

New and Additional Records of the Subfamily Staphylininae (Coleoptera, Staphylinidae) from Turkey

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ABSTRACT

In this study, seven species belonging to the subfamily Staphylininae (Coleoptera: Staphylinidae) collected from Central Anatolian Region of Turkey are examined. Among them, *Philonthus danicus* Coiffait, 1963, *P. sanguinolentus* (Gravenhorst, 1802) and *Tasgius minax* (Mulsant and Rey, 1861) are recorded from Turkey for the first time. The first detailed localities of previously reported species *Philonthus frigidus* Märkel and Kiesenwetter, 1848 and *Rabigus pullus* (Nordmann, 1837) are given. Also the distribution of *Erichsonius cinerascens* (Gravenhorst, 1802) and *Xantholinus* (s. str.) *linearis linearis* Olivier, 1795 in Turkey is confirmed.

Key words: Staphylininae, Staphylinidae, Central Anatolian Region, Turkey, new record.

INTRODUCTION

With about 6.600 species worldwide from over 290 genera, the subfamily Staphylininae is one of the largest subfamilies of Staphylinidae (Herman, 2001). In Turkey, the Staphylininae fauna is represented by 341 species from 40 genera and 5 tribes (Anlaş, 2009). With the addition of recently described and recorded species after the studies of Abacigil *et al.* (2013), Anlaş (2014), Anlaş and Rose (2009), Özgen and Anlaş (2010), Özgen and Khachikov (2013) and Assing (2009, 2011, 2013, 2014), this number is increased to 358. The purpose of this study is to make contributions to the fauna of the subfamily Staphylininae of Turkey.

MATERIAL AND METHODS

The study material was composed of specimens collected in Ankara, Aksaray, Çankırı, Eskişehir, Karaman, Kayseri, Kırıkkale, Kırşehir, Niğde, Nevşehir, Sivas and Yozgat provinces of Central Anatolian Region of Turkey between years 2009-2012 and from 2005. The specimens were collected from cow dung and under stones at riverbanks by mouth aspirator and sifter. Specimens were killed by ethylacetate and put in 1:2 glacial acetic acid (10%) and ethyl alcoholol (90%) mixture in eppendorf tubes for soft preservation. Examinations were done at Hacettepe University, Biology Department, Entomology Laboratory. They were pinned, labelled and deposited

at Hacettepe University Zoology Museum (Ankara, Turkey) (HUZOM) collection. Identifications were done by using Leica MZ16A stereomicroscope system, with the use of Coiffait (1972, 1974), Schillhammer (2012a, 2012b) and Assing's (2012) identification keys. Some specimens were compared with museum material at Natural History Museum of Denmark, University of Copenhagen, Zoological Museum (NHMD) and Museum für Naturkunde Humboldt University, Berlin (MNHUB). The distribution of species were given on maps. Palaearctic distributions of species are given as in Schülke and Smetana (2015).

RESULTS

Tribe: STAPHYLININI Latreille, 1802

Subtribe: PHILONTHINA Kirby, 1837

Genus: *Erichsonius* Fauvel, 1874

***Erichsonius cinerascens* (Gravenhorst, 1802)**

Distribution: The species distributes along the European part of the Western Palaearctic together with Morocco (Schülke and Smetana, 2015), Turkey: Kocaeli (Goek Dag, Sabandja) (Bodemeyer, 1906; Bodemeyer, 1927).

Material examined: Aksaray, Güzelyurt, Selime, 38°19'33"N, 34°14'28"E, 1120 m, 22.09.2009, 1♀; Ankara, Beypazarı, Karaşar-Haydarlar, 40°17'08"N, 31°56'34"E, 1288 m, 13.VI.2011, 1♂; Çamlıdere, Dörtkonak, 40°30'46"N, 32°49'30"E, 1199 m, 14.06.2011, 1♀, 1♂; Kırıkkale, Keskin, Köprüköy, 39°34'25"N, 33°25'58"E, 723 m, 09.04.2010, 9♀♀; Kırşehir, Kaman, Kaman-Ömerhacılı, 39°18'19"N, 33°46'04"E, 1104 m, 27.05.2010, 1♂; Niğde, Central County, Koyunlu-Fesleğen, 37°59'19"N, 34°32'56"E, 1658 m, 26.09.2010, 1♂; Çamardı, Üçkapılı-Örenköy, 37°53'29"N, 34°55'01"E, 1832 m, 04.06.2010, 1♀, Leg. S. Firat. (Fig.1).

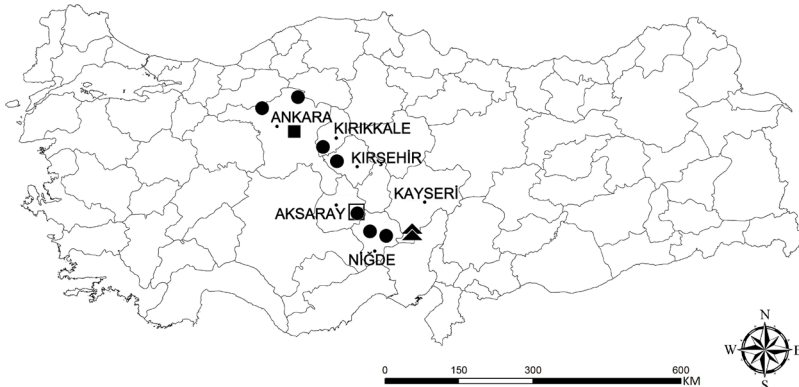


Fig. 1. Localities of the first detailed records of *Philonthus frigidus* (white square) and *Rabigus pullus* (black triangles), and additional records for *Erichsonius cinerascens* (black circles) and *Xantholinus linearis* (black square) from Central Anatolian Region.

Comment: According to Bodemeyer (1906) and Bodemeyer (1927) this species is distributed around Kocaeli (Goek Dag and Sabandja, respectively). Bordoni

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(2010) also gave these records in addition to Horion (1965) indicating that it needed confirmation. Herein, the distribution of this species in Turkey is confirmed with additional records from the Central Anatolian Region.

Genus: *Philonthus* Stephens, 1829

***Philonthus danicus* Coiffait, 1963**

Distribution: Lebanon, Israel (Schülke and Smetana, 2015).

Material examined: Kırıkkale, Yahşihan, 39°55'26"N, 33°22'22"E, 696 m, 09.04.2010, 1♀; Konya, Çumra, 37°32'36"N, 32°45'57"E, 1018 m, 12.04.2010, 1♀, 4♂♂; Nevşehir, Hacıbektas, Hacılar-Karaburna, 38°51'27"N, 34°27'28"E, 974 m, 24.05.2010, 1♀; Kozaklı, Karasenir-Karahasanlı, 39°17'29"N, 34°49'18"E, 960 m, 26.06.2009, 1♀, Leg. S. Fırat. (Fig.2).

Comment: *P. danicus* is here reported from Turkey for the first time.

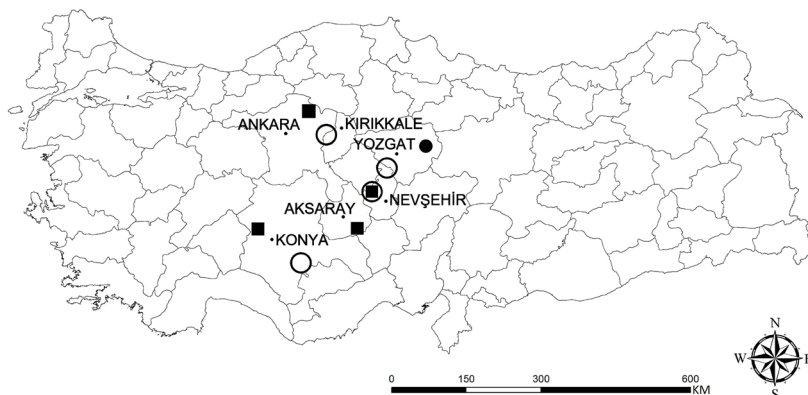


Fig. 2. Localities of the new records for Turkey: *Philonthus danicus* (white circles), *Philonthus sanguinolentus* (black squares), and *Tasgius minax* (black circle) in Central Anatolian Region.

***Philonthus frigidus frigidus* Märkel and Kiesenwetter, 1848**

Distribution: Austria, Bosnia Herzegovina, Croatia, France (incl. Corsica, Monaco), Germany, Hungary, Italy (incl. Sardegna, Sicilia, San Marino), Romania, Switzerland (Schülke and Smetana, 2015).

Material examined: Aksaray, Gülağaç, Gülağaç-Kızılkaya, 38°21'18"N, 34°13'45"E, 1111 m, 23.06.2009, 1♂, Leg. S. Fırat. (Fig.1).

Comment: According to Fauvel (1874), Ganglbauer (1895), Horion (1965) and Herman (2001) this species is distributed in Turkey but no exact locality was ever cited for this country. This is the first detailed record of *P. frigidus* for Turkey.

***Philonthus sanguinolentus* (Gravenhorst, 1802)**

Distribution: The species distributes along the most of the Western Palaearctic together with Algeria, and introduced in Nearctic (Schülke and Smetana, 2015).

Material examined: Aksaray, Central County, Dikmen, 38°10'43"N, 34°05'45"E, 1149 m, 18.09.2010, 1♀; Ankara, Çubuk, Karagöl, 40°21'54"N, 32°56'47"E, 1170 m, 05.07.2011, 1♀; Konya Doğanhisar, Yazlıca, 38°10'00"N, 31°45'26"E, 1156 m, 24.04.2010, 1♂; Nevşehir, Hacıbektaş, Hacılar-Karaburna, 38°51'27"N, 34°27'28"E, 974 m, 24.05.2010, 1♀, Leg. S. Firat. (Fig. 2).

Comments: *P. sanguinolentus* is here reported from Turkey for the first time.

Genus: *Rabigus* Mulsant and Rey, 1876

***Rabigus pullus* (Nordmann, 1837)**

Distribution: Palaearctic except the northern part of Europe, north Africa, south and south-western Asia (Schülke and Smetana, 2015).

Material Examined: Kayseri, Yahyalı, Kapuzbaşı-Yeşilköy, 37°53'49"N, 35°30'49"E, 800 m, 22.07.2009, 1♀; Kapuzbaşı-Delialıuşağı, 37°57'43"N, 35°32'13"E, 1211 m, 27.04.2011, 1♂, Leg. S. Firat. (Fig.1).

Comment: According to Horion (1965), Coiffait (1974), Herman (2001) and Schülke and Smetana (2015) this species is distributed in Turkey but no exact locality was ever cited for this country. This is the first detailed record of *R. pullus* for Turkey.

Subtribe: Staphylinina Latreille, 1802

Genus: *Tasgius* Stephens, 1829

***Tasgius minax* (Mulsant and Rey, 1861)**

Distribution: France (incl. Corsica, Monaco), Spain (incl. Gibraltar), Switzerland (Schülke and Smetana, 2015).

Material examined: Yozgat, Akdağmadeni, Sorgun-Akdağmadeni road, Oluközü village entrance (2. St), 39°40'50"N, 35°46'48"E, 1244m, 20.07.2005, 1♂, Leg. O. Sert-M. Kabalak. (Fig. 2).

Comment: *T. minax* is here reported from Turkey for the first time.

Tribe: Xantholinini Erichson, 1839

Genus: *Xantholinus* Dejean, 1821

***Xantholinus* (s. str.) *linearis linearis* Olivier, 1795**

Distribution: The species is widespread through Palaearctic and Nearctic (Schülke and Smetana, 2015), Turkey: Kocaeli (Sabandja), Mersin (Bodemeyer, 1900; Peyron, 1858).

Material examined: Ankara, Çankaya, Hacettepe University Biology Dept. surr., 39°52'16"N, 32°44'07"E, 1045 m, 12.10.2012, 1♂, Leg. Y. Turan. (Fig. 1).

Comment: This species was previously recorded from Mersin by Peyron (1858) and from around Kocaeli by Bodemeyer (1900) and also included in Schülke and Smetana (2015). According to Assing (2007), this species was deleted from the list of Turkish Staphylinidae because of the complete absence of recent records that placed old records in doubt. With this study, the distribution of this species in Turkey is confirmed with an additional record from Central Anatolian Region.

CONCLUSIONS AND DISCUSSION

Concerning the Staphylinidae fauna of Turkey, a number of species have been recorded for the country in various recent studies such as Abacıgil *et al.* (2013), Anlaş (2007, 2009, 2014), Anlaş and Rose (2009), Assing (2009, 2010, 2011, 2013, 2014), Bordoni (1978), Coiffait (1964, 1974, 1978a, 1978b), Fagel (1971), Japhosvili and Anlaş (2011), Kesdek *et al.* (2009), Korge (1964, 1971), Özdemir and Sert (2008, 2009), Özgen *et al.* (2010), Özgen and Anlaş (2010), Özgen and Khachikov (2013), Smetana (1953, 1954, 1965a, 1965b, 1967a, 1967b, 1967c, 1968a, 1968b, 1977), Solodovnikov (2002, 2004, 2005), Solodovnikov and Stourač (2002), Stourač (2002), Tezcan and Amiryan (2003) and Tezcan and Anlaş (2009). Earlier rove beetle records for the Turkish fauna such as Apfelbeck (1901), Baudi di Selve (1870), Bernhauer (1901), Deyrolle (1873), Fauvel (1900), Ganglbauer (1905), Horion (1965), Peyron (1858), Sahlberg (1913) and Scheerpeltz (1958) should be accounted but verified with modern studies. Even taking into account all previous literature, the fauna of Staphylinidae of the Central Anatolian region is still insufficiently known.

ACKNOWLEDGEMENTS

We would like to thank Dr. Alexey Solodovnikov from Natural History Museum of Denmark, University of Copenhagen, Zoological Museum, Dr. Manfred Uhlig and Dr. Johannes Frisch from Museum für Naturkunde Humboldt University, Berlin and Dr. Volker Assing from Hannover/Germany for their valuable contributions and Dr. Burcu Şabanoğlu and Yavuz Turan for their help in collecting the material. This study was part of a Ph. D. thesis conducted at Hacettepe University, Institute of Science which was accepted on June 19, 2013. It was also published in the summary book of 22. National Biology Congress.

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