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Contribution to the knowledge of the Alleculinae (Coleoptera: Tenebrionidae) fauna of Turkey

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A b s t r a c t : This study is based upon material of subfamily Alleculinae collected from different localities of Turkey between 1965 and 2012. A total of 15 species and subspecies belonging to four genera (*Cteniopus*, *Megischia*, *Omophlus*, *Podonta*) within the subfamily Alleculinae were recorded from Turkey. Among them, *Omophlus caucasicus caucasicus* KIRSH 1869, *Omophlus caucasicus talyschensis* REITTER 1906, *Omophlus curtus* KUSTER 1850, *Omophlus latipleuris* REITTER 1890, *Omophlus medius* MUCHE 1964 and *Omophlus syriacus* MULSANT 1856 have been found the most abundant and widespread species and subspecies. In addition, new localities are added for some species previously reported for Turkey.

K e y w o r d s : Coleoptera, Tenebrionidae, Alleculinae, fauna, Turkey.

Introduction

Although previously considered to be a distinct family (Alleculidae), many recent authors are of the opinion that it should comprise a subfamily of the Tenebrionidae. The alleculines may be recognized by having pectinate or serrate tarsal claws. Adults of the species of the tribe Cteniopodini are mostly short lived, and can occur on vegetation and flower, where they may feed on pollen. The larvae are mostly inhabitants in the roots of plants and grasses or rotten wood, and may be encountered during forestry operations. Most species are of unknown economic importance, although larvae of *Omophlus*, *Podonta*, and related genera are root feeders, and have been recorded as pests of potatoes and sugarbeet in the western Palaearctic region (BOOTH et al. 1990).

Turkey is one of the most interesting countries located in the Palaearctic region, where most of the insect families including Alleculinae exist. ÖZBEK (1979), reported that the first record from Erzurum, *Omophlus caucasicus* KIRSCH 1869 makes damage on the leaves of potato plants in Erzurum and Pasinler plains. YILDIRIM & KILIÇ (2008), 41 species and subspecies belonging to four subgenera of *Omoplus* (*Odontomoplus*, *Omoplus*, *Paromoplus*, *Paurodontomoplus*) are recorded from Turkey. KILIÇ & YILDIRIM (2009), *Omophlus flavipennis* Küster is recorded a new pest for the oleaster from Erzurum in Turkey. KAÇAR et al. (2010), *Omophlus nasreddini* REITTER 1890

(Coleoptera: Alleculidae) is recorded as a new pest for the olive orchards/trees in Gaziantep and Kilis province in Turkey.

The aim of this paper is to bring new collect and biological data on Alleculinae in Turkey. In this study, 15 species and subspecies of 4 genera belonging to subfamily Alleculinae within the family Tenebrionidae were recorded from Turkey.

Materials and Methods

The material of the Alleculinae was collected from different localities of Turkey between 1965 and 2012. Provinces of the collected specimens are given in alphabetical order in the following list. The material is deposited in the Entomology Museum, Erzurum, Turkey (EMET).

Results

In this study, a total of 15 species and subspecies belonging to four genera (*Cteniopus*, *Megischia*, *Omophlus*, *Podonta*) within the subfamily Alleculinae were recorded from Turkey.

Subfamily Alleculinae

Genus *Cteniopus* SOLIER 1835

Cteniopus anatolicus PIC 1903

Material examined: Erzincan: Üzümlü, 1194 m, 14.VI.1984, 3♂♂.

Cteniopus frater REITTER 1903

Material examined: Erzurum: Oltu, 1400 m, 10.VII.1989, ♂.

Cteniopus sulphureus (LINNAEUS 1767)

Material examined: Niğde: Ulukışla, Çiftehan, 1050 m, 8.VIII.1999, ♀.

Genus *Megischia* REDTENBACHER 1845

Megischia galbanata (KIESENWETTER 1861)

Material examined: Mersin: Tarsus, 22 m, 30.IV.2010, 9♀♀, 5♂♂.

Genus *Omophlus* DAHL 1823

Omophlus caucasicus caucasicus KIRSH 1869

Material examined: Antalya: Serik, 20.VIII.1993, ♀, Adana: Kadirli, 26.IV.2010, ♀; Artvin: Yusufeli, 560 m, 5.VI.1996, ♀, İshان, 5.V.1978, ♂; Bayburt: 1650 m, 17.VI.2010, ♀,

Kopdağı, 18.VIII.1997, ♂, Şehitler Çeşmesi, 2400 m, 17.VI.2010, 15♀♀, 4♂♂, Aydintepe, Arpalı, 1550 m, 17.VI.2010, 2♀♀, ♂, Demirözü, 1650 m, 17.VI.2010, ♀; Bingöl: Hamamlar, 1300 m, 5.VI.2003, ♀, İlçelar, İç pınar, Derik Mezrası, Pasa Çeşmesi, 1100 m, 28.V.2006, ♀, Bitlis: 1545 m, 27.V.1989, 9♀♀; Cankırı: Ilgaz, 19.IV.1996, ♂; Erzincan: Kemaliye, Sandıklı, 21.VII.1984, ♀; Erzurum: 1850 m, 11.VI.1968, ♀, 12.VI.1978, ♀, 14.VI.1970, ♀, 15.VI.1988, 2♂♂, 23.VI.1977, 3♀♀, 25.VI.1966, ♀, 25.VI.1979, 3♀♀, 26.VI.1968, ♀, 30.VI.1997, ♀, 1.VII.1996, ♂, 2.VII.1968, ♀, 3.VII.1968, 2♀♀, ♂, 5.VII.1973, ♂, 9.VII.1997, ♀, 10.VII.1978, 18♀♀, 35♂♂, 11.VII.1968, ♂, 11.VII.1969, ♀, 15.VII.1980, 3♀♀, 18.VII.1969, 2♀♀, 18.VII.1990, ♀, 19.VII.1978, 7♀♀, 6♂♂, 25.VII.1993, ♂, 27.VII.1976, 5♀♀, ♂, 27.VII.1990, 3♀♀, 1.VIII.1996, ♀♀, 3.VIII.2012, ♀, ♂, 4.VIII.1990, ♀, 19.VIII.1979, ♀, Atatürk University field, 1850 m, 10.VI.1996, 13♀♀, 16♂♂, 15.VI.1996, ♂, 23.VI.1977, ♀, 30.VI.1997, 2♂♂, 3.VII.1996, 3♀♀, 3♂♂, 7.VII.1993, ♀, 9.VII.1993, 8♀♀, 9.VII.1997, 3♀♀, 5♂♂, 10.VII.1978, ♂, 10.VII.1996, 34♀♀, 171♂♂, 15.VII.1980, ♀, ♂, 17.VII.1993, 3♀♀, ♂, 18.VII.1996, 4♀♀, 19♂♂, 21.VII.1997, 9♀♀, 9♂♂, 22.VII.1993, 2♀♀, 25.VII.1993, 2♀♀, 2♂♂, 27.VII.1976, ♀, 28.VII.1996, 16♀♀, 32♂♂, 25.VIII.2012, 2♂♂, Dumlu, 27.VII.1979, ♂, Dumlubaba, Güngörmez, 2500 m, 1.VII.2010, ♀, Gölet, 20.VI.1996, ♀, ♂, Karagöbek Mountain, 2200 m, 5.VII.1985, ♀, Palandöken, 2400 m, 1.VII.1996, ♀, 2.VII.1996, ♀, Aşkale, 30.V.1996, 2♀♀, 8.VII.1997, 2♀♀, ♂, 15.VII.1997, 44♀♀, 4♂♂, Küçükova, 1896 m, 5.VII.2012, ♂, Serçeme, 24.VI.1997, ♀, 29.VI.1997, ♀, ♂, 23.VII.1978, ♀, Tepebaşı, 15.VII.1997, 26♀♀, 2♂♂, Tepsicik, 2300 m, 5.VII.2012, ♀, Aziziye, Atlıkonak, 7.VII.1994, ♀, 13.VII.1997, 5♀♀, 2♂♂, Eğerti, 28.VII.1997, ♀, 3♂♂, İlica, 2215 m, 27.VIII.2012, ♂, Rizekent, 2200 m, 30.VII.1998, ♀, Yaylahı, 10.VII.1997, ♀, 15.VII.1997, 57♀♀, 24♂♂, Çat, Çiriş, 22.VI.1987, 4♀♀, 22.VIII.1987, 4♀♀, Hinis, 1650 m, 25.VII.1997, ♀, Horasan, 1560 m, 12.VI.1977, 2♀♀, 4♂♂, Kırkgözeler, 2.VII.1987, 2♀♀, 2♂♂, Okçular, 16.VI.1996, ♂, 26.VI.1997, 4♀♀, ♂, İspir, 1180 m, 25.VI.1971, ♀, Çayırözü, 4.VII.1997, 122♀♀, 7♂♂, Madenköprübaşı, 7.VII.1996, ♀, 21.VII.1997, ♂, Narman, 1650 m, 5.VII.1997, ♀, ♂, 27.VII.1997, 4♀♀, Kireçli Geçidi, 12.VII.1996, 2♂♂, Mahmutçavuş, 27.VII.1997, 9♀♀, Samikale, 12.VI.1996, ♂, Oltu, 1400 m, 16.V.1997, ♂, 17.V.1970, ♀, ♂, 26.VI.1997, ♀, 31.VII.1990, ♀, Çamlıbel, 2.VII.1997, 79♀♀, 7♂♂, Başaklı, 1700 m, 12.VI.1978, ♀, 15.VIII.1997, 2♂♂, 1900 m, 15.VIII.1997, 2♀♀, Sarisaz, 28.V.1997, 5♀♀, 24♂♂, Olur, Süngebayır, 1850 m, 24.VII.1996, 2♀♀, Pasinler, 1760 m, 10.VII.1997, ♀, 11.VII.1996, ♀, ♂, Büyüktkdere, 11.VII.1996, 2♀♀, ♂, Çalyazı, 10.VII.1997, 25♀♀, ♂, Pazaryolu, 3.VII.1997, 19♀♀, 9♂♂, Senkaya, Turnalı, 1700 m, 20.VI.1997, 3♀♀, 25.VIII.1997, ♀, Tortum, 1600 m, 9.VI.1996, ♀, 10.VI.1997, 103♀♀, 13♂♂, 12.VII.1996, ♀, Kireçlidağ, 25.VI.1996, ♀, Pehlivانlı, 26.VII.1990, ♀, Şelale, 1.VL1997, ♀, Yakutiye, Tafta, 1900 m, 14.VII.1997, 3♀♀, 3♂♂; Kılıç: Elbeyli, 535 m, 14.V.2010, 2♀♀, ♂, 26.V.2010, 5♀♀, Eğlence, 14.V.2010, 3♀♀, Erikliyayla, 14.V.2010, 3♀♀, Kılcan, 14.V.2010, 7♀♀, Mercanlı, 14.V.2010, 4♀♀; Kars: Sarıkamış, Karakurt, 1600 m, 5.VIII.1997, ♀, 25.VIII.1997, 2♀♀; Mersin: Erdemli, 25.V.1997, ♂; Sanlıurfa: Ceylanpinar, 400 m, 4.V.1996, 17♀♀, 23♂♂; Tokat: Çevreli, 15.VII.1983, ♀, Niksar, 19.VII.1997, 2♂♂.

Omophlus caucasicus talyschensis REITTER 1906

M a t e r i a l e x a m i n e d : Bayburt: Kopdağı, Şehitler Çeşmesi, 2400 m, 17.VI.2010, 6♀♀, ♂, Demirözü, 1650 m, 17.VI.2010, ♀; Erzurum: 1850 m, 10.VI.1978, 2♀♀, 8♂♂, 3.VII.1996, ♀, 10.VII.1978, ♀, Atatürk University field, 1850 m, 30.VI.1997, ♀, 3♂♂, 10.VII.1996, 2♀♀, Dumlu, 27.VII.1979, ♂, Güngörmez, 2500 m, 28.VII.1998, ♀, Palandöken, 2500 m, 23.VII.1997, ♀, Aziziye, Atlıkonak, 7.VII.1994, ♀, Horasan, 26.VI.1996, 4♀♀, ♂, İspir, Çayırözü, 4.VII.1997, 2♀♀, Narman, 5.VII.1996, ♂, 27.VII.1997, ♀, Samikale, 12.VI.1996, ♀, Oltu, Çamlıbel, 1765 m, 2.VII.1997, 15♀♀, 11♂♂, Sütkans, 1700 m, 25.VII.1996, ♀, Sarisaz, 28.V.1997, 16♀♀, 2♂♂, Olur, Süngebayır, 1850 m, 24.VII.1996, 4♀♀, Tortum, 10.VI.1997, ♂; Sanlıurfa: Ceylanpinar, 400 m, 4.V.1996, 13♀♀.

Omophlus curtus KUSTER 1850

M a t e r i a l e x a m i n e d : Bayburt: Kopdağı, Şehitler Çeşmesi, 2400 m, 17.VI.2010, 3♀♀, 3♂♂; Erzurum: 1850 m, 3.VI.1968, ♂, 10.VI.1978, 6♂♂, 12.VII.1979, ♂, 13.VII.1979, 2♂♂, 8.VIII.1979, 5♂♂, Atatürk University field, 1850 m, 30.VI.1997, 4♂♂, 9.VII.1997, ♂,

21.VII.1997, ♂, Dumlu, 27.VII.1979, 6♂♂, Palandöken, 2500 m, 29.VI.1997, ♂, Horasan, 1560 m, 12.VI.1977, 2♂♂, Oltu, Sarisaz, 28.V.1997, 3♂♂, Pasinler, 1760 m, 2.VII.1968, ♂, Şenkaya, 8.VII.1988, ♂; Sanlurfa: Ceylanpınar, 400 m, 4.V.1996, 11♂♂.

***Omophlus eckerleini* MUCHE 1964**

M a t e r i a l e x a m i n e d : Erzurum: 1850 m, 13.VII.1979, ♂, Atatürk University field, 1850 m, 30.VI.1997, 2♂♂, Oltu, Başaklı, 1700 m, 15.VIII.1997, ♂, Tortum, 1600 m, 10.VI.1997, ♂; Kilis: Elbeyli, 535 m, 14.V.2010, 3♀♀, ♂, 26.V.2009, 9♀♀, 2♂♂, Akçalı, 14.V.2010, ♀, Eğlence, 14.V.2010, 4♀♀, Erikliyayla, 14.V.2010, ♀, ♂, Kilcan, 14.V.2010, 2♀♀, Mercanlı, 14.V.2010, 9♀♀.

***Omophlus latipleurus* REITTER 1890**

M a t e r i a l e x a m i n e d : Erzurum: 1850 m, 10.VI.1965, ♂, 10.VII.1978, 14♂♂, 11.VII.1968, ♀, Atatürk University field, 1850 m, 3.VII.1996, ♀, 2♂♂, 10.VII.1978, 7♀♀, 10.VII.1996, 7♀♀, 11♂♂, 30.VII.1997, ♂, Kombina, 8.IX.1988, ♂, Köşk, 29.VI.1996, ♀, Palandöken, 2400 m, 1.VII.1997, ♂, 23.VII.1996, ♀, 23.VII.1997, ♀, Aziziye, Rizekent, 2200 m, 30.VII.1998, ♀, Narman, 27.VII.1997, 2♀♀, ♂, Samikale, 12.VI.1996, ♂, Horasan, 12.VI.1977, 5♂♂, Okçular, 26.VI.1996, ♂, Oltu, Sarisaz, 28.V.1997, 4♀♀, 11♂♂, Olur, Süngübayır, 1850 m, 24.VII.1996, 3♀♀.

***Omophlus mediuss* MUCHE 1964**

M a t e r i a l e x a m i n e d : Bayburt: Kopdağı, Şehitler Çeşmesi, 2400 m, 17.VI.2010, 3♀♀, ♂; Erzurum: 1850 m, 13.VI.1980, ♂, 10.VII.1978, 5♀♀, 19♂♂, Atatürk University field, 1850 m, 30.VI.1997, ♂, 3.VII.1996, 2♀♀, 10.VII.1996, 3♀♀, 7♂♂, Palandöken, 2400 m, 3.VII.1996, 2♂♂, 10.VII.1997, 3♀♀, 23.VII.1997, 2♀♀, Horasan, 1560 m, 12.VI.1977, 2♀♀, Okçular, 1000 m, 26.VI.1996, ♀, ♂, Narman, 27.VII.1997, ♀, Oltu, 1400 m, 17.V.1970, 2♀♀, ♂, Sarisaz, 28.V.1997, 7♀♀, 10♂♂, Pasinler, 1760 m, 13.VI.1996, ♂, Tortum, Kireçlidağ, 25.VII.1996, ♂; Sanlurfa: Ceylanpınar, 400 m, 4.V.1996, ♀, 5♂♂.

***Omophlus nigripes* KUSTER 1850**

M a t e r i a l e x a m i n e d : Erzurum: Atatürk University field, 1850 m, 30.VI.1997, 4♂♂; Sanlurfa: Ceylanpınar, 400 m, 4.V.1996, 3♀♀, 7♂♂.

***Omophlus nitidicollis* SEIDLITZ 1896**

M a t e r i a l e x a m i n e d : Erzurum: 1850 m, 11.V.1968, ♀, 10.VI.1978, ♀, 15.VII.1979, ♀, Atatürk University field, 1850 m, 3.VII.1996, ♂, Narman, 1650 m, 5.VII.1996, ♀, Pasinler, 1760 m, 13.VI.1996, ♂; Sanlurfa: Ceylanpınar, 400 m, 4.V.1996, 8♀♀, 24♂♂.

***Omophlus obscurus* REITTER 1890**

M a t e r i a l e x a m i n e d : Bayburt: Aydintepe, Arpalı, 1550 m, 17.VI.2010, ♀, 6♂♂.

***Omophlus syriacus* MULSANT 1856**

M a t e r i a l e x a m i n e d : Bingöl: İlçelar, İç pınar, Derik Mezrası, Paşa Çeşmesi, 1100 m, 28.V.2006, 3♀♀, ♂, Yenibaslar, 1400 m, 5.VI.2003, ♀; Bitlis: 1553 m, 27.V.1989, ♀; Erzurum: Atatürk University field, 1850 m, 9.VII.1997, ♂, 10.VII.1996, ♂, 10.VII.1978, ♂, Aşkale, 15.VII.1997, ♀, Aziziye, Çatak, 2119 m, 28.VIII.2012, ♀, Yaylalı, 15.VII.1997, 2♀♀, ♂, Horasan, Kırkgözeler, 2.VII.1987, ♂, Okçular, 1000 m, 26.VI.1996, ♂, Narman, Mahmutçavuş, 27.VII.1997, 2♀♀, Oltu, Çamlıbel, 2.VII.1997, 12♀♀, Sarisaz, 28.V.1997, 5♀♀, Pazaryolu,

3.VII.1997, 2♀♀, Tortum, 1600 m, 10.VI.1997, ♀, Kilis: Elbeyli, Akçalı, 14.V.2010, ♀, ♂, Erikliyayla, 14.V.2010, ♀, 3♂♂; Mersin: Tarsus, 30.VI.2010, 2♀♀, 2♂♂; Sanlıurfa: Ceylanpinar, 400 m, 4.V.1996, 8♀♀, 4♂♂.

Genus *Podonta* *soror* SOLIER 1835

Podonta soror SEIDLITZ 1896

Material examined: Erzurum: Dumlu, 1850 m, 27.VII.1999, ♀, 2♂♂, Aziziye, Altukonak, 13.VII.1997, 7♂♂; Kars: Selim, 17.VII.1981, ♂; Konya: Güneysinir, Gürağç, 1070 m, 19.VII.1999, ♀; Osmaniye: Nur Mountains, 24.V.1992, ♂.

Zusammenfassung

Vorliegende Studie basiert auf Tenebrioniden-Material (Unterfamilie Alleculinae), das im Zeitraum 1965 bis 2012 an verschiedenen Orten der Türkei gesammelt wurde. Insgesamt konnten 15 Arten aus den Gattungen *Cteniopus*, *Megischia*, *Omophlus*, *Podonta* nachgewiesen werden.

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