

On the Scopaeina Mulsant & Rey of the Middle East: A new species from Turkey and new biogeographic data (Coleoptera, Staphylinidae: Paederinae)

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Abstract

The scope of this article is the taxonomy and biogeography of the rove beetle subtribe Scopaeina Mulsant & Rey in the Middle East with an emphasis on the Anatolian fauna. *Scopaeus menteshensis* sp. n. from the Muğla and Denizli Provinces in the southwest of Turkey is described, and its phylogeographic relationships are discussed. New records for *Micranops pilicornis* (Baudi) and 29 species of *Scopaeus* are presented and discussed against the background of the distribution pattern of the respective species. They include 2 new country records (*S. elegans*: Jordan, *S. filiformis*: United Arab Emirates) and 71 first records at the province level, 59 of which for provinces of Turkey. Recently published records of *S. alaniensis*, *S. bicolor*, *S. kurdistanicoides*, *S. laevigatus*, and *S. minutoides* for Iran are implausible and rejected.

Keywords Scopaeina | *Micranops* | *Scopaeus* | taxonomy | distribution

1. Introduction

The staphylinid fauna of the Middle East had been poorly studied throughout the 19th and 20th centuries. In the course of the current heyday of taxonomic research on Staphylinidae, however, research activity on the rove beetles of the Middle East has increased considerably, resulting in numerous taxonomic and biogeographic publications. According to Anlaş (2009: 215), more than 200 of the 1.520 species and subspecies of Turkish Staphylinidae known at that time were described only in the first decade of our century! In order to facilitate future systematic, ecological, and biological research, Anlaş (2009) and Anlaş & Newton (2010) recently compiled the scattered information on Middle Eastern rove beetles (the former excluding the only recently assigned Scydmaeninae) and published them in distributional checklists for Turkey and Iran, the largest and

zoogeographically most diverse countries of that region. Unlike another recent catalogue of Turkish staphylinids (Bordoni 2010), these checklists include the Dasycerinae and Pselaphinae and constitute indispensable tools for both taxonomic and biogeographic research on the Middle Eastern rove beetles, because they provide relevant bibliographic information and were developed in cooperation with contemporary staphylinid workers.

In recent years, Sinan Anlaş established a team at the Alaşehir Vocational School of the Celal Bayar University, Manisa, that devoted its research to the Staphylinidae of Turkey, in particular to the Paederinae of the Aegean Region, which are still poorly investigated. Hence, to resolve this information deficiency, he established a research project on the diversity and biogeography of the Paederinae in the Aegean Region of Turkey, which is run in the provinces of Afyonkarahisar, Aydın, Denizli, İzmir, Kütahya, Manisa, Muğla, Uşak, the south and west

of Balıkesir, a small area in the southwest of Çanakkale, and the Aegean sections of the provinces of Bilecik, Eskişehir, and Bursa.

These research activities in Turkey yielded new data on the Turkish species of the *Scopaeina* Mulsant & Rey, 1878, which are published herein together with new records from other Middle Eastern countries. In the West Palaearctic, this paederine subtribe comprises more than 100 known species, most of which belong to *Scopaeus* Erichson, 1839. With a few exceptions, scopaeine species are dwellers of humid, sandy or gravelly soil with sparse pioneer vegetation which usually inhabit insolated margins of rivers and streams (Frisch et al. 2002: 28). In the course of a revision of the West Palaearctic *Scopaeina*, Frisch (e.g. 1997a, b; 2002, 2006a–c, 2007, 2010) described some 40 new *Scopaeus* from the Middle East, most of which are endemic to the Irano-Anatolian highlands and members of the monophyletic *S. elegans* species group (see Frisch et al. 2002: 51), the most speciose clade of Middle Eastern *Scopaeus*.

In this contribution, a *Scopaeus* new to science from the Turkish Muğla and Denizli provinces is described, and new biogeographic data from Turkey and all over the Middle East are discussed against the background of the hitherto known distribution of the respective species. Including the species described herein, 36 species of *Scopaeus* are currently known from Turkey.

2. Material, methods, and terminology

The reference specimens for the records from Turkey are preserved in the collection of the Alaşehir Zoological Museum, Manisa (**AZMM**), unless otherwise stated. The remaining specimens referred to in this contribution are stored in the following collections: **ABCF** – Arnaldo Bordoni Private Collection, Florence; **APCE** – Andreas Pütz Private Collection, Eisenhüttenstadt; **ARCM** – Alexandr B. Ryvkin Private Collection, Moscow; **ASCI** – Alexey Shavrin Private Collection, Daugavpils; **HNHM** – Hungarian Natural History Museum, Budapest; **MMUE** – The Manchester Museum, Manchester; **MNHB** – Museum für Naturkunde, Berlin; **MSCB** – Michael Schülke Private Collection, Berlin; **MZUF** – Museo Zoologico ‘La Specola’, Florence; **NMEC** – Naturkundemuseum, Erfurt; **NMPC** – Národní Muzeum, Prague; **PCPC** – Pavel Krásenský Private Collection, Chomutov; **SMNS** – Staatliches Museum für Naturkunde, Stuttgart; **UZMH** – Zoologiska Muset, Helsinki; **VACH** – Volker Assing Private Collection, Hannover; **ZMUC** – Zoological Museum, Copenhagen.

Primary and secondary sexual characters of the species described herein are named following Frisch et al. (2002: 30–35) and Frisch (2010: 160). The images were made with the following magnifications: aedeagus, sclerites: 200×; specimen: 50×. Transmitted-light microscopic images were made using the Zeiss Axioscope imaging system and the montage software Picolay. The map was generated using the online mapping tool (GMT) of the Seaturtle website at <http://www.seaturtle.org/maptool/>.

Specimens were measured magnified 140× using a stereoscopic microscope with an eye-piece linear micrometer. Total length of specimens = interval from the (closed) mandibles to the apex of the abdomen, depending on the intensity of contraction of the abdomen; forebody length = interval from the (closed) mandibles to the posterior margin of the elytra at the suture; head length = interval from the anterior margin of the clypeus to the posterior margin of the head; elytral length = interval from the posterior tip of the scutellum to the posterior end of the elytra along suture; eye length and temporal length are measured in lateral view; length of antennomeres is measured without the thin basal stalk.

3. Taxonomy

Scopaeus menteshensis sp. n.

Description. Total length 3.2–3.4 mm, forebody length 1.8 mm. Body colour (Figure 1) medium brown to dark brown with somewhat darker head; anterior half of pronotum slightly lighter; elytra at humera, along suture, and in approximately posterior third lighter brown in variable extent; appendages light brown to medium brown, only third segment of maxillary palpi dark brown except for basal stalk. Forebody surface finely and densely punctate and without microreticulation, thus notably shiny; abdomen superficially microreticulate. Punctuation of head distinct with interstices about as wide as puncture diameters; pronotum more widely and superficially punctate; elytra with granular punctuation. Head subquadrate, 1.08–1.13 times as long as wide, with parallel or insignificantly widened tempora and strongly rounded posterior angles, across tempora 1.0–1.02 times as wide as across eyes. Eye length 0.54–0.63 of temporal length. Species capable of flight; elytra with humeral angles, at suture 1.11–1.13 times as long as pronotum; metathoracic wings fully developed. Penultimate antennomeres quadrate or slightly elongate, 1.06 times as long as wide. Protarsomeres 1–4 of males strongly transverse, about 3 times as wide as long. Mesotibia slender, 5.4–5.6 times as long as wide. Aedeagus with

relatively short apical lobes and strongly projecting, semicircular ventral endophallic process (Figures 2, 3). Apical lobes in distal half strongly enlarged ventrad, thus forming distinct, subrectangular apical 'head' with somewhat projecting, convex proximal margin and subtruncate distal end (Figures 2, 3), laterally asymmetrically widened in about proximal 2/3rd, but in apical third evenly narrowed towards acute tips (Figures 4, 5). Dorsal lobe parallel in proximal 3/4th, but distal fourth, in dorsal view (Figure 5), strongly emarginate on the right, curved to the right, and at apex and left margin extended in 2 long, ventrally pointing spines of same length (Figures 2, 3); third spine (arrow in Figures 2, 4) minute, dentiform, located at, in dorsal view, right lateral margin of dorsal lobe at basis of apicolateral emargination. Posterior margin of sternite VIII of males (Figure 6) with triangular emargination occupying about fourth of sternite length. Female unknown.

Type specimens. Holotype (♂): Turkey, Denizli, Acipayam, Alaattin (Boz Dağ) (37°25'07"N 29°13'32"E), 1490 m, 12.06.2013, leg. Yağmur & Örgel (AZMM); 1 paratype (♂): same data as holotype (AZMM); 1 paratype (♂): Turkey, Muğla, Fethiye – Çameli road (36°50'30"N 29°10'43"E), 1360 m, 18.06.2013, leg. Yağmur & Örgel (MNHB).

Distribution and bionomics. *Scopaeus menteshensis* is known only from two localities in the neighbouring Denizli and Muğla provinces in the very southwest of Turkey (Figure 9). The distribution pattern of related allopatric species (see *Phylogeography* below) suggests, that the distribution of *S. menteshensis* most probably does not exceed 31°E and 38°N. To the southwest, it is delimited by the Mediterranean Sea. Thus, the new species is expected to be endemic to the western Taurus Mountains.

In the Denizli Province, *S. menteshensis* was collected from gravel near the edge of a stream at an elevation of 1490 m. The specimen from Muğla was found at 1360 m in moist grassland near the edge of a small standing water.

Etymology. *Scopaeus menteshensis* is named after the Turkish principality Monteshe (Turkish: Menteşe Beyliği) of the 14th and 15th centuries in the territory in which it was discovered.

Phylogeography. Judging from the characters of the aedeagus, particularly from the flagelliform endophallic process (Figures 2, 3), *Scopaeus menteshensis* is a representative of the speciose Northeast Mediterranean and Middle Eastern *S. elegans* species group, the monophyly of which was corroborated by Frisch et al. (2002: 41, 42). Within this clade, the new species is to be grouped into the *S. bilaminulatus* species complex

which is characterized by features of the aedeagus such as the unemarginate apical lobes and the more or less unemarginate, ventrally dentate dorsal lobe with ventrad curved apex (Frisch 2010: 187). Including *S. menteshensis*, 14 species of the *S. bilaminulatus* complex are presently known from the western Balkans east to the Caspian Sea and the Zagros Mountains in Iran. As far as known presently, the majority of these species have allopatric distributions and are often endemic to very small areas [Frisch 2010: 176 (distribution map)]. The ranges of the West Anatolian representatives of the



Figure 1. *Scopaeus menteshensis* sp. n. (paratype ♂; Turkey, Muğla: Fethiye – Çameli): habitus.

S. bilaminulatus complex are shown in Figure 9. Judging from characters of the aedeagus (see Comparative notes below) and the distribution in the Taurus Mountains, *S. trifurcatus* Frisch, 2002 presumably is the closest relative of *S. menteshensis*. *Scopaeus trifurcatus* is distributed further to the east and was recorded as far west as about 31°E in the Isparta Province (Frisch 2002: 9), while *S. menteshensis* was discovered further west at approximately 29°E. It is however doubtful whether the areas of distribution of both species meet, because another representative of the *S. bilaminulatus* species complex, *S. korgei* Frisch, 2006, was described from the Dedegöl Mountains at roughly 31°17'E (Frisch 2006b: 273). To the north, the area of distribution of *S.*

menteshensis is presumably delimited by the range of the related *S. haemusensis* Frisch, 1997, which is distributed in southern Bulgaria and northwestern Turkey and confirmed as far south as 38°20'N in the Boz Dağları, Izmir Province (Frisch 2002: 19).

Comparative notes. *Scopaeus menteshensis* shows no striking external features allowing reliable identification. The characters of the aedeagus are however diagnostic, most of all the semicircular ventral endophallic process (Figures 2, 3) and the dorsal lobe with 2 long, terminal spines and a lateral, minute tooth (Figures 2, 4). *Scopaeus menteshensis* could be confused only with the closely related *S. trifurcatus* Frisch, 2002 the ventrally enlarged apical lobes of which have a similar



Figures 2–3. *Scopaeus menteshensis* sp. n. (holotype): lateral views of aedeagus. The arrow in (2) points to the minute lateral tooth of the dorsal lobe.



▲ **Figures 4–5.** *Scopaeus menteshensis* sp. n. (holotype): aedeagus in (4) ventral and (5) dorsal view. The arrow in (4) points to the minute lateral tooth of the dorsal lobe.

◀ **Figure 6.** *Scopaeus menteshensis* sp. n. (holotype): sternite VIII.

rectangular shape. *Scopaeus trifurcatus* however differs by the unemarginate dorsal lobe with 3 long, terminal spines of the same length and the more strongly dorsad curved ventral endophallic process (Figures 7, 8). The remaining West Anatolian representatives of the *S. bilaminulatus* species complex, *S. cariensis* Frisch, 2002, *S. haemusensis* Frisch, 1997, and *S. korgei* Frisch, 2006, can't be confused with *S. menteshensis* due to their aedeagi with slender apical lobes without apico-ventral enlargement and strongly divergent characters of the dorsal lobe.

4. Biogeography

Micranops pilicornis (Baudi, 1870)

New localities. **Greece:** South Aegean: Kos Island, Marmari, 25.–29.09.2003, leg. Mahunka (HNHM). **Turkey:** Samsun: Çarşamba, 18.05.1967, leg. Besuchet (ABCF).

Discussion. *Micranops pilicornis* is a Northeast Mediterranean and Middle Eastern species which is known from Italy eastwards to Turkmenistan (Frisch 2010: 161, 162). It is widely distributed in Turkey (Anlaş 2009: 290; Frisch 2010: 161; Assing 2013: 108), but was



Figures 7–8. *Scopaeus trifurcatus* Frisch (holotype): aedeagus in (7) lateral and (8) dorsal view.

hitherto unknown from the Samsun Province. Likewise, the species is here for the first time recorded for the Greek island Kos.

Remark. In Bordoni's catalogue of Anatolian Staphylinidae, this species is listed not only in *Micranops* (Bordoni 2010: 130), but a second time under the name *Scopaeus microphthalmus* Eppelsheim, 1888 (Bordoni 2010: 136), which was already synonymized by Frisch (1997a: 96).

Scopaeus alaniensis Coiffait, 1969

New localities. **Turkey:** **Hatay:** Iskenderun, Arsuz, Piriçlik (36°29'49"N 36°03'17"E), 10.05.2008, leg. Yağmur. **Izmir:** Aliğa, Karakuzu (38°44'N 27°10'E), 350 m, 04.10.2008, leg. Anlaş.

Discussion. *Scopaeus alaniensis* is endemic to southwestern Turkey (Frisch 2009: 274) and apparently confined to the Mediterranean climate zone. It was already recorded from Manisa in the west eastwards to Taşkent in the very south of the Konya Province [Anlaş 2009: 290; Frisch 2009: 274, 285 (distribution map)], but unknown from the Izmir and Hatay provinces. The presence in Hatay extends the known distribution of *S. alaniensis* considerably towards the east.

Remark. The implausible records of *Scopaeus alaniensis* from Iran (Sakenin et al. 2008a, Sakenin et al. 2008b: 6) were already rejected by Frisch (2010: 199), but

nevertheless included in the recent checklist of Iranian Staphylinidae by Samin et al. (2011a: 146).

Scopaeus azerbaijzhanus Gusarov, 1994

New localities. **Iran:** **Gilan:** S Astara, 5 km W Lavandvil, Koteh Komeh (38°18'26"N 48°47'14"E), 180 m, 10.10.2011, leg. Frisch (MNHB); S Astara, Lavandvil (38°18'11"N 48°49'54"E), 30 m, 10.10.2011, leg. Frisch (MNHB).

Discussion. *Scopaeus azerbaijzhanus* is a non-expansive Caspian faunal element (sensu De Lattin 1951: 208, 1957: 388) and recorded from eastern Transcaucasia throughout the Talish and Elburz Mountains and the South Caspian lowlands east to North Khorasan in Iran [Frisch 2010: 190, 196 (distribution map)].

Scopaeus bicolor Baudi, 1848

New localities. **Georgia:** Tbilisi (MSCB). **Turkey:** **Ankara:** Nallıhan – Seben road, 6 km NE Kabaca, 900 m, 02.08.2001, leg. Frisch (MNHB); Kızılcahamam, 1 km N Güvem, 1100 m, 04.08.2001, leg. Frisch (MNHB). **Antalya:** 13 km N Cevizli, 1000 m, 01.07.1999, leg. Frisch (MNHB). **Erzurum:** 14 km NE Horasan, Aras River, 1600 m, 02.08.2000, leg. Frisch (MNHB). **Giresun:** 11 km SE Tirebolu, Örenkaya, 100 m, 25.05.1997, leg. Frisch (MNHB). **Isparta:** Keçiborlu – Senirkent road, İleydağı, 1200 m, 23.06.1999, leg. Frisch (MNHB). **Kahramanmaraş:** Göksun – Elbistan road, 4 km W Yassıköy, 1300 m, 27.07.2000, leg. Frisch (MNHB);

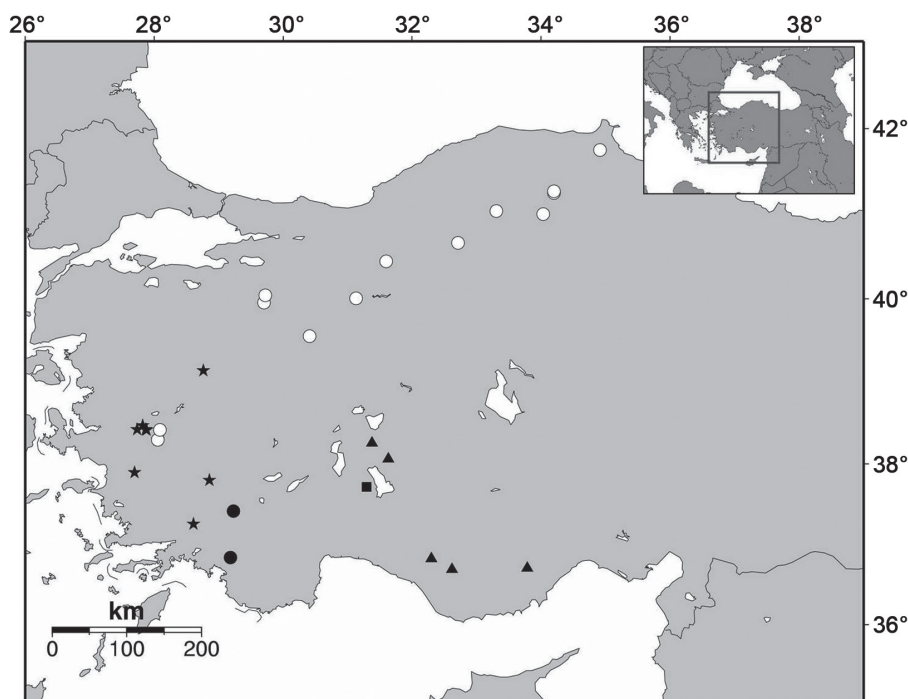


Figure 9. Distribution of the *Scopaeus bilaminulatus* - complex in western Anatolia: ● *S. menteshensis*, ★ *S. cariensis*, ○ *S. haemusensis* (also in Bulgaria), ■ *S. korgei*, ▲ *S. trifurcatus*.

E Elbistan, 5 km E Gücük, 1350 m, 27.07.2000, leg. Frisch (MNHB). Kastamonu: 14 km N Araç, 1100 m, 05.08.2001, leg. Frisch (MNHB). Kayseri: Pınarbaşı – Gürün road, Osmandede, 1650 m, 20.05.1997, leg. Frisch (MNHB). Kütahya: Emet – Tavşanlı road, 6 km NE Günlüce, 30.07.2001, 900 m, leg. Frisch (MNHB); 7 km E Tavşanlı, 850 m, 31.07.2001, leg. Frisch (MNHB). Kocaeli: İzmit, 09.05.1970, leg. Zwick (MNHB). Muğla: NEE Fethiye, Saklıkent, Eşen River, 28.09.1998, leg. Frisch (MNHB); NE Kavaklıdere, 5 km E Menteşe, 700 m, 03.07.1999, leg. Frisch (MNHB). Niğde: 7 km S Çamardı, 1350 m, 26.06.1999, leg. Frisch (MNHB). Sinop: Yenişen, 250 m, 07.08.2001, leg. Frisch (MNHB). Sivas: 5 km S Kurbagalı Geçidi, 1500 m, 21.05.1997, leg. Frisch (MNHB). Uşak: Eşme, 2 km NE Kısık (38°38'06"N 28°57'19"E), 470 m, 23.04.2010, leg. Anlaş. Yozgat: 15 km NE Akdağmadeni, 1200 m, 27.05.1997, leg. Frisch (MNHB). Zonguldak: 26 km W Devrek, 150 m, 09.08.2001, leg. Frisch (MNHB); Devrek – Ereğli road, 4 km NW Kızılcapınar, 50 m, 09.08.2001, leg. Frisch (MNHB).

Discussion. The Pontomediterranean *Scopaeus bicolor* is distributed from northern Italy, southern Austria, and Slovakia throughout the Balkans and Anatolia eastwards to Transcaucasia (Frisch et al. 2002, suppl.: 3). Gusarov (1989: 8) recorded the species for the Ukraine (Crimea). In Turkey, *S. bicolor* was hitherto known from Izmir (Tezcan & Anlaş 2009: 6), Manisa, Trabzon (Anlaş 2009: 291), Aksaray, Kayseri, and Yozgat (Sert et al. 2014: 483) only. Herein, it is for the first time published for Ankara, Antalya, Erzurum, Giresun, Isparta, Kahramanmaraş, Kastamonu, Kütahya, Kocaeli, Niğde, Sinop, Sivas, Uşak, and Zonguldak. Judging from the new records, *S. bicolor* is widely distributed and common in most of Turkey. The fact that the species was not yet found southeast of Kahramanmaraş, Sivas, and Erzurum suggests that the southeastern limit of distribution roughly follows this geographical line.

Remark. Records of *Scopaeus bicolor* for the South Caspian (Hyrcanian) region in North Iran (Mazandaran: Sakenin et al. 2008a, Gilan: Sakenin et al. 2008b: 6), which are cited in the checklist of Iranian rove beetles by Samin et al. (2011b: 146), are implausible and probably based on the misidentification of *S. azerbaijani* Gusarov, 1994 or *S. mutatus* Gemminger & Harold, 1868 which are very common in the South Caspian region and also have a yellow-brown posterior margin of the elytra.

Scopaeus bituberculatus Frisch, 1998

New localities. Turkey: Isparta: 10 km NE Aksu, Çayırçayla road (37°48'06"N 31°09'34"E), 1460 m, 10.08.2010, leg. Anlaş.

Discussion. *Scopaeus bituberculatus*, apparently endemic to the water systems which drain to the South Anatolian coast and recorded from the Antalya Province

(Kemer) in the west east to Osmaniye in the Adana Province (Frisch 2010: 165), was hitherto unknown from Isparta.

Scopaeus cameroni Coiffait, 1968

New localities. Iran: Ardabil: 22 km S Germi, Ghafar Kandi (38°55'56"N 47°57'30"E), 1400 m, 12.10.2011, leg. Frisch (MNHB); 15 km S Germi, Beldashi (38°58'25"N 48°00'16"E), 1270 m, 12.10.2011, leg. Frisch (MNHB); 6 km S Germi, Moghvan (39°00'24"N 48°01'55"E), 1150 m, 12.10.2011, leg. Frisch (MNHB); 8 km O Germi, Ghazlu (38°59'46"N 48°08'27"E), 1100 m, 12.10.2011, leg. Frisch (MNHB); 20 km NE Khalkhal (37°41'11"N 48°22'58"E), 1480 m, 13.10.2011, leg. Frisch (MNHB); 5 km NNE Khalkhal (37°40'59"N 48°30'17"E), 1730 m, 13.10.2011, leg. Frisch (MNHB). Turkey: Afyonkarahisar: Şuhut, 2 km NE Dadak (38°36'18"N 30°26'59"E), 1320 m, 11.08.2010, leg. Anlaş; Dinar, Cerityayla road, Dere River (38°10'09"N 30°04'39"E), 22.06.2013, leg. Yağmur & Örgel. Aydın: Koçarlı – Mersinbeleni road (37°40'45"N 27°41'23"E), 780 m, 16.06.2013, Yağmur & Örgel; Koçarlı – Mersinbeleni road (37°40'24"N 27°41'25"E), 770 m, 16.06.2013, Yağmur & Örgel. Denizli: Acipayam, Akalan – Kelekçi road, Halit Deresi (37°20'32"N 29°21'57"E), 900 m, 14.06.2013, leg. Anlaş, Yağmur & Örgel (MNHB, AZMM); Acipayam, Alaattin (Boz Dağ) (37°23'46"N 29°19'10"E), 1300 m, 11.01.2014, leg. Anlaş, Yağmur & Örgel. Isparta: 10 km NE Aksu (37°48'06"N 31°09'34"E), 1460 m, 10.08.2010, leg. Anlaş. Izmir: Buca, Kaynaklar (38°21'43"N 27°17'49"E), 370 m, leg. Anlaş. Kütahya: Simav, Kaabarmut (39°10'24"N 29°01'02"E), 1240 m, 23.06.2013, leg. Yağmur & Örgel. Malatya: Hekimhan, İpekyolu, Girmana Mahallesi, 25.07.2007, leg. Yağmur. Muğla: Datça, 2 km SW Emecik (36°46'01"N 27°48'39"E), 110 m, 04.04.2013, leg. Yağmur & Örgel. Uşak: Eşme, 2 km NE Kısık, Gediz River (38°38'00"N 28°57'19"E), 470 m, 23.04.2010, 29.05.2010, leg. Anlaş; Ulubey, Karahalli road, Banaz Deresi (38°21'59"N 29°19'38"E), 550 m, 16.01.2013, leg. Anlaş, Yağmur & Örgel; Banaz, Ahlat, Gölet (38°38'46"N 29°46'38"E), 990 m, 08.11.2013, leg. Anlaş, Örgel & Yağmur.

Discussion. *Scopaeus cameroni* is common from the Balkans (Albania, northern Greece, Bulgaria, Southwest Romania) throughout Anatolia (except for the southeast), Armenia, and Iranian Azerbaijan eastwards to the Caspian Sea [Frisch 2010: 184, 188 (distribution map)]. The previously known distribution in Turkey was compiled at province level by Anlaş (2009: 291). Only recently, the species was first recorded for the provinces of Kırşehir and Sivas (Sert et al. 2014: 483). The records above supplement the knowledge of *S. cameroni* in Iran and Turkey and include the first records for Aydın, Malatya, and Uşak.

Remark. In his catalogue of the Staphylinidae of Turkey, Bordoni (2010: 133) erroneously lists this species twice, both under the valid name and as *Scopaeus ectypus* Coiffait, 1971, a synonym of *S. cameroni* (Frisch 1997b: 525).

Scopaeus cariensis Frisch, 2002

New localities. **Turkey:** Aydın: İncirliova, Arzular (37°53'44"N 27°41'28"E), 100 m, 20.06.2005, leg. Anlaş. Denizli: Babadağ (37°47'55"N 28°51'26"E), 900 m, 15.10.2013, leg. Özgen & Örgel.

Discussion. This West Anatolian endemic was described from Muğla and İzmir (Frisch 2002: 8) and later recorded for Kütahya and Manisa [Anlaş & Çevik 2008: 671; Frisch 2010: 173, 176 (distribution map)], but hitherto unknown from Aydın and Denizli (Figure 9).

Scopaeus chalcodactylus (Kolenati, 1846)

New localities. **Iran:** Ardabil: 8 km E Germe, Ghozlu (38°59'46"N 48°08'27"E), 1100 m, 12.10.2011, leg. Frisch (MNHB); 5 km NNE Khalkhal (37°40'59"N 48°30'17"E), 1730 m, 13.10.2011, leg. Frisch (MNHB). **Turkey:** Erzincan: Üzümlü, Sarıkaya, 1710 m, 18.05.2011, leg. Anlaş, Khachikov & Yağmur. Trabzon: Maçka – Torul, Dikkaya (Kalkanlı Mts), 1000–1100 m, 08.06.1998, leg. Solodovnikov (ZMUC).

Discussion. *Scopaeus chalcodactylus* is an expansive Caspian faunal element (sensu De Lattin 1951: 208, 1957: 388) which was previously known from the Crimea, the Lesser Caucasus, and Iran south to Esfahan and Kerman and east to the Binalud Mts [Frisch 2010: 197, 198 (distribution map)]. A recent find in Kabadirno-Balkarija, South Russia (Aiydov & Frisch 2014), however, suggests the species might occur also in all of the Greater Caucasus. In Turkey, *S. chalcodactylus* is confined to the northeast. Hitherto known from the Artvin, Erzurum, and Van provinces only (Frisch 2002: 17, 18; Anlaş 2009: 291), the species is here for the first time recorded for Erzincan and Trabzon.

Scopaeus debilis Hochhuth, 1851

New localities. **Azerbaijan:** Geokchay, Karamaryam, 18.07.1981, leg. Semenov (ARCM). **Cyprus:** Larnaka, Oroklini (salt lake), 11.06.2010, leg. Ziegler (VACH). **Iran:** İlam: 10 km S Ilam City (33°34'15"N 46°25'04"E), 1300 m, 19.10.2011, leg. Frisch (MNHB). **Iraq:** Al Bazrah: Al Kabaish, 27.06.1980, leg. Linnavuori (MNHB, UZMH). **Israel:** Jordan Valley, Tiv Beyti [Tirat-zevi], 06.1988, leg. Shahalal (MZUF). **Oman:** Al-Batinah: SE Rustaq, W Awabi, Wadi Bani Awf (Al-Akhdar Mts) (23°20'13"N 57°29'23"E), 430 m, 29.–30.12.2009, light trap, leg. Lehmann, Bittner & Stadie (APCE). Zufar (Dhofar): 10 km N Salalah, Wadi Sahiz (17°10'52"N 54°04'47"E), 350 m, 22.12.2009, leg. Lehmann, Bittner & Stadie (APCE). **Saudi Arabia:** Dschaihan [Jāzān]: Fayfa, 880 m, 04.–06.04.2013, leg. Schawaller (MNHB, SMNS). **Turkey:** Adıyaman: Besni, Tut road, 2 km S Akpınar, 09.07.2006, leg. Anlaş. Afyonkarahisar: İhsaniye, 2 km E Döğür (39°09'13"N 30°25'52"E), 1290 m, 15.04.2013, leg. Anlaş, Yağmur & Örgel. Denizli: Acipayam, Akalan –

Kelekçi, Halit Deresi (37°20'32"N 29°21'57"E), 900 m, 14.06.2013, leg. Anlaş, Yağmur & Örgel. **Diyarbakır:** Central Province, Yaytaş, 16.06.2007, leg. Yağmur; Eğil, Kalkan (38°08'37"N 40°03'37"E), 780 m, 06.06.2010. **Isparta:** 10 km NE Aksu (37°48'06"N 31°09'34"E), 1460 m, 10.08.2010, leg. Anlaş. **İzmir:** Bayındır, Yakapınar, 17.08.2005, leg. Anlaş. **Kilis:** 1 km SE Ömerli (36°52'01"N 37°12'02"E), 1200 m, 16.03.2008, leg. Yağmur.

Discussion. *Scopaeus debilis* is widespread throughout the southern West Palaearctic and Siberia east to Irkutsk (Frisch 2010: 162, 163). In Turkey, the species is common and certainly distributed all over the country. Nevertheless, judging from Anlaş (2009: 161), *S. debilis* has not been published yet for the provinces of Adıyaman, Afyonkarahisar, Denizli, Diyarbakır, Isparta, and Kilis. Likewise, Anlaş & Newton (2010: 361) do not list it for Ilam in Iran.

Though *S. debilis* is common in most of Middle East, previous records from Oman (Gusarov 1997: 285) and Saudi Arabia (Coiffait 1979: 163, 1981: 237; Gusarov 1997: 285) are doubtful, because the authors do not list the similar species *S. filiformis* Wollaston, 1867, which is common in the Arabian Peninsula and moreover for a long time was considered as a synonym of *S. debilis* (Frisch 1999: 368, 2010: 163). The specimens from Oman and Saudi Arabia reported herein confirm the presence of *S. debilis* in the Arabian Peninsula.

Remark. The examined specimens from Al Bazrah (Iraq) differ notably by their smaller, light yellowish brown body with extremely large eyes, but judging from the specific primary and secondary male sexual characters they doubtlessly represent *S. debilis*.

Scopaeus ebneri Scheerpeltz, 1929

New localities. **Iran:** Chahar Mahal-o-Bakhtiari: Dezful – Gandoman road, 37 km N Sar Khun (31°55'04"N 50°36'10"E), 1480 m, 21.10.2011, leg. Frisch (MNHB); Shahr-e Kord, NW Ghale Sabz (32°30'36"N 50°14'49"E), 2240 m, 10.05.2012, leg. Weipert (NMEC). **İlam:** 10 km S Ilam City (33°34'15"N 46°25'04"E), 1300 m, 19.10.2011, leg. Frisch (MNHB). **Lorestan:** 20 km SW Borujerd (33°46'23"N 48°39'06"E), 1740 m, 15.10.2011, leg. Frisch (MNHB); 15 km NE Alashtar (Mt. Garri) (33°57'59"N 48°19'50"E), 1900 m, 16.10.2011, leg. Frisch (MNHB). **Turkey:** Diyarbakır: 4 km E Hazro (38°14'53"N 40°47'21"E), 950 m, 25.05.2010, leg. Özgen; Eğil, Kalkan (38°08'37"N 40°03'37"E), 780 m, 23.04.2010, 06.06.2010, leg. Özgen & Yağmur; Silvan road, Köprübaşı, 06.06.2010, leg. Yağmur; Karacadağ (37°52'18"N 39°52'39"E), 980 m, 17.06.2007, leg. Yağmur; Ergani, Tevekli, 16.06.2007, leg. Yağmur; 7 km SW Ergani, Çayönü (38°13'00"N 39°43'09"E), 850 m, 26.05.2010, leg. Özgen; 5 km E Eğil road (38°08'34"N 40°03'27"E), 780 m, 13.04.2010, leg. Özgen & Yağmur; Central Province, Dicle Valley near Dicle River (38°14'N 40°10'E), 800 m, 27.04.2010, leg. Özgen. Elazığ: Doğukent (38°40'50"N 39°15'42"E), 1080 m, 13.06.2010,

01.08.2010, leg. Özgen. Hatay: Samandağ, 5 km N Tekepınar (36°12'17"N 35°57'45"E), 340 m, 14.11.2010, leg. Anlaş & Yağmur. Kahramanmaraş: Andırın, 2 km W Kırac (37°31'48"N 36°22'49"E), 720 m, 23.06.2007, leg. Yağmur; Pazarcık, 3 km N Narlı (37°19'33"N 37°09'38"E), 700 m, 15.11.2010, leg. Anlaş. Mardin: Karasu, 23.04.2010, leg. Özgen; Mazıdağı, Gürgöze (37°29'08"N 40°31'38"E), 950 m, 31.05.2010, leg. Özgen; Mardin city, 31.05.2010, leg. Özgen.

Discussion. The distribution of *Scopaeus ebneri*, which reaches from Antalya throughout South Anatolia, Southeast Anatolia north to about 40°N, Cyprus, Lebanon, Israel, and Mesopotamia east to Iran (southern slopes of Elburz Mountains, Zagros Mountains, Kerman), was mapped and discussed by Frisch [2010: 191–193, 196 (distribution map)]. Judging from Anlaş (2009: 291), Anlaş & Newton (2010: 361), and Özgen et al. (2010: 24), who recently published the species for Diyarbakır and Mardin, *S. ebneri* is here for the first time recorded for the Turkish province Elazığ and Ilam in Iran.

Scopaeus efesi Frisch, 2002

New localities. Turkey: Diyarbakır: 4 km E Hazro (38°14'53"N 40°47'21"E), 950 m, 25.05.2010, 10.08.2010, leg. Özgen; 2 km W Hazro, 10.08.2010, leg. Özgen. Elazığ: Doğukent (38°40'50"N 39°15'42"E), 1080 m, 13.06.2010, leg. Özgen. Kahramanmaraş: 2 km E Nurhak, 09.07.2006, leg. Anlaş. Malatya: Doğanşehir, Boruk Dağı (37°53'08"N 37°43'04"E), 1100 m, 02.05.2008, leg. Yağmur. Tunceli: Ovacık, 6 km E Ağaçpınar, Munzur River (39°21'28"N 39°19'51"E), 1200 m, 13.09.2007, leg. S. Anlaş.

Discussion. Hitherto known from the Adana, Kahramanmaraş, Malatya, and Tunceli provinces [Anlaş 2009: 191; Frisch 2010: 186, 188 (distribution map)], this Southeast Anatolian endemic is also present in Diyarbakır and Elazığ.

Scopaeus elegans Luze, 1910

New localities. Jordan: Irbid: Zubia (32°26'18"N 35°45'37"E), 600–840 m, 22.02.2014, leg. Meybohm (VACH). **Turkey:** Afyonkarahisar: Emirdağ, Dereköy (38°58'05"N 31°11'25"E), 1070 m, 18.04.2013, leg. Anlaş, Yağmur & Örgel. Denizli: Acipayam, Akalan – Kelekçi road: Halit Deresi (37°20'32"N 29°21'57"E), 900 m, 14.06.2013, leg. Yağmur & Örgel (MNHB, AZMM). Diyarbakır: 2 km W Hazro, 10.08.2010, leg. Özgen; 4 km E Hazro (38°14'53"N 40°47'21"E), 950 m, 25.05.2010, leg. Özgen; Hazro, 30.09.2010, leg. Özgen; Eğil: Kalkan (38°08'37"N 40°03'37"E), 780 m, 06.06.2010; Silvan, 10.10.2010, leg. Özgen; Silvan road, Köprübaşı, 06.06.2010, leg. Özgen. Elazığ: Doğukent (38°40'50"N 39°15'42"E), 1080 m, 17.05.2010, 13.06.2010, 01.08.2010, leg. Özgen. Kütahya: Simav, Kaabarmut (39°10'24"N 29°01'02"E), 1240 m, 23.06.2013, leg. Yağmur & Örgel. Malatya: Hekimhan, Ipekyolu, Girmana Mahallesi, 25.07.2007, leg. Yağmur; Hekimhan,

Ipekyolu, 09.07.2007, leg. Anlaş & Yağmur; Hekimhan, 4 km W Ererek (38°33'39"N 37°54'52"E), 1360 m, 09.07.2007, leg. Anlaş & Yağmur; Yazıhan, Mısırdere, 09.07.2007, leg. Anlaş & Yağmur. Mardin: Mazıdağı, Gürgöze (37°29'08"N 40°31'38"E), 950 m, 31.05.2010, leg. Özgen. Mersin: Çamlıyayla, 1 km E Korucak (37°08'56"N 34°42'51"E), 720 m, 22.07.2010, leg. Anlaş; 20 km N İçel, 1,5 km W Aladağ (36°56'21"N 34°29'09"E), 640 m, 18.07.2010, leg. Anlaş. Muğla: Fethiye – Çameli road (36°50'30"N 29°10'42"E), 1360 m, 18.06.2013, leg. Yağmur & Örgel. Rize: Çamlıhemşin, Ayder Yaylası (40°57'08"N 41°06'17"E), 1240 m, 28.06.2008, leg. Yağmur. Tunceli: Pertek, Singeç Creek (38°54'44"N 39°15'01"E), 14.09.2007, 1200 m, leg. Anlaş & Yağmur.

Discussion. *Scopaeus elegans* is common in most of Anatolia, Northwest Syria, and Lebanon southwards to Israel [Frisch 2002: 17–19 (distribution map)]. The species is here for the first time recorded for Jordan. The known distribution in Turkey at the province level was compiled by Anlaş (2009: 291) and supplemented by Frisch (2010: 165). Only recently, the species was recorded for Aksaray and Yozgat (Sert et al. 2014: 484). The new records above include the first records for the Afyonkarahisar, Elazığ, and Rize provinces.

Scopaeus fagelianus Coiffait, 1969

New localities. Turkey: Afyonkarahisar: Şuhut, 2 km N Dadak (38°36'18"N 30°26'59"E), 1320 m, 11.08.2010, leg. Anlaş. Isparta: 10 km NE Aksu, Çayırıyayla road (37°48'06"N 31°09'34"E), 1460 m, 10.08.2010, leg. Anlaş.

Discussion. *Scopaeus fagelianus* is endemic to western South Anatolia from Antalya east to Mersin and north to Afyonkarahisar [Frisch 2002: 16 (distribution map), 19; Anlaş 2009: 291]. Herein it is first recorded for Isparta.

Scopaeus farsensis Frisch, 2007

New localities. Iran: Ilam: Ilam – Darreh Shar road, 30 km NW Abher-e Bala (33°26'42"N 46°47'16"E), 1080 m, 19.10.2011, leg. Frisch (MNHB).

Discussion. *Scopaeus farsensis* is endemic to southwestern Iran and hitherto known as far north as Dezful, Khuzestan [Frisch 2010: 197, 198 (distribution map)]. Judging from the new record, the distribution in the Zagros Mountains expands further to the north reaching the Ilam Province.

Scopaeus filiformis Wollaston, 1867

New localities. Iran: Hormozgan: Tezerj (28°14'N 55°49'E), 280 m, 02.05.2008, leg. Fábán, Székely & Vig (HNHM, MNHB). Ilam: 5 km SE Darreh Shahr (33°05'53"N 47°27'14"E), 620 m,

19.10.2011, leg. Frisch (MNHB). Lorestan: 35 km E Kuhdasht, Kashkan (33°35'20"N 47°52'52"E), 1010 m, 17.10.2011, leg. Frisch (MNHB); South Khorasan: SW Nehbandan, 10 km W Deh Salm, 26.05.2008, leg. Anichtchenko (ASCI). **United Arab Emirates**: Wadi Bih Dam (25°48'N 56°04'E), 24.04.–01.05.2007, 09.–23.07.2008, leg. van Harten (NMPC). **Yemen**: Al Hudaydah: Jabal Bura, 225–600 m, 30.10.2005, leg. Bezděk (PCPC); Jabal Bura National Park (14°52'N 43°24.6–25.2'E), 240–350 m, 04.11.2010, leg. Bezděk (NMPC). Sokotra: Zemhon (12°30'58"N 54°06'39"E), 270–350 m, 03.–04.02.2010, leg. Purchart & Vybíral (NMPC).

Discussion. Owing to its distinct ability to fly, *Scopaeus filiformis* is widespread and common throughout the tropics and subtropics of the Palaearctic, Afrotropical, and Oriental regions from the Cape Verde Islands east to Japan (Frisch 1999: 371, 372). It is widespread in the Middle East, but absent from the Irano-Anatolian highlands. A possibly isolated population is known from Muğla, Southwest Turkey (Frisch 1999: 371; Anlaş 2009: 291; Frisch 2010: 163). *Scopaeus filiformis* is here for the first time recorded for the United Arab Emirates, Sokotra Island (Yemen), and the Iranian provinces Ilam, Lorestan, and South Khorasan.

Scopaeus gracilis (Sperk, 1835)

New localities. Greece: North Aegean: Lemnos, leg. Cameron (MMUE). **Iran**: Ilam: Ilam – Darreh Shar road: 30 km NW Abher-e Bala (33°26'42"N 46°47'16"E), 1080 m, 19.10.2011, leg. Frisch (MNHB). Tehran: S Polur (35°47'50"N 52°02'90"E), 2570 m, 29.05.2008, leg. Weipert (NMEC). **Russia**: Krasnodar: Sochi, Psakhe River, 18.–19.09.2008, leg. Enustschenko (ASCI, MNHB). Karachaevo-Cherkessia: Teberda River (NW-Caucasus) (43°29'N 41°45'E), 1270 m, 24.07.2011, leg. Solodovnikov (ZMUC). **Turkey**: Afyonkarahisar: Dinar, Ceritaylası road (1 km), Dere River (38°10'05"N 30°04'39"E), 22.06.2013, leg. Yağmur & Örgel. Bursa: Uludağ (40°02'53"N 29°04'12"E), 530 m, 25.09.2010, leg. Yağmur; Inegöl – Bozüyük road, Mezit, Kestane (39°56'58"N 29°42'05"E), 500 m, 26.09.2010, leg. Yağmur. Denizli: Acipayam, Alaattin (Boz Dağ) (37°23'46"N 29°19'10"E), 1300 m, 11.01.2014 Anlaş & Örgel (37°22'16"N 28°49'58"E), 820 m, 13.06.2013, leg. Yağmur & Örgel. Diyarbakır: 20 km SW Diyarbakır, Silvan road, Köprübaşı, 06.06.2010, leg. Özgen; Central Province, Dicle Valley, 07.08.2010, leg. Özgen. Elazığ: Doğukent (38°40'50"N 39°15'42"E), 1080 m, 01.08.2010, 19.V.2011, leg. Özgen. Gaziantep: Şahinbey, Güllüce, Ellezi Dağı, 07.04.2006, leg. Yağmur; Şahinbey, Karababa Creek, 08.07.2006, leg. Anlaş. Kahramanmaraş: Andırın, Boztopraklı, 23.06.2007, leg. Yağmur; Nurhak, 3 km E Kullartatlar (Nurhak Dağları), 09.07.2006, leg. Anlaş. Kütahya: Simav, Kaabarmut (39°10'24"N 29°01'02"E), 1240 m, 23.06.2013, leg. Yağmur & Örgel; Simav, Kaabarmut (39°10'24"N 29°01'00"E), 1220 m, 16.05.2013, leg. Anlaş, Yağmur & Örgel; 5 km W Simav, 1 km N Yeşilköy, 24.04.2010, leg. Anlaş. Malatya: Hekimhan, İpekyolu, Girmana, 25.07.2007, leg. Yağmur. Manisa: Alaşehir – Kiraz road (38°13'35"N 28°33'36"E), 320 m, 11.10.2013, leg.

Özgen & Örgel. Mersin: 2 km S Mezitli, Çevikli, 12.07.2005, leg. Anlaş; 20 km N İçel, 1,5 km W Aladağ (36°56'21"N 34°29'09"E), 640 m, 18.07.2010, leg. Anlaş. Muğla: Gökova Lake (37°03'28"N 28°22'01"E), 40 m, 04.04.2013, leg. Yağmur & Örgel. Trabzon: Maçka – Torul, Dikkaya (Kalkanlı Mts), 1000–1100 m, 08.06.1998, leg. Solodovnikov (ZMUC). Tunceli: 5 km NW Tunceli, 19.05.2011, leg. Anlaş, Khachikov & Özgen; Çemişgezek, 1 km NE Doğanköy (38°59'57"N 39°02'29"E), 960 m, 14.09.2007, leg. Anlaş; 1,5 km NW Çemişgezek, Ormanyolu Creek (39°04'06"N 38°54'18"E), 950 m, 14.09.2007, leg. Anlaş & Yağmur; Çemişgezek, Payamdüzü (39°60'N 39°02'E), 1000 m, 14.09.2007, leg. Anlaş & Yağmur; Ovacık, 6 km E Ağaçpınar, Munzur River (39°21'28"N 39°15'51"E), 1200 m, 13.09.2007, leg. Anlaş; Ovacık, 1 km N Yaylagünü, Munzur River (39°20'55"N 39°21'00"E), 1180 m, 13.09.2007, leg. Anlaş & Yağmur; Ovacık, Torunoba, Munzur River (39°21'28"N 39°19'51"E), 1200 m, 13.09.2007, Anlaş & Yağmur; Pertek, 5 km NE Akdemir (38°58'53"N 39°10'48"E), 1230 m, 14.09.2007, Anlaş & Yağmur; Pertek, Singeç Creek (38°54'44"N 39°15'01"E), 1200 m, 14.09.2007, leg. Anlaş & Yağmur; 2 km E Uzuntarla, 19.05.2011, leg. Anlaş & Özgen. Uşak: Eşme, 2 km NE Kısık (38°38'06"N 28°57'19"E), 470 m, 23.04.2010, leg. Anlaş; Banaz, Ahlat, Gölet (38°38'46"N 29°46'38"E), 990 m, 08.11.2013, leg. Anlaş, Örgel & Yağmur.

Discussion. *Scopaeus gracilis* is widely distributed in the western Palaearctic from West Europe, southern Central and South Europe, Northwest Africa, the Canary Islands, the Caucasus and Anatolia eastwards to Iran [(Frisch 2007: 200, 214 (distribution map)]. The species is common in the Irano-Anatolian highlands and already known from many provinces all over Turkey (Anlaş 2009: 292; Sert et al. 2014: 484) and Iran except for the central deserts and the southeast (Anlaş & Newton 2010: 361). The above localities supplement the known distribution and include the first records for Ilam in Iran and the Turkish provinces Afyonkarahisar, Bursa, Diyarbakır, Elazığ, Gaziantep, Tunceli, and Uşak.

Scopaeus gusarovii Frisch, 2009

New localities. **Russia**: Karachaevo-Cherkessia: Teberda River (43°26'N 41°44'E), 1300 m, 24.07.2011, leg. Solodovnikov (ZMUC); Teberda River (43°29'N 41°45'E), 1270 m, 24.07.2011, leg. Solodovnikov (MNHB).

Discussion. *Scopaeus gusarovii*, endemic to the Greater Caucasus and Transcaucasia, was already known from Azerbaijan, Georgia, and South Russia [Frisch 2009: 281, 285 (distribution map)]. Recently it was also discovered in Karachaevo-Cherkessia, Russia.

Scopaeus haemusensis Frisch, 1997

New localities. **Turkey**: Bursa: Inegöl – Bozüyük road, Mezit, Kestane (39°56'58"N 29°42'05"E), 500 m, 26.09.2010, leg. Yağmur.

Discussion. *Scopaeus haemusensis* is endemic to southern Bulgaria and Northwest Turkey [Frisch 2010: 173, 176 (distribution map); Sert et al. 2014: 484] and known as far east as Sinop and south to Izmir (Figure 9).

Scopaeus hyrcanus Frisch, 2006

New localities. **Iran:** Gilan: S Hashtpar, Asalem (Talesh Mts) (37°42'21"N 48°53'15"E), 110 m, 09.10.2011, leg. Frisch (MNHB).

Discussion. This endemic species of the so-called Hyrcanian biogeographical unit south of the Caspian Sea, which comprises the northern slopes of the Talish and Elburz Mountains, is hitherto known from the Iranian provinces Gilan, Golestan, and Mazandaran [Frisch 2006c: 267, 268 (distribution map); Anlaş & Newton 2010: 362]. The new find expands the known distribution further to the northwest.

Scopaeus iranensis Frisch, 2006

New localities. **Iran:** **Lorestan:** 20 km SW Borujerd (33°46'23"N 48°39'06"E), 1740 m, 15.10.2011, leg. Frisch (MNHB); 15 km NE Alashtar (Mt. Garri) (33°57'59"N 48°19'50"E), 1900 m, 16.10.2011, leg. Frisch (MNHB).

Discussion. *Scopaeus iranensis* is endemic to the northwestern Zagros Mountains and hitherto known from 2 closely situated localities in Kermanshah and Lorestan only [Frisch 2006a: 10, 17 (distribution map)]. It was recently found in another site at Mount Garri in the vicinity of the type locality.

Scopaeus khnzoriani Coiffait, 1968

New localities. **Iran:** **Ardabil:** 5 km NNE Khalkhal (37°40'59"N 48°30'17"E), 1730 m, 13.10.2011, leg. Frisch (MNHB). **Ilam:** 10 km S Ilam City (33°34'15"N 46°25'04"E), 1300 m, 19.10.2011, leg. Frisch (MNHB). **Turkey:** **Erzincan:** Kemah, 2 km W Özdamar, 18.05.2011, leg. Anlaş, Khachikov & Yağmur.

Discussion. *Scopaeus khnzoriani* is widely distributed in the Irano-Anatolian highlands and already recorded from Central Turkey at 36°E throughout Armenia, Iranian Azerbaijan, and the Zagros Mountains south to Fars [Frisch 2009: 279, 285 (distribution map); Anlaş & Newton 2010: 362]. It is here for the first time recorded for the Iranian province Ilam and Erzincan in eastern Turkey.

Scopaeus kurdistanicoides Frisch, 2002

Remark. Endemic to Northeast Anatolia, *Scopaeus kurdistanicoides* was erroneously recorded from the Alborz Mountains (Frisch 2006a: 17) based on specimens which later turned out to represent an undescribed species, *S. alborzensis* Frisch. Though this error was published (Frisch 2010: 180), it found its way into the checklist of Iranian Staphylinidae by Samin et al. (2011a: 146).

Scopaeus laevigatus (Gyllenhal, 1835)

New localities. **Turkey:** **Afyonkarahisar:** 4 km E Akören (38°46'48"N 30°24'56"E), 1190 m, 13.04.2013, leg. Anlaş, Yağmur & Örgel. **Aydın:** Bozdoğan, Madran Yaylası (37°33'45"N 28°15'51"E), 1100 m, 02.03.2013, leg. Yağmur & Örgel. **Denizli:** Acipayam, Akalan – Kelekçi road (37°20'32"N 29°21'57"E), 900 m, 14.06.2013, leg. Yağmur & Örgel; Çivril, Beydilli, Işıklı Gölü (38°15'56"N 29°55'33"E), 840 m, 14.10.2013, leg. Özgen & Örgel. **Eskişehir:** Incesu, Porsuk Barajı (39°37'09"N 30°14'07"E), 920 m, 17.05.2013, leg. Yağmur & Örgel. **İzmir:** Bergama, Güneşli (39°19'58"N 27°08'32"E), 580 m, 05.05.2013, leg. Yağmur & Örgel; Karaburun, Parlak (38°35'59"N 26°23'18"E), 170 m, 19.12.2008, leg. Anlaş. **Uşak:** Gediz, 2 km S Sandıklı, Gölet (38°55'03"N 29°52'54"E), 850 m, 19.09.2013, leg. Özgen & Örgel.

Discussion. The distribution pattern of this trans-Palaearctic species in the Middle East was recently discussed and mapped by Frisch (2010: 193–196). Accordingly, *Scopaeus laevigatus* is widespread in Turkey except for the coastal regions of South Anatolia east of Antalya and the southeast, where it is replaced by the allopatric relative *S. ebneri* Scheerpeltz. Judging from Anlaş (2009: 292) and Sert et al. (2014: 484), the above localities include the first records for Denizli, İzmir, and Uşak.

Remark. Judging from on the thorough investigation of the distribution pattern of the *Scopaeus laevigatus* species group in the Middle East [Frisch 2010: 196 (distribution map)], the records of *Scopaeus laevigatus* from the eastern Elburz Mts (Golestan National Park; Sakenin et al. 2008a) and Zanjan (Sakenin et al. 2008b: 6) are doubtlessly based on misidentification and were consequently rejected by Frisch (2010: 194). Unfortunately, Samin et al. (2011a: 146) published these erroneous records once more in their checklist of Iranian Staphylinidae. The recent record from Shahr-e Kord in the Zagros Mountains (Samin et al. 2011b: 5) is also based on a misidentification, because *S. laevigatus* is absent from this mountain range.

Scopaeus loebli Frisch, 1997

New localities. **Turkey:** Gümüşhane: Gümüşhane – Bayburt road, 15.05.2011, leg. Anlaş, Khachikov & Özgen. Elazığ: Gülbağı (38°34'45"N 38°57'20"E), 1290 m, 09.04.2011, leg. Özgen. Erzincan: Üzümlü, Çağlayan, Kalecik (39°34'11"N 39°44'08"E), 1470 m, 18.05.2011, leg. Anlaş & Özgen. Kahramanmaraş: Başkonuk Yaylası (37°28'00"N 41°59'57"E), 1290 m, 28.03.2008, leg. Yağmur. Osmaniye: Bahçe, 2 km NW İnderesi (37°15'55"N 36°37'04"E), 980 m 15.11.2010, leg. Anlaş.

Discussion. The distribution of this Anatolian endemic species was mapped by Frisch (2002: 18) and compiled at province level by Anlaş (2009: 292). Later, *Scopaeus loebli* was recorded for Samsun (Frisch 2010: 198, 199) and Adana (Assing 2013: 108). It is here for the first time recorded for the Elazığ, Erzincan, and Osmaniye provinces. As far as known presently, the distribution pattern of *S. loebli* constitutes a diagonal from Antalya and Bursa in the southwest to Kars in the northeast.

Scopaeus mariae Frisch, 2002

New locality. **Turkey:** Muş, Buğlan, 29.–30.05.2011, leg. Khachikov & Kasatkin.

Discussion. *Scopaeus mariae* is endemic to the Irano-Anatolian highlands and recorded only from the type locality in the Muş Province (Karakale) in East Turkey and Piranshahr in West Azerbaijan, Iran (Frisch 2002: 10, 11; Frisch 2010: 165). This poorly known species was recently found again in Muş about 70 km west of the type locality.

Scopaeus meridioanatolicus Frisch, 2009

New localities. **Turkey:** Elazığ: Keban, 2 km NW Ulupınar (38°43'58"N 38°49'46"E), 1010 m, 20.05.2011, leg. Anlaş, Khachikov & Özgen.

Discussion. This Southeast Anatolian species was hitherto known from the Turkish provinces of Gaziantep, Kahramanmaraş, Karaman, Malatya, and Mersin and the Aleppo Province in Northwest Syria [Frisch 2009: 280, 285 (distribution map)]. The new record, the first for the Turkish Elazığ Province, expands the distribution of *S. meridioanatolicus* further to the north.

Scopaeus minimus Erichson, 1840

New localities. **Russia:** Krasnodar: SSW Kropotkin, Kuban River (45°21'43"N 40°17'08"E), 31.07.2011, leg. Solodovnikov (MNHB). **Turkey:** Istanbul: Altınşehir, 28.07.1969, leg. Besuchet (ABCF). Denizli: Çivril, Çıtak, Menderes River (38°09'23"N 29°38'24"E), 810 m, 14.10.2013, leg. Özgen & Örgel. Samsun: Bafra, 19.05.1967, leg. Besuchet (ABCF).

Discussion. The Pontomediterranean *Scopaeus minimus* is distributed throughout Central and Southeast Europe, Caucasus, Anatolia, and northwestern Iran, where it is recorded as far southeast as Zanjan (Frisch 2010: 196). In Turkey, the species is present in the west and was not yet found east of Samsun, Kayseri, and Hatay (see Anlaş 2009: 292; Sert et al. 2014: 485). It is here for the first time published for Denizli.

Scopaeus minutoides Coiffait, 1969

New localities. **Turkey:** Afyonkarahisar: İhsaniye, Bayramaliler N (39°05'30"N 30°28'42"E), 1190 m, 14.04.2013, leg. Anlaş, Yağmur & Örgel. Antalya: 22 km N Akseki, Teke Geçidi (37°14'34"N 31°46'14"E), 1300 m, 14.02.2011, leg. Schülke (MSCB). Kütahya: Şaphane, 2 km N Üçbaş (38°59'57"N 29°15'42"E), 900 m, 24.04.2010, leg. Anlaş; NW Simav, Efir (39°11'32"N 28°30'13"E), 900 m, 16.05.2013, leg. Yağmur & Örgel; Simav, 2 km W Efir (39°11'52"N 28°50'13"E), 900 m, 16.05.2013, leg. Yağmur & Örgel; Simav, Kaabarmut (39°10'24"N 29°01'00"E), 1220 m, 16.05.2013, leg. Yağmur & Örgel. Uşak: 20 km E Banaz (38°44'40"N 29°58'22"E), 470 m, 23.04.2010, leg. Anlaş.

Discussion. *Scopaeus minutoides* is a Southwest Anatolian endemic species [Frisch 2006c: 269 (distribution map)], which was not yet found east of a line from Istanbul (Frisch 1998: 98) to Kırşehir (Sert et al. 2014: 485) and Adana (Frisch 2002: 20). *Scopaeus minutoides* is here for the first time recorded for Afyonkarahisar, Kütahya, and Uşak.

Remark. A record from the Iranian province West Azarbaijan (Sakenin et al. 2008a) is doubtlessly based on a misidentification. Though this erroneous record was already rejected by Frisch (2010: 199), it unfortunately appears again in the checklist of Iranian rove beetles by Samin et al. (2011a: 146).

Scopaeus mutatus Gemminger & Harold, 1868

New localities. **Iran:** Gilan: Rasht – Hashtpar (Talesh), Punel (37°31'50"N 49°06'29"E), 20 m, 09.10.2011, leg. Frisch (MNHB); S Astara, 5 km W Lavandvil, Koteh Komeh (38°18'26"N 48°47'14"E), 180 m, 10.10.2011, leg. Frisch (MNHB).

Discussion. The known distribution of *Scopaeus mutatus* reaches from eastern Georgia throughout the South Caspian mountain ranges (Talış Mts, Elburz Mts) and the Turkmeno-Khorassanian mountains to about 60°E in Northeast Iran [Frisch 2009: 277, 285 (distribution map)]. The species has also been found in the Aras Valley as far west as 46°E (Iran) which is why it might also be present in Turkey in the upper reaches of the Aras River.

Scopaeus mutatus is common in the South Caspian coastal plain, but not yet recorded for the north of Gilan.

Remark. Contrary to Bordoni (2010: 137), *Scopaeus mutatus* is not known from Turkey. Records from Anatolia (Frisch et al. 2002, suppl.: 9) refer to *S. khnzoriani* Coiffait, 1968, which stood in synonymy of *S. mutatus* until it was revalidated by Frisch (2009: 278).

Scopaeus persicus Frisch, 1994

New localities. **Iran:** **Ilam:** 10 km NW Eyvan, 5 km W Alamdar (33°51'34"N 46°11'10"E), 1170 m, 18.10.2011 (MNHB); 10 km S Ilam City (33°34'15"N 46°25'04"E), 1300 m, 19.10.2011, leg. Frisch (MNHB); Ilam – Darreh Shar road, 30 km NW Abher-e Bala (33°26'42"N 46°47'16"E), 1080 m, 19.10.2011, leg. Frisch (MNHB). **Lorestan:** 20 km SW Borujerd (33°46'23"N 48°39'06"E), 1740 m, 15.10.2011, leg. Frisch (MNHB); 15 km NE Alashtar (Mt. Garri) (33°57'59"N 48°19'50"E), 1900 m, 16.10.2011, leg. Frisch (MNHB); 35 km E Kuhdasht, Kashkan (33°35'20"N 47°52'52"E), 1010 m, 17.10.2011, leg. Frisch (MNHB).

Discussion. *Scopaeus persicus* is endemic to the Zagros Mountains, Iran [Frisch 2010: 166 (distribution map)], but was not yet recorded for Ilam.

Scopaeus pusillus Kiesenwetter, 1843

New localities. **Turkey:** **Kütahya:** Simav, Kaabarmut (39°10'24"N 29°01'02"E), 1240 m, 23.06.2013, leg. Yağmur & Örgel. **Manisa:** Soma, Hamidiye (39°16'39"N 27°45'50"E), 830 m, 08.04.2007, leg. Anlaş.

Discussion. *Scopaeus pusillus* is a West Palaearctic species the known range of which reaches from West Europe east to the Altai and Baikal regions in western Siberia (Frisch 1997b: 528, 529). The distribution in Turkey was mapped by Frisch (2002: 18) and compiled at province level by Anlaş (2009: 293). It is roughly confined to Anatolia northwest of a line from the western Konya Province to Giresun in the northeast. It is here for the first time recorded for the Manisa and Kütahya Provinces.

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