019, Ir.-Tur., H, Çet., 1324
- 9. BORAGINACEAE**
69. *Alkanna orientalis* (L.) Boiss. var. *orientalis*, 7, 05.05.2019, Ir.-Tur., H, Çet., 1401
70. *Anchusa azurea* Mill. var. *azurea*, 1, 01.05.2019, H, Çet., 1182
71. *Echium italicum* L., 2, 14.05.2019, Akd., H, Çet., 1411
72. *Heliotropium dolosum* De Not., 5, 430 m, 15.06.2018, Th, Çet., 1095
73. *Myosotis strica* Roem. & Shult., 19, 06.03.2018, Avr.-Sib., Th, Çet., 1013
74. *Onosma alborosea* subsp. *sanguinolenta* (Vatke) Bornm., 19, 21.03.2018, Ir.-Tur., H, Çet., 1027
75. *O. isauricum* Boiss. & Heldr., 6, 11.04.2019, End., Ir.-Tur., H, Çet., 1278

76. *O. sericea* Willd., 12, 12.04.2019, Ir.-Tur., H, Çet., 1293

10. BRASSICACEAE

77. *Aethionema saxatile* (L.) R.Br., 11, 01.05.2019, Th, Çet., 1368

78. *Alyssum menioides* Boiss., 8, 17.02.2019, Ir.-Tur., Th, Çet., 1123

79. *A. strictum* Willd., 2, 10.03.2019, Ir.-Tur., Th, Çet., 1159

80. *Arabis aucheri* Boiss., 19, 21.03.2018, Th, Çet., 1028

81. *A. caucasica* Willd. subsp. *brevifolia* (DC.) Cullen, 2, 02.03.2019, D. Akd., H, Çet., 1147

82. *Boreava orientalis* Jaub.&Spach., 2, 17.03.2019, Th, Çet., 1192

83. *Capsella bursa-pastoris* (L.) Medik., 20, 01.02.2019, Th, Çet., 1234

84. *Clypeola jonthlaspi* L., 2, 16.03.2019, Th, Çet., 1177

85. *Conringia perfoliata* (C. A. Mey.) N. Busch, 16, 06.04.2019, Th, Çet., 1263

86. *Erysimum repandum* L., 12, 06.04.2019, Th, Çet., 1170

87. *Fibigia clypeata* (L.) Medik. var. *clypeata*, 2, 16.03.2019, H, Çet., 1319

88. *Hesperis pendula* DC., 8, 12.04.2019, H, Çet., 1299

89. *Iberis attica* Jord., 4, 20.01.2019, D. Akd., Th, Çet., 1113

90. *Isatis lusitica* L., 19, 06.03.2018, Th, Çet., 1012

91. *I. tinctoria* L. subsp. *tomella* (Boiss. & Balansa) P. H. Davis, 10, 09.05.2018, Ir.-Tur., H, Çet., 1192

92. *Raphanus raphanistrum* L., 17, 04.03.2018, Th, Çet., 1005

93. *Sinapis alba* L. subsp. *alba*, 2, 17.03.2019, Th, Çet., 1185

94. *S. arvensis* L. var. *arvense*, 2, 04.05.2019, Th, Çet., 1390

95. *Thlaspi arvense* L., 10, 12.03.2018, Th, Çet., 1180

96. *T. perfoliatum* L., 8, 09.02.2019, Th, Çet., 1121

11. CAMPANULACEAE

97. *Campanula baskilensis* Behçet, 7, 23.04.2019, End., Ir.-Tur., H, Çet., 1325

12. CAPPARACEAE

98. *Capparis spinosa* L. var. *spinosa*, 10, 31.05.2018, H, Çet., 1087

13. CAPRIFOLIACEAE

99. *Scabiosa argentea* L., 7, 05.05.2019, H, Çet., 1089

100. *S. persica* Boiss., 10, 09.05.2018, Ir.-Tur., Th, Çet., 1088

101. *Valeriana dioscoides* Sm., 19, 06.03.2018, D. Akd., Th, Çet., 1015

102. *Valerianella coronata* (L.) DC., 2, 25.03.2019, Th, Çet., 1207

103. *V. vesicaria* (L.) Moench., 15, 23.04.2019, Th, Çet., 1395

14. CARYOPHYLLACEAE

104. *Agrostemma githago* L., 16, 06.04.2019, Th, Çet., 1308

105. *Cerastium dichotomum* L. subsp. *dichotomum*, 2, 16.03.2019, Th, Çet., 1400

106. *Dianthus floribundus* Boiss., 9, 07.06.2019, Ir.-Tur., H, Çet., 1423

107. *Holosteum umbellatum* L. var. *umbellatum*, 12, 06.04.2019, Th, Çet., 1251

108. *Silene macrodonta* Boiss., 10, 31.05.2018, Th, Çet., 1091

109. *Vaccaria pyramidata* Medik. var. *oxydanta* (Boiss.) D.Zohary, 5, 24.04.2018, Ir.-Tur., Th, Çet., 1064

15. CISTACEAE

110. *Helianthemum kotschyanum* Boiss., 2, 25.03.2019, Ir.-Tur., H, Çet., 1206

16. CONVULVACEAE

111. *Convolvulus althaeoides* L., 10, 09.05.2018, H, Çet., 1082

112. *C. arvensis* L., 15, 23.04.2019, Ir.-Tur., H, Çet., 1336

113. *C. dorycnium* L. subsp. *oxysepalus* (Boiss.) Rech., 5, 04.06.2018, D. Akd., H, Çet., 1093

17. CRASSULACEAE

114. *Sedum album* L., 2, 16.03.2019, Th, Çet., 1178

115. *Umbilicus erectus* DC., 2, 02.03.2019, H, Çet., 1144

116. *U. rupestris* (Salisb.) Dandy., 5, 11.04.2018, H, Çet., 1059

18. EUPHORBIACEAE

117. *Chrozophora tinctoria* (L.) A. Juss., 2, 08.08.2019, Th, Çet., 1112

85. Euphorbia L.

118. *Euphorbia altissima* Boiss. var. *altissima*, 10, 09.05.2018, Ir.-Tur., Th, Çet., 1079

119. *E. amygdaloides* L., 2, 07.06.2019, Th, Çet., 1418

120. *E. helioscopia* L., 2, 24.02.2019, Th, Çet., 1134

19. FABACEAE

121. *Alhagi pseudalhagi* (M. Bieb.) Fisch, 2, 08.08.2019, Ir.-Tur., H, Çet., 1456

122. *Argyrobolium crotarioides* Jaub.& Spach, 9, 07.06.2019, Th, Çet., 1419

123. *Astragalus anthylloides* Lam., 11, 01.05.2019, Ir.-Tur., Ch, Çet., 1367

124. *A. brachystachys* DC., 9, 07.06.2019, Ir.-Tur., Ch, Çet., 1422

125. *A. elongatus* Willd. subsp. *nucleiferus* (Boiss.) D.F. Chamb., 9, 11.04.2019, r.-Tur., Ch, Çet., 1272

126. *A. macrocephalus* Willd. subsp. *macrocephalus*, 16, 06.04.2019, End., Ir.-Tur., Ch, Çet., 1262

127. *A. russelii* Banks & Sol., 9, 11.04.2019, Ir.-Tur., Ch, Çet., 1274

128. *A. suberosus* Banks & Sol. subsp. *suberosus*, 11, 01.05.2019, Ir.-Tur., Ch, Çet., 1371

129. *Conringia perfoliata* (C.A.Mey) Busch, 16, 06.04.2019, Th, Çet., 1263

130. *Coronilla scorpioides* (L.) W. D. J. Koch, 1, 01.05.2019, Th, Çet., 1311

131. *Hedysarum varium* Willd. subsp. *syriacum*, 11, 01.05.2019, Ir.-Tur., H, Çet., 1373

132. *Hippocrepis unisiliquosa* L. subsp. *unisiliquosa*, 3, 04.05.2019, Th, Çet., 1387

133. *Hymenocarpus circinnatus* (L.) Savi., 2, 17.03.2019, Akd., Th, Çet., 1184

134. *Lathyrus aphaca* L. var. *modestus* P. H. Davis, 15, 23.04.2019, D. Akd., Th, Çet., 1331

135. *L. sylvestris* L., 2, 01.04.2019, Avr.-Sib., Th, Çet., 1231

136. *L. vinealis* Boiss. & Noë, 2, 04.05.2019, Ir.-Tur., Th, Çet., 1394

137. *Lens culinaris* Medik., 21, 07.04.2018, Th, Çet., 1286

138. *L. orientalis* (Boiss.) Schmalh., 6, 11.04.2019, Th, Çet., 1393

139. *Lotus angustissimus* L., 8, 05.04.2019, Th, Çet., 1235

140. *L. gebelia* Vent. var. *gebelia*, 10, 09.05.2018, Ir.-Tur., H, Çet., 1073

141. *Medicago radiata* L., 1, 01.05.2019, Ir.-Tur., Th, Çet., 1356

142. *Melilotus indicus* (L.) All., 6, 11.04.2019, Th, Çet., 1283

143. *M. officinalis* (L.) Lam., 2, 16.03.2019, Th, Çet., 1172

144. *Onobrtchis caput-galli* (L.) Lam., 2, 04.05.2019, Akd., Th, Çet., 1327

145. *O. crista-galli* (L.) Lam., 2, 29.03.2019, Akd., Th, Çet., 1219

146. *Ononis pubescens* L., 2, 04.05.2019, Akd., H, Çet., 1388

147. *O. spinosa* L. subsp. *leiosperma* (Boiss.) Širj., 15, 23.04.2019, H, Çet., 1238

149. *Pisum sativum* L. subsp. *sativum* var. *arvense* (L.) Poir., 8, 05.04.2019, Th, Çet., 1233

149. *Psoralea bituminosa* L., 1, 01.05.2019, Akd., Th, Çet., 1351

150. *Robinia pseudoacacia* L., 2, 04.05.2019, Ph, Çet., 1385

151. *Trifolium campestre* Schreb. subsp. *campestre* var. *campestre*, 15, 23.04.2019, Th, Çet., 1344
152. *T. hirtum* All., 21, 07.04.2018, Akd., Th, Çet., 1231
153. *T. pratense* L. var. *pratense*, 7, 23.04.2019, Th, Çet., 1316
154. *T. purpureum* Loisel. var. *purpureum*, 2, 14.05.2019, Th, Çet., 1413
155. *T. rubens* L., 5, 24.04.2018, Th, Çet., 1066
156. *T. repens* L. var. *repens*, 2, 24.02.2019, Th, Çet., 1133
157. *T. resupitans* var. *resupitans*, 1, 01.05.2019, Th, Çet., 1351
158. *T. speciosum* Willd., 15, 23.04.2019, Th, Çet., 1341
159. *T. stellatum* L. var. *stellatum*, 2, 04.05.2019, Th, Çet., 1396
160. *T. tomentosum* L. var. *tomentosum*, 7, 23.04.2019, Th, Çet., 1317
161. *Trigonella filipes* Boiss., 2, 04.05.2019, Ir.-Tur., Th, Çet., 1397
162. *Scorpiurus muricatus* L. var. *subvillosus* (L.) Fiori, 15, 23.04.2019, Akd., Th, Çet., 1389
163. *Vicia cracca* L. subsp. *cracca*, 15, 23.04.2019, Avr.-Sib., Th, Çet., 1328
164. *V. faba* L., 1, 01.05.2019, Th, Çet., 1408
165. *V. hybrida* L., 1, 01.05.2019, Th, Çet., 1358
166. *V. narbonensis* L. var. *narbonensis*, 8, 05.04.2019, Th, Çet., 1233
167. *V. onobrychioides* L., 6, 11.04.2019, Th, Çet., 1289
168. *V. sativa* L. subsp. *sativa*, 16, 06.04.2019, Th, Çet., 1271
169. *V. villosa* Roth subsp. *villosa*, 13, 02.05.2018, Th, Çet., 1067
- 20. FAGACEAE**
170. *Quercus libani* Olivier, 2, 17.03.2019, Ph, Çet., 1191
- 21. GERANIACEAE**
171. *Erodium cicutarium* (L.) L'Hér. subsp. *cuticatum*, 2, 02.03.2019, Th, Çet., 1114
172. *E. gruinum* (L.) L'Hér., 2, 25.03.2019, D. Akd., Th, Çet., 1217
173. *Geranium dissectum* L., 2, 01.04.2019, Th, Çet., 1229
174. *G. molle* L. subsp. *molle*, 19, 06.03.2018, Th, Çet., 1122
175. *G. tuberosum* L. subsp. *tuberosum*, 10, 12.03.2018, Ir.-Tur., H, Çet., 1309
- 22. HYPERICACEAE**
176. *Hypericum imberbe* Sm., 6, 11.05.2019, H, Çet., 1190
177. *H. hyssopifolium* L., 9, 07.06.2019, H, Çet., 1428
178. *H. perforatum* L. subsp. *Perforatum*, 7, , 05.05.2019, H, Çet., 1405
- 23. LAMIACEAE**
179. *Lallementia iberica* (BIEB.) FISCH. & MEY, 22, 12.03.2018, Ir.-Tur., Th, Çet., 1022
180. *Lamium amplexicaule* L. var. *amplexicaule* Boiss. & Hausskn., 11, 04.03.2018, Avr.-Sib., Th, Çet., 1004
181. *L. maculatum* L., 19, 06.03.2018, Th, Çet., 1011
182. *Marrubium vulgare* L., 18, 28.09.2018, Ir.-Tur., H, Çet., 1102
183. *Mentha longifolia* (L.) Hudson subsp. *noeana* (Boiss. ex Briq.) Briq., 12, 02.09.2019, H, Çet., 1103-a
184. *M. spicata* L. subsp. *spicata*, 18, 28.09.2018, H, Çet., 1103
185. *Phlomis armeniaca* Willd., 17, 12.05.2018, End., Ir.-Tur., H, Çet., 1084
186. *Salvia ceratophylla* L., 7, 05.05.2019, Ir.-Tur., H, Çet., 1403
187. *S. multicaulis* Vahl., 1, 01.05.2019, Ir.-Tur., H, Çet., 1255
188. *S. palaestina* Benth., 10, 09.05.2018, Ir.-Tur., H, Çet., 1078
189. *S. viridis* L., 23, 10.04.2018, Akd., Th, Çet., 1342

190. *Scutellaria orientalis* L. subsp. *haussknechtii* (Boiss.) J. R. Edm., 9, 07.06.2019, End., Ir.-Tur., H, Çet., 1425
191. *Sideritis libanotica* Labill. subsp. *microchlamys* (Hand.-Mazz.) Hub.-Mor., 9, 07.06.2019, Ir.-Tur., H, Çet., 1421
192. *Teucrium multicaule* Montbret & Aucher Ex Benth, 1, 01.05.2019, Ir.-Tur., H, Çet., 1354
193. *T. polium* L. subsp. *polium*, 10, 09.05.2018, H, Çet., 1085
194. *Thymra spicata* L. subsp. *spicata*, 9, 07.06.2019, D. Akd., H, Çet., 1433
195. *Ziziphora capitata* L., 15, 23.04.2019, Ir.-Tur., Th, Çet., 1345
- 24. LINACEAE**
196. *Linum mucronatum* Bertol. subsp. *mucronatum*, 24, 07.04.2018, Ir.-Tur., H, Çet., 1043
- 25. LYTHRACEAE**
197. *Lythrum salicaria* L., 18, 28.09.2018, Avr.-Sib., H, Çet., 1103
- 26. MALVACEAE**
198. *Alcea striata* (DC.) Alef. subsp. *striata*, 23, 04.07.2018, H, Çet., 1099
199. *Malva neglecta* Wallr., 25, 01.04.2018, Th, Çet., 1033
- 27. MORACEAE**
200. *Ficus carica* L. subsp. *rupestris* (Hauskn.) Browicz., 6, 11.05.2019, Ir.-Tur., Ph, Çet., 1437
- 28. OLEACEAE**
201. *Jasminum fruticans* L., 26, 17.03.2019, Akd., Ch, Çet., 1279
- 29. ONAGRACEAE**
202. *Epilobium hirsutum* L., 5, 15.06.2018, H, Çet., 1094
203. *Oenothera biennis* L., 4, 28.09.2018, H, Çet., 1109
- 30. OROBANCHACEAE**
204. *Orobanche aegyptiaca* Pers., 4, 15.06.2018, H, Çet., 1096
205. *O. nana* (Reut.) Beck, 15, 23.04.2019, H, Çet., 1329
206. *Parentucellia latifolia* (L.) Caruel subsp. *flaviflora* (Boiss.) Hand.-Mazz, 8, 12.04.2019, H, Çet., 1295
207. *P. viscosa* (L.) Caruel., 2, 25.03.2019, Akd., H, Çet., 1215
- 31. PAPVERACEAE**
208. *Fumaria parviflora* Lam., 8, 06.04.2019, Th, Çet., 1240
209. *Hypecoum imberbe* Sm., 16, 06.04.2019, Th, Çet., 1190
210. *Papaver dubium* L. subsp. *dubium*, 10, 09.05.2018, Th, Çet., 1081
211. *Roemeria hybrida* (L.) DC. subsp. *hybrida*, 6, 11.05.2019, Th, Çet., 1321
- 32. PLANTAGINACEAE**
212. *Linaria genistifolia* (L.) Miller var. *praealta* (Boiss.) Davis, 6, 11.04.2019, End., D. Akd., H, Çet., 1286
213. *Plantago afra* L., 2, 17.03.2019, Th, Çet., 1188
214. *Veronica longifolia* Charlotte (PBR), 2, 02.09.2019, Ir.-Tur., Th, Çet., 1463
215. *V. orientalis* Miller subsp. *orientalis*, 11, 01.05.2019, H, Çet., 1376
216. *V. persica* Poiret., 2, 08.08.2019, Th, Çet., 1460
- 33. PLANTANACEAE**
217. *Platanus orientalis* L., 2, 08.08.2019, Ph, Çet., 1453
- 34. PLUMBAGINACEAE**
218. *Plumbago auriculata* Lam., 2, 02.09.2019, Avr.-Sib., Ch, Çet., 1465

35. POLYGONACEAE

219. *Atraphaxis billardieri* Jaub.& Spach var. *billardieri*, 11, 01.05.2019, Ir.-Tur., H, Çet., 1374
 220. *Polygonum lapathifolium* L., 4, 28.09.2018, Th, Çet., 1106
 221. *Rumex dentatus* L. subsp. *halacsyi* (Rech.) Rech. f., 4, 28.09.2018, Th, Çet., 1105

36. PRIMULACEAE

222. *Anagallis arvensis* L. var. *arvensis*, 8, 12.04.2019, Th, Çet., 1055
 223. *A. arvensis* L. var. *caerulea* (L.) Gouan, 2, 21.03.2019, Th, Çet., 1197
 224. *Androsace maxima* L., 16, 06.04.2019, Th, Çet., 1264

37. RANUNCULACEAE

225. *Adonis aleppica* Boiss., 2, 25.03.2019, Ir.-Tur., H, Çet., 1212
 226. *A. flammea* Jacq., 2, 01.04.2019, Th, Çet., 1227
 227. *A. microcarpa* DC., 23, 10.04.2018, Th, Çet., 1045
 228. *Anemone blanda* Schott & Kotschy, 9, 11.04.2019, G, Çet., 1261
 229. *A. coronaria* L., 9, 11.04.2019, Akd., G, Çet., 1259
 230. *Consolida regalis* Gray., 9, 11.04.2019, Ir.-Tur., Th, Çet., 1265
 231. *Delphinium peregrinum* L., 6, 11.05.2019, Akd., Th, Çet., 1442
 232. *Ranunculus asiaticus* L., 19, 27.03.2018, G, Çet., 1030
 233. *R. dissectus* Bieb. subsp. *dissectus*, 1, 01.05.2019, Th, Çet., 1350
 234. *R. sericeus* Banks & Sol., 21, 07.04.2018, Ir.-Tur., H, Çet., 1041

38. RESEDACEAE

235. *Reseda lutea* L. var. *lutea*, 11, 01.05.2019, H, Çet., 1366

39. ROSACEAE

236. *Amygdalus arabica* Oliv., 12, 12.04.2019, Ir.-Tur., Ph, Çet., 1292
 237. *A. communis* L., 2, 02.03.2019, Ph, Çet., 1151
 238. *A. orientalis* Mill., 12, 06.04.2019, Ir.-Tur., Ph, Çet., 1248
 239. *Cerasus microcarpa* (C. A. MEYER) BOISS. subsp. *tortuosa*, 2, 17.03.2019, Ir.-Tur., Ph, Çet., 1186
 240. *Rubus sanctus* Schreb., 5, 15.06.2018, Ph, Çet., 1092
 241. *Sanguisorbia minor* Scop. subsp. *magnolii* (Spach) Cout., 2, 02.03.2019, H, Çet., 1343

40. RUBIACEAE

242. *Asperula arvensis* L., 2, 25.03.2019, Th, Çet., 1214
 143. *A. orientalis* Boiss. & Hohen., 16, 06.04.2019, Ir.-Tur., Th, Çet., 1258
 244. *Crucianella kurdistanica* Malin., 10, 31.05.2018, Ir.-Tur., Th, Çet., 1092
 245. *Cruciata taurica* (Pall. ex Willd.) Ehrend., 12, 06.04.2019, Ir.-Tur., H, Çet., 1249
 246. *Galium tricornutum* Dandy., 16, 06.04.2019, D. Akd., Th, Çet., 1273

41. RUTACEA

247. *Haplophyllum ptilostylum* Spach, 10, 09.05.2018, Ir.-Tur., H, Çet., 1070

42. SALICACEAE

248. *Populus euphratica* Olivier, 2, 04.05.2019, Ph, Çet., 1386

43. SCROPHULARIACEAE

249. *Scrophularia xylorrhiza* Boiss. & Hausskn., 21, 07.04.2018, Ir.-Tur., H, Çet., 1402
 250. *Verbascum kotschyi* Boiss. & Hohen., 10, 09.05.2018, Ir.-Tur., H, Çet., 1075
 251. *V. turcicum* B. Bani, Adigüzel & Karavel., 10, 09.05.2018, End., Ir.-Tur., H, Çet., 1075

44. SOLANACEAE

252. *Physalis alkekengi* L., 4, 28.09.2018, H, Çet., 1107

253. *Solanum chenopodioides* Lam., 4, 17.10.2018, Th, Çet., 1110

MONOCOTYLEDONAE

45. AMARYLLIDACEAE

254. *Allium pallens* L. subsp. *pallens*, 6, 11.05.2019, Akd., G, Çet., 1439

46. ARACEAE

255. *Biarum carduchorum* (Schott.) Engler, 6, 11.04.2019, Ir.-Tur., G, Çet., 1164

47. ASPARAGACEAE

256. *Hyacinthella nervosa* (Bertol.) Chouard, 3, 24.02.2019, Ir.-Tur., G, Çet., 1006

257. *H. siirtensis* B. Mathew, 3, 24.02.2019, End., Ir.-Tur., G, Çet., 1129

258. *Muscari armeniacum* Leichtlin ex Baker., 3, 24.02.2019, G, Çet., 1138

259. *M. comosum* (L.) Mill., 5, 11.04.2018, Akd., G, Çet., 1058

260. *Ornithogalum narbonense* L., 6, 11.04.2019, Akd., G, Çet., 1288

261. *O. pyrenaicum* L., 6, 11.04.2019, G, Çet., 1281

262. *O. umbellatum* L., 12, 12.04.2019, G, Çet., 1291

48. COLCHICACEAE

263. *Colchicum serpentinum* Woron. ex Misch., 4, 20.01.2019, Ir.-Tur., G, Çet., 1125

49. IRIDACEAE

264. *Gladiolus kotschyianus* Boiss., 1, 01.05.2019, Ir.-Tur., G, Çet., 1353

265. *Iris persica* L., 2, 24.02.2019, Ir.-Tur., G, Çet., 1139

50. IXIOLIRACEAE

266. *Ixiolirion tataricum* (Pall.) Herbert subsp. *tataricum*, 1, 01.05.2019, Ir.-Tur., G, Çet., 1352

51. LILIACEAE

267. *Gagea reticulata* (Pall.) Schult. & Schult. f., 16, 06.04.2019, Ir.-Tur., G, Çet., 1260

268. *G. villosa* (M. Bieb.) Sweet var. *villosa*, 8, 17.02.2019, Akd., G, Çet., 1135

52. ORCHIDACEAE

269. *Ophrys argolica* subsp. *lucis* Kalteisen & H. R. Reinhard, 27, 28.02.2018, D. Akd., G, Çet., 1001

270. *Orchis collina* Banks & Sol. ex Russell, 11, 01.05.2019, Akd., G, Çet., 1370

53. POACEAE

271. *Aegilops cylindrica* Host., 15, 23.04.2019, Ir.-Tur., Th, Çet., 1337

272. *A. geniculata* Roth., 15, 23.04.2019, Akd., Th, Çet., 1338

273. *Alopecurus myosuroides* Huds. var. *myosuroides*, 8, 12.04.2019, Avr.-Sib., Th, Çet., 1304

274. *A. paratensis* L., 7, 23.04.2019, Avr.-Sib., Th, Çet., 1317

275. *A. textilis* Boiss. subsp. *textilis*, 2, 25.03.2019, Th, Çet., 1208

276. *Avena sterilis* L. subsp. *sterilis*, 8, 12.04.2019, Th, Çet., 1305

277. *Bromus arvensis* L., 2, 04.05.2019, Th, Çet., 1384

278. *B. hordeaceus* L., 7, 23.04.2019, Th, Çet., 1318

279. *B. japonicus* Thums. subsp. *japonicus*, 2, 10.03.2019, Th, Çet., 1157

280. *B. rubens* L., 2, 10.03.2019, Th, Çet., 1156

281. *B. tectorum* L., 2, 29.03.2019, Th, Çet., 1275

282. *Cynodon dactylon* (L.) Pers. var. *villosus* Regel, 6, 11.05.2019, H, Çet., 1443

283. *Cynosurus cristatus* L., 2, 21.03.2019, Akd., Th, Çet., 1187

284. *C. echinatus* L., 2, 17.03.2019, Akd., Th, Çet., 1201

285. *Hordeum bulbosum* L. var. *bulbosum*, 2, 29.03.2019, G, Çet., 1229

286. *H. vulgare* L., 7, 23.04.2019, Th, Çet., 1317-a

287. *Lolium perenne* L., 1, 01.05.2019, Avr.-Sib., Th, Çet., 1361

288. *Panicum miliaceum* L., 2, 13.04.2019, Th, Çet., 1307
289. *Poa bulbosa* L., 2, 25.03.2019, G, Çet., 1218
290. *Stipa ehrenbergiana* Trin., 16, 06.04.2019, Ir.-Tur., H, Çet., 1267
291. *S. pennat* L., 7, 23.04.2019, H, Çet., 132