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Curculionoidea (Insecta: Coleoptera) Species Detected on Some Weeds in Kahramanmaraş Province, Türkiye Part II

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ABSTRACT

This study was conducted to determine the Curculionoidea species on weeds found in non-agricultural areas in Kahramanmaraş Province, Türkiye between 2021 and 2022, weekly from late March-early April until the end of September after the weeds begin to germinate, and at fifteen-day intervals when the weeds start to dry towards the end of September. As a result of this study, one genus belonging to the subfamily Brentidae of the family Apionidae of the superfamily Curculionoidea, eleven genera belonging to the family Curculionidae, Lixinae Schoenherr, 1823, Hyperinae Marseul, 1863, Curculioninae Latreille, 1802, Baridinae Schoenher, 1836, Ceutorhynchinae Bedel, 1881, Entiminae Schoenherr, 1823 subfamilies and fifteen species belonging to these genera were identified. A total of eight species, including *Hypera striata* (Boheman, 1834), *Rhinusa* (*Gymnaetron*) *bipustulata* (Rossi, 1792), *Smicronyx jungermanniae* (G. C. Reich, 1797), *Aulacobaris picicornis* (Marsham, 1802), *Baris analis* (Olvier, 1790) Gyllenhal, 1837, *Glocianus distinctus* (C. Brisout, 1870) and *Rhopalapion longirostre* (Olivier, 1807), are new records for Kahramanmaraş Province. In addition, fifteen weed species were identified as new host plants for the identified Curculionoidea species.

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Kahramanmaraş İlindeki Bazı Yabancı Otlar Üzerinde Saptanan Curculionoidea (Insecta: Coleoptera) Türleri Kısım II

ÖZET

Bu çalışma Kahramanmaraş ilinde 2021-2022 yılları arasında tarım dışı alanlarda bulunan yabancı otlar üzerindeki Curculionoidea türlerini belirlemek amacıyla yabancı otların çimlenmeye başlamasını takiben mart sonu-nisan ayı başlarından eylül ayının sonuna kadar haftalık olarak, eylül ayının sonuna doğru yabancı otların kurumaya başlamasıyla 15 günlük aralıklarla arazi çalışmaları yürütülmüştür. Yürütülen bu çalışma sonucunda Curculionoidea üst familyasının Brentidae familyası Apioninae alt familyasına bağlı 1 cins, Curculionidae familyası, Lixinae Schoenherr, 1823, Hyperinae Marseul, 1863, Curculioninae Latreille, 1802, Baridinae Schoenher, 1836, Ceutorhynchinae Bedel, 1881, Entiminae Schoenherr, 1823 alt familyalarına bağlı 11 cins ve bu cinslere ait 15 tür tespit edilmiştir. Tespit edilen türlerden *Hypera striata* (Boheman, 1834), *Rhinusa* (*Gymnaetron*) *bipustulata* (Rossi, 1792), *Smicronyx jungermanniae* (G. C. Reich, 1797), *Aulacobaris picicornis* (Marsham, 1802), *Baris analis* (Olivier, 1790), *Ceutorhynchus picitarsis* Gyllenhal, 1837, *Glocianus distinctus* (C. Brisout, 1870) ve *Rhopalapion longirostre* (Olivier, 1807) olmak üzere toplam 8 tür Kahramanmaraş İli için yeni kayıt niteliğindedir. Ayrıca belirlenen Curculionoidea türleri için 15 yabancı ot türü yeni konukçu bitki olarak belirlenmiştir.

Entomoloji

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Anahtar Kelimeler
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Yabancı ot
Konukçu bitki
Kahramanmaraş

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INTRODUCTION

One of the most important factors affecting crop production is weeds. Weeds survive in the same environment as crops and compete with them for water, nutrients, and light, negatively affecting the qualities of the agricultural products, and also causing a loss of approximately $ 7.6 billion worldwide (Pacanoski, 2007).

The order Coleoptera occupies an important place among the insects used for biological weed control (Kısmalı & Madanlar, 1990). Within this order, the superfamily Curculionoidea has a higher proportion of weed hosts than other species (Oberprieler et al., 2007). Larvae mostly prefer the root collar and roots of plants as feeding habitat, and they feed on the root parts by forming galls (Volovnik, 2010) within the plant tissue (Trnka et al., 2015) or by moving freely in the soil. This group of insects is also important for biological control of weeds, depending on their specific nutritional characteristics (Stinson et al., 1994; Story et al., 2006; Gültekin et al., 2019).

Studies on the species of the superfamily Curculionoidea began in the 1700s, and many foreign and local researchers contributed by carrying out systematic, taxonomic, and faunistic studies. Some of them; Winkler (1924-1932), Emden (1944), Lodos (1960; 1971; 1972), Voss (1962), Altay et al. (1972), Lodos et al. (1978; 2003), Dieckmann (1980), Alonso-Zarazaga & Lyal (1999), Gültekin (2001), Marvaldi & Lanteri (2005), Pehlivan et al. (2005a; 2005b), Keskin (2005), Gültekin (2006c), Davidian & Gültekin (2006), Wanat (2007), Bolu & Legalov (2008), Erbey (2010), Uzun & Tezcan (2011), Avgın & Colonnelli (2011), Gültekin & Podlussany (2012), Aydın (2013), Talamelli (2014), Gürler (2014), Yılmaz (2015), Aydın & Hacet (2016), Özgen et al. (2016), Erdem (2016), Güven (2019), Kapucu (2019), Hacet & Colonnelli (2019), Erbey & Bolu (2021).

In this study, weeds are plants that are adapted to different climatic conditions and soil structures and serve as intermediate hosts for many living organisms due to their ability to withstand difficult ecological conditions and create their own population diversity in the ecosystem. For this reason, one genus belonging to the subfamily Apioninae of the family Brentidae of the superfamily Curculionoidea, which has a very important place among weeds in non-agricultural areas of Kahramanmaraş Province, Curculionidae family, Lixinae Schoenherr, 1823, Hyperinae Marseul, 1863, Curculioninae Latreille, 1802, Baridinae Schoenher, 1836, eleven genera belonging to the subfamilies Ceutorhynchinae Bedel, 1881, Entiminae Schoenherr, 1823 and fifteen species belonging to these genera were identified.

MATERIAL AND METHOD

This study was conducted on the weeds found in non-agricultural areas in Kahramanmaraş Province during 2021-2022.

Material

The main material of this study consists of species belonging to the superfamily Curculionoidea found in Kahramanmaraş Province, Türkiye, and the weeds that these species feed on. In the study, a trap, killing jar, culture containers, sample containers, polyethylene bags, suction tube, 70% ethyl alcohol, forceps, insect needle, petri dish, cotton, soft-tipped brush, tulle, rubber, and GPS device were used.

Method

Field and Laboratory Studies

The study was carried out in weekly intervals, starting from the end of March-early April and till the end of September, after the germination of the weeds in the non-agricultural areas of Kahramanmaraş Province, and at fifteen-day intervals when the weeds started to dry up towards the end of September. In the samples, all the weeds were examined because the species of Curculionoidea were found in the weeds' roots, stems, leaves, and generative organs. The phenological period of each weed in which the species was found, the part where the insect feeds, and the locations of the weed species were determined by GPS.

Weeds belonging to the superfamily Curculionoidea were observed in the wild, with large species collected by hand, small species collected with a suction tube, and a trap used for collection. Some life stages of Curculionoidea species such as egg, larva, pupa, and adult from the collected samples were brought to the laboratory conditions and cultured with the plant whether they fed on. To maintain the humidity of the cultured samples, water was sprayed at regular intervals, and nutrients were replaced as necessary. Cultured weedy plant samples were checked at regular intervals, and egg, larva, pupa, and adult emergence dates were recorded.

Adult insect species collected during field works were killed with the help of the killing jars or directly brought to the laboratory in separate sample containers with their label information. The location where the samples were collected, latitude and longitude, was recorded using GPS. With this information, the samples were labeled and prepared for expert identification. Herbaria of weed species

belonging to the superfamily Curculionoidea were also designed and made available for identification.

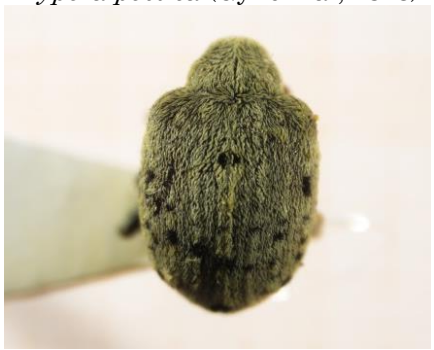
Dieckman (1977), Gültekin (2008a), Morris (2008), Erbey (2010), Caldara (2014), and Erbey & Bolu (2021) were used to determine the morphological characteristics of the species belonging to the superfamily Curculionoidea. Identifications of insect specimens belonging to the superfamily Curculionoidea. Associate. Prof. Dr. Mahmut ERBEY (Kırşehir Ahi Evran University, Faculty of Science and Letters, Department of Molecular Biology and Genetics) and Dr. Sci. Andrei Aleksandrovich Legalov (Instıtute of Systematics and Ecology of Animals, Laboratory of Phylogeny and Faunogenesis) and identifications of weeds by Associate. Prof. Dr. Tamer ÜSTÜNER (Kahramanmaraş Sütçü Imam University Faculty of Agriculture, Department of Plant Protection) was done.

RESULT and DISCUSSION

In this study conducted in Kahramanmaraş Province, one genus belonging to the Apioninae subfamily of the family Brentidae of the superfamily Curculionoidea, 11 genera belonging to the family Curculionidae, subfamilies Lixinae Schoenherr, 1823, Hyperinae Marseul, 1863, Curculioninae Latreille, 1802, Baridinae Schoenher, 1836, Ceutorhynchinae Bedel, 1881, Entiminae Schoenherr, 1823 and 15 species belonging to these genera were identified (Figure 1). A total of 8 species, including *Hypera striata* (Boheman, 1834), *Rhinusa* (*Gymnaetron*) *bipustulata* (Rossi, 1792), *Smicronyx jungermanniae* (G. C. Reich, 1797), *Aulacobaris picicornis* (Marsham, 1802), *Baris analis* (Olivier, 1790), *Ceutorhynchus picitarsis* Gyllenhal, 1837, *Glocianus distinctus* (C. Brisout, 1870), *Rhopalapion longirostre* (Olivier, 1807), are new records for Kahramanmaras Province. Furthermore, 15 weed species were identified for the first time as new host plants for the identified Curculionoidea species (Table 1).

Bangasternus orientalis Capioment, 1873

Hypera postica (Gyllenhal, 1813)



Hypera striata (Boheman, 1834)

Cionus olivieri Rosenschoeld, 1838

Rhinusa acifer Caldara

Rhinusa asellus (Gravenhorst, 1807)

Rhinusa tetra (Fabricius, 1792)

Smicronyx jungermanniae (G. C. Reich, 1797)

Aulacobaris picicornis (Marsham, 1802)

Baris analis (Olivier, 1790)

Ceutorhynchus picitarsis Gyllenhal, 1837

Sitona puncticollis Stephens, 1831

Rhinusa (Gymnaetron) bipustulata (Rossi, 1792)

Glocianus distinctus (C.Brisout, 1870)

Rhopalapion longirostre (Olivier, 1807)

Figure 1. Curculionoidea (Insecta: Coleoptera) species detected on the weeds in Kahramanmaraş Province
Şekil 1. Kahramanmaraş İli yabancı otlar üzerinde tespit edilen Curculionoidea (Insecta: Coleoptera) türleri

Table 1. Curculionoidea (Insecta: Coleoptera) species and their host plant detected in Kahramanmaraş Province
Çizelge 1. Kahramanmaraş İlinde tespit edilen Curculionoidea (Insecta: Coleoptera) türleri ve konukçu bitkileri

Species	Host Plant	References
Bangasternus orientalis	*Amygdalus communis* *Carduus acanthoides* * *Carduus nutans* * *Centaurea calcitrapa* *Centaurea iberica* *Centaurea solstitialis* *Centaurea virgata* *Pistacia vera*	Ter-Minassian, 1978 Maddox et al., 1991 Bolu & Legalov, 2008 Gültekin, 2008b Anonymous, 2022b
Hypera postica	*Amygdalus communis* *Centaurea* sp. *Cirsium arvense** *Cirsium* sp. *Medicago maritimus* *Medicago sativa* *Melilotus* sp. *Onopordum* sp. *Quercus* sp. *Trifolium* sp. *Trigonella* sp. *Verbascum* sp. *Vicia* sp.	Hoffman, 1963 Fick, 1976 Anay & Kornoşor, 2000 Lodos et al., 2003 Bolu & Legalov, 2008 Moradi-Vajargah et al., 2011 Bolu, 2016 Shrestha et al., 2020; François et al., 2021
Hypera striata	*Lens esculenta* *Plantago coronopus* *Vicia* sp. *Vicia sativa* *Quercus macranthera* *Trifolium repens**	Hoffman,1954 Smreczynski, 1968 Angelov, 1978 Tempere & Pericart, 1989 Koch, 1992 Pehlivan et al., 2005a; Skuhrovec, 2003a; 2006 Ghahari et al., 2009
Cionus olivieri	*Buddleje* sp. *Limosella* sp. *Verbascum densiflorum* *Verbascum longiflorum* *Verbascum nigrum Verbascum phlomoides Verbascum sinuatum* *Verbascum songaricum* *Scrophularia* sp. *Verbascum* sp. *Verbascum speciosum Verbascum*	Hoffman, 1958 Smreczynski, 1976 Read, 1977 Rather, 1989 Balalaikins et al., 2011; Akrawi & Mahmoud, 2019 Kostal & Caldara, 2019; Baviera & Caldara, 2020; Jiang et al., 2020

	thaplus	
Rhinusa acifer	*Verbascum sinuatum*	Aslan & Candan, 2018
Rhinusa (*Gymnaetron*) *asellus*	*Alcea calvardis**	Hoffman, 1958
	Verbascum gaillardotii	Halperin & Fremuth, 2003; Caldara et al., 2010; Fernández, 2012
	Verbascum nigrum	
	Verbascum phlomoides	Vinolas et al.,2012
	Verbascum pulverulentum	Caldara, 2014
	Verbascum sinuatum	Abad et al., 2015, 2016; Akrawi & Mahmoud, 2019; Digirolomo et al., 2019
	Verbascum sp.	
	Verbascum speciosum	
	Verbascum thapsoides	Bolu et al., 2023
	Verbascum thapsus	
	Verbascum virgatum	
Rhinusa (*Gymnaetron*) *bipustulata*	*Alcea calvardis**	Lodos et al., 2003
	*Verbascum sinuatum**	Skuhrovec, 2004
	Althaea officinalis	Gosik, 2010
	Scrophularia aquatica	Abad et al., 2015
	Scrophularia canina	Forbicioni et al., 2019
	Scrophularia canina	
	Scrophularia nodosa	
	Scrophularia olympica	
	Scrophularia sp.	
	Scrophularia striata	
	Scrophularia variegata	
	Scrophularia nervosa	
Rhinusa tetra	*Alcea calvardis** *Haplophyllum perforatum*	Hoffmann, 1958
	Juniperus sp.	Anderson, 1973
	Medicago sativa	O'Brien & Wibmer, 1982
	Mentha sp.	Lodos et al., 2003
	Onopordum sp.	Karaca et al., 2006
	Phlomis sp.	Caldara et al., 2010; 2012; Legalov et al., 2010
	Pinus sp.	Bosmans, 2012
	Prunus domestica	Balalaikins, 2012
	Verbascum sp.	Pesic, 2012
	Quercus sp.	Caldara, 2014
	Rosa sp.	Abad et al., 2015
	Salvia sp.	Doğanlar & Üremiş, 2014; Özgen et al., 2016
	Scrophularia auriculata	
	Scrophularia canina	Forbicioni et al., 2019
	Scrophularia sp.	Bolu et al., 2023
	Silene spergulifolia	
	Sinapis sp.	
	Styrax sp.	
	Triticum sp.	
	Verbascum blattaria	
	Verbascum boerhavii	
	Verbascum creticum	
	*Verbascum gaillardoti Verbascum sinuatum**	
	Verbascum lychnitis	
	Verbascum nigrum	
	Verbascum phlomoides	
	Verbascum phoeniceum	
	Verbascum pulverulentum	
	Verbascum speciosum	
	Verbascum thapsiforme	

	Verbascum thapsus *Vicia ervilia*	
Smicronyx jungermanniae	*Amygdalus communis* *Carduus nutans* * *Citrus unshiu* *Cuscuta campestris* *Cuscuta epithymum* *Cuscuta europaea* *Cuscuta* sp. *Triticum* sp.	Gertz, 1928 Porta, 1932 Hoffman, 1951-1958 Hoffman, 1958 Marikovskiy & Ivannikov, 1968 Tyurebaev, 1977 Lodos et al., 1978 Bargagli, 1883 Anonymous, 1987 Tempere & Pericart, 1989 Bayer & Winkelmann, 2005 Teodosie et al., 2004 Colonnelli, 2016 Erbey & Bolu, 2021
Aulacobaris picicornis	*Crambe orientalis** *Reseda lutea*	Colonnelli, 2004 Dedyukhin, 2014
Baris analis	*Pulicaria dysenterica Crambe orientalis* * *Rubus* sp. *Verbascum* sp.	Lodos et al., 2003 Forbicioni et al., 2019
Ceutorhynchus picitarsis	*Alnus glutinosa Sisymbrium loeselii Brassica napus* *Anchusa arvensis** *Barbarea vulgaris* *Brassica oleifera* *Brassica oleracea* *Brassica rapa* *Crambe orientalis** *Diplotaxis tenifollia* *Eruca pinmatifida* *Isatis tinctoria* *Lonchophora capiomontana* *Medicago sativa* *Quercus* sp. *Rapistrum rugosum* *Rubus* sp. *Sinapis* sp. *Triticum* sp. *Verbascum* sp.	Hoffmann, 1954 Scherf, 1964 Dieckmann, 1972 Gültekin, 2001 Lodos et al., 2003 Yoshitake et al., 2017 Anita, 2018 Keyhanian et al., 2020 Özder & Altın, 2020 Gültekin, 2020
Glocianus distinctus	*Calendula arvensis** *Crepis* sp. *Crepis virens* *Hieracium* sp. *Hypochoeris maculata* *Hypochoeris* sp. *Lactuca serriola* *Lactuca* sp. *Picris* sp. *Taraxacum officinale* *Taraxacum* sp.	Hoffman, 1954 Teodor, 2011 Ryaskin, 2019
Sitona puncticollis	*Amygdalus communis* *Astragalus* sp. *Hypericum perforatum Rubia tinctorum* *Trifolium* sp.	Meyer, 1941 Lodos et al., 2003 Phillips & Barratt, 2004 Bagheri & İsfahani, 2008; Castro et al., 2010

	T. repens	Delbol & Lempereur, 2014; Gözüaçık et al., 2021a; 2021b
	T. pratense	
	Melilotus albus	Bolu & Legalov, 2008
	Medicago sp.	
	M. sativa	
	Melilotus sp.	
	Lotus corniculatus	
	Lens culinaris	
	Pinus sp.	
	Vicia sp.	
	V. villosa	
	V. faba	
	Quercus sp.	
Rhopalapion longirostre	*Alcea rosea*	Ter-Minnasyan, 1972
	Alcea sp.	Ehret, 1990
	Althaea officinalis	Reavey & Lawton, 1991; Schmitz & Maczey, 1993
	Althea rosea	
	Amygdalus communis	Pupier, 1997
	Gossypium sp.	Mazur, 2007
	Malva sp.	Bolu & Legalov, 2008
	Malva sylvestris ssp. *mauritiana*	Krivan & Stejskal, 2009; Wilhelm et al., 2011
		Valentin et al., 2011
		Bolu, 2016
		Wanat et al., 2016
		Alekseev et al., 2021

*New host plant

Superfamily: Curculionoidea

Family: Curculionidae

Subfamily: Lixinae Schoenherr, 1823

Tribus: Lixini Schoenherr, 1823

Genus: *Bangasternus* Gozis, 1886

Species: *Bangasternus orientalis* Capiomont, 1873

Material examined: Kahramanmaraş, Onikisubat, Kahramanmaraş Sütçü Imam University Avşar Campus, N37°35'14,400/E36°48'42,179, May 9, 2022 (number of insect samples: 7); May 17, 2019 (number of insect samples: 15); May 24, 2022 (number of insect samples: 11), on *Centaurea solstitialis*; May 9, 2022 (number of insect samples: 2), on *Carduus nutans* (new host plant), Kahramanmaraş, Pazarcık, Sarıerik Village, N37°20'50,503/E37°6'16,540, May 11, 2022 (number of insect samples: 2), on *Carduus acanthoides* (new host plant).

Distribution in Türkiye: Adana, Ankara, Antalya, Aydın, Batman, Bilecik, Bitlis, Çankırı, Diyarbakır, Elazığ, Eskişehir, Gaziantep, Hatay, Içel, Izmir, Kahramanmaraş, Karabük, Karaman, Kayseri, Kilis, Konya, Kırşehir, Manisa, Mardin, Muğla, Niğde, Osmaniye, Sivas, Trabzon, Yozgat (Lodos et al., 1978, 2003; Sert, 1995; Pehlivan et al., 2005a; Bolu & Legalov, 2008; Erbey, 2010; Yılmaz, 2015).

Subfamily: Hyperinae Marseul, 1863

Tribus: Hyperini Marseul, 1863

Genus: *Hypera* Germar, 1817

Species: *Hypera postica* (Gyllenhal, 1813)

Material examined: Kahramanmaraş, Onikişubat, Kahramanmaraş Sütçü Imam University Avşar Campus, N37°35'14,400/E36°48'42,179, May 9, 2022 (number of insect samples: 2), on *Circium arvense* (new host plant).

Distribution in Türkiye: Adana, Afyonkarahisar, Antalya, Ağrı, Aksaray, Amasya, Ankara, Artvin, Aydın, Balıkesir, Bartın, Bilecik, Bitlis, Bolu, Bursa, Çanakkale, Çorum, Denizli, Diyarbakir, Edirne, Elazığ, Erzincan, Erzurum, Eskişehir, Gaziantep, Hakkari, Hatay, Isparta, Iğdır, Içel, Izmir, Kahramanmaraş, Kars, Kayseri, Kırıkkale, Kırklareli, Kırşehir, Kilis, Kocaeli, Konya, Kütahya, Malatya, Manisa, Mardin, Mersin, Muğla, Muş, Nevşehir, Niğde, Osmaniye, Sakarya, Samsun, Siirt, Sinop, Sivas, Şanlıurfa, Şırnak, Tekirdağ, Tokat, Trabzon, Uşak, Van, Yozgat, Zonguldak (Lodos et al., 1978, 2003; Sert, 1995; Anay & Kornoşor, 2000; Pehlivan et al., 2005a; Bolu & Legalov, 2008; Erbey, 2010; Gürler, 2014; Yılmaz, 2015; Bolu, 2016; İreç, 2017).

Species: *Hypera striata* (Boheman, 1834)

Material examined: Kahramanmaraş, Onikişubat, Kahramanmaraş Sütçü Imam University Avşar Campus, N37°35'14,400/E36°48'42,179, May 9, 2022 (number of insect samples: 2), on *Trifolium repens* (new host plant).

Distribution in Türkiye: Ankara, Izmir, Kilis, Mersin, Niğde (Pehlivan et al., 2005a; Erbey, 2010; Gürler, 2014), Kahramanmaraş (new record).

Subfamily: Curculioninae Latreille, 1802

Tribus: Cionini Schoenherr, 1825

Genus: *Cionus* Clarville, 1798

Species: *Cionus olivieri* Rosenschoeld, 1838

Material examined: Kahramanmaraş, Dulkadiroğlu, Sekamer, N37°35'28,975/E37°3'30,066, May 11, 2022 (number of insect samples: 1), on *Verbascum sinuatum*.

Distribution in Türkiye: Adana, Afyonkarahisar, Ankara, Antalya, Bitlis, Çankırı, Eskişehir, Gaziantep, Hatay, Içel, Kahramanmaraş, Kastamonu, Kayseri, Kırıkkale, Kırşehir, Konya, Mersin, Muğla, Nevsehir, Niğde (Lodos et al., 1978; 2003; Erbey, 2010; Gürler, 2014; Yılmaz, 2015; Bolu, 2016; Kapucu, 2019).

Tribus: Mecinini Germar, 1824

Genus: *Rhinusa* Stephens, 1829 (*Gymnaetron* Schoenherr, 1825)

Species: *Rhinusa acifer* Caldara

Material examined: Kahramanmaraş, Onikişubat, Kahramanmaraş Sütçü Imam University Avşar Campus, N37°35'14,400/E36°48'42,179, June 24, 2016 (number of insect samples: 18), on *Verbascum sinuatum*.

Distribution in Türkiye: Adıyaman, Antalya, Denizli, Elazığ, Gaziantep, Kahramanmaraş, Kayseri (Caldara, 2014; Aslan & Candan, 2018).

Species: *Rhinusa* (*Gymnaetron*) *asellus* (Gravenhorst, 1807)

Material examined: Kahramanmaraş, Türkoğlu, Uzunsöğüt Village, N37°23'36,403/E36°58'54,046, May 11, 2022 (number of insect samples: 1), on *Alcea calvardis* (new host plant); Kahramanmaraş, Dulkadiroğlu, Kozludere Village, N37°36'51,871/E37°6'27,905, April 28, 2022 (number of insect samples: 1), on *Verbascum sinuatum*; Kahramanmaraş, Dulkadiroğlu, Sekamer, N37°35'28,975/E37°3'30,066, April 11, 2022 (number of insect samples: 2), on *Verbascum sinuatum*; Kahramanmaraş, Onikişubat, Kahramanmaraş Sütçü Imam University Avşar Campus, N37°35'14,400/E36°48'42,179, May 16, 2022 (number of insect samples: 1); May 9, 2022 (number of insect samples: 2); May 24, 2022 (number of insect samples: 2), on *Verbascum sinuatum*.

Distribution in Türkiye: Adana, Afyonkarahisar, Aksaray, Ankara, Antalya, Aydın, Bitlis, Bolu, Çankırı, Denizli, Diyarbakır, Edirne, Eskişehir, Gaziantep, Isparta, Içel, Izmir, Kahramanmaraş, Karabük, Karaman, Kayseri, Kırıkkale, Kırklareli, Kırşehir, Kilis, Konya, Kütahya, Manisa, Mersin, Muğla, Nevşehir, Niğde, Osmaniye, Uşak, Yozgat (Lodos et al., 1978, 2003; Sert, 1995; Erbey, 2010; Sert et al., 2013; Gürler, 2014; Yılmaz , 2015; Kapucu, 2019; Bolu et al., 2023).

Species: *Rhinusa* (*Gymnaetron*) *bipustulata* (Rossi, 1792)

Material examined: Kahramanmaraş, Türkoğlu, Uzunsöğüt Village, N37°23'36,403/E36°58'54,046, May 11, 2022 (number of insect samples: 1), on *Alcea calvardis* (new host plant); Kahramanmaraş, Dulkadiroğlu, Kozludere Village, N37°36'51,871/E37°6'27,905, April 28, 2022 (number of insect samples: 1), on *Verbascum sinuatum* (new host plant).

Distribution in Türkiye: Afyonkarahisar, Düzce, Karabük, Kırıkkale, Mersin, Niğde, Tekirdağ (Lodos et al., 1978; 2003; Erbey, 2010; Sert et al., 2013), Kahramanmaraş (new record).

Species: *Rhinusa tetra* (Fabricius, 1792)

Material examined: Kahramanmaraş, Türkoğlu, Uzunsöğüt Village, N37°23'36,403/E36°58'54,046, May 11, 2022 (number of insect samples: 4), on *Alcea calvardis* (new host plant); Kahramanmaraş, Dulkadiroğlu, Sekamer, N37°35'28,975/E37°3'30,066, May 2, 2022 (number of insect samples: 2), on *Verbascum sinuatum* (new host plant); Kahramanmaras, Onikişubat, Kahramanmaraş Sütçü Imam University Avşar Campus, N37°35'14,400/E36°48'42,179, May 24, 2022 (number of insect samples: 1), on *Alcea calvardis*.

Distribution in Türkiye: Adana, Afyonkarahisar, Ankara, Antalya, Aydın, Balıkesir, Bilecik, Bitlis, Bolu, Çanakkale, Çankırı, Çorum, Denizli, Diyarbakır, Edirne, Eskişehir, Elazığ, Gaziantep, Hatay, Isparta, Içel, Izmir, Kahramanmaraş, Karabük, Karaman, Kayseri, Kırıkkale, Kırklareli, Kırşehir, Kütahya, Konya, Manisa, Mersin, Muğla, Nevşehir, Niğde, Osmaniye, Tekirdağ, Uşak, Zonguldak (Lodos et al., 1978; 2003; Karaca et al., 2006; Erbey, 2010; Avgın & Colonnelli, 2011; Vera, 2011; Doğanlar & Üremiş, 2014; Gürler, 2014; Yılmaz, 2015; Özgen et al., 2016; Kapucu, 2019; Bolu et al., 2023).

Tribus: Smicronychini Seidlitz

Genus: *Smicronyx* Schoenherr, 1843

Species: *Smicronyx jungermanniae* (G.C.Reich, 1797)

Material examined: Kahramanmaraş, Onikişubat, Kahramanmaraş Sütçü Imam University Avşar Campus, N37°35'14,400/E36°48'42,179, May 9, 2022 (number of insect samples: 2), on *Carduus nutans* (new host plant).

Distribution in Türkiye: Burdur, Edirne, Elazığ, Konya, Muğla, Nevşehir (Lodos et al., 1978; 2003; Kaplan & Yücel, 2014; Tolga & Yoldaş, 2020; Erbey & Bolu, 2021), Kahramanmaraş (new record).

Subfamily: Baridinae Schoenher, 1836

Tribus: Baridini Schoenherr, 1836

Genus: Aulacobaris Desbrochers, 1892

Species: *Aulacobaris picicornis* (Marsham, 1802)

Material examined: Kahramanmaraş, Onikişubat, Kahramanmaraş Sütçü Imam University Avşar Campus, N37°35'14,400/E36°48'42,179, May 15, 2019 (number of insect samples: 2), on *Crambe orientalis* L. (new host plant).

Distribution in Türkiye: Ankara (Gürler, 2014), Kahramanmaraş (new record).

Genus: Baris Germar, 1817

Species: *Baris analis* (Olivier, 1790)

Material examined: Kahramanmaraş, Onikişubat, Kahramanmaraş Sütçü Imam University Avşar Campus, N37°35'14,400/E36°48'42,179, May 9, 2022 (number of insect samples: 2), on *Crambe orientalis* L. (new host plant).

Distribution in Türkiye: Düzce, Gaziantep (Lodos et al., 2003), Kahramanmaraş (new record).

Subfamily: Ceutorhynchinae Price, 1881

Tribus: Ceutorhynchini Germar, 1824

Genus: *Ceutorhynchus* Germar, 1823

Species: *Ceutorhynchus picitarsis* Gyllenhal, 1837

Material examined: Kahramanmaraş, Onikişubat, Kahramanmaraş Sütçü Imam University Avşar Campus, N37°35'14,400/E36°48'42,179, May 23, 2019 (number of insect samples: 1); May 15, 2019 (number of insect samples: 3), on *Crambe orientalis* (new host plant); April 27, 2022 (number of insect samples: 2), on *Anchusa arvensis* (new host plant).

Distribution in Türkiye: Ankara, Antalya, Artvin, Bartın, Çanakkale, Edirne, Erzurum, Içel, Istanbul, Izmir, Karaman, Kastamonu, Kayseri, Kars, Kırıkkale, Kırşehir, Konya, Mersin, Niğde, Sivas, Tekirdağ, Trabzon, Yozgat (Lodos et al., 1978; 2003; Sert, 1995; Sert & Çağatay, 1999; Gültekin, 2001; Erbey, 2010; Aydın, 2013; Gürler, 2014; Yılmaz, 2015; Hacet & Colonnelli, 2019; Özder & Altın, 2020; Gültekin, 2020), Kahramanmaraş (new record).

Genus: *Glocianus* Reitter, 1916

Species: *Glocianus distinctus* (C.Brisout, 1870)

Material examined: Kahramanmaraş, Onikişubat, Kahramanmaraş Sütçü Imam University Avşar Campus, N37°35'14,400/E36°48'42,179, April 27, 2019 (number of insect samples: 3), on *Calendula arvensis* L. (new host plant).

Distribution in Türkiye: Edirne, Istanbul, Tekirdağ, (Aydın, 2013; Hacet & Colonnelli, 2019), Kahramanmaraş (new record).

Subfamily: Entiminae Schoenherr, 1823

Tribus: Sitonini Gistel, 1856

Genus: *Sitona* Germar, 1824

Species: *Sitona puncticollis* Stephens, 1831

Material examined: Kahramanmaraş, Onikişubat, Kahramanmaraş Sütçü Imam University Avşar Campus, N37°35'14,400/E36°48'42,179, May 9, 2022 (number of insect samples: 6); May 24, 2022 (number of insect samples: 4), on *Trifolium repens*.

Distribution in Türkiye: Adana, Afyon, Ankara, Antalya, Bartın, Bolu, Çanakkale, Çorum, Denizli, Edirne, Elazığ, Erzurum, Hatay, Iğdır, Izmir, Kahramanmaraş, Kayseri, Kırklareli, Kırşehir, Manisa, Muğla, Niğde, Sinop, Usak, Zonguldak (Lodos et al., 1978; 2003; Özbek, 1986; Bolu & Legalov, 2008; Erbey, 2010; Gürler, 2014; Yılmaz, 2015; Tolga & Yoldaş, 2020; Gözüaçık et al., 2021a; 2021b).

Family: Brentidae

Subfamily: Apioninae

Tribus: Malvapiini Alonso-Zarazaga, 1990

Genus: *Rhopalapion* Schilsky, 1906

Species: *Rhopalapion longirostre* (Olivier, 1807)

Material examined: Kahramanmaraş, Onikişubat, Kahramanmaraş Sütçü Imam University Avşar Campus, N37°35'14,400/E36°48'42,179, May 24, 2022 (number of insect samples: 3), on *Alcea* sp..

Distribution in Türkiye: Agrı, Bingöl, Denizli, Diyarbakır, Elazığ, Izmir, Mardin, Siirt, Zonguldak (Bolu & Legalov, 2008; Tezcan et al., 2011; Bolu, 2016), Kahramanmaraş (new record).

CONCLUSION

As a result of this study, it was found that the Curculionoidea fauna feeding on weeds in non-agricultural areas of Kahramanmaraş Province is quite rich. In addition to investigating the relationship between Curculionoidea and weeds, this study has provided new data that will form the basis for future biological control and other studies in the region.

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Contribution of the Authors as Summary

Authors declares the contribution of the authors is

equal.

Statement of Conflict of Interest

Authors have declared no conflict of interest.

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