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## Ot Sistematik Botanik Dergisi

25, 1, 2018 cildinde yayınlanan yeni üyeler, aktarım ve konumlar

New taxa, combination and status published in volume 25, 1, 2018

<i>Asteraceae</i> : .. <b>Gundelia purpurascens</b> (Bornm.) Fırat, <b>comb. &amp; stat. nov.</b> .....	14
<b>Senecio discoideus</b> (V.A.Matthews) Yıld., <b>comb. &amp; stat. nov.</b> .....	6
<b>Senecio oflasii</b> Yıld. & Kılıç, <b>sp. nov.</b> .....	3
<i>Brassicaceae</i> : <b>Aethionema adiyamanense</b> Yıld. & Kılıç, <b>sp. nov.</b> .....	27

## DÜZELTME (CORRIGENDUM)

OT Sistematik Botanik Dergisi  
24, 2, 1- 8, 2017-ISSN 1300-2953

A new remarkably *Silene* L. (*Caryophyllaceae*)  
from Bingöl province, Turkey

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Üstte adı geçen makale yayınlandıktan sonra dikkatimizi çeken Şekil  
1'deki dizgici hatasının aşağıdaki gibi düzeltilmesini rica ederiz.

We would like to be corrected the following typographer error brought to  
our attention after publication of the above paper. The correct new figure  
1 is as follows:



Figure 1. *Silene magenta*, habitus, Ş. Yıldırımli 43367 & Ö. Kılıç (holotype)

OT Sistemantik Botanik Dergisi

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## **New status of *Gundelia tournefortii* L. forma *purpurascens* Bornm. (*Asteraceae*) and new record for the flora of Turkey**

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### **Abstract**

*Gundelia purpurascens* (Bornm.) Fırat comb. & stat. nov. is proposed. Diagnostic and morphological characteristics, as well as full descriptions and the detailed photographs are provided. This taxon occurs in (Seqlawa) north Iraq and Şırnak (east Anatolia).

**Key Words:** New status, new record, *Gundelia tournefortii* forma *purpurascens*, Turkey

### ***Gundelia tournefortii* L. forma *purpurascens* (*Asteraceae*) üyesinin yeni konumu ve Türkiye için yeni kaydı**

### **Özet**

*Gundelia purpurascens* (Bornm.) Fırat, comb. & stat. nov. olarak önerildi. Tanımlayıcı ve morfolojik karakterlerinin yanı sıra tam betimi ve ayrıntılı resimleri verilmiştir. Bu takson (Seqlawa) kuzey Irak ve Şırnak'ta (Doğu Anadolu) yayılış göstermektedir.

**Bulduru Sözcükleri:** Yeni konum, yeni kayıt, *Gundelia tournefortii* forma *purpurascens*, Türkiye

## Introduction

*Gundelia* L. belongs to the tribe *Lactuceae* according to the chloroplast *ndhF* gene (1). In the flora books (2-8) *Gundelia tournefortii* L. is the only known species of the genus *Gundelia* and all other names were recorded as synonyms. Recently, several new species and new status have been described from *Gundelia*, i.e. *Gundelia aragatsi* Vitek, Fayvush, Tamanyan & Gemeinholzer, *Gundelia armeniaca* Nersesian from Armenia, and *Gundelia dersim* Vitek, Yüce & Ergin, *Gundelia munzuriensis* Vitek, Yüce & Ergin, *Gundelia vitekii* Armağan, *Gundelia komagenensis* Fırat, *Gundelia colemerikensis* Fırat, *Gundelia cilicica* Fırat, *Gundelia anatolica* Fırat, *Gundelia mesopotamica* Fırat and *Gundelia asperrima* (Trautv.) Fırat from Turkey, and *Gundelia tehranica* Vitek & Noroozi and *Gundelia microcephala* (Bornm.) Vitek from Iran (9-22). This authors used some important morphologic characters for separating species in the genus *Gundelia* including plant size, number of flowers forming one cephaloid (=flower complex, heads of second order, pseudocephalia) in the synflorescence, size and shape of the fruit complex (disseminule), color of the flowers, indumentum in the synflorescence, indumentum of leaves, and habitats, used the shape of the involuclers of the central and lateral flowers as diagnostic characters, closure of flowers at  $\pm$  noon and opening in  $\pm$  late afternoon, the different/same colors of basal and cauline leaves and squamulose disseminule beside glabrous disseminule.

During floristic surveys in north Iraq (Saqlawa) and Şırnak (Cudi mountain) (Figs. 1, 2), June 2016 and August 2017, some interesting *Gundelia* specimens were collected, therefore I decided to analyze the morphological characters of the species using a wide range of literatures for identification. As a result of this effort with the light of new characters observed, the aim of the study is to found *Gundelia tournefortii* forma *purpurascens* Bornm. from Saqlawa (north Iraq) and Şırnak (east Anatolia).

### Materials and Methods

Photos of the living material were taken with a Sony DSCR1 digital camera. Geographical positions were identified using a Magellan eXplorist 710 GPS, and insert in the Figures 1, 2. A total of 10 herbarium specimens of the species were collected from three adjacent localities and deposited in the herbaria VAND (23), and in the personal herbarium of the author (private Herbarium of Mehmet Firat).

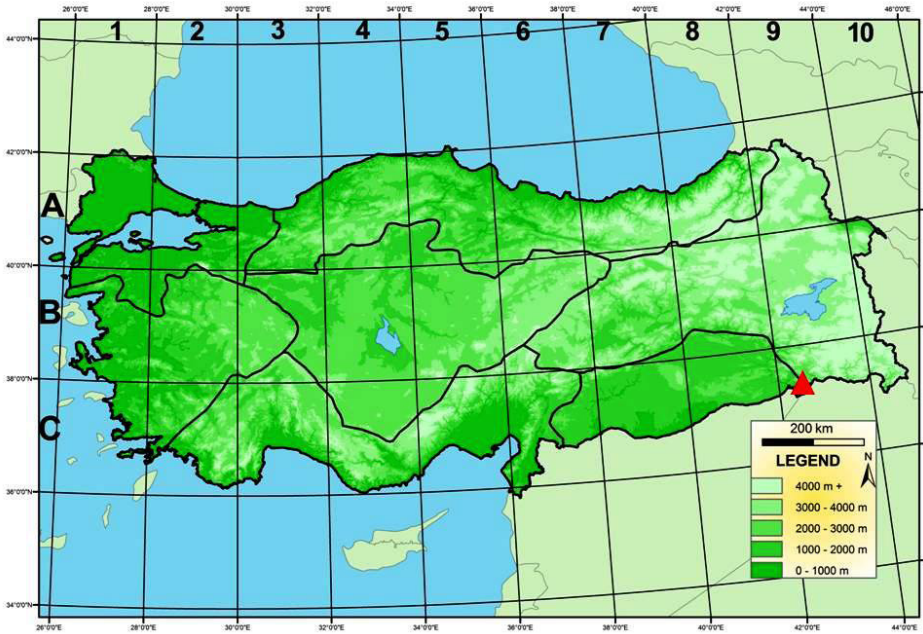


Figure 1. Distribution map of *Gundelia purpurascens* (▲) in Turkey

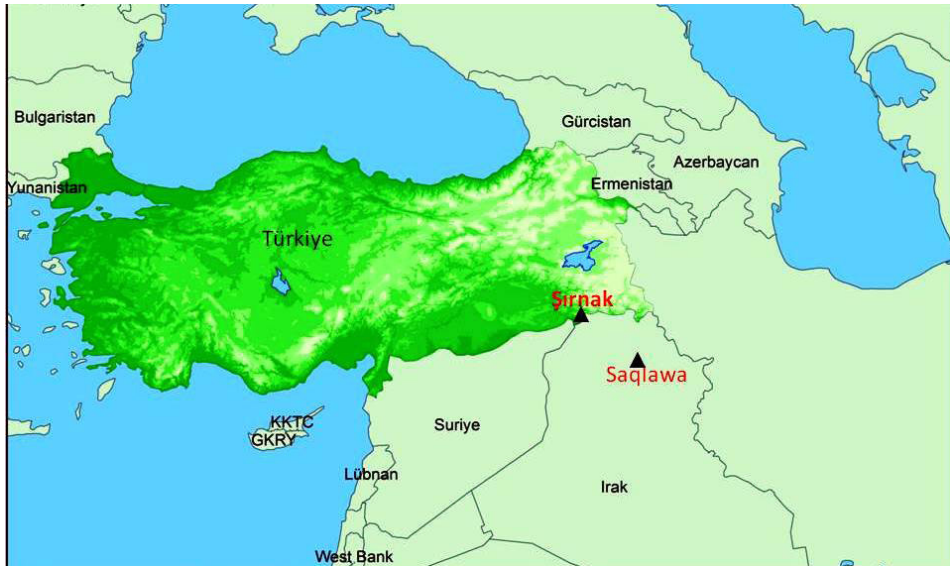


Figure 2. Distribution map of *Gundelia purpurascens* (▲) in the world

## Taxonomy

***Gundelia purpurascens*** (Bornm.) Firat, **comb. & stat. nov.**, figures 3-6

≡ *Gundelia tournefortii* forma *purpurascens* Bornm., Beih. Bot. Centralbl., B, 60: 197 (1939).

**Type:** Iraq Kurdistania (Assyrien), Erbil (Arbela) in montis Kuh-Sefin reg. infer. ad pagum Schaklava (Şaklava) (ditionis Erbil), 900 m, 16.05. 1893, J. Bornmüller 1407, Isotype: W!.

**Description:** Perennial lactiferous herb with branched stem 20-45 cm, glabrous, greenish-yellow. Leaves coriaceous, alternate, pinnatisect or pinnatipartite, spiny. Both side sparsely short ± arachnoid hairs, especially on or besides the veins. Synflorescences normally 3–15, globose, ovoid or sometimes compressed, 15-45 mm long and 20-40 mm in diameter (excluding bracts), consisting of 8-30 cephaloids. Synflorescence less arachnoid hairy (when young more arachnoid



hairs). Bracts spiny, normally less exceeding cephaloids, with a strong terminal spine and 3-6 lateral spines, dark purple or maroon, cephaloid (in the middle of the synflorescence) compound of (6-)7 flowers. Flowers campanulate to widely spreading, corolla externally reddish-brown to purplish or maroon, with gland; internally yellow, 7-9 mm long (usually central shorter than lateral). Cephaloids glabrous or squamulose  $\pm$  hairy. Fruit complex (disseminule) normally obconical, greyish-brown, 8–11 mm long (without spines), in upper part 6-8 mm in diameter (when ripe); central and lateral flowers surrounded by spines originated from the involuclers, spines of the central flowers 2-5 mm, of the lateral flowers 1-5 mm, obtained from 25 fruit of average weight 0.2084 g (when ripe).

**Phenology:** Flowering time May, and fruiting time July

**Distribution:** *Gundelia purpurascens* is new record from Şırnak (Cudi mountains) province of Turkey. According to the grid system the new species, which is present in Şırnak, falls specifically within the C9 square (Figure 1). It is growing type locality Shaqlawa (Iraq) and Cudi mountain (Turkey).

**Habitat and Ecology:** *Gundelia purpurascens* grows in mountain steppe, openings Oak, and lowland at c. 800-1000 m, with other interesting plants such as *Lens* sp., *Quercus* sp., *Bromus* sp., *Poa* sp., *Erysimum* sp., *Astragalus* sp.

**Ethnobotanical usage:** *Gundelia purpurascens* is known to be the tastiest and most consumed species. It is cooked as stew or egg-vegetable, obtained gum is chewed.

**Vernacular name:** : *Gundelia purpurascens* is called as “Kereng” by the local people of the Şırnak province. The other *Gundelia* species are known by the local people under many names in Kurdish; e.g. “Kênger”, “Qorav”, “Kereng”, “Kerenk”, “Keven”, “Kengel”, and in Turkish; e.g. “Has kanger”, “Acı kenger”, “Eşek dikenî”, “Kenger” (24).



Figure 3. *Gundelia purpurascens* A. habitat, B. habit

**Red List Assessment:** The distribution area of *Gundelia purpurascens* is less than 500,000 km<sup>2</sup>. The species was collected from two localities, and where it occurred ca. 10,000 individuals were counted. It grows in steppe. Most consumed by the local people, some anthropogenic or grazing effects were observed on the population. Based on the above data and observations, the IUCN (25) red list category of *Gundelia purpurascens* is suggested as “Vulnerable”, VU.

**Other specimens examined:** *Gundelia purpurascens* Turkey. C9 Şırnak, Silopi district, Cudi mountains Hessena region, mountain steppe, openings oak, and lowland, 871 m, 37°20'34" N, 42°25'32" E, coll. 08.05.2017, *M. Firat 33741* [(VANF, Herb. M. Firat), (in flower)]; *ibid.* 15.07.2017, *Firat 33891* [(VANF, Herb. M. Firat), (in fruit)]; Turkey. C9 Şırnak, Silopi district, Cudi mountains, slip region, mountain steppe, openings oak, and lowland, 966 m, 37°19'56" N, 42°37'30" E, coll. 09.05.2017, *M. Firat 33742* [(VANF, Herb. M. Firat), (in flower)]; *ibid.* 16.07.2017, *Firat 33892* [(VANF, Herb. M. Firat), (in fruit)].  
**Topotype;** North Iraq (Kurdistan), Erbil, nearly Şaqlava district, mountain steppe, 807 m, 36°27'10" N, 44°21'22" E, coll. 03.05.2017, *M. Firat 33695* [(VANF, Herb. M. Firat), (in flower)]; *ibid.* 10.07.2017, *Firat 33886* [(VANF, Herb. M. Firat), (in fruit)].

**Taxonomic Relationships:** *Gundelia purpurascens* differs from all *Gundelia* species with stem colour, synflorescence, color of corolla and fruit complex (disseminule). The species is morphologically close to cephaloid (in the middle of the synflorescence) compound of 6 flower groups. The species differs from *G. mesopotamica* with stems colour (greenish-yellow *versus* stems colour green), flower color (corolla externally red-brown to purplish or maroon, with gland; internally yellow *versus* corolla externally purplish to reddish-brownish, internally white to cream), synflorescence (less arachnoid hairy *versus* completely dense arachnoid hairy), bracts (normally less exceeding cephaloids, with a strong terminal

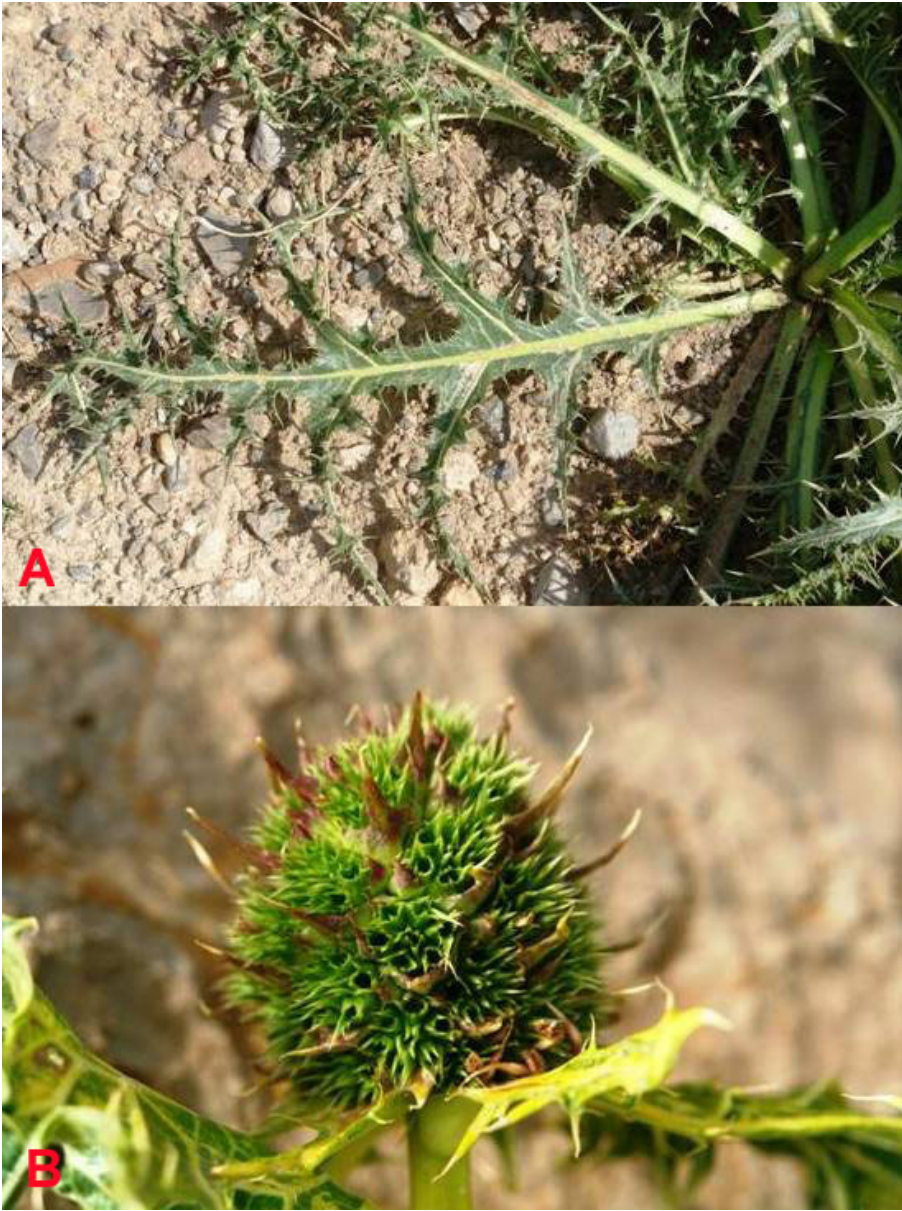


Figure 4. *Gundelia purpurascens*. A. basal leaves,  
B. synflorescence in early fruiting stage



Figure 5. *Gundelia purpurascens*. A-B. synflorescence in flowers stage

spine and 3-6 lateral spines, dark purple or maroon *versus* bracts, more exceeding cephaloids “especially uppermost bracts very long”, with a strong terminal spine and 2 lateral spines, fruit complex (disseminule) normally obconical, greyish-brown, 8-11 mm long “without spines” *versus* normally obconical to obovate, greyish brown, 10-13 mm long “without spines”; and this species differs from *G. colemerikensis* with stem high (20-45 cm *versus* 50-80 cm), synflorescence number (3-15 *versus* 15-50), cephaloid (in the middle of the synflorescence) (compound of 6-7 flowers *versus* (3-)5(-6) flowers), flower colour (corolla externally red-brown to purplish or maroon, with gland; internally yellow *versus* corolla externally dark purple, maroonish or deep reddish, internally reddish-maroon or pinkish-maroon, fruit complex “disseminule” (normally obconical, greyish-brown, 8-11 mm long “without spines” *versus* normally obconical, greyish-green, 5-9 mm long “without spines”, obtained from 25 fruit of average weight (0.2084 g “when ripe” *versus* 0.112 g “when ripe”).

## Discussion

Flowers colour, flowers number and hair condition of *Gundelia* sp. should be carefully observed and noted while it is fresh in the field. It is difficult to diagnose from dry material after it turns into a herbarium sample. Şaqlawa (North Iraq) type sample of *Gundelia purpurascens* is taken from is a known place. And, only one species of *Gundelia* sp. grows. The species that grows is known as *Gundelia tournefortii* forma *purpurascens* which was collected in 1893, and published by Bornmüeller an 1939. After my detailed researches on *Gundelia* species in recent years, taking the colour of corolla and number of cephaloid (in the middle of the synflorescence) compound of 6 flower groups into consideration, it has been decided to resurrect the taxon of “*Gundelia tournefortii* L. forma *purpurascens* Bornm. and to increase its status from forma to species *Gundelia purpurascens* (Bornm.) Firat.

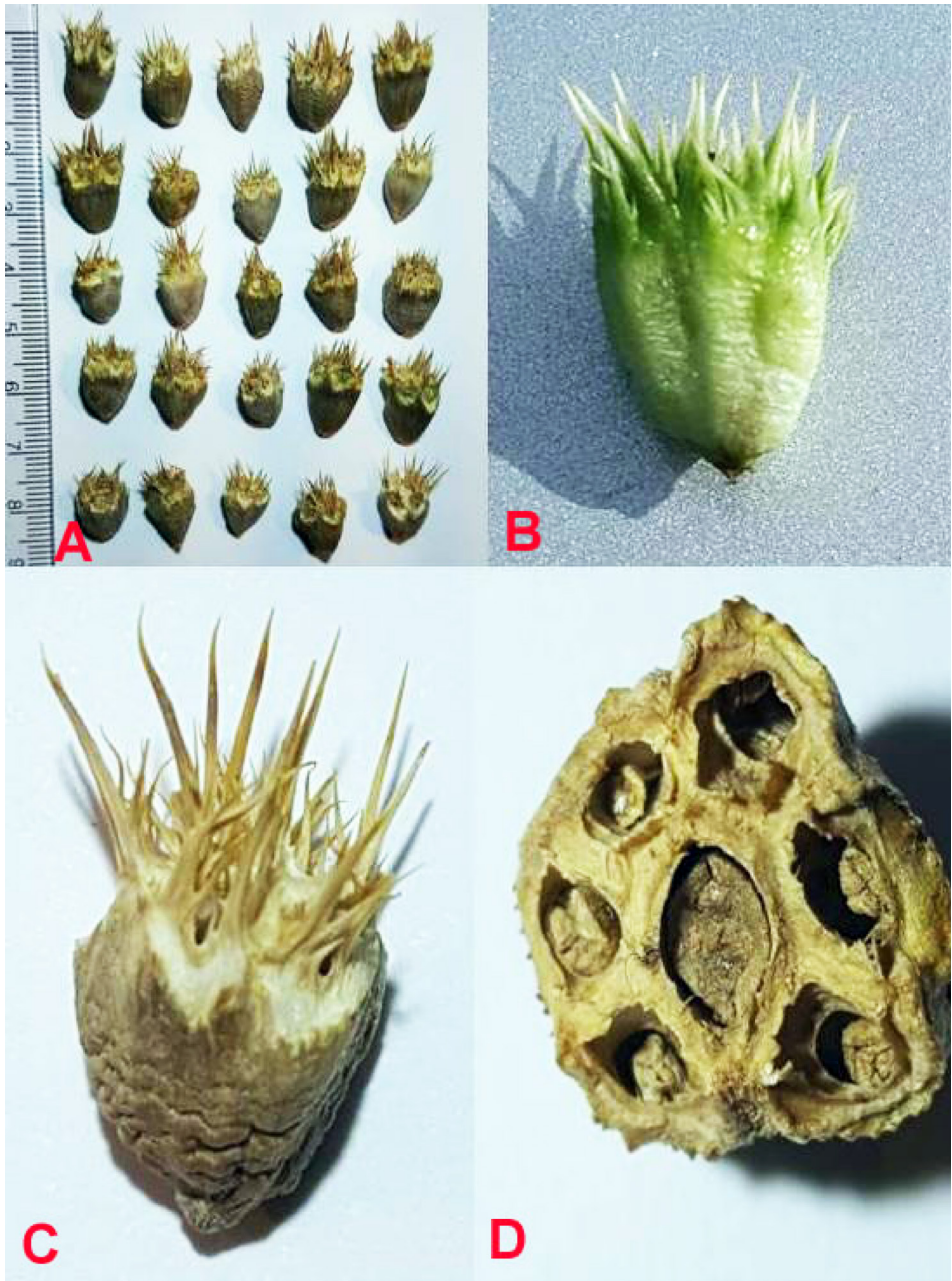


Figure 6. *Gundelia purpurascens*. A. variability of ripe disseminules, B. early fruiting stage, C. ripe disseminules, D. detail of cephaloid compound seven disseminules

## References

1. KARISPO., ELDENÄS P., KÄLLERSJÖ M., New evidence for systematic position of *Gundelia* L. with notes on delimitation of *Arctoteae* (*Asteraceae*), **Taxon**, 50, 105-114, 2001.
2. NIKITIN V.V., *Gundelia* L. in Schischkin B.K. (Ed.), **Flora Turkmenii**, vol. 7, 141 p, Akademiia nauk Turkmenskoï SSR, Institut Botaniki, Ashkhabad 1960.
3. SOFIEVA R.M., *Gundelia* L. in Karjagin I.I. (Ed.), **Flora Azerbajdžana**, vol. 8, 347–348 pp, Azerbaijan National Academy of Sciences Press, Baku 1961.
4. VASILCHENKO I.T., *Gundelia* L. in Komarov V.L. (Ed.), **Flora SSSR**, vol. 26, 862 p, Nauka Publishers, Moscow & Leningrad 1961.
5. KUPICHA F.K., *Gundelia* in Davis P.H. (Ed.), **Flora of Turkey and the East Aegean Islands**, vol. 5, 325–326 pp, University Press, Edinburgh 1975.
6. FEINBRUN-DOTHAN N., **Flora Palaestina**, vol. 3, 481 p, The Israel Academy of Sciences and Humanities, Jerusalem 1978.
7. RECHINGER K.H., *Gundelia* in Rechinger K.H. (Ed.), **Flora Iranica**, leaflet 164, 107–109 pp, Akademische Druck- und Verlagsanstalt, Graz 1989.
8. AVETISIAN V.E., *Gundelieae* in Takhtajan A.L. (Ed.), **Flora Armenii**, vol. 9, 212–216 pp, Koeltz Scientific Books, Havlíčkův Brod., 1995.
9. VITEK E., FAYVUSH G., TAMANYAN K., GEMEINHOLZER B., New taxa of *Gundelia* (*Compositae*) in Armenia, **Annalen des Naturhistorischen Museums Wien, Serie B**, 111, 85–99, 2010.
10. VITEK E., YÜCE E., ERGİN C., *Gundelia dersim* and *Gundelia munzuriensis* (*Compositae*), two new species from Turkey, **Phytotaxa**, 161, 130–138, 2014.



11. FIRAT M., **Four new species of *Gundelia* L. (*Asteraceae*) from Anatolia: *G. komagenensis*, *G. colemerikensis*, *G. cilicica* and *G. anatolica***, 32 pp, Vameda Ofset Press, Van 2016.
12. CLASSEN-BOCKHOFF R., FROEBE H.A., LANGERBEINS D., Die Infloreszenzstruktur von *Gundelia tournefortii* L. (*Asteraceae*), **Flora**, 182, 463–479, 1989.
13. NERSESYAN A., *Gundelia armeniaca* Nersesyan (*Compositae*), a new species from Armenia, **Annalen des Naturhistorischen Museums Wien, Serie B**, 116, 191–196, 2014.
14. FIRAT M., *Gundelia rosea* (*Asteraceae*), a new record for the flora of Turkey with contributions to its systematic, **Acta Biologica Turcica**, 30, 2, 31–35, 2017.
15. FIRAT M., *Gundelia mesopotamica* (*Asteraceae*), a new lactiferous species from Mardin (Turkey), **Acta Biologica Turcica**, 30, 3, 64–69, 2017.
16. FIRAT M., The resurrection and a new status of *Gundelia tournefortii* L. var. *asperrima* Trautv. (*Asteraceae*), **OT Sistematiik Botanik Dergisi**, 24, 2, 65–77, 2017.
17. AL-TAEY RA., HOSSAIN M., Studies in *Gundelia*: I. A new species from Iraq, **Notes of the Royal Botanic Garden Edinburgh** 42, 39–44, 1984.
18. ARMAĞAN M., *Gundelia vitekii* (*Compositae*), a new species from Turkey, **Annalen des Naturhistorischen Museums Wien, Serie B**, 118, 129–134, 2016.
19. VITEK E., JARVIS C.E., The typification of *Gundelia tournefortii* L. (*Compositae*), **Annalen des Naturhistorischen Museum Wien, Serie B**, 108, 267–272, 2007.
20. VITEK E., NOROOZI J., *Gundelia tehranica* (*Compositae*), a new species from Iran, **Annalen des Naturhistorischen Museum Wien, Serie B**, 119, 243–248, 2017.

21. VITEK E., NOROOZI J., *Gundelia rosea* (*Compositae*), a new record from Iran, **Annalen des Naturhistorischen Museum Wien, Serie B**, 119, 249–256, 2017.
22. VITEK E., YÜCE E., ÇAKILCIOĞLU U., *Gundelia glabra* Miller (*Compositae*) – an ignored taxon, **Annalen des Naturhistorischen Museum Wien, Serie B**, 119, 235–242, 2017.
23. THIERS B., **Index Herbariorum**: A global directory of public herbaria and associated staff, New York Botanical Garden’s Virtual Herbarium. Available from: <http://sweetgum.nybg.org/ih/> (accessed 20 June 2017).
24. FIRAT M., **Ferhenga Navên Riwekên Bi Kurdî/Kürtçe Bitki Adları Sözlüğü/Dictionary of Plant Names in Kurdish**, 652 pp, Kalkan Ofset, Ankara 2013.
25. IUCN, **Guidelines for Using the IUCN Red List Categories and Criteria**, version 11. IUCN Species Survival Commission, 87 pp, Gland, Switzerland and Cambridge 2014.

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Manuscripts should be prepared in the following order (if required): Title, abstract, key words, introduction, materials and methods, discussion, results, acknowledgements (including financial supporter or sponsor), references. The title page consists of the manuscript title, author’s names and appropriate addresses. Examples: *Gorkemia Yıldırlımlı (Brassicaceae)*, a new genus to science from Turkey, Şınası YILDIRIMLI, University of Hacettepe, Faculty of Science, Department of Biology, Section of Botany, 06800 Beytepe-Ankara-Türkiye, ot@hacettepe.edu.tr

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# SİSTEMATİK BOTANİK DERGİSİ

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### İÇİNDEKİLER (CONTENTS)

- YILDIRIMLI Ş., KILIÇ Ö. ....1-10  
A new species, a new combination and status, and a new alien species record of *Senecio* L. (*Asteraceae*) from Turkey
- FIRAT M. .... 11-24  
New status of *Gundelia tournefortii* L. forma *purpurascens* Bornm. (*Asteraceae*) and new record for the flora of Turkey
- YILDIRIMLI Ş., KILIÇ Ö. .... 25-30  
A new species of *Aethionema* (*Brassicaceae*), *A. adiyamanense* from Turkey
- Necmi AKSOY N., ÖZKAN N.G., ASLAN S., ZORLU Y., AYTEĞİN A. .... 31-79  
Karadere (Düzce-Bolu) vadisi florası
- YILDIRIMLI Ş. ....77-92  
Türkiye biteğindeki kareler için yeni kayıtlar 2
- AKGÜL G. ....93-113  
Nar, Sulusaray (Nevşehir) ve çevresinde bulunan yabani ve yetiştirme bitkilerin yöresel adları ve etnobotanik değerleri
- ŞAHİN B., AKAR B. ....115-136  
A study on the biodiversity and ecology of benthic algae of Altınpınar-Limni Lake (Torul, Gümüşhane, Turkey)
- BABA H. ....137-148  
Miksomiset'lerin alternatif üretim yöntemleri üzerine bir çalışma