

FAUNISTIC STUDIES ON THE SPECIES OF PAEDERINAE AND XANTHOLININI (COLEOPTERA: STAPHYLINIDAE) IN SARIKAMIŞ FOREST, KARS PROVINCE, TURKEY

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ABSTRACT: In this study, fauna of Paederinae and Xantholinini from Sarıkamış forest of Eastern Turkey were studied and 20 species belonging to 14 genera were reported. *Leptacinus formicetorum* (Märkel, 1841) is recorded from Turkey for the first time with exactly locality. *Astenus bulgaricus* Coiffait, 1971, *A. gracilis* (Paykull 1789) *A. lyonessius* (Joy 1908), *Pseudomedon dido* (Saulcy, 1865), *Lathrobium longulum* (Koch 1937) and *Leptacinus nigerrimus* (Coiffait, 1971) are new records for Eastern Anatolian Region. In addition, *Tetartopeus korgei* Assing, 2014 has been recorded for the first time since its first description.

KEY WORDS: Coleoptera, Staphylinidae, Paederinae, Xantholinini, Sarıkamış forest, Turkey

According to recent contributions, the family Staphylinidae contains more than 1900 species in Turkey. 250 of them belonging to the subfamily Paederinae and 68 Xantholinini species are known from this country (Anlaş, 2007, 2009; updated). But Turkish Staphylinidae fauna is still incomplete, because probably, so many species remain undescribed and unrecorded.

Sarıkamış forest is not specifically investigated in terms of Paederinae and Xantholinini fauna up to now. Only six species of Paederinae have been recorded from the Kars Province (Anlaş, 2009). These are *Achenium humile* (Nicolai 1822), *Tetartopeus korgei* (Assing, 2014), *Lathrobium fulvipenne* (Gravenhorst, 1806), *Paederus littoralis* (Gravenhorst, 1802), *Scopaeus chalcodactylus* (Kolenati, 1846) and *Xantholinus audrasi* (Coiffait, 1956). Therefore, present study attempted to facilitate knowledge on the distribution of Turkish Staphylinidae fauna.

MATERIAL AND METHODS

The present paper is based on material collected between May 2016 – July 2017 with scope of a thesis project on the diversity and biogeography of the Paederinae and Xantholinini in Sarıkamış Forest, Kars province, Eastern Anatolia, conducted by the first author. The reference specimens for the records from Turkey are stored in the collection of the Alaşehir Zoological Museum, Manisa (AZMM) of Manisa Celal Bayar University.

RESULTS

In this study, fauna of Paederinae and Xantholinini (Coleoptera: Staphylinidae) from Sarıkamış forest of Eastern Turkey were studied and 20 species belonging to 14 genera were recorded. *Leptacinus formicetorum* (Märkel, 1841) is recorded from Turkey for the first time with exactly locality. *Astenus*

bulgaricus Coiffait, 1971, *A. gracilis* (Paykull 1789), *A. lyonessius* (Joy 1908), *Pseudomedon dido* (Saulcy, 1865), *Lathrobium longulum* (Koch 1937), *Leptacinus nigerrimus* (Coiffait, 1971) are recorded from Eastern Anatolian Region for the first time. In addition, *Astenus procerus* (Gravenhorst 1806), *Leptobium gracile* (Gravenhorst, 1802), *Luzea graeca* (Kraatz, 1857), *Pseudomedon obsoletus* (Nordmann, 1837), *Scopaeus khnzoriani* (Coiffait, 1968), *Rugilus similis* (Erichson 1839) and *Gyrohypnus angustatus* (Stephens, 1833) are new record for Kars province. *Tetartopeus korgei* Assing, 2014 which is endemic in Kars province has been recorded for the first time since its description.

Tribe Paederini Fleming 1821
Subtribe Astenina Hatch, 1957
***Astenus bulgaricus* (Coiffait, 1971)**

Material Examined: Kars, Sarıkamış: 2♂♂, 4,5 km Northwest of Sarıkamış Town, 40°22'14.07" N, 42°33'48.56" E, 2.180 m leg. Altın; 1♀, Handere Village, 40°16'56.55" N, 42°27'50.21" E, 2.223 m, leg. Altın.

Distribution in Turkey: Antalya (Anlaş, 2009; Anlaş & Rose, 2009). This species is recorded from Eastern Anatolia for the first time.

***Astenus gracilis* (Paykull, 1789)**

Material Examined: Kars, Sarıkamış: 1♂, 11 km Northwest of Soğanlı, 40°22'15.86" N, 42°46'56.18" E, 2.300 m, leg. Altın; 1♀, Yukarı Damlapınar Village, 40°16'29.14" N, 42°48'28.80" E, 2.093 m, leg. Altın; 1♀, 10 km Southwest of Sarıkamış Town, 40°14'46.91" N, 42°32'57.26" E, 2.110 m leg. Altın.

Distribution in Turkey: İstanbul and Kastamonu (Anlaş, 2009; Assing, 2014b). This species is recorded from Eastern Anatolia for the first time.

***Astenus lyonessius* (Joy, 1908)**

Material Examined: Kars, Sarıkamış: 1♂, 6 km Southeast of Hamamlı Village, 40°16'31.95" N, 42°45'5.85" E, 2.177m, leg. Altın; 15 km Southeast of Sarıkamış Town, 2♀♀, 40°15'13.66" N, 42°43'7.90" E, 2.170 m, leg. Altın; 1♂, 2♀♀, Yukarı Damlapınar Village, 40°16'29.14" N, 42°48'28.80" E, 2.093 m, leg. Altın.

Distribution in Turkey: Aydın, Eskişehir, Gaziantep, Hatay, Isparta, İzmir, Manisa, Mersin, Uşak (Anlaş, 2009; Anlaş & Rose, 2009; Assing 2013; Çiftçi & Hasbenli, 2016; Örgel & Anlaş, 2016). This species is recorded from Eastern Anatolia for the first time.

***Astenus procerus* (Gravenhorst, 1806)**

Material Examined: Kars, Sarıkamış: 1♂, 1♀, Mescitli Village, 40°13'20.16" N, 42°39'11.25" E, 1.861 m, leg. Altın. 1♂, 2♀♀, 10 km Southwest of Sarıkamış, 40°14'46.91" N, 42°32'57.26" E, 2.110 m, leg. Altın.

Distribution: Adıyaman, Denizli, Gaziantep, İzmir, Kahramanmaraş, Kayseri, Malatya, Manisa, Mersin, Nevşehir, Uşak (Anlaş & Çevik, 2008; Anlaş, 2009; Anlaş & Rose, 2009; Sert et al., 2013; Örgel & Anlaş, 2016). This species is recorded from Kars province for the first time.

Subtribe Dolicaonina Casey, 1905
***Leptobium gracile* (Gravenhorst, 1802)**

Material examined: Kars, Sarıkamış: 1♂, Yukarı Damlapınar Village, 40°16'29.14" N, 42°48'28.80" E, 2.093 leg. Altın. 1♀, Boyalı Plateau, 40°24'18.05" N, 42°30'47.43" E, 2.366 m, leg. Altın. 1♂, 1♀, Hamamlı Village, 40°18'13.22" N, 42°44'16.50" E, 2.295 m, leg. Altın.

Distribution: This species widespread in Turkey (Assing, 2005, 2013a; Kesdek et al., 2009; Anlaş, 2009, 2012, 2017b; Örgel & Anlaş, 2016). But, this species is recorded from Kars province for the first time.

Subtribe Lathrobiina Laporte, 1835
***Achenium humile* (Nicolai 1822)**

Material Examined: Kars, Sarıkamış: 2♀♀, Yukarı Damlapınar Village, 40°16'29.14" N, 42°48'28.80" E, 2.093 m, leg. Altın. 1♂, Mescitli Village, 40°13'20.16" N, 42°39'11.25" E, 1.861 m, leg. Altın.

Distribution: Ankara, Erzincan, Eskişehir, Gümüşhane, Isparta, Kars, Kastamonu, Muş, Niğde, Van (Assing 2010b; Anlaş et al., 2011; Sert et al., 2013).

***Lathrobium fulvipenne* (Gravenhorst, 1806)**

Material Examined: Kars, Sarıkamış: 2♀♀, Soğuksu Village, 40°18'52.53" N, 42°37'53.81" E, 2.115 m, leg. Altın; 1♂, 2♀♀, Handere Plateau, 40°16'31.95" N, 42°45'5.85" E, 2.398 m, leg. Altın; 1♂, Boyalı Plateau, 40°24'18.05" N, 42°30'47.43" E, 2.366 m, leg. Altın.

Distribution: Ankara, Eskişehir, Giresun, Gümüşhane, Kars, Kastamonu (Anlaş, 2009, 2013; Assing, 2009b, 2013c; Sert et al., 2013).

***Lathrobium longulum* (Gravenhorst, 1802)**

Material Examined: Kars, Sarıkamış: 1♂, 1♀, Environs of Hotel, 40°18'27.82" N, 42°38'30.82" E, 2.130 m, leg. Altın. 1♀, 10 km Southwest of Sarıkamış Town, 40°14'46.91" N, 42°32'57.26" E, 2.110 m leg. Altın.

Distribution: Eskişehir, Kastamonu (Anlaş, 2009; Assing, 2008, 2011). This species is recorded from Eastern Anatolia for the first time.

***Tetartopeus korgei* (Assing, 2014)**

Material Examined: Kars, Sarıkamış: 3♀♀, Mescitli Village, 40°13'20.16" N, 42°39'11.25" E, 1.861 m, leg. Altın. 2♂♂, Yukarı Damlapınar Village, 40°16'29.14" N, 42°48'28.80" E, 2.056 m, leg. Altın.

Distribution: Kars (Benliahmet) (Assing, 2014a, Anlaş, 2015). This species is has been recorded for the first time since its first description.

Subtribe Medonina Casey 1905

***Luzea graeca* (Kraatz, 1857)**

Material Examined: Kars, Sarıkamış: 1♂, 1♀, 10 km Southwest of Sarıkamış Town, 40°12'3.07" N, 42°29'20.76" E, 2.454 m, leg. Altın. 1♂, 2♀♀, Boyalı Plateau, 40°24'18.05" N, 42°30'47.43" E, 2.366 m, leg. Altın.

Distribution: Adana, Ankara, Antalya, Çanakkale, Diyarbakır, Gaziantep, Gümüşhane, Hakkâri, Isparta, Kahramanmaraş, Kastamonu, Kayseri, Konya, Mersin, Siirt, Sinop, Sivas, Tokat, Yozgat (Anlaş, 2009; Anlaş & Rose, 2009). This species is recorded from Kars province for the first time.

***Pseudomedon dido* (Saulcy, 1865)**

Material Examined: Kars, Sarıkamış: 1♀, Mescitli Village, 40°13'20.16" N, 42°39'11.25" E, 1.861 m, leg. Altın. 1♂, 1♀, 10 km Southwest of Sarıkamış Town, 40°14'46.91" N, 42°32'57.26" E, 2.110 m, leg. Altın.

Distribution: Adana, Antalya, Burdur, Mersin (Assing, 2008, 2009a). This species is recorded from Eastern Anatolia for the first time.

***Pseudomedon obsoletus* (Nordmann, 1837)**

Material Examined: Kars, Sarıkamış: 1♂, Handere Plateau, 40°15'25.02" N, 42°28'34.63" E, 2.314 m, leg. Altın. 2♀♀, Boyalı Village, 40°26'47.54" N, 42°34'57.82" E, 2.347 m, leg. Altın.

Distribution: Çanakkale, Erzurum, İstanbul, İzmir, Kayseri, Manisa, Muğla, Samsun, Trabzon (Tezcan & Anlaş, 2009; Anlaş, 2009; Assing, 2008, 2009a). This species is recorded from Kars province for the first time.

Subtribe Paederina, Fleming 1821

***Paederus littoralis* (Gravenhorst, 1802)**

Material Examined: Kars, Sarıkamış: 2♂♂, 1♀, Soğuksu Village, 40°17'0.10" N, 42°37'38.22" E, 2.162 m, leg. Altın. 2♀♀, 10 km Southwest of Sarıkamış Town, 40°14'46.91" N, 42°32'57.26" E, 2.110 m, leg. Altın. 3♂♂, Boyalı Plateau, 40°24'18.05" N, 42°30'47.43" E, 2.366 m, leg. Altın.

Distribution: This species widespread in Turkey (Anlaş, 2009; Örgel & Anlaş, 2016).

Subtribe Scopaeina Mulsant & Rey 1878

***Scopaeus chalcodactylus* (Kolenati, 1846)**

Material Examined: Kars, Sarıkamış: 2♂♂, Ski center, 40°18'27.82" N, 42°38'30.82" E, leg. Altın. 3♀♀, 11 km Northwest of Soğanlı, 40°22'15.86" N, 42°46'56.18" E, 2.300 m, leg. Altın.

Distribution: Artvin, Erzincan, Erzurum, Kars, Rize, Trabzon, Van (Anlaş & Frisch, 2014).

***Scopaeus khnzoriani* (Coiffait, 1968)**

Material Examined: Kars, Sarıkamış: 1♂, 1♀, Çatak Village, 40°23'30.79" N, 42°40'58.41" E, 2.720 m, leg. Altın. 1♀, 17 km Southwest of Sarıkamış Town, 40°12'3.07" N, 42°29'20.76" E, 2.454 m, leg. Altın.

Distribution: Ağrı, Erzincan, Erzurum, Giresun, Muş, Niğde, Sivas, Tokat, Yozgat (Frisch, 2009; Anlaş & Frisch, 2014). This species is recorded from Kars province for the first time.

Subtribe Stilicina Casey 1905

***Rugilus similis* (Erichson, 1839)**

Material Examined: Kars, Sarıkamış: 1♂, 11 km Northwest of Soğanlı, 40°22'15.86" N, 42°46'56.18" E, 2.300 m, leg. Altın. 1♂, 1♀, Handere Village, 40°16'56.55" N, 42°27'50.21" E, 2.288 m, leg. Altın. 2♀♀, Boyalı Plateau, 40°24'18.05" N, 42°30'47.43" E, 2.366 m, leg. Altın.

Distribution: Aksaray, Çankırı, Erzurum, Eskişehir, Karaman, Mersin-Karaman (Sertavul Pass), Muğla, Osmaniye, Uşak (Anlaş, 2009, 2017a; Assing, 2012, 2013b). This species is recorded from Kars province for the first time.

Tribe Xantholinini Erichson 1839

***Gyrohypnus angustatus* (Stephens 1833)**

Material Examined: Kars, Sarıkamış: 2♀♀, Boyalı Plateau, 40°24'18.05" N, 42°30'47.43" E, 2.366 m, leg. Altın. 2♂♂, 1♀, Yukarı Damlapınar Village, 40°16'29.14" N, 42°48'28.80" E, 2.093 m, leg. Altın.

Distribution: This species widespread in Turkey (Assing, 2007c; Anlaş, 2009; Özgen et al., 2010). This species is recorded from Kars province for the first time.

***Leptacinus formicetorum* (Märkel, 1841)**

Material Examined: Kars, Sarıkamış: 3♀♀, 11 km Northwest of Soğanlı, 40°22'15.86" N, 42°46'56.18" E, 2.300 m, leg. Altın. 1♂, 17 km Southwest of Sarıkamış Town, 40°12'3.07" N, 42°29'20.76" E, 2.454 m, leg. Altın.

Distribution: Not cited (Assing, 2007c; Schülke & Smetana, 2015). This species is recorded from Turkey for the first time with exactly locality.

***Leptacinus nigerrimus* (Coiffait, 1971)**

Material Examined: Kars, Sarıkamış: 1♂, 1♀, 10 km Southwest of Sarıkamış Town, 40°14'46.91" N, 42°32'57.26" E, 2.110 m, leg. Altın. 1♀, Çatak Village, 40°23'30.79" N, 42°40'58.41" E, 2.720 m, leg. Altın.

Distribution: Ağrı, Bolu, Isparta, Kastamonu, Muğla, Rize, Sinop (Assing, 2007c; 2010a, 2011, 2013a). This species is recorded from Kars province for the first time.

***Xantholinus audrasi* (Coiffait, 1956)**

Material Examined: Kars, Sarıkamış: 2♂♂, 1♀, 10 km Southwest of Sarıkamış Town, 40°14'46.91" N, 42°32'57.26" E, 2.110 m, leg. Altın. 1♂, 1♀, Handere Village, 40°16'56.55" N, 42°27'50.21" E, 2.288 m, leg. Altın.

Distribution: This species widespread in Turkey (Assing, 2007c; Anlaş, 2009; 2014).

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