

## New Floristic Records for C2 Square in the Flora of Turkey\*

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**ABSTRACT:** In this study, 13 taxa belonging to C2 square in the Flora of Turkey have been given as new records.

**Keywords:** C2 square, Flora of Turkey, Muğla, new square records.



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## INTRODUCTION

Taxa was determined by using the data from Kızıldağ and Masa Mountain where within the borders of Menteşe district in Muğla province. Research area is located on C2 square according to Davis's grid system. In this study, 13 taxa have been determined as new records for C2 square. All taxa belong to the Spermatophyta section.

## MATERIALS AND METHODS

Identifications were made using Flora of Turkey and the East Aegean Islands (Davis 1965-1988; Güner et al., 2000). Whether identified plant samples are new record, that was determined by looking to other sources (Varol and Kaya, 2002; Yıldırım, 1997;1999;2005; Yıldırım and Akan, 1995). The names of taxa are arranged according to the Turkey Plant List (Vascular Plants) (Güner et al., 2012). Family, genus and species were given in alphabetical order. Plant samples that make up the subject of research are stored in the herbarium of Muğla Sıtkı Koçman University.

The abbreviations used in text are as follows:

E. Medit. Ele.: East Mediterranean Element

Ir.-Tur. Ele.: Irano-Turanian Element

Medit. Ele.: Mediterranean Element

Y.K.: Yeliz KIRDAL

M.İ.J.K.: Muğla Provincial Gendarmerie Command

## RESULTS AND DISCUSSIONS

### Amaryllidaceae

1. *Allium guttatum* Steven subsp. *sardoum* (Moris) Stearn

Muğla; Center, Kızıldağ south hillsides, 690-850 m, openings of *Pinus brutia* forest, 15.08.2010, Y.K. 985. Medit. Ele.

### Apiaceae (Umbelliferae)

2. *Berula erecta* (Huds.) Coville

Muğla; Center, Masa Mountain northeast hillsides, 700-750 m, openings of macchie, 13.06.2009, Y.K. 432; Muğla; Center, Kızıldağ south hillsides, 700-850 m, openings of macchie, 26.05.2010, Y.K. 874.

### Asteraceae (Compositae)

3. *Crepis vesicaria* L. subsp. *vesicaria*

Muğla; Center, Kızıldağ east hillsides, 750-900 m, openings of *Pinus brutia* forest, 17.05.2009, Y.K. 284.

Medit. Ele.

4. *Lapsana communis* L. subsp. *intermedia* (M.Bieb.) Hayek var. *intermedia*

Muğla; Center, Masa Mountain west hillsides, 690-850 m, openings of macchie, 30.05.2010, Y.K. 916.

5. *Xanthium spinosum* L.

Muğla; Center, Kızıldağ south hillsides, 750-800 m, openings of macchie, 02.10.2010, Y.K. 994.

### Boraginaceae

6. *Heliotropium lasiocarpum* Fisch. & Mey.

Muğla; Center, Kızıldağ south hillsides, 750-800 m, openings of macchie, 04.07.2010, Y.K. 960. Ir.-Tur. Ele.

### Capparaceae

7. *Capparis orientalis* Veill.

Muğla; Center, Masa Mountain south hillsides, 690-700 m, openings of macchie, 15.08.2010, Y.K. 973. Medit. Ele.

### Caprifoliaceae

8. *Valerianella balansae* V.A. Matthews

Muğla; Center, Kızıldağ north hillsides, 800-900 m, openings of *Pinus brutia* forest, 17.05.2009, Y.K. 298. E. Medit. Ele.

### Caryophyllaceae

9. *Silene conica* L.

Muğla; Center, valley between Kızıldağ and Masa Mountain, Kızıldağ east hillsides, 700-750 m, openings of macchie, 30.05.2009, Y.K. 361.

### Crassulaceae

10. *Sedum ochroleucum* Chaix subsp. *ochroleucum*

Muğla; Center, valley between Kızıldağ and Masa Mountain, Kızıldağ east hillsides, 700-750 m, openings of macchie, 30.05.2009, Y.K. 355; Muğla; Center, Masa Mountain east hillsides, 690-800 m, openings of macchie, 13.06.2009, Y.K. 394; Muğla; Center, Kızıldağ north hillsides, 800-850 m, openings of macchie, 14.06.2009, Y.K. 445; Muğla; Center, Masa Mountain west hillsides, 690-850 m, openings of macchie, 20.06.2009, Y.K. 465; Muğla; Center, Kızıldağ northeast hillsides, 700-850 m, openings of macchie, 13.06.2010, Y.K. 934.

### Fabaceae (Leguminosae)

11. *Trifolium stellatum* L. var. *xanthinum* (Frey) Bald.

Muğla; Center, Kızıldağ west hillsides, 690-900 m,

openings of *Pinus brutia* forest, 25.04.2009, Y.K. 141; Muğla; Center, Kızıldağ northwest hillsides, MİJK memorial forest, 850-900 m, openings of macchie, 25.04.2009, Y.K. 183. E. Medit. Ele.

Lamiaceae (Labiatae)

12. *Salvia candidissima* Vahl subsp. *candidissima*

Muğla; Center, Kızıldağ south hillsides, 690-850 m, openings of *Pinus brutia* forest, 26.05.2010, Y.K. 883. Ir.-Tur. Ele.

Urticaceae

13. *Urtica pilulifera* L.

Muğla; Center, Masa Mountain southwest hillsides, 800-850 m, openings of macchie, 08.05.2010, Y.K. 810. Medit. Ele.

Number of taxa in the list and distribution of taxa in Flora of Turkey and Turkey Plant List are given in Table 1.

**Table 1:** New Floristic Records for C2 Square in the Flora of Turkey and Turkey Plant List

Number of taxon	Distribution in Flora of Turkey	Distribution in Turkey Plant List
1	A1,A2,A3,B2,B9,C3,C4,C8	Marmara Region; Western Black Sea Section; Aegean Region; Upwards Murat-Van Section; Mediterranean Region
2	A1,A2,A3,A5,A9,B4, B5,B7,B9,C4,C6	Marmara Region; Middle Black Sea Section; Middle Kızılırmak and Konya Section; Upwards Fırat, Erzurum – Kars and Upwards Murat –Van Sections; Adana Section.
3	A1,A2,A6,A8,A9,B1	Çatalca-Kocaeli and Ergene Sections; Middle and East Black Sea Sections; Main Aegean Section
4	A1,A2,A3,A4,A5,A7,A8,A9,B1,B2,B6,B7,B8,B9,C4,C5, C6,C8	Marmara Region; Black Sea Region; Central West Anatolia Section; Upwards Sakarya Section; Middle and Upwards Kızılırmak Sections; Upwards Fırat, Erzurum-Kars and Upwards Murat-Van Sections; Adana Section; Dicle Section
5	A1,A2,A3,A4,A5,A6,A7,A9,B2,B4,B5,B7,B9,C4	Türkiye
6	A3,A4,A5,B7,B8,C4,C8	Çatalca-Kocaeli Section; Upwards Sakarya Section; Middle Kızılırmak Section; Konya Section; Dicle Section
7	C1,C3	Antalya Section
8	B1,B2,C4,C6	Aegean Region; Adana Section
9	A1,A2,A5,A6,B1,B3,B4,B10,C1	Marmara Region; Middle Black Sea Section; Aegean Region; Upwards Sakarya Section; Upwards Murat-Van Section
10		Istranca Section; Main Aegean Section; Middle Kızılırmak and Konya Sections
11	C1	Çatalca-Kocaeli Section; Main Aegean Section; Middle Fırat Section
12	A4,A5,A6,A7,A8,B5,B6,B7,B8,B9,C5,C6,C8,C9,C10	Black Sea Region; Central West Anatolia Section; Central Anatolia Region; East Anatolia Region; Mediterranean Region; Southeast Anatolia Region
13	A1,A2,A6,B1,C1,C3,C4,C5,C6	Çatalca-Kocaeli and Ergene Sections; Middle Black Sea Section; Main Aegean Section; Konya Section; Mediterranean Region

## CONCLUSIONS

Thirteen taxa belonging to C2 square in the Flora of Turkey have been given as new records. Of the

identified taxa, 4 are Mediterranean element, 2 are East Mediterranean element and 2 are Irano-Turanian element.

## REFERENCES

- Baytop T, 1998. İngilizce Türkçe Botanik Kılavuzu. İstanbul Üniversitesi, Eczacılık Fakültesi yayınları, İstanbul. 375s.
- Donner J, 1990. Distribution Maps to P.H. Davis Flora of Turkey 1-10. Linzer biol. Beitr., 1-135, Linz.
- Davis PH, 1965–1985. Flora of Turkey and the East Aegean Islands. Vol. 1 - 9, University Press. Edinburgh, UK.
- Davis PH, Mill RR, Tan K, 1988. Flora of Turkey and the East Aegean Islands. Vol.10, Edinburgh University Press. Edinburgh, UK.
- Güner A, Özhatay N, Ekim T, Başer KHC, 2000. Flora of Turkey and the East Aegean Islands. Vol. 11, Edinburg Unv. Press, Edinburg.
- Güner A, Aslan S, Ekim T, Vural M, Babaç MT, 2012. Türkiye Bitkileri Listesi (Damarlı Bitkiler). İstanbul Nezahat Gökyiğit Botanik Bahçesi Flora Araştırmaları Derneği Yayını. 1290s.
- Varol Ö, Kaya E, 2002. C1 ve C2 Karelerinden yeni floristik kayıtlar. Ot Sistematik Botanik, 9, (2): 69-79.
- Yıldırım Ş, Akan H, 1995. New floristic records for the various squares in the flora of Turkey. Ot Sistematik Botanik Dergisi, 2(1): 125-131.
- Yıldırım Ş, 1997. The chorology of the Turkish species of Apiaceae family. Ot Sistematik Botanik Dergisi, 4(2): 105-128.
- Yıldırım Ş, 1999. The chorology of the Turkish species of Asteraceae family. Ot Sistematik Botanik Dergisi, 6(2): 75-123.
- Yıldırım Ş, 2005. The chorology of the Turkish species of Fabaceae (Leguminosae) family. Ot Sistematik Botanik Dergisi, 12(1): 117-170.