




Check-list of additional taxa to the supplement of flora of Turkey X

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ABSTRACT

The 10th in the checklist series, this "Check-list of additional taxa to the supplement flora of Turkey", contains 225 taxa from 193 manuscripts published between January 2019 and December 2021. These taxa are not found in any of the other 11 volumes of 'Flora of Turkey' nor in the nine previously published check-lists. The following taxa are now added to the Turkish flora as a result of this paper: 180 taxa new to science and 45 taxa with new records for the Turkish flora.

Keywords: Additional taxa, Turkish flora, New species, New records

INTRODUCTION

In terms of plant diversity, Turkey is one of the most significant temperate countries on the planet. The country's vascular plant diversity has been documented in the "Flora of Turkey and the East Aegean Islands", which was published in nine volumes (Davis, 1965-1985). With the publication of this flora, Turkish and other country botanists, both scientists and amateurs, have gained a newfound interest in the rich plant diversity of Turkey. As a result of this interest, the flora of Turkey is now better known. The identification of these additional taxa necessitated the publication of supplementary volumes to the Flora of Turkey; vol. 10 (Davis, Tan, & Mill, 1988) and vol. 11 (Güner, Özhatay, Ekim, & Başer, 2000). The 11 volumes describe 8,796 species from Turkey in total (excluding an additional 192 species restricted to the east Aegean Islands). Of these, a total of 2,941 species are Turkish endemics.

Following the publication of the Flora of Turkey, subsequent research has greatly increased our understanding of the flora, resulting in the addition of numerous new taxa. These additional taxa were published as a series of papers titled "Checklist of additional taxa to the supplement flora of Turkey". These checklists were published in a series of papers starting in the year 1994 based on all the original publications of these taxa. They were later compiled by the authors of this paper as a collection housed in the library of the Department of Pharmaceutical Botany, Istanbul University (ISTE Herbarium Library).

Following the publication of the 11th volume of Flora of Turkey, an additional 717 new taxa were added in the period up to 2011 (Özhatay & Kültür, 2006; Özhatay, Kültür, & Aslan, 2009; Özhatay, Kültür, & Gürdal, 2011), including 497 new taxa described with an additional 220 taxa new to Turkey (Table 1). In 2012, a book was published which included all the vascular plants listed by Güner, Aslan, Ekim, Vural, & Babaç (2012) in their document in Turkish, titled "Turkey Bitkileri Listesi (Damarlı Bitkiler)" and 12 new species described for plant science. After the publication of this book, checklists VI, VII, VIII and IX were printed in quick succession (Özhatay, Kültür, & Gürdal, 2013; 2015; 2017; 2019). During the period 2013 to 2019, a total of 638 new taxa were added to the Turkish flora, including 508 new taxa to plant science and an additional 130 taxa new to Turkey.

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Table 1. Statistical table of summary data of additional taxa for the checklists. (N: new taxa for science, R: new record for Turkish flora).

	Check-list III (2006)		Check-list IV (2009)		Check-list V (2011)		Check-list VI (2013)		Check-list VII (2015)		Check-list VIII (2017)		Check-list IX (2019)		Check-list X	
	N	R	N	R	N	R	N	R	N	R	N	R	N	R	N	R
<i>Sp.</i>	154	75	85	40	158	53	141	32	76	19	110	21	102	33	153	33
<i>Subsp.</i>	12	16	23	13	20	4	29	5	1	2	12	2	10	7	8	8
<i>Var.</i>	15	13	9	1	9	3	8	4	-	-	3	-	2	2	9	2
<i>Hyb.</i>	8	2	3	-	1	-	8	1	1	-	2	2	3	-	10	2
Total	189	106	120	54	188	60	186	42	78	21	127	25	117	42	180	45

Vol. 11 (2000) based on Check-list I & II

Güner et al. (2012)

This paper is the 10th in the series of publications based on 190 published papers on additional taxa to the Turkish flora from 2019 to 2021 together with any missing records. Nine publications that were overlooked in the previous checklists have been added to this checklist. Since these publications came out during this period, they have been included in this list.

In this paper, 225 taxa are listed, 180 of them as new taxa to science (comprising 153 species, 8 subspecies, 9 varieties, 10 hybrids), and a further 45 taxa as new records for the country (33 species, 8 subspecies, 2 varieties, 2 hybrids) (Figure 1). *Allium* L., *Centaurea* L., *Muscari* Mill., and *Ornithogalum* L. are the five genera which are represented by the most taxa in this study (Figure 2).

The list of the additional taxa

Information regarding the type of examined specimens is written in the same way as in the original references. e=

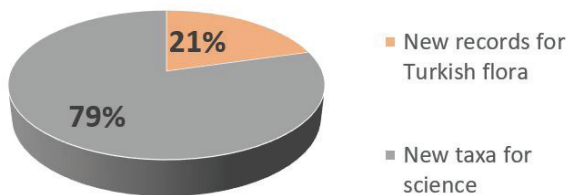


Figure 1. Additional taxa in Check-list X.

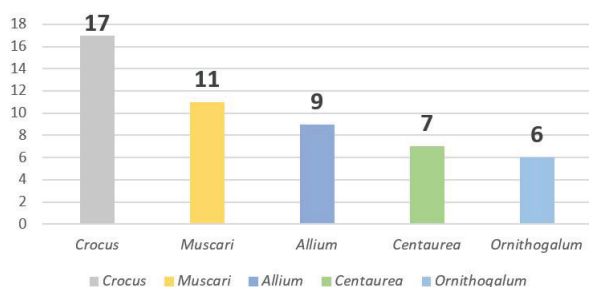


Figure 2. The most species have been added in Check-list X.

endemic species; * = new record for Turkish flora; **= new taxon for science; ■ = new genus for Turkish flora; ■■= new genus for science.

PTERIDOPHYTA

DRYOPTERIDACEAE

Polystichum roth

eP. asiae-minoris** Tunçkol & Li Bing Zhang in Phytotaxa 447 (4): 296 (2020) [Tunçkol, Aytaç, Aksoy, & Fişne, 2020]

Type: Turkey. Kastamonu: Küre Mountains National Parks, Horma Canyon, Limestone Bedrock, 41°38'04"N, 33°08'35"E, elev. 800 m, 20 July 2018, *B. Tunçkol T4500* (holotype CDBI, isotypes ISTO-38328).

DICOTYLEDONS

AMARANTHACEAE

***Amaranthus* L.**

***A. crassipes** Schldl. in Linnaea 6: 757 (1831). [Uygun, Tetik, & Doğru-Koca, 2021]

Examined specimen: Adana: Yumurtalık, turunçgil bahçesi, 25 vii 2018, S. Uygun CUBK-1AMAF-1672 (Çukurova Üniv. Bitki Koruma Bölümü, HUB).

BORAGINACEAE

Buglossoides Moench

***B. incrassata** (Guss.) I.M.Johnst. subsp. **splitgerberi** (Guss.) E. Zippel & Selvi in Taxon 58(2): 624 (2009). [Raab-Straube & Raus, 2020]

Examined specimens: Burdur, macchie, 17 Apr 1985, *Nydegger 40250* (BASBG); *ibid.*, Antalya, Campus University Akdeniz, ruderal, 7 Apr 1998, *Even 50.3* (B). Turkey-in-Europe: Umgebung von Konstantinopel, San Stefano, 6 Apr 1895, *Nemetz* (WU 2001-12328).

Omphalodes Mill.

eO. nedimeae** Aykurt & Sümbül in Phytotaxa, 498(4), 247 (2021). [Aykurt, Sümbül, Gülben, Sari, & Konuralp, 2021]

Type: Turkey. Antalya: Kumluca, Bey Mountains in Sarıkaya Wildlife Development Area, between Kirkmuar and Kızlar Sivrisi, shady rock crevices, 2100 m elevation, 07.06.2019, C. Aykurt 5123 & H. Sümbül (holotype: AKDU; isotype: AKDU).

Onosma L.

eO. onur-koyuncui** Sezer in Pak. J. Bot., 53(4): 1317 (2021). [Sezer, 2021]

Type: Turkey. B3 Kütahya: Sökmen village, Calcareous rock and soils, 1050 m, 39° 35' 15" N - 30° 11'43" E, 31.05.2017, O. Sezer, 16481 (OUFE).

eO. satensis** Firat & Binzet in Adansonia 43(16): 188 (2021). [Firat & Binzet, 2021]

Type: Turkey. C9 Hakkâri, Yüksekova Province, Sat mountains, Oremar region, Zozana Herduav plateau, rocky, stone, and calcareous areas, 1376 m, 37°22'41"N, 44°10'08"E, 7.VII.2018, M. Firat 34040 (holo-, VANF; iso- ANK, in the personal herbarium of the first author [Herb. M. Firat] and the Herbarium of Mersin University).

Rindera Pallas

eR. cetineri** Yıldırım in Phytotaxa 427(4): 252 (2019). [Yıldırım, 2019]

Type: Turkey. Denizli: Çameli District, Akdağ Mountain, Karkın Platue, northern slopes, 2200 m, 05 July 2018, H. Yıldırım 7671 & R. Çetiner (holotype EGE 42452, isotype EGE, NGBB).

CAMPANULACEAE**Asyneuma Griseb. & Schenk**

eA. hasandaghense** Hamzaoğlu in Türler ve Habitatlar 2(1): 70 (2021). [Hamzaoğlu, 2021b]

Type: Turkey. B5 Aksaray: Helvadere, Hasan Dağı, Turizm Merkezi güneyi, zirve yakını, volkanik kayalı yamaçlar, 2900 m, 29.06.2019, Hamzaoğlu 7610 (GAZI; izotip: GAZI, ANK, HUB, AYBU [Ankara Yıldırım Beyazıt Üniversitesi Herbaryumu]).

Campanula L.

eC. phitosiana** Yıldırım & Şentürk in Phytotaxa 399 (1): 30 (2019). [Yıldırım, Şentürk, Özdöl & Pirhan, 2019]

Type: Turkey. İzmir: Tire, Dallık to Dibekçi road, 5 km to Dibekçi, in gorge, schistose rock cracks, 30°01'N, 27°50'E, 1175 m, 07.06.2017, H.Yıldırım 5866, O.Şentürk & A.F.Pirhan (holotype: EGE 42450, isotypes: EGE 42451, ANK, HUB, NGBB).

CARYOPHYLLACEAE**Arenaria L.**

eA. goekyigitii** M. Dinç & S. Doğu in Phytotaxa 459 (1): 70 (2020). [Dinç & Doğu, 2020]

Type: Turkey. C5 Karaman: Ermenek, Büyükkarapınar plateau, Dulavrat Hill, rocky area, under canopy, 1750 m, 26 June 2013, M.Dinç 3552 & S. Doğu (holotype KNYA, isotypes GAZI and personal herbarium of Şinasi Yıldırım, named "Yıldırım Herbarium").

Bolanthus (Ser.) Reichb.

eB. aziz-sancarii** Koç & Hamzaoğlu in Systematic Botany 44(1):195 (2019) [Koç, Hamzaoğlu, & Büyük, 2019]

Type: Turkey. Afyonkarahisar: between Bayat and Iscehisar, 1500 m, fissures of tuffaceous volcanic rocks, 02 Jul 2010, Koç 1209 & Hamzaoğlu (holotype: GAZI, isotypes: GAZI, ANK, HUB).

Bufonia Sauvages

eB. ali-nihatii** Özdeniz in Fresenius Environ. Bull. 28(12): 9176 (2019). [Ozdeniz, 2019]

Type: Turkey. B6 Sivas: 8 km from BEypinari to Zara, step slopes, 07.08.1982, P.H. Davis & Ekim 68799 (holotype: ANK, isotypes: Bozok Univ. Herb., GAZI).

Cerastium L.

eC. comatum** Desv. var. **longipedicellatum** M.Keskin in Front Life Sci RT 2(2): 36 (2021). [Keskin, 2021a]

Type: Turkey. Balıkesir, Ayvalık, Maden Adası, 29.iv.1997, 30 m, K. Alpınar ISTE 74000.

eC. inflatum** Link ex Boiss. var. **longum** M.Keskin in Front Life Sci RT 2(2): 39 (2021). [Keskin, 2021a]

Type: Turkey. Bitlis, Tatvan, Zulül kaya, çayırılık ve kenarı, ca.1850 m, 20.vi.1986, Ö.Seçmen 3489 (EGE 17976).

eC. semidecandrum** L. var. **delicatum** M.Keskin in Front Life Sci RT 2(2): 39 (2021). [Keskin, 2021a]

Type: Turkey. İzmir: Bergama-Kozak, çayırılık, 400 m, 27.ii.1986, G.Görk (EGE 315601).

***C. szowitsii** Boiss., Fl. Or. I: 717 (1867) [Karaer, Terzioğlu, & Kutbay, 2020]

Examined specimens: A8 Artvin - Hatila Valley National Park, rocky places, roadsides, 559 m, 19.v.2012, KATO 18913 KTUB 1097 ibid., FK 17305 (OMUB), FK 18250 ibid., 23.v.2011 (OMUB).

Dianthus L.

eD. anatolicus** Boiss. var. **afyonensis** Uğurlu, M. Koch & Dönmez in Ann. Bot. Fennici 58: 21 (2020). [Uğurlu Aydın, Koch, & Dönmez, 2020]

Type: Turkey. Afyonkarahisar: Çay, from Armutlu village to Kaşıkara village, crevices on limestone, 42°51'13.9"N, 31°04'27"E, 1306 m a.s.l., 20 June 2018 A.A. Dönmez 20098-Z. Uğurlu Aydın (holotype HUB, isotypes GAZI, HEID).

***D. azkurensis** Sosn. in Vestn. Tiflissk. Bot. Sada n.s., 1: 74 (1923). [Hamzaoğlu & Koç, 2019]

Examined specimen: Turkey. A9 Ardahan: Çıldır, Yıldırımtepe köyü, Şeytankalesi civarı, 1950 m, kayalık otluk yerler, 4.7.2013, Hamzaoğlu 6815 & Koç (GAZI, ANK, HUB).

eD. demirkushii** Yild. & Kılıç in Ot Sistematik Botanik Dergisi, 26(2): 60 (2019). [Yıldırımli & Kılıç, 2019].

Type: C7 Adıyaman: Merkez, Kuyulu (Turuş) köyü üstü, Atatürk barajı karşısı, çam ormanı altı ve açıklığı, 700-710 m, 28.04.2018, Ş. Yıldırımli 44154 & Ö. Kılıç (holo. Yıldırımli Otluk'u; iso. HUB).

eD. dumanii** Hamzaoğlu in Türler ve Habitatlar 1(1): 22 (2020). [Hamzaoğlu, 2020b]

Type: Turkey. Eskişehir: Günyüzü, Kavuncu ve Fatih köyleri arası, yaklaşık 3. km, 750 m, 365 405276 D - 4363002 K, jipsli bozkır, 25.06.2019, E.Hamzaoğlu 7624 (holotip: GAZI, isotip: GAZI, ANK, HUB).

eD. hamzaoğlu** Koç in Phytotaxa 439(1): 58 (2020). [Koc, 2020]

Type: Turkey. Sivas: Between Sivas and Kangal, Gürün junction, around abandoned quarry, igneous rocky steppes, 1650 m a.s.l., 14 July 2018, Hamzaoğlu & Koç 3431 (holotype GAZI, isotypes GAZI, ANK, HUB).

eD. hymenolepis** Boiss. subsp. **bingolensis** Hamzaoğlu & Behçet in KSU J. Agric Nat 23 (6): 1530 (2020). [Hamzaoğlu, Behçet, & Yapar, 2020]

Type: Turkey. B8 Bingöl: Bingöl, S. of Alıncık village, 38°52'09"K - 40°26'02"D, *Quercus petrae* openings, rocky slopes, 1440 m a.s.l., 01.07.2018, L.Behçet and Y.Yapar 15493 (holo. GAZI, iso. ANK, Bingöl Univ. Herb.)

***D. orientalis** Adams subsp. **aphanoneurus** Rech.f. in Pl. Syst. Evol. 151: 290 (1986). [Hamzaoğlu & Koç, 2019]

Examined specimens: Turkey. B6 Kayseri: Sarız, Kıskaçlı köyü, Kayseri- Kahramanmaraş yolu, dinlenme tesisleri civarı, 1830 m, akışkan kalker kayalıklar, 8.8.2018, Hamzaoğlu & Koç 3491 (GAZI, ANK, HUB); Malatya: Darende, Aşağılupınar köyü güneyi, 1300 m, kumlu taşlı yamaçlar, 12.7.2010, Koç 1245 & Hamzaoğlu (GAZI, ANK, HUB); aynı yer, taşlı kumlu yamaç, 25.7.2013, Hamzaoğlu 6947 & Koç (GAZI); C5 Mersin: Toroslara, Arslanköy-Mersin arası, c. 20 km, 980 m, orman açıklığı, 19.8.2013, Hamzaoğlu 6988 & Koç (GAZI, ANK, HUB).

eD. yilmazii** Hamzaoğlu & Koç in Kew Bulletin 76: 524 (2021). [Hamzaoğlu, Koç, & Büyük, 2021]

Type: Turkey. Kayseri, Felahiye, Silahtar village, vineyard path, 1260 m, 11 July 2017, Hamzaoğlu & Koç 3185 (holotype GAZI; isotypes ANK, GAZI, HUB).

Gypsophila L.

eG. malyerii** Hamzaoğlu & Koç in Kew Bulletin 76(3): 533 (2021). [Hamzaoğlu, Koç, & Topal, 2021]

Type: Turkey. B4 Ankara: Beypazarı, between Harmanak-Uşakbükü, 36T0392454-4430814, 510 m, 22 Aug. 2020, marn areas, Hamzaoğlu & Koç 7825 (holotype GAZI; isotypes ANK, GAZI).

Lepyrodiclis Fenzl ex Endl.

eL. alinihatii** Menemen, Yalçınkaya & Erden in Nord J Bot 39(3)-e03037: 2 (2021). [Menemen, Yalçınkaya, & Erden, 2021]

Type: Turkey. Kleinasien [Anatolia], Bitlis to Tatvan, 1700–1900 m a.s.l., 5 Jul 1951, Renz s.n. (holotype: G00446762 [two sheets]; isotype: ADO [small parts removed from the holotype]).

Minuartia L.

eM. alpuensis** Çilden & Altınözlü in Phytotaxa 443 (1): 81 (2020). [Çilden & Gençay Çelemlı, 2020]

Type: Turkey. B3 Eskişehir: Alpu, Kireçköy, rocky areas southwest of the village, 990 m elevation, 4404500N, 309547E, calcareous fields, 27 Aug 2019, E. Çilden 1947 (holotype: HUB, isotypes: ANK, GAZI).

***M. granuliflora** (Fenzl) Grossh. in Fl. Kavk. II: 381 (1842). [Koç, Hamzaoğlu, & Aksoy, 2020]

Examined specimen: Turkey. A8 Bayburt: Between Bayburt and Aşkale, Kop Mountain, Çalidere village, 1815 m a.s.l., 12.07.2009, M.Koç 600, Hamzaoğlu & Budak (GAZI).

eM. torosensis** Koç & Hamzaoğlu in Phytotaxa 391 (2): 124 (2019). [Koç, Hamzaoğlu, & Aksoy, 2019]

Type: Turkey. C3 Antalya, Gebiz district, Bozburun Mountain, between Boğazağzı-Tozluçukur plateau, 1500 m, 18.06.2015, 37 20 N-31 02 E, M. Koç 2690, Hamzaoğlu & Budak (holotype GAZI, isotype ANK, GAZI, HUB).

Minuartiella Dillenberger & Kadereit

eM. serpentinicola** Koç & Hamzaoğlu in Phytotaxa 409(3): 164 (2019). [Koc, Hamzaoğlu, & Aksoy, 2019]

Type: Turkey. Yeşilova village, Eşeler mountain, 41°53'N–027°29'E, 2260 m, 18.08.2014, stony area with serpentines, Koç, Hamzaoğlu & Aksoy 1847 (holotype GAZI, isotypes GAZI, ANK, HUB).

Moenchia Ehrh.

eM. akmanii** M.Keskin in Biodicon 14(1): 125 (2021). [Keskin, 2021b]

Type: Turkey, Ankara: Beypazarı, Eğriova, yavaş akan dereciklerde, 1550 m, 26 vi 1973, Y.Akman (ANK 8518).

Sabulina Rchb.

eS. nerimanae** Koç & Hamzaoğlu in Phytotaxa 498 (4): 284 (2021). [Koç, Hamzaoğlu, & Aksoy, 2021]

Type: Turkey. C2 Burdur, Altınyayla district, between Ören to Ballıköy, calcereous rocks, 1320 m, 26.06.2015, Koç 2054, Hamzaoğlu & Aksoy (holotype GAZI, isotype ANK, GAZI).

eS. tortumensis** Koç & Hamzaoğlu in Folia Geobotanica, 54: 286 (2019). [Koç, Hamzaoğlu, & Aksoy, 2019]

Type: Turkey. A8 Erzurum, Tortum district, Meydanlar village, 2,020 m a.s.l., 40°21'N; 041°25'E, 14 July 2016, volcanic rocks, Koç et. al. 2351 (holotype: GAZI; isotypes: GAZI, ANK, HUB).

Silene L.

eS. arsuensis** Özbek & Uzunh. in Phytotaxa 397 (1): 75 (2019). [Özbek & Uzunhisarcıklı, 2019]

Type: Turkey. C6 Hatay: İskenderun, Arsuz, around Kale Village, 0–5 m, serpentine stony sandy places, 36° 17' 04" N, 35° 47' 23" E, 09.04.2008, *E.Uzunhisarcıklı & U.Özbek* 2698 (holotype GAZI, isotype ANK).

eS. bocquetiana** Yıld. & Kılıç in Ot Sistematik Botanik Dergisi, 26(2): 65 (2019). [Yıldırımli & Kılıç, 2019j].

Type: B8 Bingöl, Bingöl-Sancak arası, çayır, bayır, yamaç, meşelik (*Quercus brandii*), 1550-1600 m, 04.05.2018, Ş. Yıldırımli 44474 & Ö. Kılıç (holo. Yıldırımli Otluk'u iso. EGE, GAZI, HUB).

eS. karakotchanensis** Yıld. & Kılıç in Ot Sistematik Botanik Dergisi, 26(2): 69 (2019). [Yıldırımli & Kılıç, 2019j].

Type: B7 Elazığ, Karakoçan, Golan kaplıcası, Peri suyu kıyısı ve yolu boyunca, orman, ağaçlık, 960-975 m, 01.05.2018, Ş. Yıldırımli 44349 & Ö. Kılıç (holo. Yıldırımli Otluk'u (YO); iso. GAZI, YO).

CHENOPODIACEAE

Atriplex L.

eA. turcica** Başköse & Yaprak in Phytotaxa 424(4), 233 (2019). [Başköse & Yaprak, 2019]

Type: Turkey. Sivas, Şarkışla, N of Ortatopaç village, Kızılırmak river edge, 1183 m, 30 September 2014, 039° 22.948' n–036° 15.047' E, *Yaprak et Başköse* 2781 (holotype and isotype, ANK).

Suaeda Forssk. ex J.F. Gmelin

***S. aegyptiaca** (Hasselq.) Zohary in J. Linn. Soc., Bot. Iv. 635 (1957). [Başköse & Yaprak, 2021]

Examined specimen: Turkey. C7 Şanlıurfa province, Akçakale district, Akçakale-Ceylanpınar road, ŞUSKİ wastewater treatment facility, on the road of Öncül village, approximately 1-1.5 km, irrigation channel, road and field edges, 344 m. a.s.l., 22.09.2018, 28.10.2018, 20.07.2019, N 36° 42' 52.14" - E 38° 58' 48.37" E, coll. İ. Başköse 4435, 4456, 4746 (ANK).

CISTACEAE

Cistus L.

***C. x florentinus** Lam. in Encycl. 2(1): 17 (1786). [Şen Gökmen & Duman, 2021]

Cistus x florentinus Lam.= *Cistus monspeliensis* L. and *Cistus salviifolius* L.

Examined specimens: Turkey. Muğla: Bodrum, Kızılağaç-Bodrum yolu 1.km., yol kenarı, maki, frigana, 35 S 541848-

4100769, 80-83 m, 28. İv. 2021, F. Şen 1099, H. Duman; Bodrum, Kızılağaç-Bodrum yolu 1.km., yol kenarı, maki, frigana, 35 S 541848-4100769, 80-83 m, 28. İv. 2021, F. Şen 1100, H. Duman (çiçekte erkek organlar körelmiş); Bodrum-Demirçiftliği, maki, v 1966, H. Peşmen (EGE 3911 b); (EGE 5120b).

CRASSULACEAE

Crassula L.

***C. vaillantii** (Willd.) Roth in Enum. 1: 992 (1827). [Bozyel, Pelit, Şenol, 2021]

Examined specimen: İzmir: Çeşme Gölobası mevkii, dönemsel sulak alanlar, 38°16'10.95"K, 26°25'57.05"D; 100m., 23.03.2019, leg. Duygu Bozyel, Bahar Pelit, Orsa Yüzbaşı, (EGE 43223).

Rosularia (DC.) Stapf

eR. paluensis** Yıld. & Kılıç in Ot Sistematik Botanik Dergisi, 26(2): 98 (2019). [Yıldırımli & Kılıç, 2019d].

Type: B7 Elazığ, Palu, kale, kayalık, taşlık, çayırılık, tepe, bayır, 1150-1250 m, 10.06.2015, Ş. Yıldırımli 41332 & Ö. Kılıç (holo. Yıldırımli Otluk'u; iso. HUB).

COMPOSITAE

Achillea L.

eA. kirschneri** Yıld. & Kılıç in Ot Sistematik Botanik Dergisi, 26(1): 80 (2019). [Yıldırımli & Kılıç, 2019g].

Type: B7 Elazığ, Karakoçan, Golan kaplıcası, Peri suyu kıyısı ve yolu boyunca, orman, ağaçlık, 960-975 m, 01.05.2018, Ş. Yıldırımli 44325 & Ö. Kılıç (holo. Yıldırımli Otluk'u (YO); iso. GAZI, YO).

Anthemis L.

eA. ekicii** Özbek, H.Duman & Aytaç in Turk J Bot 45: 60 (2021). [Özbek, Duman, Özbek, & Aytaç, 2021]

Type: Turkey. B4 Aksaray: Eskil, 3–4 km East of Eskil, semihalophytic steppe, 926 m, 06.06.2008, H.Duman 9745 et al. (Holotype: GAZI, isotypes: ANK, HUB, GAZI).

eA. rumelica** (Velen.) Stoj. & Acht. in Notizbl. Bot. Gart. Berlin-Dahlem 13: 516 (1937). [Vladimirov, Aybeke, & Tan, 2020]

Examined specimens: In collibus arenosis circa Constantinoplem ad stationem Bijuk-Han, 14.05.1913, coll. B. Davidov (SOM 78448).

Aytacia Yıld.

Type species: *Aytacia turkica* Yıld.

eA. turkica** Yıld. in Ot Sistematik Botanik Dergisi 27(1-2): 20 (2020). [Yıldırımli, 2020a]

Type: Turkey. B6 Kayseri: Sarız, Yalak, Binboğa dağı, Körkuyu-Sıçak yaylası arası, 2400-2600 m, 21.07.1992, Z. Aytaç & H. Duman (5444) at fruiting time (holo. GAZI).

Bidens L.

***B. pilosa** L. in Sp. Pl. 2: 832 (1753). [Yıldırım, Özdöl, & Yaşayacak, 2019]

Examined specimens: Turkey. Osmaniye: Kırmitli ile Yeniköy arası, Kırmitli içmesuyu sondaj alanı yanı, taşkın seddesi kenarı, sulama arki çevresi, tarlalar arası, yol kenarı, sulama arki boyunca, 37°9'41.31"K, 36°8'42.46" D21.08.2018, H. Yıldırım 7694 (EGE).

Centaurea L.

e****C. akcadaghensis** Uysal & Şirin in Mediterranean Botany 41 (2): 174 (2020). [Şirin, Uysal, Bozkurt, & Ertuğrul, 2020]

Type: Turkey. Malatya, Akçadağ, Levent Canyon, Çayözü village, open *Quercus* forest, 1171 m, 28 April 2018, T. Uysal 3612 (holotype KNYA, isotype ANK).

e****C. ermenekensis** Uysal & Şirin in Mediterranean Botany 41 (2): 176 (2020). [Şirin et al., 2020]

Type: Turkey. Karaman, Ermenek, West of Göktepe, 1300 m, steppe, 19 June 2017, K. Ertuğrul 5377, T. Uysal & M. Bozkurt (holotype KNYA, isotype ANK).

***C. gulissashwillii** Dumbadze in Dokl. Akad. Nauk Armyanskoi S.S.R. 5(2): 49 (1946). [Hamzaoğlu & Koç, 2020]

Examined specimen: Turkey. A9 Ardahan: Posof, Sarıdarı köyü, Posof Çayı karşı, TANAP Boru Hattı civarı, 38 T 0318759 – 4603548, 1215 m a.s.l., taşlı yamaçlar, bozkır, 26.08.2020, Koç & Hamzaoğlu 7830 (GAZI, ANK).

e****C. hekimhanensis** Şirin & Yıldırım in Botanica Serbica 45 (1): 14 (2021). [Şirin, Yıldırım, Uysal, & Ertuğrul, 2021]

Type: Turkey. Malatya, Southwestern slopes of the Yamadağı, stony-gravelly areas, 2545 m, 19.VI.2015, H. Yıldırım 3974 (holo. KNYA; iso. ANK).

e****C. isilae** H. Duman, Uzunh. & Y. Bahadır in Nord J Bot 39(10)-e03244: 2 (2021). [Duman, Uzunhisarcıklı, & Bahadır, 2021]

Type: Turkey. Samsun: Vezirköprü, Küçükale village, around of Kuyuma HES regulator, 1050 m a.s.l., limestone cliffs, 21 Jul 2020, H. Duman 10662 (holotype GAZI; isotypes ANK, HUB).

e****C. kırikkalensis** Özbek in Nord J Bot 39(7)-e03235: 2 (2021). [Özbek, 2021]

Type: Turkey. A4/5 Kırkkale: Delice, above Baraklı village, *Quercus pubescens* Willd. clearings and steppe, 1100–1150 m a.s.l., 03 Jul 2016, Hamzaoğlu 7239 et al. (holotype: GAZI; isotypes: ANK HUB).

e****C. uysalii** Şirin & Çeçen in Turkish Journal of Botany 43:810 (2019). [Şirin, Çeçen, Bozkurt, & Ertuğrul, 2019]

Type: Turkey. C4 Karaman: Çakırdağı, between Kavurgalık Hill and Pelitli Stream, rocky area, 1270-1390 m, 37°23'11" N, 33°29'26" E, 01 May 2018, E. Şirin 733 and Ö. Çeçen (holotype KNYA, isotype ANK).

Cirsium Mill.

e****C. ayasii** H.Duman & Dirmenci in Bağbahçe Bilim Dergisi 7(3): 36 (2020) [Dirmenci, Duman, & Arabacı, 2020]

Type: Turkey. Kütahya, Türkmenbaba Dağı, Başören köyü-İncik köyü arası, 1,5 km, karaçam ormanı açıklığı, 39.54473 N 30.29153 E, 10.08.2018, H.Duman 10519 (Holotip: GAZI; izotip: ANK, HUB).

e****C. x erzincanicum** Yıldız, Dirmenci & Arabacı in Turk J Bot 43: 369 (2019). [Dirmenci et al., 2019]

Type: Turkey. B7 Erzincan: between Erzincan and Kelkit, Pöske pass, steppe, 39.89030°N, 39.36216°E, 2100 m, 02.09.2016, Dirmenci 4661, Yıldız & Arabacı (Holotype: ISTE, isotype: ANK)

e****C. x kelkitensis** Yıldız, Arabacı & Dirmenci in Turk J Bot 43: 369 (2019). [Dirmenci et al., 2019]

Type: Turkey. B7 Erzincan: between Erzincan and Kelkit, Pöske pass, steppe, 39.89030°N, 39.36216°E, 2100 m, 02.09.2016, Dirmenci 4656, Yıldız & Arabacı (Holotype: ISTE, isotype: ANK).

e****C. x nezaketiae** Yıldız, Dirmenci & Arabacı in Turk J Bot 43: 368 (2019). [Dirmenci et al., 2019]

Type: Turkey. B7 Erzincan: Between Erzincan and Kelkit, Pöske pass, steppe, 39.89030°N, 39.36216°E, 2100 m, 02.09.2016, Dirmenci 4659, Yıldız & Arabacı (Holotype: ISTE, isotype: ANK)

Cousinia Cass.

e****C. agridagensis** Tugay, Ertuğrul & Ulukuş in Phytotaxa 427 (4): 260 (2019). [Tugay et al., 2019]

Type: Turkey. B9/10 Ağrı: Doğubeyazıt, Ortadirek village, steppe, 1800 m, 18 June 2014, O. Tugay 8055, K. Ertuğrul, D. Ulukuş (holotype and isotypes KNYA).

***C. gigantosphaera** Rech. f. in Anz. Österr. Akad. Wiss., Math.-Naturwiss. Kl. 101: 345 (1964). [Fidan, Pınar, & Eroğlu, 2019]

Examined specimens: Turkey, C9 Şırnak: Beytüşşebap-Ayvalık köyü arası, Ayvalık'tan Beytüşşebap'a doğru 6-8. km, kayalık yamaçlar, meşe açıklıkları, 37° 31' 55" K 43° 06' 42" D, 1240 m, 19.07.2019, M.Fidan, M.Pınar, H.Eroğlu MMH1710; Beytüşşebap, Feraşın yaylası yolu 6. km, kayalık yamaçlar, 37° 55' 26" K 43° 11' 09" D 1623 m, 12.07.2018, M.Fidan, M.Pınar, H.Eroğlu MMH915.

Crepis L.

***C. setosa** Haller f. subsp. **topaliana** Babc. Univ. Calif. Publ. Bot. 19: 403 (1941). [Inceer & Kalmuk, 2019]

Examined specimens: A1 Kırklareli: Between Kırklareli-Edirne, near Edirne, 150 m a.s.l., 12 June 2015, Inceer 1174 (KTUB); Edirne: Near Lalapasa, 100 m a.s.l., 12 June 2015, Inceer 1181 (KTUB); Tekirdağ: Çorlu, 170 m a.s.l., 13 June 2015, Inceer 1188 (KTUB); B1 İzmir: Between Bayındır-Odemis, 70 m a.s.l., 25 May 2011, Inceer 819 (KTUB); B2 İzmir: Near Bozdağ, 350 m a.s.l., 25 May 2011, Inceer 820 (KTUB).

e****C. vuralii** Yıld. in Ot Sistematiği Botanik Dergisi 28(1-2): 151 (2021). [Yıldırım, 2021b]

Type: Turkey. A4 Ankara: Ayaş, Aysantı beli, bozkır, marnlı topraklar, dik bayır, 1150-1210 m, 29.06.2020, Ş. Yıldırımli 46274 (holo. Yıldırımli Otluk'u Hb. Yıldırımli; iso. GAZI, HUB, Yıldırımli Otluk'u).

Gamochaeta Wedd.

***G. coarctata** (Willdenow) Kerguelen in Lejeunia. 120: 104 (1987). [Yılmaz, 2021]

Examined specimen: Turkey. A2 İstanbul: Eyüp-Kemerburgaz. The Kemerburgaz City Forest, walking paths near Alibeyköy Dam, 31.05.2021, 65 m, Yılmaz H., ISTO 38866, 38865.

Helichrysum Miller

eH. x kani-isikii** Semiz, Şenol & Günel in Phytotaxa 507(4): 285 (2021). [Semiz, Şenol, Günel, Cicek, & Eroğlu, 2021]

Type: Turkey. C2 Denizli: Above Kızılcaölük, Babadağ, near Evran Hill, on calcareous rocks, 1968 m, 37°41'53.94"N, 28°59'27.85"E, 29 July 2018, G. Semiz, S. G. Şenol & B. Günel (holotype PAUB GSE 2055; isotype EGE).

Hirtellina Cass.

***H. kurdica** (Merxm. & Rech. f.) Dittrich in Boissiera 51: 75 (1996). [Firat, 2019a]

Examined specimens: Turkey. C9 Şırnak, Cudi Mountains, Göndek region, Rocky slopes, 969 m, 38°25'11" N, 42°38'57" E, 15.10.2013, M. Firat 30474 VANF!; C9 Şırnak, Silopi, Cudi Mountain, Hessena region, rock crevices, 870 m, 37°20'56" N, 42°25'38" E, 18.10.2013, M. Firat 30484, C9 Siirt; From Siirt to Eruh 10. km, Dry limestone bushy slopes, 974 m, 37°44'25" N, 42°13'13" E, 20.10.2013, M. Firat 30490; C9 Şırnak; Cizre, Gabar Mountain, Dry limestone bushy slopes, 1343 m, 37°33'48" N, 42°12'21" E, 06.10.2014, M. Firat 31701

Lactuca L.

eL. anatolica** Behçet & Yapar in Phytotaxa 455 (4): 288 (2020). [Behçet & Yapar, 2020]

Type: Turkey. B8 Bingöl: Çapakçur Valley, south of Aşağıköy village, steppe slope, 1720 m, 38°50'42.36"N, 40°21'46.90"E, 25 August 2019, Behçet and Yapar 17939 (holotype: Bingöl Univ. Biology Dept. Herbarium; isotypes: Bingöl Univ. Biology Dept. Herbarium and ANK).

Onopordum L.

***O. blancheanum** (Eig) Danin in Israel J. Bot. 37: 57 (1988). [Eroğlu, 2021]

Examined specimen: Turkey. C6: Hatay: Yayladağı, Yayladağı-Antakya yolu, Ayışığı köyü yol ayrımı, yol ve tarla kenarı, 35° 59' 15"K, 36° 07' 08"D, 910 m, 27.05.2021, H. Eroğlu 1721.

eO. nezaketianum** Pinar in Turkish Journal of Botany 43:127 (2019). [Pinar & Eroğlu, 2019b]

Type: Turkey. B5 Nevşehir, Ürgüp-Göreme, Cappadocia, 7 km northeast of Göreme (zelve), 1150 m, marly steppe, 25.07.2015,

3840579 N, 3451808 E, M. Pinar 6896, H. Eroğlu (holotype: VANF, isotypes: GAZI, ANK).

Podospermum DC.

eP. aksarayense** Yıld. in Ot Sistematik Botanik Dergisi 27(1-2): 63 (2020). [Yıldırımli, 2020c]

Type: Turkey. B4 Aksaray: Eskil, Tuzgölü'ne doğru 3. ve 5. km, çorak ve tuzcul alanlar, y. 900 m, 27.07.2014, Ş. Yıldırımli 40408 (holo. Yıldırımli Otluk'u (Hb. Yıldırımli); iso. HUB).

eP. dincii** Yıld. in Ot Sistematik Botanik Dergisi 27(1-2): 69 (2020). [Yıldırımli, 2020c]

Type: Turkey. B3 Eskişehir: Sivrihisar, Aşağıkepen köyü yakını, jipizli ve kireçli yerler, tepe, bayır, y. 1000 m, 18.05.2013, Ş. Yıldırımli 38872 & H. Işıl Yıldırımli (holo. Yıldırımli Otluk'u, Hb. Yıldırımli).

eP. omeri** Yıld. in Ot Sistematik Botanik Dergisi 27(1-2): 73 (2020). [Yıldırımli, 2020c]

Type: Turkey. B10 Iğdır: Aralık, Nahçıvan sınır kapısına 12 km beride, yol kıyısı, 825 m, 31.05.1998, Ş. Yıldırımli 21973 & A. Polat (holo. Yıldırımli Otluk'u (Hb. Yıld.); iso. HUB, Hb. Yıld.).

Tripleurospermum Schultz Bip.

eT. fissurale** (Sosn.) E. Hossain var. **radiata** Özbek in Biodicon 13(2): 138 (2020). [Özbek & Onaylı, 2020]

Type: Turkey. A8 Artvin. Yusufeli, 1.5 km from Dereçi village, rocky slopes, 40°51'43"E, 41°31'30"N, 25 May 2019, 745 m, U.Özbek 3117 & M. Ekici (holotype GAZI, isotype AEF, ANK, NGBB).

CRUCIFERAE

Aethionema R. BR.

eA. aytachii** Ertuğrul & Hamzaoğlu in Turk J Bot 45: 564 (2021). [Ertuğrul et al., 2021]

Type: Turkey. B4 Ankara: Ayaş, around Aysantı Pass, marly hills along roadsides, 1190 m, 31.v.2019, K.Ertuğrul 5757 & T.Körüklü (Holotype KNYA; Isotypes GAZI, ANK).

eA. sancakense** Yıld. & Kılıç in Ot Sistematik Botanik Dergisi, 26(2): 54 (2019). [Yıldırımli & Kılıç, 2019a].

Type: B8 Bingöl, Merkez, Aşağıköy'e doğru 7. km, meşe ormanı açıklığı, yamaç, 1450-1550 m, 19.05.2018, Ö. Kılıç 5687 & Ş. Yıldırımli (holo. Yıldırımli Otluk'u (YO); iso. GAZI, YO).

eA. erzincanum** Kandemir & Aytaç in Ann. Bot. Fenn. 54(1-3): 1 (2017). [Kandemir, Aytaç, & Fişne, 2017]

Type: Turkey. Erzincan: Kemah-İliç, Yahçiler village, 3rd km, 1226 m a.s.l., gypsum steppes, 13 June 2013 Kandemir 10376 (holotype GAZI; isotype ANK).

Descurainia Webb & Berth.

eD. tugayi** Yıld. in Ot Sistematik Botanik Dergisi, 26(1): 94 (2019). [Yıldırımli, 2019b].

Type: B4 Konya, Kulu, Zincirlikuyu, ahıllar arası, yol ve ekin kıyısı, 870-945 m, 04.05.2007, Ş. Yıldırım 33687 (holo. Yıldırım Otluk'u).

Heldreichia Boiss.

eH. bupleurifolia** Boiss. subsp. **malatyana** Özüdoğru & Yıldırım in *Bağbahçe Bilim Dergisi* 6 (3): 2 (2019). [Özüdoğru & Yıldırım, 2019]

Type: Malatya: Akçadağ, Levent Kanyonu, Kanyona iniş yolu, küçük kırık taşlık yamaçlar, 1275 m, 30.vi.2010, H. Yıldırım 1745 (holotip: EGE-43206, izotip: EGE-43207, HUB).

Lepidium L.

eL. tuzgoeluense** Yıld. in *Ot Sistematiik Botanik Dergisi*, 26(1): 97 (2019). [Yıldırım, 2019b].

Type: B4 Konya, Kulu, Tuzyaka (Sütkanlı), Bozan köyü, Kaldırım yolu, Tuzgözü kıyısı, tuzcul yerler, 945 m, 04.05.2007, Ş. Yıldırım 33663 (holo. Yıldırım Otluk'u; iso. GAZI)

Noccaea Moench

eN. atila-ocakii** Özgüşi in *Phytotaxa* 432 (1): 96 (2020). [Özgüşi, 2020]

Type: Turkey. B3 Eskişehir: Sivrihisar, Karacaören village, Arayit (Eryiğit) Mountain, marble rocks and scree, 1670–1820 m, 39°17'47" N, 31°45'08" E, 24.vi. 2012, holotype: OUFU 16472, (isotype: HUB).

Ricotia L.

eR. candiriana** A.Özçandır, Aykurt & Özüdoğru in *Phytotaxa* 388 (4): 291 (2019). [Özçandır, Aykurt, & Özüdoğru, 2019]

Type: Turkey. Antalya: Kumluca, upper part of Alakır valley, close to the Dibek Nature Conservation Area, screes, 1160 m elevation, 15 June 2017, A. Özçandır 1885 & C. Aykurt (holotype: AKDU; isotype: HUB).

DIPSACACEAE

Cephalaria Schrader ex Romer & Schultes

eC. adiyamanensis** Yıld. in *Ot Sistematiik Botanik Dergisi*, 26(2): 106 (2019). [Yıldırım & Kılıç, 2019c].

Type: C7 Adıyaman, Kahta, Ulupınar köyü, Merdi mezarası, Fırat ırmağı kıyısı, GAP Atatürk barajı altında kalacak yerler, Köyönü harlaları, Duman deresi, Ömerisa çevreleri, 500 m, 28.06.1988, Ş. Yıldırım 10867 (holo. Yıldırım Otluk'u; iso. GAZI).

eC. kutahyaensis** Yıld. in *Ot Sistematiik Botanik Dergisi*, 26(2): 109 (2019). [Yıldırım & Kılıç, 2019c].

Type: B2 Kütahya, Gümüş (Acem) dağı, radara doğru, *Juniperus excelsa* birliği, kalker kaya tabakaları, 1200-1300 m, 24.09.1999, Ş. Yıldırım 24712, D. Pavlova & D. Dimitrov (holo. Yıldırım Otluk'u (YO); iso. GAZI, YO).

Knautia L.

***K. arvensis** (L.) Coult. in *Mém. Dipsac.* 41. 1823: 41 (1823). [Tunçkol, Aksoy, & Yaşacak, 2021]

Examined specimens: Turkey, Kastamonu, Küre Mountains National Park, Pınarbaşı district, 19 May 2019 (B. Tunçkol 4505, DUOF 1946).

Scabiosa L.

eS. ispartaca** Yıld. in *Ot Sistematiik Botanik Dergisi*, 26(1): 65 (2019). [Yıldırım, 2019a].

Type: C3 Isparta, Gölcük, göl kıyısı, kumullar, 1350 m, 2107.1991, Ş. Yıldırım 14645 (holo. Yıldırım Otluk'u (YO); iso. GAZI, YO).

***S. lucida** Vill. in *Prosp. Hist. Pl. Dauphiné* 18 (1779). [Aksoy, Çelik, Bozkurt, & Uysal, 2020]

Examined specimens: Turkey. Bayburt: Soğanlı Geçiti'nden Çaykaraya iniş, alpin çayır, 40°31'451" K / 040°14'027" D, 2318 m, 29.08.2020, Aksoy 3159, Uysal & J. Çelik (AKDU 5971); Kuşmer yaylasına gidiş yolu, alpin çayır, 40°30'098" K / 040°09'883" D, 2555 m, 29.08.2020, Aksoy 3163, Uysal & J. Çelik (AKDU 5970). Gümüşhane: Zigana Dağı, tesislerin sol tarafı, çayırılık yamaç, 40°38'207" K, 039°24'567" D, 2060-2150 m, 25.07.2018, Aksoy 2958 & J. Çelik (AKDU 5974); aynı yer., 40°38'237" K, 039°24'520" D, 1900-2060 m, 19.08.2019 Aksoy 3109 & J. Çelik (AKDU 5972). Trabzon: Bayburt-Çaykara yolu, alpin çayırlar, 40°32'832" K, 040°13'978" D, 2055 m, 30.08.2020, Aksoy 3171, Uysal & J. Çelik (AKDU 5973).

eS. sirmakia** Yıld. in *Ot Sistematiik Botanik Dergisi*, 26(1): 70 (2019). [Yıldırım, 2019a].

Type: C9 Şirnak, Kumçatı, yol kıyısı, killi dere ve tepe, 600 m, 26.06.1997, Ş. Yıldırım 20352 & A.A. Dönmez (holo. Yıldırım Otluk'u).

e S. sivrihisarica** Yıld. in *Ot Sistematiik Botanik Dergisi*, 26(1): 73 (2019). [Yıldırım, 2019a].

Type: B3 Eskişehir, Sivrihisar, Böğürtlen köyü, elma (Malus) ve asma (Vitis) harlaları, kumlu yerler, 1050 m, 13.09.1995, Ş. Yıldırım 19075 & Görkem Yıldırım (holo. Yıldırım Otluk'u; iso. GAZI, HUB).

eS. tuzluca** Yıld. in *Ot Sistematiik Botanik Dergisi*, 26(1): 75 (2019). [Yıldırım, 2019a].

Type: B10 Iğdır, Tuzluca çıkışı, kırmızı topraklı yerler, tepe, dere, bayır, 1000 m, 31.05.1998, Ş. Yıldırım 21930 & A. Polat (holo. Yıldırım Otluk'u; iso. GAZI, HUB).

FABACEAE

Astragalus L.

eA. askaleensis** Hamzaoğlu in *Türler ve Habitatlar* 1(2): 115 (2020). [Hamzaoğlu, 2020a]

Type: Turkey. Erzurum: Aşkale, Yeşilova köyü kuzeyi, 1745 m, jipsli bozkır, 14.6.2019, E.Hamzaoğlu 7594 (GAZI; izotip: GAZI, ANK).

eA. aybarsii** H. Duman & Aytaç in *Turk J Bot* 44: 662 (2020). [Duman, Aytac, & Ozbek, 2020]

Type: Turkey. A5 Kastamonu: Hanönü to Taşköprü 3. km, 500 m, in open areas of *Pinus brutia* forest, 26.vi.2019, H. Duman 10558 (Holo: GAZI; iso: HUB, ANK).

eA. bartinense** Aytaç, Tunçkol et N. Aksoy in Acta Botanica Croatica, 79(2), 132 (2020). [Tunçkol, Aytaç, Aksoy, & Fişne, 2020]

Type: Turkey. A4 Bartın, Ulus, Küre Mountains National Park, above Abdurrahman village, 550 m a.s.l., limestone rocky areas, 11 June 2016, Tunçkol 2271. (Holotype: GAZI; Isotypes: ANK, DUOF).

eA. nurhakedagensis** Uzun, Aytaç & Tülüçü in Turk J Bot 45: 577 (2021). [Uzun, Aytaç, & Tülüçü, 2021]

Type: Turkey. B6 Kahramanmaraş: Nurhak Mountain, 21 km from the centre of Nurhak, 2000 m, steppe, calcareous rocks, 17 June 2020, Tülüçü 46 & Uzun (holo. GAZI, iso. KASOF, ANK).

eA. sertavulensis** Aytaç & Çeçen in Nordic Journal of Botany, 38(9)-e02829: 2 (2020). [Aytaç, Çeçen, & Fişne, 2020]

Type: Turkey. C4 Karaman: 22 km on the highway from Karaman to Mut, around Lale village, forest clearings and southwest of motorway limestone rocky areas, 1460 m, 20 Jun 2018, Çeçen 4688 (holotype: GAZI, isotypes: ANK, HUB, YILDIRIMLI, KNYA).

Dorycnium Mill.

***D. pentaphyllum** Scop. Fl. Carniol. ed. 2: 87 (1771). subsp. *pentaphyllum* [Vladimirov, Aybeke, & Tan, 2021]

Examined specimens: A1(E) Edirne: Budakdoğanca, in grasslands, 98 m, 41°46'09.1"N, 26°22'10.2"E, 13.06.2017, coll. & det. M. Aybeke (EDTU 16810). A1(E) Tekirdağ: Hayrabolu, between Hayrabolu – Tekirdağ, 4th km, in cemetery, 17 m, 41°12'47"N, 27°06'25"E, 22.06.1987, coll. G. Dalgıç & A. Asan, det. M. Aybeke (EDTU 1518).

Hedysarum L.

eH. nallihanse** Aytaç, Kaptaner İğci & Körüklü in Phytotaxa 471 (3): 277 (2020). [Aytaç, Kaptaner-İğci, & Körüklü, 2020]

Type: Turkey. A3 Ankara: Beypazarı-Nallihan road, Solta pass, gypsum steppes, Körüklü 1286 (holo. GAZI, iso. ANK, HUB).

eH. turcicum** Hamzaoğlu & Koç in Phytotaxa 428 (1): 2 (2020). [Hamzaoğlu & Koç, 2020]

Type: Turkey. B5 Yozgat: Boğazlıyan, around Yazıkışla village, marly steppe, 1280 m, 39° 04'N, 35° 27'E, 6 June 2017, Hamzaoğlu and Koç 2942 (holotype GAZI, isotypes GAZI, ANK, HUB).

Lathyrus L.

eL. cirpicii** F. Güneş in Biodicon 12(2): 162 (2019). [Güneş, 2019]

Type: Turkey. C6 Hatay: Küçük karaçay, road and field sides, 50–110m, 19 April 2009, F. Güneş 2016. (holotype NGBB, isotype MUFU, HUB, NGBB).

Onobrychis Adans.

eO. silvanensis** Aytaç, Rabaute & Coulot in Phytotaxa 477 (2): 254 (2020). [Aytaç, Rabaute, & Coulot, 2020]

Type: Turkey. Diyarbakır: Diyarbakır- Silvan, 1–2 km, 683 m, steppe, *P. Coulot & Ph. Rabaute s.n.*, 27 May 2009 (holotype MPU1019256; isotypes GAZI, personal herbaria of P. Coulot and Ph. Rabaute).

FUMARIACEAE

Fumaria L.

***F. pugsleyana** (Maire ex Pugsley) Liden in Anal. Jard. Bot. Madrid 41: 222 (1984). [Orcan & Binzet, 2003]

Examined specimen: Turkey. C5: Mersin: Arslanköy-Mersin, 9 km, Yavca-Kavallıpınar, field, roadside, 1400 m, N 37° 00' 857", E 034° 21' 624", 07.05.2001, N. Orcan, R. Binzet, AK-29; 17.05.2001, N. Orcan, R. Binzet, AK-26.

GLOBULARIACEAE

Globularia L.

eG. orientalis** L. var. *nevşehirensis* Akgül in Ot Sistematik Botanik Dergisi, 26(2): 35 (2019). [Akgül & Kılıçkaya, 2019].

Type: B5 Nevşehir, Nevşehir-Avanos arası, Nevşehir'den Avanos'a 5-7 km, 1200 m, taşlık yamaçlar, 14.04.2017, G. Akgül 2841 (holo. ANK).

HYPERICACEAE

Hypericum L.

eH. alacamdaglariense** H. Duman & E.G.Çakır in Phytotaxa 470 (2): 177 (2020). [Duman & Çakır-Dindar, 2020]

Type: Turkey. B1 Balıkesir: Bigadiç, Hacıömer Deresi village, South of Sarıkaya, 1184 m, on metamorphic cliffs, 355 635659 4357103, 28.07.2015, H. Duman 10377 (Holo: GAZI; iso: HUB, ANK, DUP).

eH. cuisinii** Barbey subsp. *anatolicum* Dirmenci & N. Robson in Kew Bulletin 74: 66 (2019). [Dirmenci & Robson, 2019]

Type: Turkey. Aydın: Kuşadası, Dilek Peninsula National Park, rocky slopes, 1177 m, 22 July 2016, Dirmenci 4585 (holotype BM; isotypes ANK, BM, EGE, GAZI, HUB, ISTE).

eH. kemaliyensis** Dirmenci & N. Robson in Kew Bulletin 74: 66 (2019). [Dirmenci & Robson, 2019]

Type: Turkey. B7 Erzinan: Between Kemaliye and Divriği road (old road), entrance of Bülent Ecevit Tunnel, 900 m, 15 June 2016, Dirmenci 4566 & Kahraman (holotype: BM; isotypes: ANK, Hb Dirmenci).

eH. malatyanum** Peşmen subsp. *nurhakense* Özgüşi & Ocak in Phytotaxa 479 (1): 130 (2021). [Özgüşi & Ocak, 2021]

Type: Turkey. B6 Kahramanmaraş: Nurhak district, Nurhak Mountain, above Karadede Tableland, 38°2'25.04"N 37°24'46.50"E, 2010 m elevation, 19 July 2020, K. Özgüşi K. O. 1400 (holotype: OUFE 16500; isotypes: HUB And EGE).

eH. turcicum** Özbek & Hamzaoğlu in Turkish Journal of Botany, 43: 695 (2019). [Özbek, Koç, & Hamzaoğlu, 2019]

Type: Turkey. A3 Ankara: Beypazarı district, between Kırbaşı to Uşakbükü, salty floors on gypsum hills, 36 T 0395037-4429963, 810 m, 11.06.2016, Koç 2308 & Hamzaoğlu (Holotype: GAZI, isotypes: ANK, HUB, GAZI).

LABIATAE

Lamium L.

eL. ponticum** Miller subsp. **anatolicum** Celep in Phytotaxa 511(1): 73 (2021). [Celep, Karaer, & Duman, 2021]

Type: Turkey. Kastamonu. Küre, from Kastamonu to Küre, 23 km before Küre, 1 km before Ödemiş village, 08 May 2014, 1147m, open *Pinus nigra* subsp. *pallasiana* forest, 41° 40' 36,879" N, 33° 42' 32,308" E, *F. Celep* 2332. (holo. GAZI, iso. ANK, ADO).

Origanum L.

eO. x aytacii** Dirmenci, T.Yazıcı & Arabacı in Plant Biosystems 155 (3): 473 (2021). [Arabacı et al., 2021]

Type: Turkey. Denizli. Tas, Ocağı place, dry stream beds, rocky slopes, 550 m., 24.07.2016, Dirmenci 4596 (Holotype GAZI, isotypes ANK, EGE, ISTE-116810, HUB).

eO. x malatyanum** Yıldız, Arabacı & Dirmenci in Bağbahçe Bilim Dergisi 7(1): 11 (2020). [Arabacı, Dirmenci, & Yıldız, 2020]

Type: Turkey. Malatya, Beydağı, around Eskiçamurlu village, dry/streamside, 1500-1600 m, 01 vii 1995, *B.Yıldız*. 12948 (Holotype: ANK. isotypes: GAZI, ISTE, Hb. Dirmenci).

Salvia L.

eS. x doganii** Celep & B.T.Drew in Turk J Bot 44: 652 (2020). [Celep, Raders, & Drew, 2020]

Type: Turkey. Sivas, between Altınyayla and Şarkışla, ca. 15 km before Şarkışla, greyish-brownish rock screes, steppe with some shrubs and trees, 14.7.2012, 1323 m, F.Celep 3884 (holotype ADO, isotype GAZI).

eS. x karamanensis** Celep & B.T.Drew in Turk J Bot 44: 651 (2020). [Celep et al., 2020]

Type: Turkey. Karaman: between Bucakkişla and Ermenek, about 5–7 km from Bucakkişla, *Quercus coccifera* L. forest, growing among calcareous rocks at the edge of the road. 17 June 2017, 862 m, F.Celep 4027 & B.T. Drew (holotype ADO, isotype GAZI).

Satureja L.

***S. metastasianta** Rech.f. in Fl. Iranica 150: 497 (1982). [Dirmenci, Yıldız, & Öztekin, 2019]

Examined specimen: Turkey. Hakkâri: 10 km from Hakkâri to Çukurca, ca. 1200 m, 06.xi.2001, Dirmenci 1317, M. Koyuncu, N. Adigüzel, M. Fırat (Hb. M. Öztekin).

Scutellaria L.

eS. topcuoglu** Yıldırım, Çiçek & Akbaş in Phytotaxa 528 (3): 181 (2021) [Yıldırım, Çiçek, Akbaş, & Şeker, 2021]

Type: Turkey. C2 Muğla: Ula district, upper of Çörüş neighbourhood, eastern part of Balan Mountain series, Mount Muslu foothills, *Pinus brutia* forest clearings, serpentine areas, 230 m, 25 May 2021, M. Çiçek 2021-400, K. Akbaş & B. Topçuoğlu (holotype EGE-43217, isotypes ANK, EGE-43218, GAZI, HUB, NGBB, M. Çiçek Herbarium).

Stachys L.

eS. ahmet-savranii** Doğu & Bağcı in Bangladesh J. Bot. 50(2): 320 (2021). [Doğu & Bağcı, 2021]

Type: Turkey. C5 Niğde: Çamardı, Cimbar Valley, on rocky, 1900-2000 m, 25.07.2018, Y. Bağcı 4166, S. Doğu, and A. Savran (holotype: KNYA, isotype: ANK).

***S. distans** Benth. var. **distans** in DC., Prodr. 12: 472 (1848). [Akçiçek, 2020]

Examined specimen: Turkey. C5 Mersin: Erdemli, Limonlu, Ömerçayı district, macchie, 36o 34' 08.81"N / 34o 14' 28.03" E, 20 m, 22 June 2015, *Akçiçek 5807 & Ö. Güner* (GAZI, Hb. Akçiçek).

eS. semsurensis** Fırat in Phytotaxa 511 (3): 276 (2021). [Fırat, 2021]

Type: Turkey. C7 Adıyaman (Semsur): Kâhta (Kolik), around Nemrut Mountain opposite Karadut (Qeredut), crevices of limestone rocks, 37o54'44" N, 38o48'55" E, 1142 m, 14 May 2015, *M.Fırat 32525* (holotype VANF, isotypes VANF, HUB and Hb. M. Fırat).

eS. siirtensis** Ö. Güner & Akçiçek in Phytotaxa 516 (3): 253 (2021). [Güner, Akcicek, & Dirmenci, 2021]

Types: Turkey. Siirt, Erüh to Şırnak, close to the Şırnak border, Botan Valley, rocky slopes, 700–750 m, 11.06.2013, *Ö.Güner 2333, Akçiçek, Dirmenci* (holotype GAZI, isotypes ISTE, ANK, HUB).

Teucrium L.

eT. semrae** Aksoy, Dirmenci & Özcan in Turk J Bot, 44(3), 326 (2020). [Aksoy, Özcan, Girişken, Çelik, & Dirmenci, 2020]

Type: Turkey. Muğla: Seydikemer district, Minare village, Pınara ancient city, Aşı stream, 450-650 m, 28.04.2019, Aksoy 2993 (Holotype: GAZI, isotypes ANK, EGE, ISTE, Akdeniz University Herbarium).

eT. turcicum** Çeçen & Özcan in Turk J Bot 45: 356 (2021). [Çeçen & Özcan, 2021]

Type: Turkey. Mersin: Anamur, 13th km from Abanoz village to Boğuntu village, around Çukurabanoz village, eastern slopes of calcareous rocky areas, 650–905 m, 12 May 2020, *Çeçen 6012*. (holo. GAZI, iso. ANK, HUB, KNYA).

LINACEAE

Linum L.

eL. aksehirense** Tugay & Ulukuş in PhytoKeys 136: 25 (2019). [Tugay & Ulukuş, 2019]

Type: Turkey. B3 Konya; Akşehir, Sultan Mountains, slopes in *Pinus nigra* forest, 1150 m alt., 38°19.230'N, 31°23.181'E, 01 August 2017, *O.Tugay* 14.542 & *D.Ulukuş* (holotype KNYA, isotypes KNYA 28.229).

MALVACEAE

Kitaibela Willd.

**K. vitifolia* Willd. in Neue Schriften Ges. Naturf. Freunde Berlin ii. 108 (1799). [Tugay, Ertuğrul, Aslan, & Ulukuş, 2019]

Examined specimen: C6 Osmaniye; Amanos Dağları, *Pinus* ormanı açıklıkları, 1400 m, 26.vii.2014, O. Tugay 10.138 (KNYA).

Malvastrum A. Gray

**M. coromandelianum* (L.) Gracke in Bonplandia 5(18): 295 (1857). [Yıldırım, Özdöl, & Yaşayacak, 2019]

Examined specimen: Osmaniye: Alibekirli Mahallesi, Bahçe içleri ve tarım arazileri, 37° 03'29.70" K, 36°16'09.08" D; 176 m, 21.08.2018, M. Çelik, H. Yıldırım 7690 (EGE).

OROBANCHACEAE

Phelipanche Pomel

**P. gussoneana* (Lojac.) Domina, Raab-Straube, Rätzel & Uhllich in Willdenowia 48(2): 209 (2018). [Raab-Straube & Raus, 2021]

Examined specimens: Turkey. 20 km W of Trabzon, mountain slope, on *Plantago* sp., 8 May 1970, *Horreüs de Haas* 171 (L.2816621; det. Uhllich 12 Jul 2021).

**P. olbiensis* (Coss.) Carlón, G.Gómez, M.Láinz, Moreno Mor., Ó.Sánchez & Schneew., Doc. Jard. Bot. Atlántico 6: 79 (2008). [Raab-Straube & Raus, 2020]

Examined specimens: Turkey. Bolkar Daghlari, Karagol-Kar, Hange westlich Meydan, 37°25'N, 34°37'E, 2450 m, Zwergstrauchflur, karbonatisches Substrat, 7 Aug 1992, *Hein 89-7a* (B 10 0666639, det. Parolly 1996 as *Orobanche mutellii* F. Schultz, rev. Ratzel 11 Mar 2020).

PLUMBAGINACEAE

Limonium Mill.

e***L. davisii* Doğan in Plant Systematics and Evolution 306(6): 89 (2020). [Doğan, Akaydin, & Erdal, 2020]

Type: Turkey. B4 Aksaray: Aksaray-Konya road, around Sultanhanı, 915 m a. s. l., salt steppe, 3 Oct 2004. *M. Doğan* and *G. Akaydin* 10120 (ANK)

e***L. globuliferum* Kuntze var. *subglobosum* Akaydin & Doğan in Plant Systematics and Evolution 306(6): 89 (2020). [Doğan et al., 2020]

Type: Turkey. B4 Aksaray: Aksaray-Adana road, around Yukarı Göndelen, 1040 m a. s.l., 18 Jun 2003, Doğan and Akaydin 7884 (ANK).

e***L. lilacinum* (Boiss.) Wagenitz var. *laxiflorum* Doğan & Akaydin in Plant Systematics and Evolution 306(6): 89 (2020). [Doğan et al., 2020]

Type: Turkey. B4 Aksaray: Aksaray, around Aksaray University Campus, 930 m a. s. l., 17 Aug 2003, Doğan and Akaydin 8182 (ANK).

POLYGONACEAE

Persicaria (L.) Miller

**P. hydropiperoides* (Michaux) Small in Fl. S.E. U.S. 378, 1330 (1903). [Keskin & Severoğlu, 2021a]

Examined specimen: Istanbul, Sancaktepe, Paşaköy, center, in valley, fountain area, wet place, N 41° 03' 49.7" and E 28° 44' 57.4", 23.ix.2019, M. Keskin 7899.

**P. lapathifolia* (L.) Delarbre subsp. *brittingeri* (Opiz) Soják in Preslia 46: 153 (1974). [Keskin & Severoğlu, 2020]

Examined specimen: Istanbul: Tuzla, Akfırat, Against the Formula-1 race ground, meadows and old humid areas, 25.vi.2020, M.Keskin 8019.

**P. lapathifolia* (L.) Delarbre subsp. *nodosa* (Pers.) Á.Löve, Rit Landbúnaoard. Atvinnud. Háskólans, B 3: 109 (1948). [Keskin & Severoğlu, 2021b]

Examined specimens: Istanbul, Çekmeköy: Hüseyinli köyü girişi, 7 m, N 41° 07' 07,5" ve 29° 17' 58,8", 11.vii.2020, M. Keskin 8032; Sarıyer: Bahçeköy, Belgrad ormanı, Karanlık bendi, su kenarı, 6.ix.2020, M. Keskin 8071; Tuzla: Akfırat beldesi, Formula 1 alanı karşısı, çayırılık, 7.viii.2019, M.Keskin 7861; Tuzla: Akfırat beldesi, Formula 1 Yarış alanı karşısı, kurumuş dere yatağı, kumlu toprak, 11.viii.2020, M.Keskin 8062.

Reynoutria Houtt.

**R. japonica* Houtt., Nat. Hist. 2(8): 639 (1777). [Karaer, Terzioğlu, & Kutbay, 2020]

Examined specimen: A6 Samsun - Terme, Bazlamaç district, field margins, roadsides, 210-315 m, 16.10.2014, F. Karaer 30135 (OMUB), Ibid. 250-425 m, 15. xi. 2014, F. Karaer 30375 (OMUB), (KATO 19251)

Rheum L.

e***R. telianum* İlçim in Phytotaxa, 477(1): 82 (2020). [İlçim & Karahan, 2020]

Type: Turkey. Adıyaman (C7): Kayatepe (Rezip) village, rocky serpentine soils, 37°87' N, 38°27' E, 1350 m, 18 April 2018, *İlçim*1945 (holotype ANK, isotype Herbarium Hatay Mustafa Kemal Univ.).

PRIMULACEAE

Androsace L.

e***A. azizsancarii* Sefali in Nord J Bot 39(7)-e03208: 4 (221). [Sefali, 2021]

Type: Turkey. Bayburt: Soganlı Mountains, south of Anzer Mountain, on moraines, 2831 m a.s.l., 40°30'N, 40°30'E, 1 July 2020, A.Sefalı 507 (holotype: ISTE 117267; isotypes: ANK 60610, BIN 9405, EGE 43195).

Dionysia Fenzl

eD. zeynepiae** Güzel in Phytotaxa 525(4): 282 (2021). [Güzel, 2021]

Type: Turkey. C6 Hatay: Antakya, Habib-i Neccar Mountain, Demirkapı vicinity, rock crevices of the cliffs, 36°12'26"N 36°10'53"E, 195 m elevation, 2 February 2021, Y. Güzel 3450 (holotype: HUB; isotype: ANK).

RANUNCULACEAE

Ranunculus L.

eR. aydogdui** Karaman, Tekşen & H. Duman in Nordic Journal of Botany 39(1): 2 (2021). [Karaman-Erkul, Tekşen, & Duman, 2021]

Type: Turkey. Aksaray: 3 km east of Eskil, salty steppe, 1000m a.s.l. 22 Jun 2017, M. Tekşen & S. Karaman 3239 (holo-type: GAZI; isotype: AKSU).

eR. solhanensis** Behçet & A. Sinan in Phytotaxa 497(2): 158 (2021). [Sinan, Behçet, & Yapar, 2021]

Type: B8 Bingöl, Solhan, Yaylım Mountain, rocky slopes, 38°80'26"N 40°98'814"E, 1713 m a.s.l., 08 April 2018, A.Sinan 1781 (holotype: Bingöl Univ. Biology Dept. Herbarium (BIN), isotypes Bingöl Univ. Biology Dept. Herbarium and ANK).

RUBIACEAE

Asperula L.

eA. cankiriense** B. Şahin & Sağıroğlu in Turk J Bot 45: 247 (2021). [Şahin, Sağıroğlu, & Başer, 2021]

Type: Turkey. A4 Çankırı: Süleymanlı village, Salt cave road, gypsum steppe, 600–700 m, 23.06.2016. B. Şahin 6526 & M. Sağıroğlu (holotype GAZI, isotypes: GAZI, HUB, ANK).

Crucianella L.

eC. turcica** Hamzaoğlu in Türler ve Habitatlar 2(2): 115 (2021). [Hamzaoğlu, 2021a]

Type: Turkey. Kayseri: Tomarza, Toklar ve Işıklar köyleri arası, Kızıldağ etekleri, 1600 m, taşlı bozkır, 4.7.2021, E.Hamzaoğlu 7877 (holotip: GAZI; izotipler: GAZI, ANK).

Plocama Aiton

eP. calabrica** (L.f.) M. Backlund & Thulin var. **alba** Göktürk, O. D. Düşen, B. Gürcan & U. Sarpkaya in Acta Bot. Croat. 78 (2), 143 (2019). [Göktürk, Düşen, Kaya, Gürcan, & Sarpkaya, 2019]

Type: Turkey. C2 Denizli: Çameli, between Akpınar and Yaylapınar villages, limestone slopes, 1166 m, 21 June 2017, O. D. Düşen (2584) & R. S. Göktürk (holotype PAMUH, isotypes Akdeniz Univ. Herb.).

ROSACEAE

Pyrus L.

***P. pyraster** (L.) Burgsd. in Anl. Erzieh. Holzart. 2: 193 (1787). [Aydın Uğurlu & Dönmez, 2019]

Examined specimen: Turkey. Kırklareli: 5. Km from Dereköy to Şükrüpaşa, N 41°56'13", E 027°25' 09", 452 m, 14.10.2012, ZUG 466-A.A. Dönmez (HUB).

SAXIFRAGACEAE

Saxifraga L.

eS. artvinensis** V. A. Matthews subsp. **meryemii** Terzioğlu & Coşkunç. in Turk J Bot 43: 689 (2019). [Terzioğlu, Coşkunçelebi, & Güzel, 2019]

Type: Turkey. A7 Trabzon: Altındere Vadisi National Park, around the Sumela Monastery, 1126 m, 31.03.2013, Terzioğlu & Coşkunçelebi 1246 (KATO 9843), holo: KATO; iso: KTUB.

SCROPHULARIACEAE

Scrophularia L.

***S. vernalis** L. in Sp. Pl. 2: 620 (1753) [Uzunhisarcıklı, Güner, Özbek, & Ekici, 2019]

Examined specimens: Turkey. Artvin: Borçka, Karagöl, on clearings of *Pinus sylvestris* forest, ca. 1400 m, 4 June 2015, M.E. Uzunhisarcıklı 2678 (GAZI).

Verbascum L.

eV. x aytachii** H. Duman & Uzunh. in GU J Sci, 34(4): 938 (2021). [Duman, Uzunhisarcıklı, & Özbek, 2021]

Type: Turkey. B2 Bursa: Orhaneli, SW of Çeki village, 800 m, 19.vii.2017, serpentine areas, M. E. Uzunhisarcıklı 2720a & H. Duman (holotype GAZI, isotypes ANK, HUB).

eV. ekicii** H. Duman & Uzunh. in Botany Letters, 167 (4): 410 (2020). [Duman, Uzunhisarcıklı, & Özbek, 2020]

Type: Turkey. B2 Bursa: Orhaneli, SW of Çeki village, 800 m, 19 July 2017, serpentine areas, M.E. Uzunhisarcıklı 2720 & H. Duman (holotype GAZI, isotypes ANK, HUB).

eV. x malkaraense** Demir, Cingay & Cabi in Bağbahçe Bilim Dergisi 8(3): 10 (2021). [Demir, Çingay, & Cabi, 2021]

Type: Turkey. Tekirdağ: Malkara-Keşan yolu, Haliç-Danişment köyü arası, orman açıklığı, yol kenarı, 286 m, 3.vi.2019, O. Demir(1172a) ve F. Demir (holo.NGBB 009556; iso.CBB).

eV. seydisehirense** Tugay & Ulukuş in Phytotaxa 450 (2): 230 (2020). [Ulukuş, Tugay, & Sağlam, 2020]

Type: Turkey. C4 Konya: Seydişehir, Kozlu Village, steppe, 1700 m alt., 37°38.356'N, 32°03.543'E, 26 August 2017, O.Tugay 14915, C.Sağlam & D.Ulukuş (holotype: KNYA, isotype: NGBB).

UMBELLIFERAE***Astrodaucus* Drude**

***A. orientalis** (L.) Drude var. **eriocarpus** (Boiss.) Woronow in Exsicc. (Fl. Cauc.): 289 (1927). [Sert & Aytaç, 2021]

Examined specimens: Turkey. A5 Çorum: Bayat, Çerşes köyü yukarısı, orman açıklığı, taşlı yamaçlar, 1300 m, 03.07.2020, R. Sert 1692 (GAZI).

***Bunium* L.**

e****B. sancakense** Yıld. & Kılıç in Ot Sistematik Botanik Dergisi, 26(1): 42 (2019). [Yıldırımli & Kılıç, 2019h].

Type: B8 Bingöl, Sancak, Hasanova mezrası çevresi, bozkır, taşlı alanlar, y.1550-1600 m, 03.07.2018, Ö. Kılıç 7051 (holo. Yıldırımli Otluk'u)

e****B. sivasicum** M. Çelik & Y. Bağcı in Phytotaxa 416 (4): 266 (2019). [Çelik & Bağcı, 2019]

Type: Turkey. B6 Sivas: Şarkışla, Mescit village, Demirkaya hill, 13.08.2016, 2156 m, steppe, M. Çelik 476 (holotype: KNYA, isotypes: KNYA, HUB, ANK).

***Bupleurum* L.**

***B. aequiradiatum** (H. Wolff) Snogerup & B. Snogerup in Willdenowia 31(2): 302 (2001). [Raab-Straube & Raus, 2020]

Examined specimens: Turkey. Bithyn[ia], prope Brussam, in fruticetis, Jul 1874, *Pichler* (BP 274226, as *Bupleurum gerardi* Jacq. [non All.]).

***Ferula* L.**

e****F. pisidica** Akalın & Miski in Plants 9, 740 (2020). [Akalın, Tuncay, Olcay, & Miski, 2020]

Type: Turkey. C4 Antalya: Near Beyreli village, 1550 m, 26 June 2015, 36°50' 24.8" N, 32°22' 14.41" E, .M. Miski, E. Akalın & S. Anil. (holotype: ISTE 117051).

***Ferulago* W.D.J.Koch**

e****F. akpulatii** Akalın & Gürdal in Phytotaxa 518 (2): 101 (2021). [Gürdal, Olcay, Tuncay, & Akalın, 2021]

Type: Turkey. Sivas Province: Sivas-Hafik yolu 10. km, jipsli alanlar, 1400 m elevation, 21 June 2018, E. Akalın, A. Akpulat, M. Miski, N. Tan & M. Eruçar (holotype: ISTE 115906).

***Peucedanum* L.**

e****P. akaliniae** Akpulat, Gürdal & Tuncay in Phytotaxa 425 (3): 146 (2019). [Gürdal, Tuncay, & Akpulat, 2019]

Type: Turkey. Antalya: Elmalı, Öndibek Yaylası (Kohu Yaylası altları, 1654 m, 36°28'39" N, 29°52'34"E, 30 June 2017, E. Akalın & U. Uruşak (holotype: ISTE 114900).

***Pimpinella* L.**

e****P. adiyamanensis** Yıld. & Kılıç in Ot Sistematik Botanik Dergisi, 26(1): 45 (2019). [Yıldırımli & Kılıç, 2019h].

Type: C7 Adıyaman, Koçali-Çelikhan arası, sulu vadi, meşe (*Quercus brandii*) ormanı, 1061-1120 m, 29.04.2018, Ş. Yıldırımli 44185 & Ö. Kılıç (holo. Yıldırımli Otluk'u (YO); iso. GAZI, HUB, YO).

***P. kurdica** Rech.f. & Riedl in Anz. Österr. Akad. Wiss., Math.-Naturwiss. Kl. xcvi. 249 (1961). [Firat, 2019b]

Examined specimens: Turkey. C9 Hakkâri; Zap valley, rocky cliffs, 37°30'14" N, 043°43'03" E, 1215 m, 15.07.2014, M. Firat 31182, VANF & private herb M. Firat; ibid. 20.08.2015. M. Firat 32626. VANF & private herb M. Firat (in fruit).

***Prangos* Lindley**

e****P. aricakensis** Behçet & Yapar in Phytotaxa 401(1): 56 (2019). [Behçet, Yapar, & Olgun, 219]

Type: Turkey. B8 Elazığ: Arıcak, Akdağ mountain, Cuber tableland, rocky slopes, 38°36'01"N 40°07'58"E, 2000–2050 m elevation, 25 August 2017, Y. Yapar 3150 (holotype: Bingöl Univ. Biology Dept. Herbarium, isotypes: ANK).

***Rhabdosciadium* Boiss.**

e****R. hizanense** Firat & Güzel in Phytotaxa 395 (3): 1828 (2019). [Firat & Güzel, 2019]

Type: Turkey. B9 Bitlis: Hizan Province, İhtiyarşahap Mountains (Lolan hill), Mêrga Mehîr plateau, rocky, stone, and calcareous areas, 2221 m, 38°21'38"N, 42°25'39"E, coll. 2 August 2015, M. Firat 32618 (holotype: VANF, isotypes: HUB, ANK and Herb. M. Firat).

***Seseli* L.**

e****S. salsugineum** A. Duran & Lyskov in Phytotaxa 529 (1): 35 (2021). [Duran, Samigullin, & Lyskov, 2021]

Type: Turkey. C4 Konya: Cihanbeyli, between Gölyazı-Tuz Gölü, 9th kilometer, 923m, salty marshes, 25 September 2011, A.Duran & et al. 9855 (holotype: HUB, isotypes: ANK, MW barcode MW0595744, MW0595746, MW0595747).

***Trigonosciadium* Boiss.**

e****T. solhanense** Yıld. & Kılıç in Ot Sistematik Botanik Dergisi, 26(1): 48 (2019). [Yıldırımli & Kılıç, 2019h].

Type: B8 Bingöl, Solhan, Hazarşah köyü mezrası, Aksakal göl mezrası, Yüzenada mevkisi, sulu dere boyunca ve üstündeki tepeler, volkanik taşlı yamaçlar, çayırılık, 1300-1400 m, 12.06.2015, Ş. Yıldırımli 41492 & Ö. Kılıç (holo. Yıldırımli Otluk'u).

MONOCOTYLEDONS**ARECACEAE*****Phoenix* L.**

e****P. theophrasti** Greuter subsp. **golkoyana** Boydak in Forestist, 69(2): 141 (2019). [Boydak, 2019]

Type: Turkey. C1 Muğla: Bodrum, Gölköy (Göltürbükü), female, latitude 37.1147° N, longitude 27.3981° E, Plain, 3 m., 27 August

2018, M. Boydak (holotype: ISTO 38308); ibid, (paratypes: (male) ISTO 38309, (female) ISTO 38310); ibid, 01 October 1990, M. Boydak (paratype: ISTO 27384).

ARACEAE

Zantedeschia K.Koch

***Z. aethiopica** (L.) Spreng. in Syst. Veg., 3: 765 (1826). [Yıldırım & Erdem, 2019]

Examined specimen: Muğla: Ula, Akçapınar Mahallesi, Akçapınar Azmağı kenarı bataklık alanlar, 37° 01' 39.9" K, 28° 21' 10.6" D, 10 m, 26. İii. 2019, H. Yıldırım 7551, B. Topçuoğlu (EGE-43189).

ASPARAGACEAE

Chionodoxa Boiss.

e****C. salbacus** Yıldırım in Bağbahçe Bilim Dergisi 8(1): 77 (2021). [Yıldırım & Altıoğlu, 2021]

Type: Turkey. Denizli: Babadağ, Karababa tepesi altı, kuzey yamaç, açık yamaçlar, şistli topraklar üzeri, 1569 m, 09 iv 2014, H. Yıldırım 2797, Y. Altıoğlu, R. Çetiner ve Z. Doğmaz (holotip: EGE, izotipler: EGE, NGBB, ANK)

■ **Gemicia** Yıldırım in Bağbahçe Bilim Dergisi 8(1): 40 (2021). [Yıldırım, 2021]

Type species: *Gemicia vardariana* (Yıldırım & Y. Gemic) Yıldırım (≡ *Scilla vardaria* Yıldırım & Y. Gemic).

e****G. vardariana** (Yıldırım & Y. Gemic) Yıldırım in Bağbahçe Bilim Dergisi 8(1): 41 (2021). [Yıldırım, 2021]

Type: Turkey. Rize: Çamlıhemşin, Kaçkar Mountain, 1520 m, openings in *Picea orientalis* forests, 28.iv.2010, H. Yıldırım 1675 (holotype EGE; isotypes K; EGE; HUB and Herb. Yıldırımli).

Leopoldia Parl.

e****L. archibaldii** Rukšāns in International Rock Gardener 134 (2020) [Rukšāns, 2020b]

Type: Turkey. Erzincan Province, roadside after the Pülümür valley along the road from Tunceli to Erzincan, 2004, BATM-282, 39°35.970'N 39°51.949'E, alt. 1300 m. Holo: GB – ex culturae in horto Jānis Rukšāns.

Loncomelos Raf.

e****L. koprulense** Bogdanović, Brullo & Salmeri in PhytoKeys, 175, 35 (2021). [Bogdanović, Brullo, & Salmeri, 2021]

Type: Turkey. Antalya: District of Manavgat, Köprülü Kanyon National Park, Bozyaka road, cultivated specimen, 15 June 2010, Brullo s.n. (Holotype: CAT).

Puschkinia Adams

e****P. kurdistanica** Rukšāns in International Rock Gardener 116 (2019) [Rukšāns, 2019]

Type: Plants from E Turkey, S coast of Lake Van, 19 km after Tatvan along the Tatvan-Van rd., 38°28' N and 42°29' E; alt. apr. 1670 m., leg. Rukšāns, Seisums & Zetterlund 26th of May, 2004 as BATMAN-060. Holotype GB (Gothenburg) ex culturae in horto Jānis Rukšāns, 05-04-2019.

CYPERACEAE

Eleocharis R.Br.

e****E. divaricata** M.Keskin in Front Life Sci RT 2(1): 10 (2021). [Keskin & Merrick, 2021]

Type: Turkey, Antalya: Konyaaltı, Boğa çayı vicinity, 4.xii.2020, D.Merrick (Holo NGBB)

GRAMINAE

Arrhenatherum P. Beauv.

***A. elatius** (L.) P. Beauv. ex J. Presl. & C. Presl. subsp. **bulbosum** (Willd.) Schübl. & Martens in Fl. Vürtemberg 70 (1834). [Terzioğlu, 2020]

Examined specimen: A8 Rize - Fındıklı, in tea and hazelnut plantations, 35 m, 29.05.2019, UTM: 0680491, 4569884, KATO 23230

Bromus L.

***B. arvensis** L. subsp. **parviflorus** (Desf.) H. Scholz in Florist. Rundbr. 36: 35 (2002). [Raab-Straube & Raus, 2019]

Examined specimen: Turkey. W Anatolia, Bafa Gölü, W side, c. 1.5 km S of Serçin, 37°31'47"N, 27°23'11"E, 2 – 5 m, abandoned field near waterside, salt influenced, 9 May 2006, Ristow (herb. Ristow).

e****B. orientalis** Behçet & Yapar in Nord J Bot 39(4)-e02959: 2 (2021). [Behçet & Yapar, 2021]

Type: Turkey. B8 Bingöl: Çapakçur Valley, Alıncak between Aşağıköy, moist forest clearances, 1577 m a.s.l., 38°51'55.14"N, 40°24'57.48"E, 13 Jul 2018, Behçet & Yapar 15773 (holotype: Bingöl Univ. Biology Dept. Herbarium, isotypes: Bingöl Univ. Biology Dept. Herbarium and ANK).

■ *Leptatherum* Nees

***L. boreale** (Ohwi) C.-H. Chen, C.-S. Kuoh & Veldk. in Blumea 54: 179 (2009). [Terzioğlu & Özkan, 2020]

Examined specimen: Trabzon, Sürmene, Çamburnu, in Scots pine forest including Çamburnu Nature Park, along the road, 10 m, 10.11.2019, UTM: 0602590 - 4531287, KATO 24445

IRIDACEAE

Crocus L.

e****C. akdagensis** Kerndorff & Pasche in Stapfia 103: 76 (2015) [Kerndorff, Pasche, & Harpke, 2015]

Type: Turkey. Pisidia, Burdur Province, Akkaya Tepesi, 1600-1700 m, 19.03.2002, HKEP 0211 (Gatersleben GAT 7128).

eC. akkayaensis** Kerndorff & Pasche in Stapfia 103: 74 (2015) [Kerndorff et al., 2015]

Type: Turkey. Lycia, Antalya Province, eastern Ak Dağlar, 1500-1600 m, 20.02.2011, HKEP 9721 (Gatersleben GAT 7389).

eC. asymmetricus** Erol in Phytotaxa 430: 74 (2020). [Ciftci, Harpke, Mollman, Yildirim, & Erol, 2020]

Type: Turkey. Kahramanmaraş: border of Maraş – Osmaniye, Ceyhan Valley 850–920m a.s.l., 6 March 2019, *Mehmet Çelik s.n.* (holotype ISTF 41370, isotype: EGE)

eC. bowlesianus** Kerndorff & Pasche in Stapfia 103: 75 (2015) [Kerndorff et al., 2015]

Type: Turkey. Lycian Taurus, Antalya Province, Katrancik Dağları, 1400-1500 m, 25.03.2000, HKEP 0009 (Gatersleben GAT 7377).

eC. concinnus** Kerndorff & Pasche in Stapfia 101: 10 (2014) [Kerndorff, Pasche, & Harpke, 2014]

Type: Turkey. Central Taurus (Kuyucak Dağları), Antalya province, 1000-1800 m, 26.2.2000, HKEP 0007 (Gatersleben, GAT 23069)

eC. filis-maculatis** Kerndorff & Pasche in Turk J Bot 38: 1195 (2014) [Harpke et al., 2014]

Type: Turkey. Anti-Taurus, Province Adana, hills north of Adana towards the Taurus mountains, 800– 1000 m, 17 March 2012, HKEP 1207, (GAT 25833).

eC. gembosii** Rukšāns in International Rock Gardener 76 (2016) [Rukšāns, 2016]

Type: Turkey. Antalya Province, Gembos Yaila, 37 °15.855 N, 31 °27.646 E, alt. 1220m: 24-03-2014. Rukšāns, 14TUS-029. Holo: GAT.

eC. harpkeae** Rukšāns in International Rock Gardener 125 (2020) [Rukšāns, 2020a]

Type: Turkey. Adana Province, yaila below Kaan Geçidi, 38013' N; 36014' E; JJVV-023, leg. J. Rukšāns, 7th of March, 2010. Holo: GAT; Isotype: GB – ex culturae in horto Jānis Rukšāns, 02-03-2016.

eC. katrancensis** Kerndorff & Pasche in Stapfia 103: 75 (2015) [Kerndorff et al., 2015]

Type: Turkey. Pisidia, Antalya Province, Katranç dağı, 1600-1700 m, 13.03.2002, HKEP 0222 (Gatersleben GAT 7150).

eC. keltepensisi** Yüzb. in Phytotaxa 418 (2): 231 (2019). [Yüzbaşıoğlu, 2019]

Type: Turkey. Kocaeli: Keltepe, zirve, 1650 m, 29 April 1974, A. Baytop & E. Tuzlacı (holotype ISTE 26764; isotypes ISTE).

eC. rechingeri** Kerndorff & Pasche in Stapfia 101: 9 (2014) [Kerndorff et al., 2014]

Type: Turkey. Lycian Taurus, Antalya province, Babadağ, 1200-1400 m, 15.3.2001, HKEP 0115 (Gatersleben, GAT 7246)

eC. sakaltutanensis** Rukšāns in International Rock Gardener 76 (2016) [Rukšāns, 2016]

Type: Ex culturae in horto Jānis Rukšāns. (Plants from N.E. Turkey, Erzincan Province, Sakaltutan mountain pass 39.870523°N. 39.134231°E, alt. 2120m). Cultivated plants originally collected on 28-05-2009, long after blooming, with almost dry leaves (Rukšāns, JRRK-011). Holotype: GAT; Isotype: ISTF.

eC. salurdagensis** Kerndorff & Pasche in Stapfia 103: 77 (2015) [Kerndorff et al., 2015]

Type: Turkey. Lycia, Antalya Province, Salur dağ, 1500-1600 m, 20.02.1997, HKEP 9701 (Gatersleben GAT).

eC. stevensii** Rukšāns in International Rock Gardener 76 (2016) [Rukšāns, 2016]

Type: ex culturae in horto Jānis Rukšāns. (Plants from S.W. Turkey, Honaz Dağı, over vil. Honaz, alt.1650m J. Archibald.). Cultivated plants collected on 29.02.2016. Holotype: GAT.

eC. terzioghluui** Erol in Phytotaxa 420(3): 225 (2019). [Ciftci, Harpke, & Erol, 2019]

Type: Turkey. Muğla: Marmaris, ca. 65 m a.s.l., 13 December 2018, O. Erol & A. Gemcioğlu (holotype, ISTF 41368)

eC. xanthosus** Kerndorff & Pasche in Stapfia 103: 77 (2015) [Kerndorff et al., 2015]

Type: Turkey. Lycia, Antalya Province, Kofu dağ, 1400-1500 m 10.03.2001, HKEP 0124 (Gatersleben GAT 7126)

eC. zetterlundii** Rukšāns in International Rock Gardener 64 (2015) [Rukšāns, 2015]

Type: Ex culturae in horto Jānis Rukšāns. (Plants from NW Turkey, Bolu province, near Bakırlı yaylası, altitude 1360m). Collected on 04-06-2005 (LST-109). Holotype: GB.

Freesia Eckl. ex Klatt

***F. leichtlinii** Klatt subsp. **alba** (G.L.Mey.) J.C.Manning & Goldblatt in Strelitzia 27: 70 (2010). [Eker & Tuzlacı, 2021]

Examined specimens: A2(A) İstanbul: Burgazada, orman içi açıklık, 91 m, 09 v 2017, H.İ. Tuzlacı 752 (AIBU); Burgazada, orman içi, 31 m, 23 iii 2017, H.İ. Tuzlacı 647 (AIBU); Heybeliada, orman içi açıklık, 15 m, 22 iii 2017, H.İ. Tuzlacı 634 (AIBU); Kınalıada, orman içi açıklık, 62 m, 09 iii 2016, H.İ. Tuzlacı 168 (AIBU); Kınalıada, makilik, 54 m, 22 iii 2016, H.İ. Tuzlacı 222 ve İ.Eker (AIBU); Kınalıada, orman içi açıklık, 72 m, 24 iv 2018, H.İ. Tuzlacı 964 (AIBU); ibid., H.İ. Tuzlacı 967 (AIBU); ibid., H.İ. Tuzlacı 968 (AIBU).

Iris L.

eI. yedisuensis** Yıld. & Kılıç in Ot Sistematik Botanik Dergisi, 26(2): 2 (2019). [Yıldırımli & Kılıç, 2019b].

Type: B8 Bingöl, Karlıova'dan Yedisu'ya doğru, y. 30 km, yol kıyısı, karkal, bayır, 1740 m, 23.04.2019, Ş. Yıldırımli 45132 & Ö. Kılıç (holo. Yıldırımli Otluk'u (YO); iso. GAZI, YO).

Gladiolus L.

eG. aladagensis** Eker & Sağıroğlu in Phytotaxa 478 (1): 152 (2021). [Sağıroğlu & Eker, 2021]

Type: Turkey. A3 Bolu: Between Karacasu-Kibriscık, 34. km, along stream bed in the *Pinus sylvestris* forest openings, 1484 m of elevation, 07 July 2019, *İ. Eker 12727 & M. Sağıroğlu* (holotype AIBU; isotypes Herbarium of Sakarya University, GAZI, HUB).

eG. hamzaoglu** H. Duman, Sağıroğlu & Tekşen in Phytotaxa 496 (3): 247 (2021). [Tekşen, Duman, & Sağıroğlu, 2021]

Type: Turkey. Erzincan: İliç, N of Çakmaktepe, 1290 m elevation, serpentine gravelly slopes and slightly moist meadows, 10 July 2020, H. Duman 10626 (holotype GAZI; isotypes HUB, ANK).

eG. izzet-baysalii** Eker & Sağıroğlu in Phytotaxa 527 (2): 98 (2021). [Eker & Sağıroğlu, 2021]

Type: Turkey. C4 Karaman: Sarıveliler, above Göktepe, Saçak Mountain, meadow, dry creek bed, 1779 m of elevation, 26 May 2021, *İ. Eker 13199* (holotype AIBU; isotypes AIBU, SAKU).

LILIACEAE

Allium L.

eA. adiyamanense** Yıld. & Kılıç in Ot Sistematik Botanik Dergisi, 26(1): 34 (2019). [Yıldırım & Kılıç, 2019e].

Type: C7 Adıyaman, Koçali-Çelikhhan arası, sulu vadi, meşe (*Quercus brandii*) ormanı, 1061-1120 m, 29.04.2018, Ş. Yıldırım 44252 & Ö. Kılıç (holo. Yıldırım Otluk'u (YO); iso. GAZI, YO).

eA. dönmezii** Mutlu & Karakuş in Phytotaxa 411 (3): 199 (2019). [Karakuş & Mutlu, 2020]

Type: Turkey. Malatya, Akçadağ, Başyurt plateau, Kartalkaya Hill, 2400 m, 14 July 2012, Ş. Karakuş & B. Mutlu 3124 (holotype: INU12528-2013; isotype: INU 12528-2013).

eA. mardinense** Balos, H. Akan & Yıldırım in Ann Bot Fenn 58(4-6): 342 (2021). [Balos, Akan, Yıldırım, & Geçit, 2021]

Type: Turkey. Mardin Province, Artuklu Region, Akreste Pass to Sultançayırı meadows, limestone slopes, 1100 m a.s.l., 29 June 2019 M. Balos 4354 (holotype HARRAN isotypes HARRAN, EGE, NGBB).

eA. muratozelii** Armağan in Phytotaxa 498 (4): 256 (2021). [Armağan, 2021]

Type: Turkey. Tunceli: 26 km from Tunceli to Ovacık (Munzur valley), steppe, 1100m, 39° 15'41.0" N 39°28'06.0"E, 30 April 2015, M.Özel & M.Armağan 6688 (holotype KNYA-26923; AEF, NGBB).

eA. nerimaniae** Koçyiğit & E. Kaya in Phytotaxa 435 (1): 17 (2020). [Koçyiğit & Kaya, 2020]

Type: Turkey. B9 Van, Gürpınar, around Sapakonak village, elevation 2535 m, 7 July 2013, E. Kaya 4455 (holotype: ISTE; isotypes: NGBB, AEF).

eA. shahinii** H. Duman & Ekşi in Phytotaxa 461 (3) : 196 (2020). [Ekşi & Duman, 2020]

Type: Turkey. Erzincan: 1. km from İliç to Çaltı road, dynamic and graveled steppe, 1270 m, 37 S 463852 E, 4367451 N, 20.vi.2018, H. Duman 10602 (GAZI holotype; AEF, ANK isotypes).

eA. shinasii** Armağan in Nord J Bot 39 (10)-e03145: 2 (2021). [Armağan, 2021]

Type: Turkey. Tunceli: Nazimiye, 7 km NE of Büyükyurt (Hakis) village, 39°17'27.8"N, 39°51'10.2"E, oak forest openings, 2070 m a.s.l., 15 Jul 2020, Armağan 8361 (holotype ANK; isotypes AEF, KNYA, NGBB).

eA. sultanae-ismailii** Yıldırım in Phytotaxa 403 (1) : 40 (2019). [Yıldırım, 2019]

Type: Turkey. Malatya: Darende, Akbabaçalı Mountain, open mountain slopes, calcareous rocky areas, 2150 m, 30.05.2012, H. Yıldırım 2400 (holotype EGE; isotypes EGE, NGBB).

eA. yamadagensis** Yıldırım & Ekşi in Phytotaxa 400 (1): 031-036 (2019). [Ekşi & Yıldırım, 2019]

Type: Turkey. Malatya: Hekimhan, Yama Dağı, zirve, volkanik kırık kayalık yamaçlar, 2570 m, 27 July 2015, H. Yıldırım 3487 (holotype, EGE, isotypes, EGE, NGBB, ANK, HUB).

Bellevalia Lapeyr.

eB. bayburtensis** Sefalı & Yıldırım in Phytotaxa 441 (3): 286 (2020). [Yıldırım & Sefalı, 2020]

Type: Turkey. Bayburt: Kopdağı silsilesi, Bahtlı Dağı, kırık taşlık ve çarşak alanlar, 2604 m, 40o 02' N, 40o 30' E, 01 June 2019, *A.Sefalı 433* (holotype: EGE 43190; isotypes: ANK, EGE 43191, NGBB).

eB. guneriana** Tugay & Armağan in Bağbahçe Bilim Dergisi 8 (3): 2 (2021). [Tugay, Armağan, & Ulukış, 2021]

Type: Turkey. Hatay: Belen, Amanos Dağları, Karlık Tepe, kireçtaşı yamaçlar, *Quercus coccifera* maki açıklığı, 900 m, 24.iv.1957, P.H. Davis 27040 & Hedge (holotype / holotip: E00340644).

eB. sasonii** Fidan in Phytotaxa 394 (2): 127 (2019). [Fidan, 2019]

Type: Turkey. B8 Batman: Sason country Karameşe village road 1. km, 38°17'48.29"N, 41°19'53.97"E, forest clearance, 733 m, 11April 2017, *M Fidan 3012* (holotype SUFAF; isotype VANF).

eB. turcica** Pınar & Eroğlu in Biologia 74: 449 (2019). [Pınar & Eroğlu, 2019a]

Type: Turkey. C5 Adana: Pozantı, above Hamidiye village, Çukuryurt place, 37°32'36" N, 34°59'37" E, *Juniperus* yards, 1515 m, 15.05.2015, M. Pınar 6502, H. Eroğlu (holotype VANF, isotypes GAZI, ANK).

Fritillaria Tourn. ex L.

eF. arsusiana** Yıldırım & Tekşen in Phytotaxa 502 (2): 150 (2021). [Yıldırım & Tekşen, 2021]

Type: Turkey. Hatay: İskenderun, Arsuz, Hacıahmetli Köyü'nden askeri radara çıkış yolu, Amanos dağları, zirve civarı düzlük, çam ve meşe açıklıkları, serpantin topraklar, 1540 m a.s.l., 23 April 2008, H. Yıldırım 1309 (holotype, EGE 43194; isotype, GAZI).

eF. gencensis** Yıld., Kılıç & A.Demirpolat in Ot Sistematik Botanik Dergisi, 26(1): 2 (2019). [Yıldırım, Kılıç, & Demirpolat, 2019].

Type: B8 Bingöl, Genç ilçesi, Çevirme köyü, Şehittepe mevkisi, küçük kepez başı, 1650 m, 22.04.2019, Ş. Yıldırım 45138, Ö. Kılıç & A.Demirpolat (holo. Yıldırım Otluk'u (YO); iso. EGE, GAZI, HUB, YO).

Galanthus L.

eG. bursanus** Zubov, Konca & A.P.Davis in Kew Bulletin 74:18 (2019). [Zubov, Konca, & Davis, 2019]

Type: Turkey. Bursa Province, Marmara Sea region, limestone rocky outcrops near Bursa, c. 500 m, fl. 26 Nov. 2016, Zubov & Konca s.n. (holotype KWHA).

Muscari Mill.

***M. commutatum** Guss. in Fl. Sic. Prodr. 1:426, t. 180 f. 4 (1827). [Uysal, Bozkurt, & Demirelma, 2021]

Examined specimens: Turkey. Antalya: Tahtalı Dağı, teleferik tesisinin kuzeydoğusu, taşlık kayalık sekiler, kaya oyukları, 735–745 m, 24.03.2019, *T.Uysal 3808* (KNYA); Kemer, Tahtalı Dağı teleferik civarı kalker kayalık alan, 720 m, 07.03.2020; *T.Uysal 3970* & *H.Demirelma* (KNYA); Kumluca, Adrasan beldesi, denize bakan güney eğimli orman yamaçları ve açıklıkları, 5–60 m, 07.03.2020; *T.Uysal 3976* & *H.Demirelma* (KNYA); Kuyucak Dağı, close to Altıkaya, around and above the remains of ancient Selge, 900–1200 m, 20.04.2006, *Staudinger 11743* (W); İzmir: Efes antik kenti, Bülbül Dağı, 25–200 m, 25.03.2002, *F.Speta s.n.* (W);

eM. erzincanicum** Eker in Phytotaxa 487 (1): 44 (2021). [Eker, 2021]

Type: Turkey. B7 Erzincan: Between Erzincan to Refahiye, surroundings of Sakaltutan Pass, on fine serpentine stacks, 1531 m of elevation, 08 May 2020, İ. Eker 12931, A. Kandemir, E. Eker (holotype AIBU; isotypes AIBU, HUB).

eM. fatmacereniae** Eker in Phytotaxa 397 (1): 102 (2019). [Eker, 2019a]

Type: Turkey. C5 Adana: Tufanbeyli, around Güzelim village, on streamside in openings of pine forest, 1436 m of elevation, 09 May 2018, I. Eker 12586 (holotype AIBU; isotypes AIBU, NGBB, HUB).

eM. inundatum** Yıldırım & Eker in Phytotaxa 484 (2): 182 (2021). [Eker & Yıldırım, 2021]

Type: Turkey. C6 Hatay: Antakya, Amanos Mountain, above Kiseçik Village, Yukarı Zorkun Upland, creek edges in pine forest openings, 1518 m a.s.l., 28 April 2020, İ. Eker 12808 (holotype AIBU; isotypes AIBU, EGE).

eM. muglaensis** Eker, H. Duman & Yıldırım in Phytotaxa 475 (4): 268 (2020). [Eker, Duman, & Yıldırım, 2020]

Type: Turkey. C2 Muğla: Köyceğiz, Sandras Mountain, Lake Kartal surroundings, on ophiolite rock cracks and serpentine soils, 1952 m of elevation, 08 June 2020, İ. Eker 13030 (holotype AIBU; isotypes AIBU, EGE, GAZI).

eM. nazimiyensis** Yıld. & Kılıç in Ot Sistematik Botanik Dergisi, 26(1): 14 (2019). [Yıldırım & Kılıç, 2019c].

Type: B7 Tunceli, Nazimiye, Büyükyurt (Hakis) köyü girişi, dere başı, karışık orman, 1500 m, 31.05.2015, Ş. Yıldırım 41190 & Ö. Kılıç (holo. Yıldırım Otluk'u; iso. HUB).

eM. pamiryigidii** Eker in Phytotaxa 408(4): 256 (2019). [Eker, 2019b]

Type: Turkey. A3 Bolu: Mudurnu, Abant Mountains, around antenna tower, alpine and subalpine areas, meadow and stony places, 1756 m of elevation, 18 May 2012, İ. Eker 2768 (holotype AIBU; isotypes AIBU, NGBB, HUB).

***M. pallens** (M.Bieb.) Fisch. in Cat. Jard. Gorenki, ed. 2: 9 (1812). [Eker, Yıldırım, & Armağan, 2019]

Examined specimens: Turkey. B9 Van: Gevaş, Deveboynu Yarımadası, göl kenarı, açık yamaçlar, 29 iv 2007, HY-1124 (EGE); Göründü-Altınış Köyleri arası, 4. km, bozkır, 1680 m, 03 v 2017, M.Armağan 7250 & 7251 (AIBU); Göründü-İnköy arası, 1700-1750 m, 03 v 1997, M.Koyuncu 11579 (AEF 25786); ibid., yamaçlar, 1750 m, 11 v 1997, M.Koyuncu 11622 (AEF 25778); Ağıllı Köyü, 1730 m, 03 v 1997, M.Koyuncu 11579 & N.Demirkuş 5111 (AEF 25781); ibid., taşlı yamaçlar, 1700 m, 11 v 1997, M.Koyuncu (AEF 25774); Göründü-Altınış köyleri arası, Ağıllı Köyü, yamaçlar, 1750 m, 19 iv 1998, N.Demirkuş (AEF 25092); ibid., 1750 m, 19 iv 1999, N.Demirkuş (AEF 25091); ibid., 1750 m, 19 iv 1998, N.Demirkuş (AEF 25093); Göründü-Altınış köyleri arası, step, yamaçlar, 1750 m, 06 v 2002, M.Koyuncu 14074 & N.Adıgüzel (AEF 25811); ibid., Van Gölü'nün güneyi, yamaçlar, 1700 m, 18 iv 2004, M.Koyuncu 14074 (AEF 25650).

eM. sabihapinari** Eroğlu, Pinar & Fidan in Nordic Journal of Botany 37 (11): 2 (2019). [Eroğlu, Pinar, & Fidan, 2019]

Type: Turkey. B6 Adana: Tufanbeyli, Demiroluk village, Bey Mountain-Kartal Mountain, steppe, stony slopes, 38°14'12"N, 36°02'55"E, 2025 m, a.s.l., 18 May 2015, H. Eroğlu 1153 (holotype VANF; isotypes GAZI, ANK).

eM. savranii** Uysal & Doğu in Phytotaxa 402 (3): 157 (2019). [Doğu & Uysal, 2019]

Type: Turkey. B5 Kayseri: Kocasinan, Oymaağaç Köyü üstleri, Jipsli yamaçlar, elev. 1150–1200 m, 26 April 2018, S. Doğu 3051 (Holo KNYA).

eM. tauricum** S. Demirci, N. Özhatay & E. Kaya in Phytotaxa 399 (2): 112 (2019). [Demirci-Kayıran, Özhatay, & Kaya, 2019]

Type: Turkey. C4 Mersin: Tarsus-Çamlıyayla, 18 km of Çamlıyayla, wet rift valley, 1140 m of elevation, 14 April 2011, E. Kaya 1918 (holotype ISTE 94347).

Ornithogalum L.

eO. gulfariensis** Demir. & Uysal in Kew Bulletin 75: 18 (2020). [Demirelma, 2020]

Type: Turkey. C4 İçel, Mut-İçel, Dağ Pazarı-Kilise road, 2 – 3 km, near Çivi village, *Pinus-Quercus* openings, 36°44.8' 74"N, 33°23.9'71"(961)E, 860 m, 19 April 2013, T. Uysal 2840, O. Tugay&H. Demirelma (holotype: KNYA).

eO. malatyanum** Mutlu subsp. **aricakense** Behçet & Yapar in Nord J Bot 38(11)-e02837: 2 (2020). [Yapar & Behçet, 2020]

Type: Turkey. B8 Elaziğ: Arıcak district, east of Karakaş village, rocky area, accumulated soil between the rocks, 1200 m a.s.l., 15 Jun 2019. Y.Yapar 3068. (holotype: Bingöl Univ. Biology Dept. Herbarium (BIN); isotypes: ANK, KNYA, BIN).

eO. nitidum** Yıld. & Kılıç in Ot Sistemantik Botanik Dergisi, 26(2): 11 (2019). [Yıldırım & Kılıç, 2019f].

Type: B7 Tunceli, Nazimiye, Büyükyurt (Hakis) köyü üstü, Şirince çevresi, titrekavak (*Populus tremula*) ve meşe (*Quercus*) orman altı, 1850 m, 31.05.2015, Ş. Yıldırım 41234 & Ö. Kılıç (holo. Yıldırım Otluk'u iso. GAZI).

eO. plurifolium** Yıld. & Kılıç in Ot Sistemantik Botanik Dergisi, 26(2): 16 (2019). [Yıldırım & Kılıç, 2019f].

Type: B7 Tunceli, Ovacık, Yılan dağı, Cevzlidere köyünden İt yokuşu-Eşek meydanı-Dev boğazı, Tapik tepe-Deve boynu-Barasor deresi izleğiyle Karataş köyüne, bozkır, 1550-2250 m, 19.06.2015, Ş. Yıldırım 41600 & Ö. Kılıç (holo. Yıldırım Otluk'u iso. GAZI).

eO. sancakense** Yıld. & Kılıç in Ot Sistemantik Botanik Dergisi, 26(2): 24 (2019). [Yıldırım & Kılıç, 2019f].

Type: B8 Bingöl, Bingöl-Sancak arası, bayır, yamaç, meşelik (*Quercus brandii*), yamaçlar, çayırılık, 1550-1600 m, 04.05.2018, Ş. Yıldırım 44506 & Ö. Kılıç (holo. Yıldırım Otluk'u (YO); iso. GAZI, YO).

eO. yesilyurtense** Yıld. & Kılıç in Ot Sistemantik Botanik Dergisi, 26(2): 29 (2019). [Yıldırım & Kılıç, 2019f].

Type: B6 Malatya, Yeşilyurt-Çelikhan arası, kayalık ve taşlık, bayır, 1500-1700 m, 25.04.2019, Ş. Yıldırım 45168 & Ö. Kılıç (holo. Yıldırım Otluk'u).

Scilla L.

eS. hakkariensis** Fırat & Yıldırım in Adansonia 42 (2): 90 (2020). [Fırat & Yıldırım, 2020]

Type: Turkey. Hakkari: Şemdinli district, Gelaşlı region, on rock area and *Crataegus* bushes opening, 890 m, 37°4'45" N, 44°25'46" E, 7.iv.2012, M. Fırat 28629 (holo-, VANP; iso-, EGE, HUB, VANP, and in the personal herbarium of the collector Herb. Fırat).

ORCHIDACEAE

Ophrys L.

eO. bingöelensis** Yıld. & Kılıç in Ot Sistemantik Botanik Dergisi, 26(2): 40 (2019). [Yıldırım & Kılıç, 2019j].

Type: B8 Bingöl, Sancak-Uğurova arası, güney kesimleri, meşe altı, nemli yerler, 1450-1500 m, 24.05.2019, Ö. Kılıç 8979 (holo. Yıldırım Otluk'u).

Anacamptis L.

***A. x parvifolia** (Chaub.) H. Kretzschmar, Eccarius & H.Dietr. in Orchid. Gen. Anacamptis, Orchis, Neotinea, ed. 2: 427 (2007). [Eker & Başaran, 2019]

Examined specimen: Turkey. A3 Bolu: Abant yolu, ıslak çayırıklar, 813 m, 14.vi.2015, Başaran 87 & Eker (AIBU).

Orchis Tourn. ex L.

eO. bingöelensis** Yıld. & Kılıç in Ot Sistemantik Botanik Dergisi, 26(2): 44 (2019). [Yıldırım & Kılıç, 2019j].

Type: B8 Bingöl, Kiği, Karakoçan-Sancak yol ayrımından sonra y. 6 km, mezarlık yakını, yol kıyısı, yamaç, 1450 m, 24.05.2017, Ş. Yıldırım 43375 & Ö. Kılıç (holo. Yıldırım Otluk'u iso. GAZI).

Zeuxine Lindl.

***Z. strateumatica** (L.) Schltr. in Bot. Jahrb. Syst. 45(3): 394 (1911). [Bozkurt, Öz, & Yıldırım, 2021]

Examined specimen: Muğla: Ortaca, Sarıgerme mahallesi, deniz kenarı, açık çayır alanlar ve kumullar, 5 m, 23 ii 2021, N.Bozkurt, A.Öz ve H.Yıldırım (EGE 43528).

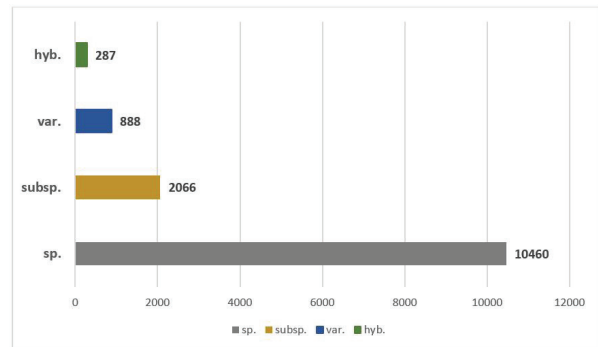


Figure 3. Current data about Turkish flora.

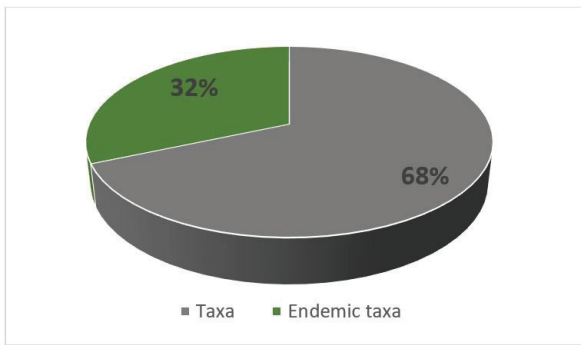


Figure 4. Endemism of the Turkish flora.

CONCLUSION

The diversity of vegetation and richness of Turkey's flora are legendary. Based on the data gathered from these recent studies, a new taxon has been added to the flora of Turkey every 4 days and 20 hours in recent years. Up to date, 10,460 species, 2,066 subspecies, 888 varieties, and 287 hybrids have been listed in Turkish flora (Figure 3). According to recent data, endemism is at 32% (Figure 4). As a result of native vascular plant species, a total of 4,319 endemics have been recorded within Turkey to date.

Turkey's flora is rich in endemic taxa. However, the number and status of taxa change on a regular basis for a variety of reasons, including taxa described as new to science, species thought to be endemic to Turkey being discovered elsewhere, and the taxonomy of several groups still being debated. This list must be updated. Current information indicates that the numbers given here belong to December 2021. It is useful to update the numbers at certain times, and these numbers can change.

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Informed Consent: Written consent was obtained from the participants.

Author Contributions: Conception/Design of Study- N.Ö., Ş.K., B.G.; Data Acquisition- N.Ö., Ş.K., B.G.; Data Analysis/Interpretation- N.Ö., Ş.K., B.G.; Drafting Manuscript- N.Ö., Ş.K., B.G.; Critical Revision of Manuscript- N.Ö., Ş.K., B.G.; Final Approval and Accountability- N.Ö., Ş.K., B.G.

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REFERENCES

• Akalin, E., Tuncay, H.O., Olcay, B., & Miski, M. (2020). A new *Ferula* (Apiaceae) species from Southwest Anatolia: *Ferula pisidica* Akalin & Miski. *Plants*, 9, 740. doi: 10.3390/plants9060740

- Akçiçek, E. (2020). Taxonomic revision of *Stachys* sect. *Olisia* (Lamiaceae: Lamioidae) in Turkey. *Phytotaxa*, 449 (2), 109-148. doi.org/10.11646/phytotaxa.449.2.2
- Akgül, G., & Kılıçkaya, N. (2019). A new variety for the flora of Turkey, *Globularia orientalis* L. var. *nevshihirensis* Akgül. *Ot Sistematik Botanik Dergisi*, 26 (2), 33-38.
- Aksoy, A., Çelik, J., Bozkurt, M., & Uysal, T. (2020). Türkiye Florası İçin Yeni Bir Tür Kaydı: *Scabiosa lucida* Vill. (Caprifoliaceae). *Bağbahçe Bilim Dergisi*, 7, (3), 49-57. doi.org/ 10.35163/bagbahce.800995
- Aksoy, A., Özcan, T., Girişken, H., Çelik, J., & Dirmenci, T. (2020). A phylogenetic analysis and biogeographical distribution of *Teucrium* Sect. *Teucrium* (Lamiaceae) and taxonomic notes for a new species from southwest Turkey. *Turkish Journal of Botany*, 44 (3), 322-337.
- Arabacı, T., Dirmenci, T., & Yıldız, B. (2020). *Origanum* L. (Ballıbabagiller/ Lamiaceae) Cinsine Ait Yeni Bir Melez: *Origanum x malatyanum* Yıldız, Arabacı & Dirmenci. *Bağbahçe Bilim Dergisi*, 7 (1), 10-15.
- Arabacı, T., Çelenk, S., Özcan, T., Martin, E., Yazıcı, T., Açar, M., Üzel, D., & Dirmenci, T. (2021). Homoploid hybrids of *Origanum* (Lamiaceae) in Turkey: morphological and molecular evidence for a new hybrid. *Plant Biosystems*, 155 (3), 470-482.
- Armağan, M. (2021). *Allium muratozelii* (Amaryllidaceae), a new species from Turkey. *Phytotaxa*, 498 (4), 255-264.
- Armağan, M. (2021). *Allium shinasii* (Amaryllidaceae), a new species from Turkey. *Nordic Journal of Botany*, 39 (10), e03145. doi: 10.1111/njb.03145.
- Aydın-Uğurlu, Z., & Dönmez, A.A. (2019). Taxonomic and biogeographic notes on the genus *Pyrus* L. (Rosaceae): a new record and a new synonym, with data on seed morphology. *Plant & Fungal Research*, 2 (1), 2-8.
- Aykurt, C., Sümbül, H., Gülben, M., Sarı, D., & Konuralp, L.Y. (2021). *Omphalodes nedimeae* (Boraginaceae), a new species from the Mediterranean Region of Turkey. *Phytotaxa*, 498 (4), 242-254.
- Aytaç, Z., Rabaute, P., & Coulot, P. (2020). *Onobrychis silvanensis* sp. nov., a new Fabaceae (sect. *Hymenobrychis*) taxon from Turkey. *Phytotaxa*, 477 (2), 253-260.
- Aytaç, Z., Çeçen, Ö., & Fişne, A. (2020). *Astragalus sertavulensis* (sect. *Onobrychoidei*/Fabaceae), a new species from Turkey. *Nordic Journal of Botany*, 38 (9), e02829.
- Aytaç, Z., Kaptaner-İğci, B., Körüklü, T.S. (2020). *Hedysarum nallihanse* (Fabaceae): A new species from Turkey. *Phytotaxa*, 471 (3), 276-282.
- Balos, M.M., Akan, H., Yıldırım, H., & Geçit, M. (2021). *Allium mardinense* (Amaryllidaceae), a new species from southeastern Turkey. *Annales Botanici Fennici*, 58 (4-6), 341-346.
- Başköse, İ., & Yaprak, A.E. (2019). A new species from Central Anatolia in Turkey, *Atriplex turcica* (Chenopodiaceae). *Phytotaxa*, 424 (4), 232-242.
- Başköse, İ., & Yaprak, A.E. (2021). A New *Suaeda* Record For Flora of Turkey: *Suaeda Aegyptiaca* (Hasselquist) Zohary (Chenopodiaceae/Amaranthaceae). *Trakya University Journal of Natural Sciences*, 22 (2), 179-185.
- Behçet, L., & Yapar, Y. (2020). *Lactuca anatolica* (Asteraceae: Lactucinae), a new species from eastern Anatolia (Turkey). *Phytotaxa*, 455 (4), 287-294.
- Behçet, L., & Yapar, Y. (2021). *Bromus orientalis* (Poaceae: B. sect. *Bromopsis*), a new species from Turkey. *Nordic Journal of Botany*, 39 (4), e02959. doi: 10.1111/njb.02959
- Behçet, L., Yapar, Y., & Olgun, Ş. (2019). *Prangos aricakensis* (Apiaceae), a new species from eastern Turkey. *Phytotaxa*, 401 (1), 55-63.
- Bogdanović, S., Brullo, S., & Salmeri, C. (2021). *Loncomelos koprulense* (Asparagaceae), a new species from southern Turkey. *PhytoKeys*, 175, 33-44.

- Boydak, M. (2019). A new subspecies of *Phoenix theophrasti* Greuter (*Phoenix theophrasti* Greuter subsp. *golkoyana* Boydak) from Turkey. *Forestist*, 69 (2), 133-144.
- Bozkurt, N., Öz, A., & Yıldırım, H. (2021). Türkiye Florası İçin Yeni Bir Bitki Türü Kaydı: *Zeuxine strateumatica* (L.) Schltr. (Orchidaceae). *Bağbahçe Bilim Dergisi*, 8 (2), 1-6.
- Bozyel, D., Pelit, N.B., & Şenol, S.G. (2021). A new record from the mediterranean temporary wetland habitats, for Flora of Turkey: *Crassula vaillantii*. *Biyolojik Çeşitlilik ve Koruma*, 14 (3), 359-364.
- Celep, F., Karaer, F., & Duman, H. (2021). Resurrection of *Lamium ponticum* (Lamiaceae) with a new subspecies, *Lamium ponticum* subsp. *anatolicum*, from Turkey. *Phytotaxa*, 511 (1), 71-76.
- Celep, F., Raders, E., & Drew, B. (2020). Two new hybrid species of *Salvia* (*S.x karamanensis* and *S.x doganii*) from Turkey: evidence from molecular and morphological studies. *Turkish Journal of Botany*, 44 (6), 647-660.
- Ciftci, A., Harpke, D., & Erol, O. (2019). A new autumn flowering *Crocus* (Iridaceae) from SW Turkey: *C. terzioghlui*. *Phytotaxa*, 420 (3), 224-232.
- Ciftci, A., Harpke, D., Mollman, R., Yıldırım, H., & Erol, O. (2020). Notes on *Crocus* L. Series Flavi Mathew (Iridaceae) and a new species with unique corm structure. *Phytotaxa*, 430, 65-79.
- Çeçen, Ö., & Özcan, T. (2021). A new *Teucrium* L. (Lamiaceae) Species from South Anatolia (Turkey). *Turkish Journal of Botany*, 45 (4), 353-370.
- Çelik, M., & Bağcı, Y. (2019). A new species of *Bunium* (Apiaceae: Apioideae) from Central Anatolia in Turkey: *Bunium sivasicum*. *Phytotaxa*, 416 (4), 263-277.
- Çilden, E., & Gençay Çelemlı, Ö. (2020). *Minuartia alpuensis* (Caryophyllaceae), a new endemic species from inner Anatolia, Turkey. *Phytotaxa*, 443 (1), 79-91.
- Davis, P.H. (ed). (1965-1985). *Flora of Turkey and the East Aegean Islands, Vol. 1-9*. Edinburgh, UK: Edinburgh University Press.
- Davis, P.H., Tan, K., & Mill, R.R. (1988). *Flora of Turkey and the East Aegean Islands, Vol.10*. Edinburgh, UK: Edinburgh University Press.
- Demir, O., Çingay, B., & Cabi, E. (2021). Tekirdağ'dan Yeni Bir *Verbascum* L. (Şişirkuyruğu) Melezi, *Verbascum x malkaraense* (Sırcatugiller / Scrophulariaceae). *Bağbahçe Bilim Dergisi*, 8 (3), 9-20.
- Demirci-Kayran, S., Özhatay, N., & Kaya, E. (2019). *Muscari tauricum* (Asparagaceae, Scilloideae), a new species from Turkey. *Phytotaxa*, 399 (2), 109-118.
- Demirelma, H. (2020). *Ornithogalum gulfariensis* (Asparagaceae), a new species from southern Anatolia, Turkey. *Kew Bulletin*, 75(1), 18.
- Dinç, M., & Doğu, S. (2020). *Arenaria goekyigitii* (Caryophyllaceae), a new species from Turkey. *Phytotaxa*, 459 (1), 69-74.
- Dirmenci, T., Duman, H., & Arabacı, T. (2020). Türkiye'den yeni bir köygöçüren [*Cirsium* Mill.(Papatyagiller/Asteraceae)] türü ve cinsin şüpheli bir türünün yeniden keşfi. *Bağbahçe Bilim Dergisi*, 7 (3), 35-44.
- Dirmenci, T., Özcan, T., Arabacı, T., Çelenk, S., İsmayilova, G., & Yıldız, B. (2019). Hybridization among three *Cirsium* (Asteraceae) species and important evidence for three new hybrids from Turkey. *Turkish Journal of Botany*, 43 (3), 366-385.
- Dirmenci, T., & Robson, N.K. (2019). Two new taxa of *Hypericum* (Hypericaceae) from Turkey. *Kew Bulletin*, 74 (4), 1-9.
- Dirmenci, T., Yıldız, B., & Öztekin, M. (2019). Türkiye Florası için yeni bir tür kaydı: *Satureja metastasiantha* Rech.f. (Ballıbabagiller / Lamiaceae). *Bağbahçe Bilim Dergisi*, 6 (1), 54-58.
- Doğan, M., Akaydin, G., & Erdal, J. (2020). Phytogeography, ecology and conservation of the genus *Limonium* (Plumbaginaceae) in Turkey and a taxonomic revision. *Plant Systematics and Evolution*, 306 (6), 89.
- Doğu, S., & Bağcı, Y. (2021). *Stachys ahmet-savranii* Doğu and Bağcı (Lamiaceae), a New Species From South Anatolia, Turkey. *Bangladesh Journal of Botany*, 50 (2), 319-326.
- Doğu, S., & Uysal, T. (2019). *Muscari savranii* (Asparagaceae), a new species from Central Anatolia, Turkey. *Phytotaxa*, 402 (3), 155-164.
- Duman, H., Aytac, Z., & Ozbek, F. (2020). *Astragalus aybarsii* a new species of sect. *Onobrychoidei* DC. (Fabaceae) from Turkey. *Turkish Journal of Botany*, 44 (6), 661-669.
- Duman, H., & Çakır-Dindar, E.G. (2020). *Hypericum alacamdagariense* (Hypericaceae), a new species from Turkey. *Phytotaxa*, 470 (2), 176-185.
- Duman, H., Uzunhisarcıklı, E., & Özbek, F. (2021). A new natural hybrid of *Verbascum* L. (Scrophulariaceae) from Turkey. *Gazi University Journal of Science*, 34 (4), 937-946.
- Duman, H., Uzunhisarcıklı, M.E., & Bahadır, Y.N. (2021). A new species of *Centaurea* (Asteraceae) from northern Turkey. *Nordic Journal of Botany*, 39 (10), e03244. doi: 10.1111/njb.03244.
- Duman, H., Uzunhisarcıklı, M.E., & Özbek, F. (2020). A new species of *Verbascum* (Scrophulariaceae) from western Turkey *Turkey Botany Letters*, 167 (4), 409-416. doi: 10.1080/23818107.2020.1796782
- Duran, A., Samigullin, T., & Lyskov, D. (2021). *Seseli salsugineum* (Apiaceae), a new species from Central Anatolia, Turkey. *Phytotaxa*, 529 (1), 027-042.
- Eker, İ. (2019a). *Muscari fatmacereniae* (Asparagaceae, Scilloideae), a new species from southern Anatolia. *Phytotaxa*, 397 (1), 099-106.
- Eker, İ. (2019b). *Muscari pamiryigidii* (Asparagaceae, Scilloideae), a new species from northwestern Anatolia. *Phytotaxa*, 408 (4), 255-266.
- Eker, İ. (2021). What is *Muscari massayanum* and what is not? Second species born of confusion: *Muscari erzincanicum* (Asparagaceae, Scilloideae), a new species from Turkey. *Phytotaxa*, 487 (1), 41-55.
- Eker, İ., & Başaran, M. (2019). Türkiye Florası için yeni bir hibrit Orkide kaydı: *Anacamptis x parvifolia* (Chaub.) H. Kretzschmar, Eccarius & H.Dietr. (Salepçiller / Orchidaceae). *Bağbahçe Bilim Dergisi*, 6 (1), 33-39.
- Eker, İ., Duman, H., & Yıldırım, H. (2020). *Muscari muglaensis* (Asparagaceae, Scilloideae), a new species from southwestern Anatolia. *Phytotaxa*, 475 (4), 267-278.
- Eker, İ., & Sağıroğlu, M. (2021). *Gladiolus izzet-baysalii* (Iridaceae, Crocoideae), a new species from Turkey. *Phytotaxa*, 527 (2), 97-106.
- Eker, İ., & Tuzlacı, H.İ. (2021). Türkiye Florası İçin Doğallaşmış Yeni Bir Egzotik Bitki Kaydı: *Freesia leichtlinii* subsp. *alba* (Iridaceae). *Bağbahçe Bilim Dergisi*, 8 (1), 96-105.
- Eker, İ., & Yıldırım, H. (2021). *Muscari inundatum* (Asparagaceae, Scilloideae), a new species from southern Anatolia. *Phytotaxa*, 484 (2), 181-194.
- Eker, İ., Yıldırım, H., & Armağan, M. (2019). Türkiye Florası İçin Yeni Bir Müşkürüm Kaydı: *Muscari pallens* (M.Bieb.) Fisch. (Kuşkonmazgiller/ Asparagaceae). *Bağbahçe Bilim Dergisi*, 6 (1), 45-53.
- Ekşi, G., & Duman, H. (2020). *Allium shahinii*: a new species of A. sect. *Scorodon* (Amaryllidaceae) from Turkey. *Phytotaxa*, 461(3), 195-203.
- Ekşi, G., & Yıldırım, H. (2019). *Allium yamadagensis* (Amaryllidaceae) a new species from Turkey. *Phytotaxa*, 400 (1), 031-036.
- Eroğlu, H. (2021). Türkiye Florası'na Yeni Bir Kayıt: *Onopordum blancheanum* (Eig) Danin (Asteraceae: Cardueae). *Bağbahçe Bilim Dergisi*, 8 (3), 21-29.
- Eroğlu, H., Pınar, S.M., & Fidan, M. (2019). *Muscari sabihapinari* sp. nov. (Asparagaceae) from Anatolia, Turkey. *Nordic Journal of Botany*, 37 (11), 1-8.
- Ertuğrul, K., Hamzaoğlu, E., Demirelma, H., Uysal, T., Bozkurt, M., Şirin, E., Yılmaz-Çatak, B., & Al-Shehbaz, I. (2021). *Aethionema aytachii* (Brassicaceae): A new species from central Anatolia, Turkey. *Turkish Journal of Botany*, 45 (6), 563-572.
- Firat, M. (2019a). *Hirtellina kurdica* (Asteraceae); a species new to the flora of Turkey, with contributions to its taxonomy. *Iranian Journal of Botany*, 25 (1), 30-35.

- Firat, M. (2019b). *Pimpinella kurdica* (Apiaceae), a new record for the flora of Turkey. *Iranian Journal of Botany*, 25 (2), 123-126.
- Firat, M. (2021). *Stachys semsurensis* (Lamiaceae), a new species from Adiyaman province (Turkey) belonging to section *Infrasolaris*. *Phytotaxa*, 511(3), 275-282.
- Firat, M., & Güzel, Y. (2019). Contributions to the taxonomy of the Irano-Turanian genus *Rhabdosciadium* (Apiaceae): Nomenclatural notes, carpology, molecular phylogeny and the description of a new species from Bitlis (Turkey). *Phytotaxa*, 395 (3), 179-198.
- Firat, M., & Yıldırım, H. (2020). *Scilla hakkariensis*, sp. nov. (Asparagaceae: Scilloideae): a new species of *Scilla* L. from Hakkari (eastern Anatolia). *Adansonia*, 42 (2), 89-94.
- Fidan, M. (2019). *Bellevialia sasonii* (Asparagaceae): a new species from Turkey. *Phytotaxa*, 394 (2), 126-132.
- Fidan, M., Pinar, S.M., & Eroğlu, H. (2019). *Cousinia gigantosphaera* Rech, f. (Asteraceae-Compositae); Türkiye'nin Güneydoğu Anadolu Bölgesi'nden Yeni Bir Bitki Türü Kaydı. *Türkiye Tarımsal Araştırmalar Dergisi*, 6 (3), 308-311.
- Firat, M., & Binzet, R. (2021). *Onosma satensis* sp. nov. (Boraginaceae: Lithospermeae), a new species from Hakkari (eastern Anatolia, Turkey). *Adansonia*, 43 (16), 185-195.
- Göktürk, R.S., Düşen, O., Kaya, E., Gürcan, B., & Sarpkaya, U. (2019). A new variety of *Plocama calabrica* (Rubiaceae) from Denizli (Turkey) confirmed by morphological and molecular ISSR markers. *Acta Botanica Croatica*, 78 (2), 142-146.
- Güner, A., Aslan, S., Ekim, T., Vural, M., & Babaç, M.T. (2012). *Türkiye Bitkileri Listesi (Damarlı Bitkiler)*. İstanbul, Turkey: Nezahat Gökyiğit Botanik Bahçesi ve Flora Araştırmaları Derneği Yayını (in Turkish).
- Güner, A., Özhatay, N., Ekim, T., & Başer, K.H.C. (2000). *Flora of Turkey and the East Aegean Islands, Vol. 11*. Edinburgh, UK: Edinburgh University Press.
- Güner, Ö., Akcicek, E., & Dirmenci, T. (2021). A new *Stachys* species from Turkey: *Stachys sirtensis* (Lamiaceae). *Phytotaxa*, 516 (3), 252-262.
- Güneş, F. (2019). A new species of *Lathyrus cirpicii* F.Güneş (Fabaceae) from Turkey. *Biodicon*, 12(2), 161-168.
- Gürdal, B., Olcay, B., Tuncay, H.O., & Akalın, E. (2021). *Ferulago akpulatii* (Apiaceae): A new species from Central Anatolia, Turkey. *Phytotaxa*, 518 (2), 100-108.
- Gürdal, B., Tuncay, H.O., & Akpulat, H.A. (2019). *Peucedanum akaliniiae* (Apiaceae), a new species from Southern Turkey. *Phytotaxa*, 425 (3), 145-153.
- Güzel, Y. (2021). A new *Dionysia* (Primulaceae) species from southern Turkey, the most western species of the Irano-Turanian genus. *Phytotaxa*, 525 (4), 281-294.
- Hamzaoğlu, E. (2020a). *Astragalus askaleensis* (sek. *Adiaspastus*, Fabaceae), Türkiye'den yeni bir tür. *Türler ve Habitatlar*, 1 (2), 114-123.
- Hamzaoğlu, E. (2020b). *Dianthus dumanii*: Orta Anadolu jipsli bozkırlarından yeni bir tür. *Türler ve Habitatlar*, 1 (1), 21-30.
- Hamzaoğlu, E. (2021a). *Crucianella turcica* (sek. *Crucianella*, Rubiaceae), Türkiye'den Yeni Bir Tür. *Türler ve Habitatlar*, 2 (2), 113-122.
- Hamzaoğlu, E. (2021b). Türkiye'den Yeni Bir Tür, *Asyneuma hasandaghense* (Campanulaceae). *Türler ve Habitatlar*, 2 (1), 68-76.
- Hamzaoğlu, E., Behçet, L., & Yapar, Y. (2020). A New Suffruticose Taxon of *Dianthus* (Caryophyllaceae) from Bingöl, Turkey. *KSU Journal of Agriculture and Nature*, 23 (6), 1529-1534. doi: 10.18016/ksutarimdog.vi.714530.
- Hamzaoğlu, E., & Koç, M. (2019). Türkiye florası için yeni *Dianthus* (Caryophyllaceae) kayıtları. *Kahramanmaraş Sütçü İmam Üniversitesi Tarım ve Doğa Dergisi*, 22 (3), 381-388.
- Hamzaoğlu, E., & Koç, M. (2020). *Hedysarum turcicum* (Hedysareae, Fabaceae), a new species from Turkey. *Phytotaxa*, 428 (1), 1-6.
- Hamzaoğlu, E., & Koç, M. (2020). Türkiye florası için yeni bir kayıt, *Centaurea gulissashwillii* (sek. *Centaurea*, Asteraceae). *Türler ve Habitatlar*, 1 (2), 106-113.
- Hamzaoğlu, E., Koç, M., & Büyük, İ. (2021). *Dianthus yilmazii* (Caryophyllaceae), a new species from central Turkey. *Kew Bulletin*, 76, 523-530.
- Hamzaoğlu, E., Koç, M., & Topal, M.N. (2021). A new species, *Gypsophila malyerii* (Caryophyllaceae) from Turkey. *Kew Bulletin*, 76 (3), 531-538.
- Harpke, D., Peruzzi, L., Kerndorff, H., Karamplianis, T., Constantinidis, T., Randelovic, V. ... Blattner, F.R. (2014). Phylogeny, geographic distribution, and new taxonomic circumscription of the *Crocus reticulatus* species group (Iridaceae). *Turkish Journal of Botany*, 38, 1182-1198.
- Inceer, H., & Kalmuk, A.N. (2019). *Crepis setosa* subsp. *topaliana* (Asteraceae): a new record for the flora of Turkey. *Botanica Serbica*, 43 (1), 109-112.
- İlçim, A., & Karahan, F. (2020). *Rheum telianum* (Polygonaceae), a new species from Southeastern Anatolia (Turkey). *Phytotaxa*, 477 (1), 81-89.
- Kandemir, A., Ayaç, Z., & Fişne, A.Y. (2017). *Aethionema erzincanum* (Brassicaceae), a new species from Turkey. *Annales Botanici Fennici*, 54 (1-3), 1-5.
- Karaer, F., Terzioğlu, S., & Kutbay, H.G. (2020). A New Genus Record for the Flora of Turkey: *Reynoutria* (Polygonaceae). *Kahramanmaraş Sütçü İmam Üniversitesi Tarım ve Doğa Dergisi*, 23 (3), 606-610.
- Karaer, F., Terzioğlu, S., & Kutbay, H.G. (2020). A New Record for the Flora of Turkey: *Cerastium szowitzii* Boiss. (Caryophyllaceae). *Kastamonu University Journal of Forestry Faculty*, 20 (1), 58-61.
- Karakuş, Ş., & Mutlu, B. (2019). *Allium dönmezii*, a new species of *Allium* sect. *Melanocrommyum* (Amaryllidaceae) from Turkey: morphological and molecular evidence. *Phytotaxa*, 411 (3), 194-204.
- Karaman-Erkul, S., Tekşen, M., & Duman, H. (2021). *Ranunculus aydogdui* (Ranunculaceae) a new species. *Nordic Journal of Botany*, 39 (1), 1-8.
- Kerndorff, H., Pasche, E., & Harpke, D. (2014). *Crocus isauricus* Siehe ex Bowles (Liliiflorae, Iridaceae) and its relatives. *Stapfia*, 101, 3-18.
- Kerndorff, H., Pasche, E., & Harpke, D. (2015). *Crocus lycioteuricus* Kerndorff & Pasche (Liliiflorae, Iridaceae) and its relatives. *Stapfia*, 103, 67-80.
- Keskin, M. (2021a). Novelities in the genus *Cerastium* (Caryophyllaceae) in Turkey. *Frontiers in Life Sciences and Related Technologies*, 2 (2), 35-43.
- Keskin, M. (2021b). The genus *Moenchia* (Caryophyllaceae) in Turkey. *Biodicon*, 14 (1), 119-131.
- Keskin, M., & Merrick, D. (2021). A new species from Turkey: *Eleocharis divaricata* (Cyperaceae) and a note for *E. atropurpurea*. *Frontiers in Life Sciences and Related Technologies*, 2 (1), 10-13.
- Keskin, M., & Severoğlu, Z. (2020). The genus *Persicaria* (Polygonaceae) in Turkey with a new taxon record. *EMU Journal of Pharmaceutical Sciences*, 3 (2), 97-105.
- Keskin, M., & Severoğlu, Z. (2021a). A new species as a member of the Flora of Turkey: *Persicaria hydropiperoides* (Polygonaceae). *Frontiers in Life Sciences and Related Technologies*, 2(3), 85-91. doi: 10.51753/flsrt.951412
- Keskin, M., & Severoğlu, Z. (2021b). Türkiye Florası için Yeni bir *Persicaria* L. Taksonu ve İstanbul'un Polygonaceae Taksonlarının Taksonomik Durumu. *Afyon Kocatepe Üniversitesi Fen ve Mühendislik Bilimleri Dergisi*, 21 (4), 764-775.
- Koc, M. (2020). Morphological and molecular evidence for a new species of *Dianthus* (Caryophyllaceae) from Turkey. *Phytotaxa*, 439 (1), 56-66.
- Koc, M., Hamzaoğlu, E., & Aksoy, A. (2019). Morphological and molecular evidence of Turkish *Minuartiella* species (Caryophyllaceae), with a description of a new species and a proposal for a new combination. *Phytotaxa*, 409 (3), 161-171.

- Koç, M., Hamzaoğlu, E., & Aksoy, A. (2019). A new species and five new combinations of *Sabulina* (Caryophyllaceae) from Turkey. *Folia Geobotanica*, 54, 279–289.
- Koç, M., Hamzaoğlu, E., & Aksoy, A. (2019). Morphological and molecular evidence of some *Minuartia* species (Caryophyllaceae) from Turkey, with a description of a new species. *Phytotaxa*, 391 (2), 122-130.
- Koç, M., Hamzaoğlu, E., & Aksoy, A. (2020). Contributions to the genus *Minuartia* (Caryophyllaceae) in Turkey. *Türler ve Habitatlar*, 1 (1), 14-20.
- Koç, M., Hamzaoğlu, E., & Aksoy, A. (2021). Molecular and morphological evidences of *Sabulina nerimanae* sp. nov. (Caryophyllaceae). *Phytotaxa*, 498 (4), 281-289.
- Koç, M., Hamzaoğlu, E., & Büyük, I. (2019). Morphological and molecular evidence for a new species of *Bolanthus* (Caryophyllaceae) from Turkey. *Systematic Botany*, 44 (1), 189-196.
- Koçyiğit, M., & Kaya, E. (2020). *Allium nerimaniae* (Amaryllidaceae), a new species of A. sect. *Codonoprasum* from Turkey. *Phytotaxa*, 435 (1), 016-024.
- Menemen, Y., Yalçinkaya, R., & Erden, A. (2021). *Lepyrodiclis alinihatii* (Caryophyllaceae), a new species from Turkey. *Nordic Journal of Botany*, 39 (3), e03037. doi: 10.1111/njb.03037
- Orcan, N., & Binzet, R. (2003). *Fumaria pugsleyana* (Maire ex Pugsley) Liden: A new record for the Flora of Turkey. *Bangladesh Journal of Botany*, 32 (1), 43-45.
- Ozdeniz, E. (2019). *Bufonia ali-nihaii* (Caryophyllaceae), A New Species From Turkey. *Fresenius Environmental Bulletin*, 28 (12), 9176-9180.
- Özbek, M.U. (2021). *Centaurea kirikkalensis* (Asteraceae), a new species from Turkey. *Nordic Journal of Botany*, 39 (7), e03235. doi: 10.1111/njb.03235
- Özbek, M.U., Duman, H., Özbek, F., & Aytaç, Z. (2021). *Anthemis ekicii* (Asteraceae), a new species from Turkey. *Turkish Journal of Botany*, 45 (1), 59-68.
- Özbek, M.U., Koç, M., & Hamzaoğlu, E. (2019). Contributions to the *Hypericum* L. section *Oligostema* (Boiss.) Stef. (Hypericaceae), and *Hypericum turcicum* sp. nov. as a new species from Turkey. *Turkish Journal of Botany*, 43, 694-702.
- Özbek, M.U., & Onaylı, H. (2020). A new variety of the *Tripleurospermum* (Asteraceae) from Turkey. *Biodicon*, 13 (2), 136-143.
- Özbek, M.U., & Uzunhisarcıklı, M.E. (2019). A new species of *Silene* (Caryophyllaceae) from Turkey. *Phytotaxa*, 397 (1), 074–082.
- Özçandır, A., Aykurt, C., & Özüdoğru, B. (2019). *Ricotia candiriana* (Brassicaceae), a new species from southern Anatolia, Turkey. *Phytotaxa*, 388 (4), 287-294.
- Özgüşi, K. (2020). A new species of *Noccaea* (Brassicaceae) from central Anatolia. *Phytotaxa*, 432 (1), 95-103.
- Özgüşi, K., & Ocak, A. (2021). A new taxon of *Hypericum* (Hypericaceae) from southeastern Turkey. *Phytotaxa*, 479 (1), 129-136.
- Özhatay, F.N., Kültür, Ş., & Gürdal, M.B. (2011). Check-list of additional taxa to the Supplement Flora of Turkey V. *Turkish Journal of Botany*, 35, 589-624.
- Özhatay, N., & Kültür, Ş. (2006). Check-list of additional taxa to the Supplement Flora of Turkey III. *Turkish Journal of Botany*, 30, 281-316.
- Özhatay, N., Kültür, Ş., & Aslan, S. (2009). Check-list of additional taxa to the Supplement Flora of Turkey IV. *Turkish Journal of Botany*, 33, 191-226.
- Özhatay, N., Kültür, Ş., & Gürdal, B. (2013). Check-list of additional taxa to the Supplement Flora of Turkey VI. *Journal of Faculty of Pharmacy Istanbul University*, 43, 33-82.
- Özhatay, N., Kültür, Ş., & Gürdal, B. (2015). Check-list of additional taxa to the Supplement Flora of Turkey VII. *Journal of Faculty of Pharmacy Istanbul University*, 45, 61-86.
- Özhatay, N., Kültür, Ş., & Gürdal, B. (2017). Check-list of additional taxa to the supplement flora of Turkey VIII. *Istanbul Journal of Pharmacy*, 47, 31-46.
- Özhatay, N., Kültür, Ş., & Gürdal, B. (2019). Check-list of additional taxa to the supplement flora of Turkey IX. *Istanbul Journal of Pharmacy*, 49 (2), 105-120.
- Özüdoğru, B., & Yıldırım, H. (2019). Doğu Anadolu'dan yeni bir topaçardalı alttürü: *Heldreichia bupleurifolia* subsp. *malatyana* (Brassicaceae). *Bağbahçe Bilim Dergisi*, 6 (3), 1-8.
- Pınar, S.M., & Eroğlu, H. (2019a). *Bellevalia turcica* sp. nov. (Asparagaceae): a new species from South Anatolia, Turkey. *Biologia*, 74, 447-454.
- Pınar, S.M., & Eroğlu, H. (2019b). *Onopordum nezaketianum* sp. nov. (Asteraceae: Cardueae): a new species from Central Anatolia, Turkey. *Turkish Journal of Botany*, 43, 126-134.
- Raab-Straube, E., von, & Raus, Th. (ed.) (2019). Euro+Med-Checklist Notulae, 10. *Willdenowia*, 49, 95-115. doi: https://doi.org/10.3372/wi.49.49111
- Raab-Straube, E., von, & Raus, Th. (ed.) (2020). Euro+Med-Checklist Notulae, 12. *Willdenowia*, 50, 305-341. doi: https://doi.org/10.3372/wi.50.50214
- Raab-Straube, E., von, & Raus, Th. (ed.) (2021). Euro+Med-Checklist Notulae, 14. *Willdenowia*, 51, 355–369. https://doi.org/10.3372/wi.51.51304
- Rukšāns, J. (2015). Some New *Crocus* Taxa (Iridaceae) from Western Turkey and East Aegean Islands. *International Rock Gardener*, 64.
- Rukšāns, J. (2016). Some new *Crocus* species. *International Rock Gardener*, 76.
- Rukšāns, J. (2019). *Puschkinia kurdistanica* (Asparagaceae) – a new species from the shores of Lake Van in Turkey. *International Rock Gardener*, 116.
- Rukšāns, J. (2020a). *Crocus harpekeae* Rukšāns – A new *Crocus* species (*Liliiflorae*, *Iridaceae*) separated from the large complex of the so-called *Crocus chrysanthus* group. *International Rock Gardener*, 125.
- Rukšāns, J. (2020b). *Leopoldia archibaldii* sp. nova (Asparagaceae): a new species of genus. *Leopoldia* Parl. from Eastern Anatolia, Turkey. *International Rock Gardener*, 134.
- Sağıroğlu, M., & Eker, I. (2021). *Gladiolus aladagensis* (Iridaceae), a new species from Turkey. *Phytotaxa*, 478 (1), 151-161.
- Sefali, A. (2021). *Androsace azizsancarii* sp. nov. (Primulaceae): a new species from northeastern Anatolia, Turkey. *Nordic Journal of Botany*, 39 (7), e03208. doi: 10.1111/njb.03208
- Semiz, G., Şenol, S.G., Günel, B., Cicek, M., & Eroğlu, V. (2021). *Helichrysum x kani-isikii* (Asteraceae), a new nothospecies from Turkey. *Phytotaxa*, 507 (4), 283-292.
- Sert, R., & Aytaç, Z. (2021). Türkiye Florası için Yeni bir Kayıt: *Astrodaucus orientalis* (L.) Drude var. *eriocarpus* (Boiss.) Woron. (Apiaceae) ve Tiplendirme. *Bağbahçe Bilim Dergisi*, 8 (3), 41-46.
- Sezer, O. (2021). *Onosma onur-koyuncui* sp. nov. (Boraginaceae), A new species from Kütahya, Turkey. *Pakistan Journal of Botany*, 53 (4), 1315-1323.
- Sinan, A., Behçet, L., & Yapar, Y. (2021). *Ranunculus solhanensis* (Ranunculaceae), a new species from eastern Turkey. *Phytotaxa*, 497 (2), 157-164.
- Şahin, B., Sağıroğlu, M., & Başer, B. (2021). A new *Asperula* L. (Rubiaceae) species from gypsum steppes of Çankırı province in Turkey. *Turkish Journal of Botany*, 45 (3), 243-252.
- Şen Gökmen, F., & Duman, H. (2021). *Cistus x florentinus* Lam. (Cistaceae): Türkiye Florası için yeni bir Melez Kaydı. *Bağbahçe Bilim Dergisi*, 8 (3), 30-40.
- Şirin, E., Çeçen, Ö., Bozkurt, M., & Ertuğrul, K. (2019). *Centaurea uysalii* (Cyanus/Asteraceae), a new species from Turkey. *Turkish Journal of Botany*, 43, 809-816.

- Şirin, E., Uysal, T., Bozkurt, M., & Ertuğrul, K. (2020). *Centaurea akcadaghensis* and *C. ermenekensis* (Asteraceae), two new species from Turkey. *Mediterranean Botany*, 41(2), 173-179.
- Şirin, E., Yıldırım, H., Uysal, T., & Ertuğrul, K. (2021). A new species of *Centaurea* L. subgen. *Cyanus* Mill. (Asteraceae) from Turkey. *Botanica Serbica*, 45 (1), 13-22.
- Tekşen, M., Duman, H., & Sağıroğlu, M. (2021). A new *Gladiolus* (Iridaceae) species from East Anatolia (Turkey): *Gladiolus hamzaoglu*. *Phytotaxa*, 496 (3), 245-260.
- Terzioğlu, S. (2020). *Arrhenatherum elatius* subsp. *bulbosum* (Poaceae): A New Alien Record for the Flora of Turkey. *Kahramanmaraş Sütçü İmam Üniversitesi Tarım ve Doğa Dergisi*, 23 (4), 924-927.
- Terzioğlu, S., Çoşkunçelebi, K., & Güzel, M.E. (2019). A new subspecies of *Saxifraga artvinensis* VA Matthews (Saxifragaceae) from Northeastern Anatolia. *Turkish Journal of Botany*, 43 (5), 687-693.
- Terzioğlu, S., Özkan, K. (2020). *Leptatherum* (Poaceae): A New Genus Record for the Flora of Turkey. *Kastamonu University Journal of Forestry Faculty*, 20 (2), 175-180.
- Tugay, O., Armağan, M., & Ulukuş, D. (2021). Güney Anadolu'dan Yeni bir Tür: *Bellevalia guneriana* Tugay & Armağan (Kuşkonmazgiller / Asparagaceae). *Bağbahçe Bilim Dergisi*, 8 (3), 1-8.
- Tugay, O., Ertuğrul, K., Aslan, S., & Ulukuş, D. (2019). Türkiye Florası için yeni bir Akhatmi kaydı: *Kitaibela vitifolia* Willd. (Ebegümeçigiller / Malvaceae). *Bağbahçe Bilim Dergisi*, 6 (3), 35-40.
- Tugay, O., & Ulukuş, D. (2019). *Linum aksehirense* (sect. *Dasylinum*, Linaceae), a new species from Central Anatolia (Turkey). *PhytoKeys*, 136, 23-34. doi: 10.3897/phytokeys.136.46477
- Tugay, O., Ulukuş, D., Ertuğrul, K., Uysal, T., Demirelma, H., & Dural, H. (2019). A new species of *Cousinia* (sect. *Cousinia*, Asteraceae) from the Ağrı Mountain (eastern Turkey): evidence from morphology, karyology and anatomy. *Phytotaxa*, 427 (4), 259-269.
- Tunçkol, B., Aksoy, N., & Yaşacak, H. (2021). *Knautia arvensis* (Caprifoliaceae), a new record for the flora of Turkey. *Botanikai Közlemények*, 108 (1), 85-90.
- Tunçkol, B., Aytac, Z., Aksoy, N., & Fişne, A. (2020). *Astragalus bartinense* (Fabaceae), a new species from Turkey. *Acta Botanica Croatica*, 79 (2), 131-136.
- Tunçkol, B., Yaşayacak, H., Liang, Z.L., Aksoy, N., & Zhang, L.B. (2020). *Polystichum asiae-minoris* (Dryopteridaceae), a new fern from Kastamonu, Turkey. *Phytotaxa*, 447 (4), 296-300.
- Uğurlu-Aydın, Z., Koch, M.A., & Dönmez, A.A. (2020). A new variety of *Dianthus anatolicus* (Caryophyllaceae) from Turkey as evidenced by morphology and AFLP data. *Annales Botanici Fennici*, 58 (1-3), 19-26.
- Ulukuş, D., Tugay, O., & Sağlam, C. (2020). *Verbascum seydisehirense* (Scrophulariaceae), a new species from Konya, Central Turkey. *Phytotaxa*, 450 (2), 229-236.
- Uygur, S., Tetik, Ö., & Doğru-Koca, A. (2021). Türkiye İçin Yeni Bir Yabancı Ot Türü: *Amaranthus crispipes* Schtdl. (Horzobibigiller/ Amaranthaceae Juss.). *Bağbahçe Bilim Dergisi*, 8 (2), 7-11.
- Uysal, T., Bozkurt, M., & Demirelma, H. (2021). Türkiye Florası İçin Yeni Bir Kayıt, *Muscari commutatum* (Asparagaceae). *Türler ve Habitatlar*, 2 (2), 123-133.
- Uzun, A., Aytac, Z., & Tülüçü, F. (2021). *Astragalus nurhakdagensis* (sect. *Hololeuce* Bunge/Fabaceae), a new species from Turkey. *Turkish Journal of Botany*, 45 (6), 573-586.
- Uzunhisarçıklı, M.E., Güner, E., Özbek, F., & Ekici, M. (2019). *Scrophularia vernalis*: a new species record for Turkey, and its comparison with *S. chrysantha* (Scrophulariaceae). *Phytotaxa*, 397 (1), 91-98.
- Vladimirov, V., Aybeke, M., & Tan, K. (2020). New floristic records in the Balkans: 42. *Phytologia Balcanica: International Journal of Balkan Flora and Vegetation*, 26 (2), 187-213.
- Vladimirov, V., Aybeke, M., & Tan, K. (2021). New floristic records in the Balkans: 44. *Phytologia Balcanica: International Journal of Balkan Flora and Vegetation*, 27 (1), 127-150.
- Yapar, Y., & Behçet, L. (2020). A new subspecies of *Ornithogalum malatyanum* (Asparagaceae: Scilloideae) from eastern Anatolia, Turkey. *Nordic Journal of Botany*, 38 (11), e02837.
- Yıldırım, H. (2019). A new *Rindera* (Boraginaceae) species from Western Anatolia, Turkey. *Phytotaxa*, 427 (4), 249-258.
- Yıldırım, H. (2019). *Allium sultanae-ismailii* (Amaryllidaceae), a new species from eastern Turkey. *Phytotaxa*, 403 (1), 39-46.
- Yıldırım, H. (2021). *Gemicia* Yıldırım, Kuşkonmazgiller (Asparagaceae)den, Kuzeydoğu Anadolu/Türkiye'den Monotipik Yeni Bir Cins. *Bağbahçe Bilim Dergisi*, 8 (1), 38-50.
- Yıldırım, H., Altıoğlu, Y. (2021). *Chionodoxa* Boiss. (Asparagaceae) Cinsinin Taxonomik Statüsünün Sürdürülmesi, Türkiye'de Yayılış Gösteren Taksonlarının Morfolojik Revizyonu ve Yeni Bir Türü. *Bağbahçe Bilim Dergisi*, 8 (1), 51-95.
- Yıldırım, H., Çiçek, M., Akbaş, K., & Şeker, E. (2021). *Scutellaria topcuoglu* (Lamiaceae), a new serpentinomorph species from southwestern Anatolia, Turkey. *Phytotaxa*, 528 (3), 180-190.
- Yıldırım, H., & Erdem, S. (2019). Türkiye Florası için yeni bir bitki takson kaydı: *Zantedeschia aethiopica* (L.) Spreng. (Araceae). *Bağbahçe Bilim Dergisi*, 6 (3), 17-21.
- Yıldırım, H., Özdöl, T., & Yaşayacak, H. (2019). An alien species of *Bidens* (Asteraceae): *Bidens pilosa* L. new to the Turkish flora. *Acta Biologica Turcica*, 32 (1), 61-64.
- Yıldırım, H., Özdöl, T., & Yaşayacak, H. (2019). Türkiye için yeni bir istilacı tür kaydı: *Malvastrum coromandelianum* (L.) Gracke (Ebegümeçigiller / Malvaceae Juss.). *Bağbahçe Bilim Dergisi*, 6 (1), 40-44.
- Yıldırım, H., & Sefalı, A. (2020). *Bellevalia bayburtensis* (Asparagaceae): a new species from northeastern Anatolia, Turkey. *Phytotaxa*, 441 (3), 285-293.
- Yıldırım, H., Şentürk, O., Özdöl, T., & Pirhan, A.F. (2019). A new bellflower, *Campanula phitosiana* sp. nov. (Campanulaceae) from Western Anatolia, Turkey. *Phytotaxa*, 399 (1), 25-36.
- Yıldırım, H., & Tekşen, M. (2021). *Fritillaria arsiusiana* (Liliaceae, Liliaceae), a new species from southern Anatolia. *Phytotaxa*, 502 (2), 133-159.
- Yıldırım, Ş. (2019b). Two new species of Brassicaceae, *Descurainia tugayi* and *Lepidium tuzgoelunense* from Konya, Turkey. *Ot Sistematik Botanik Dergisi*, 26 (1), 93-101.
- Yıldırım, Ş. (2019c). Two new species of *Cephalaria* (Dipsacaceae/ Caprifoliaceae) from Turkey. *Ot Sistematik Botanik Dergisi*, 26 (2), 105-111.
- Yıldırım, Ş. (2019a). A new section and four new species of *Scabiosa* L. (Dipsacaceae/Caprifoliaceae) from Turkey. *Ot Sistematik Botanik Dergisi*, 26 (1), 63-77.
- Yıldırım, Ş. (2020a). A new genus, *Aytacia* Yild. and a new species, *A. turkica* Yild. (Asteraceae) based on *Scorzonera* s.l. from Turkey. *Ot Sistematik Botanik Dergisi*, 27 (1-2), 15-31.
- Yıldırım, Ş. (2021b). A new species, *Crepis vuralii* Yild. (Asteraceae) from Turkey. *Ot Sistematik Botanik Dergisi*, 28 (1-2), 149-156.
- Yıldırım, Ş. (2021c). New infrageneric taxa, species, combinations and synonymus of *Podospermum* DC. (Asteraceae) and their current species and related genera keys from Turkey. *Ot Sistematik Botanik Dergisi*, 27 (1-2), 51-94.
- Yıldırım, Ş., & Kılıç, Ö. (2019a). A new *Aethionema* (Brassicaceae), *A. sancakense* p.p. and a new description of *A. adiyamanense* from Turkey. *Ot Sistematik Botanik Dergisi*, 26 (2), 49-58.
- Yıldırım, Ş., & Kılıç, Ö. (2019b). A new enigmatic species of *Iris* L. (Iridaceae), *Iris yedisuensis* from Yedisu, Bingöl, Turkey. *Ot Sistematik Botanik Dergisi*, 26 (2), 1-7.
- Yıldırım, Ş., & Kılıç, Ö. (2019c). A new species of *Muscari* Mill. (Asparagaceae/Liliaceae), *M. nazimiyensis* from Tunceli, Turkey. *Ot Sistematik Botanik Dergisi*, 26 (1), 13-16.

- Yıldırımli, Ş., & Kılıç, Ö. (2019d). A new species of *Rosularia* (DC.) Stapf (Crassulaceae), *R. paluensis* from Elazığ, Turkey. *Ot Sistematiik Botanik Dergisi*, 26 (2), 97-104.
- Yıldırımli, Ş., & Kılıç, Ö. (2019e). A new species, *Allium adiyamanense* (Amaryllidaceae/Alliaceae/Liliaceae), from Turkey. *Ot Sistematiik Botanik Dergisi*, 26 (1), 33-39.
- Yıldırımli, Ş., & Kılıç, Ö. (2019f). A new subgenus and four new species of *Ornithogalum* L. (Asparagaceae/Liliaceae), *O. nitidum*, *O. plurifolium*, *O. sancakense* and *O. yesilyurtense* from Turkey. *Ot Sistematiik Botanik Dergisi*, 26 (2), 9-31.
- Yıldırımli, Ş., & Kılıç, Ö. (2019g). A remarkable new species, *Achillea kirschneri* (Asteraceae) from Karakoçan-Elazığ-Turkey. *Ot Sistematiik Botanik Dergisi*, 26 (1), 79-84.
- Yıldırımli, Ş., & Kılıç, Ö. (2019h). Three new species of Apiaceae family from Turkey, *Bunium sancakense*, *Pimpinella adiyamanensis*, *Trigonosciadium solhanense*. *Ot Sistematiik Botanik Dergisi*, 26 (1), 41-52.
- Yıldırımli, Ş., & Kılıç, Ö. (2019i). Three new species of Caryophyllaceae, *Dianthus demirkushii*, *Silene bocquetiana* and *Silene karakotchanensis* from Turkey. *Ot Sistematiik Botanik Dergisi*, 26 (2), 59-72.
- Yıldırımli, Ş., & Kılıç, Ö. (2019j). Two new species of Orchidaceae, *Ophrys binguelensis* and *Orchis binguelensis* from Sancak, Bingöl, Turkey. *Ot Sistematiik Botanik Dergisi*, 26 (2), 39-48.
- Yıldırımli, Ş., Kılıç, Ö., & Demirpolat, A. (2019). A new unexpected species of *Fritillaria*, *F. gencensis* (Liliaceae) from Genç, Bingöl, Turkey. *Ot Sistematiik Botanik Dergisi*, 26 (1), 1-11.
- Yılmaz, H. (2021). *Gamochoeta coarctata*: A new alien species for Turkey. *Turkish Journal of Biodiversity*, 4 (2), 77-81.
- Yüzbaşıođlu, S. (2019). *Crocus keltepenensis* (Iridaceae): a new *Crocus* species from the highest part of the Samanlı Mountains, NW Turkey. *Phytotaxa*, 418 (2), 230-236.
- Zubov, D.A., Konca, Y., & Davis, A.P. (2019). *Galanthus bursanus* (Amaryllidaceae): a new species of snowdrop from the Marmara Sea region, NW Turkey. *Kew Bulletin*, 74, 18.