

Additions to the Ant Fauna of Turkey (Hymenoptera, Formicidae)

Kadri KIRAN & Celal KARAMAN



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COUVERTURE / *COVER*:

Worker of *Temnothorax rogeri* Emery, 1869, head from dorsal view.

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Diffusion – Publications scientifiques Muséum national d'Histoire naturelle

CP 41 – 57 rue Cuvier F-75231 Paris cedex 05 (France)

Tél. : 33 (0)1 40 79 48 05 / Fax: 33 (0)1 40 79 38 40

diff.pub@mnhn.fr / <http://sciencepress.mnhn.fr>

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ISSN (imprimé / *print*): 1280-9551/ ISSN (électronique / *electronic*): 1638-9387

Additions to the Ant Fauna of Turkey (Hymenoptera, Formicidae)

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Submitted on 20 February 2019 | Accepted on 12 December 2019 | Published on 24 June 2020

[urn:lsid:zoobank.org:pub:A9F490C6-E406-45CC-B5D3-B949712E2DEB](https://zoobank.org/pub:A9F490C6-E406-45CC-B5D3-B949712E2DEB)

Kiran K. & Karaman C. 2020. — Additions to the Ant Fauna of Turkey (Hymenoptera, Formicidae). *Zoosystema* 42 (18): 285-329. <https://doi.org/10.5252/zoosystema2020v42a18>. <http://zoosystema.com/42/18>

ABSTRACT

Based on material collected between the years 1988-2015 numerous new province and country records of ants from Turkey are given. A total of 143 ant species were listed of which six: *Cataglyphis machmal* Radchenko & Arakelian, 1991, *Lasius illyricus* Zimmerman, 1935, *Monomorium barbatulum* Mayr, 1877, *Myrmica caucasicola* Arnol'di, 1934, *Temnothorax chypeatus* (Mayr, 1853) and *Temnothorax rogeri* Emery, 1869 are new for Turkish ant fauna. Based on most recent taxonomic data and studies on distributional patterns we also excluded from Turkish ant fauna fifteen species: *Bothriomyrmex corsicus* Santschi, 1923, *Anoplolepis gracilipes* (F. Smith, 1857), *Cataglyphis cursor* (Fonscolombe, 1846), *C. rubra* (Forel, 1903), *Lasius paralienus* Seifert, 1992, *Plagiolepis pallescens maura* Santschi, 1920, *Proformica nasuta* (Nylander, 1856), *Aphaenogaster semipolita* (Nylander, 1856), *A. testaceopilosa* (Lucas, 1849), *Crematogaster auberti* Emery, 1869, *C. scutellaris* (Oliver, 1792), *Solenopsis geminata* (Fabricius, 1804), *Temnothorax nylanderi* (Förster, 1850), *T. crassispinus* (Karavaiev, 1926) and *Tetramorium semilaeve* André, 1883. Taxonomic position and new species names which were given in publications following the first Turkish checklist in 2012 are also discussed. The available faunal data showed that the ant fauna of Turkey is represented currently with 362 taxa.

KEY WORDS

Entomology,
checklist,
faunistic,
Turkey,
new records.

RÉSUMÉ

Compléments à la faune des fourmis de Turquie (Hymenoptera, Formicidae).

Sur la base des données recueillies entre 1988 et 2015, de nombreuses nouvelles signalisations de fourmis de Turquie sont données par provinces et par pays. Au total, 143 espèces de fourmis ont été répertoriées, dont six : *Cataglyphis machmal* Radchenko & Arakelian, 1991, *Lasius illyricus* Zimmerman, 1935, *Monomorium barbatulum* Mayr, 1877, *Myrmica caucasicola* Arnol'di, 1934, *Temnothorax chypeatus* (Mayr, 1853) et *Temnothorax rogeri* Emery, 1869 sont nouvelles pour la faune des fourmis turques. Sur la base des données taxonomiques les plus récentes et des études sur les schémas de distribution, nous avons également exclu quinze espèces de la faune des fourmis turques : *Bothriomyrmex corsicus* Santschi, 1923, *Anoplolepis gracilipes* (F. Smith, 1857), *Cataglyphis cursor* (Fonscolombe, 1846), *C. rubra* (Forel, 1903), *Lasius paralienus* Seifert, 1992, *Plagiolepis pallescens maura* Santschi, 1920, *Proformica nasuta* (Nylander, 1856), *Aphaenogaster semipolita* (Nylander, 1856), *A. testaceopilosa* (Lucas, 1849), *Crematogaster auberti* Emery, 1869, *C. scutellaris* (Oliver, 1792), *Solenopsis geminata* (Fabricius, 1804), *Temnothorax nylanderi* (Förster, 1850), *T. crassispinus* (Karavaiev, 1926) et *Tetramorium semilaeve* André, 1883. La position taxonomique et les nouveaux noms d'espèces qui ont été donnés dans les publications suite à la première liste turque en 2012 sont également discutés. Les données faunistiques disponibles montrent que la faune des fourmis de Turquie est actuellement représentée par 362 taxons.

MOTS CLÉS

Entomologie,
liste,
faunistique,
Turquie,
signalisations nouvelles.

INTRODUCTION

According to the first and the only checklist on Turkish ant fauna (Kiran & Karaman 2012), the current number of ant taxa represented in Turkey is evidently higher than in the neighbouring countries. The nearest most diverse ant fauna is that of Greece with 315 species (Salata & Borowiec 2018b), followed by Iran with more than 250 species (Rad *et al.* 2018; Khalili-Moghadam *et al.* 2019), Bulgaria with 186 species (Lapeva-Gjonova *et al.* 2010; Lapeva-Gjonova *et al.* 2014; Kiran *et al.* 2017; Borowiec *et al.* 2019), and Georgia with 145 species (Gratiashvili *et al.* 2010; Salata & Borowiec 2018a). One can explain, at first glance, such a substantial species number by comparatively larger land surface area of the country. But the geographical position of the country, as a junction point of European and Asian continents, and its latitudinally and longitudinally different climatic conditions may also be responsible for the diverse ant fauna. On the other hand, the high species number does not mean that Turkey has been thoroughly investigated with intense faunal studies. For instance, the recent checklist of Turkey revealed that no ant records were reported for nine of the 81 provinces and that 29 provinces were represented in the list with only one to five species (Kiran & Karaman 2012).

In this study, we update distribution data of taxa previously recorded from Turkey and provide new faunistic records of species hitherto unknown for the country.

MATERIAL AND METHODS

The material included in the study was collected from 1988 to 2015 by the authors and various other researchers whose names were indicated in the result section. The material is deposited in the Entomological Museum of Trakya University, Edirne, Turkey (EMTU) and three specimens of some new records for Turkey (*Lasius illyricus* Zimmerman, 1935, *Monomorium barbatulum* Mayr, 1877, *Myrmica caucasicola* Arnol'di, 1934 and *Temnothorax rogeri* Emery, 1869) are also deposited in the Muséum national d'Histoire naturelle (MNHN), Paris, France.

The results are given alphabetically beginning from the higher taxa. Bolton (2019) was used for current classification of ant taxonomy considering Seifert *et al.* (2016). The locality, elevation, collection date, coordinates (if any) of each taxon and their collectors are given. Taxonomic comments are added for some species.

Provinces of Turkey are indicated by bold in the material examined.

The numbers of species present in each province are shown in Fig. 1 using a colour code.

ABBREVIATIONS

Institutions

EMTU	Entomological Museum of Trakya University, Edirne;
MNHN	Muséum national d'Histoire naturelle, Paris.

Specimens

♀	queen;
♂	male;
♂	soldier;
♀	worker.

Symbols

*	New record for Turkish ant fauna,
**	New record for Asia.

RESULTS

Family FORMICIDAE Latreille, 1809
Subfamily DOLICHODERINAE Forel, 1878
Genus *Dolichoderus* Lund, 1831

Dolichoderus quadripunctatus (Linnaeus, 1771)

Formica quadripunctata Linnaeus, 1771: 541.

MATERIAL EXAMINED. — **Turkey** • 18 ♀; **Bilecik**, Bozüyük, Varyüzü Vill.; 39°55'603"N, 29°58'857"E; 720 m; 13.VI.2004; K. Kiran leg.; EMTU 04/0202 • 1 ♀; **Bursa**, Uludağ Mt.; 40°07'58"N, 29°01'02"E; 423 m; 26.VII.2009; K. Kiran leg.; EMTU 09/0045f • 2 ♀; **İznik**; 40°25'48"N, 29°43'19"E; 80 m; 02.VIII.2001; K. Kiran leg.; EMTU 01/0957b • 14 ♀; Kestel, Saitabat Vill.; 40°08'N, 29°13'E; 700 m; 14.VIII.2014; C. Karaman leg.; EMTU 07/2360a • 29 ♀; Osmangazi, Gökçeören; 40°08'N, 29°01'E; 810 m; 14.VIII.2014; C. Karaman leg.; EMTU 07/2347a • 26 ♀; **Denizli**, Babadağ, Kiranyer Vill.; 37°48'N, 28°48'E; 966 m; 11.VIII.2014; C. Karaman leg.; EMTU 07/2246 • 1 ♀; Yeniköy; 37°47'N, 28°52'E; 840 m; 13.VIII.2014; C. Karaman leg.; EMTU 07/2315c • 6 ♀; **Edirne**, Karaağaç; 41°39'N, 26°31'E; 39 m; 08.V.2007; K. Kiran leg.; EMTU 07/0055b • 1 ♀; same collection data as for preceding; 7.VIII.2010; K. Kiran leg.; EMTU 10/0015 • 14 ♀; same collection data as for preceding; 3.IV.2012; K. Kiran leg.; EMTU 12/0008a • 1 ♀; **Karabük**, Safranbolu; 41°14'42"N, 32°43'26"E; 287 m; 16.V.2005; K. Kiran leg.; EMTU 05/0006b • 1 ♀, 24 ♀; same collection data as for preceding; 30.VII.2005; K. Kiran leg.; EMTU 05/0021a • 2 ♀; same collection data as for preceding; 31.VII.2005; K. Kiran leg.; EMTU 05/0027b • 1 ♀; same collection data as for preceding; 7.VIII.2005; K. Kiran leg.; EMTU 05/0031b • 6 ♀; Bulak Vill.; 41°15'N, 32°39'E; 622 m; 14.VIII.2005; K. Kiran leg.; EMTU 05/0035d • 1 ♀; **Tekirdağ**, Ganos Mt.; 40°47'N, 27°15'E; 360 m; 17.V.2003; K. Kiran leg.; EMTU 03/0209f • 11 ♀; Saray, Küçükyoncalı Vill.; 41°24'42"N, 27°58'06"E; 151 m; 23.VIII.2001; E. Demirtaş leg.; EMTU 01/1060 • 1 ♀; same collection data as for preceding; E. Demirtaş leg.; EMTU 01/1064a • 18 ♀; Şarköy, Uçmakdere Vill.; 40°47'54.50"N, 27°21'55.10"E; 111 m; 17.V.2015; C. Karaman leg.; EMTU 15/0034a • 1 ♀, 1 ♂, 30 ♀; **Uşak**, Eşme, Yeleğen Vill.; 38°20'N, 28°57'E; 693 m; 10.VIII.2014; C. Karaman leg.; EMTU 07/2149 • 3 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 07/2153a.

DISTRIBUTION IN TURKEY. — Afyonkarahisar, Balıkesir, Burdur, Çanakkale, Isparta, İstanbul, İzmir, Kırklareli, Kocaeli, Yalova.

Genus *Liometopum* Mayr, 1861

Liometopum microcephalum (Panzer, 1798)

Formica microcephala Panzer, 1798: no. 1652.

MATERIAL EXAMINED. — **Turkey** • 1 ♀; **Adana**, Kozan, Eskimantaş Vill.; 37°31.85'N, 35°54.72'E; 405 m; 06.VI.2009; T. Gülkan &

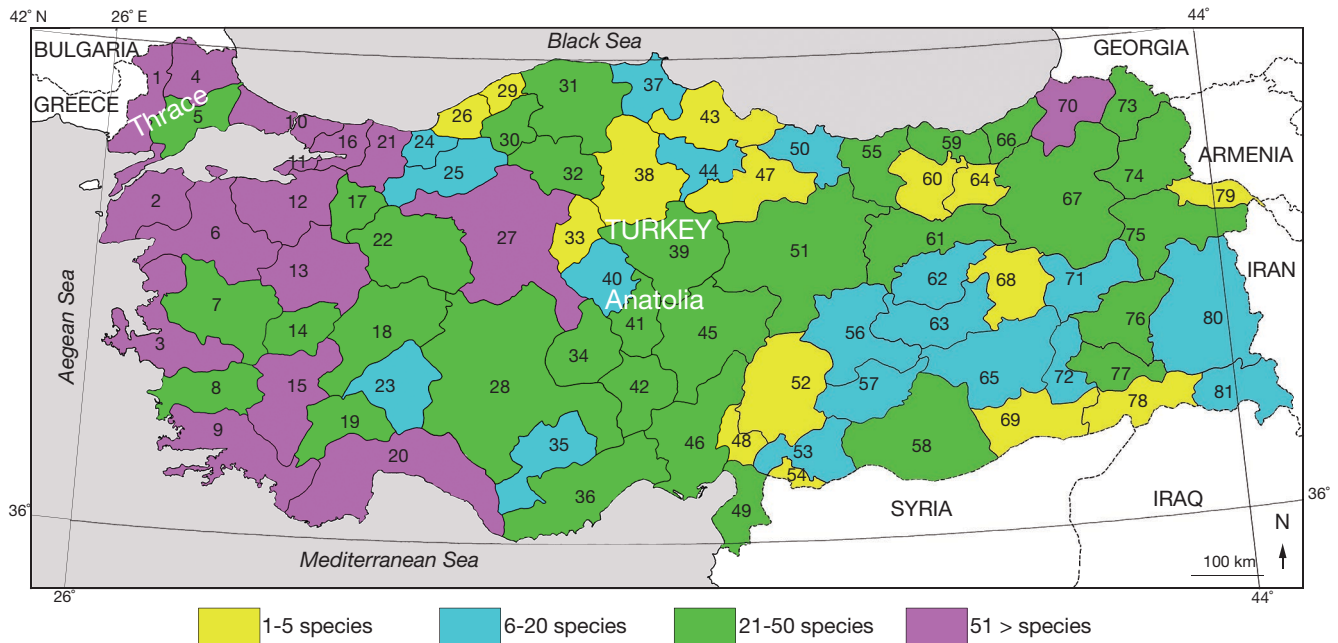


FIG. 1. — The map showing provincial borders in Turkey, each province was given a number, colours show comparative level of study, based on the recorded number of species. Numbers in parentheses in the below list of provinces indicate the number of species recorded in a province: 1, Edirne (67); 2, Çanakkale (57); 3, İzmir (83); 4, Kırklareli (87); 5, Tekirdağ (29); 6, Balıkesir (65); 7, Manisa (37); 8, Aydın (30); 9, Muğla (52); 10, İstanbul (89); 11, Yalova (52); 12, Bursa (103); 13, Kütahya (56); 14, Uşak (21); 15, Denizli (56); 16, Kocaeli (71); 17, Bilecik (29); 18, Afyonkarahisarkarahisar (52); 19, Burdur (36); 20, Antalya (85); 21, Sakarya (65); 22, Eskişehir (22); 23, Isparta (25); 24, Düzce (7); 25, Bolu (10); 26, Zonguldak (5); 27, Ankara (53); 28, Konya (44); 29, Bartın (1); 30, Karabük (30); 31, Kastamonu (26); 32, Çankırı (24); 33, Kırıkkale (5); 34, Aksaray (22); 35, Karaman (7); 36, Mersin (48); 37, Sinop (6); 38, Çorum (1); 39, Yozgat (30); 40, Kırşehir (17); 41, Nevşehir (21); 42, Niğde (24); 43, Samsun (3); 44, Amasya (15); 45, Kayseri (43); 46, Adana (26); 47, Tokat (3); 48, Osmaniye (4); 49, Hatay (22); 50, Ordu (9); 51, Sivas (37); 52, Kahramanmaraş (2); 53, Gaziantep (19); 54, Kilis (3); 55, Giresun (25); 56, Malatya (16); 57, Adıyaman (12); 58, Şanlıurfa (28); 59, Trabzon (42); 60, Gümüşhane (4); 61, Erzincan (37); 62, Tunceli (11); 63, Elazığ (17); 64, Bayburt (2); 65, Diyarbakır (10); 66, Rize (21); 67, Erzurum (38); 68, Bingöl (2); 69, Mardin (4); 70, Artvin (74); 71, Muş (15); 72, Batman (7); 73, Ardahan (32); 74, Kars (42); 75, Ağrı (21); 76, Bitlis (24); 77, Siirt (28); 78, Şırnak (2); 79, Iğdır (5); 80, Van (18); 81, Hakkari (19).

E. Atay leg.; EMTU 09/1093 • 1 ♀; **Antalya**, Alanya, Dim River; 36°31'N, 32°03'E; 26.V.1998; N. Jansson leg.; EMTU 98/1726 • 1 ♀; same collection data as for preceding; N. Jansson leg.; EMTU 98/1727 • 1 ♀; **Manisa**, Köprübaşı, Kurtlar Vill.; 38°43'N, 28°17'E; 600 m; 10.VIII.2014; C. Karaman leg.; EMTU 07/2115d • 28 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 07/2117a • 1 ♀; **Tunceli**, Demirkapı Vill.; 39°05'N, 39°23'E; 30.VII.2010; N. Deniz leg.; EMTU 10/0106 • 2 ♀; Pertek, Ardıç Vill.; 38°58'N, 39°17'E; 24.VII.2010; N. Deniz leg.; EMTU 10/0109 • 1 ♀; same collection data as for preceding; N. Deniz leg.; EMTU 10/0113 • 1 ♀; same collection data as for preceding; N. Deniz leg.; EMTU 10/0114 • 1 ♀; same collection data as for preceding; N. Deniz leg.; EMTU 10/0116 • 1 ♀; same collection data as for preceding; N. Deniz leg.; EMTU 10/0124 • 1 ♀; same collection data as for preceding; N. Deniz leg.; EMTU 10/0126 • 50 ♀; **Uşak**, Sivasslı; 38°30'N, 29°43'E; 1161 m; 23.VIII.2014; C. Karaman leg.; EMTU 08/2284.

DISTRIBUTION IN TURKEY. — Bursa, Balıkesir, Edirne, Kırklareli, Siirt.

Genus *Tapinoma* Foerster, 1850

Tapinoma erraticum (Latreille, 1798)

Formica erratica Latreille, 1798: 44.

MATERIAL EXAMINED. — **Turkey** • 4 ♀; **Adıyaman**, Reşadiye River; 37°59'27.69"N, 38°0'22.10"E; 1339 m; 01.V.2011; S. Hazır leg.; EMTU 11/0007b • 30 ♀; **Aksaray**, Çiftlik; 38°37'07"N, 33°50'45"E; 1500 m; 21.VIII.2001; K. Kiran leg.; EMTU 01/0832 • 50 ♀; **Çankırı**,

Sungurlu; 40°09'N, 34°22'E; 825 m; 24.VIII.2004; K. Kiran leg.; EMTU 04/0613a • 25 ♀; **Eskişehir**, Sivrihisar; 39°26'N, 31°32'E; 740 m; 28.VIII.2004; K. Kiran leg.; EMTU 04/0849a • 1 ♀; **Karabük**, Safranbolu; 41°14'42"N, 32°43'26"E; 287 m; 15.VIII.2005; K. Kiran leg.; EMTU 05/0037d • 50 ♀; **Karaman**, Karadağ Mt.; 37°23'N, 33°09'E; 2100 m; 27.VIII.2006; K. Kiran leg.; EMTU 04/0775 • 1 ♂; **Kayseri**, Bünyan, Köprübaşı Vill.; 38°40'N, 36°02'E; 06.VI.2008; M. Aydoğdu leg.; EMTU 08/0149d • 1 ♂; Pınarbaşı, Aşağıkızılçevlik Vill.; 38°50'N, 36°32'E; 23.VI.2009; Ö. Erdoğan leg.; EMTU 09/0117 • 28 ♀; **Kırşehir**, Kaman, Hirfanlı Dam; 39°16'21"N, 33°32'09"E; 880 m; 23.VIII.2004; K. Kiran leg.; EMTU 04/0576a • 50 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0583a • 1 ♀, 18 ♀; **Kilis**; 36°42'44"N, 37°05'23"E; 740 m; 03.V.2012; U. Güner leg.; EMTU 12/0003a • 28 ♀; **Konya**, Yunak; 38°48'N, 31°44'E; 1300 m; 28.VIII.2004; K. Kiran leg.; EMTU 04/0822 • 1 ♀; **Kütahya**; 39°12'22"N, 30°08'27"E; 1300 m; 13.VI.2004; K. Kiran leg.; EMTU 04/0176b • 50 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0189 • 2 ♀; Dumlupınar, Yüyük Vill.; 38°54'N, 29°55'E; 1615 m; 18.VIII.2014; C. Karaman leg.; EMTU 08/2076c • 19 ♀; **Nevşehir**, Ürgüp, Ayrıvalı Vill.; 38°32'52"N, 34°52'11"E; 1500 m; 17.VIII.2001; K. Kiran leg.; EMTU 01/0762b • 1 ♀; **Gülşehir**; 38°44'N, 34°39'E; 07.VI.2007; M. Aydoğdu leg.; EMTU 07/0079 • 1 ♂; **Hacıbektaş**; 38°57'43"N, 34°33'29"E; 07.VI.2007; M. Aydoğdu leg.; EMTU 07/0083b • 1 ♀; **Niğde**, Gümüşler Vill.; 37°59'39"N, 34°46'16"E; 1500 m; 20.VIII.2001; K. Kiran leg.; EMTU 01/0799c • 36 ♀; same collection data as for preceding; 1700 m; K. Kiran leg.; EMTU 01/0802 • 10 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 01/0804b • 3 ♀; **Çamardı**, Elekgölü Vill.; 37°45'21"N, 35°01'36"E; 1550 m; 20.VIII.2001; K. Kiran leg.; EMTU 01/0815a • 1 ♀, 19 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 01/0816 • 1 ♂, 1 ♀; **Sivas**, Hafik, Durulmuş Vill.; 39°50'18"N, 37°18'53"E;

1275 m; 31.V.2007; M. Aydoğdu leg.; EMTU 07/0092b • 1 ♀, 4 ♂, 86 ♀; **Şanlıurfa**, Sırrın; 37°09'45"N, 38°50'24"E; 488 m; 01.VIII.2011; C. Karaman leg.; EMTU 11/0066a • 50 ♀; **Şirnak**, Cizre; 37°19'N, 42°11'E; 400 m; 15.II.2010; I. Avcı leg.; EMTU 10/0136 • 3 ♀; **Trabzon**, Çaykara, Uzungöl Lake; 40°38'33"N, 40°16'21"E; 1800 m; 17.VIII.2000; K. Kiran leg.; EMTU 00/0180c • 5 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 00/0196 • 2 ♀; **Tunceli**, Pertek; 38°51'N, 39°20'E; 13.VI.2008; A. Beyarslan leg.; EMTU 08/0152 • 1 ♂; Pülümür, Cankurtaran; 39°29'N, 39°53'E; 13.VI.2008; Ö. Erdoğan leg.; EMTU 08/0178a.

DISTRIBUTION IN TURKEY. — Afyonkarahisar, Ağrı, Ankara, Antalya, Balıkesir, Bitlis, Bursa, Çanakkale, Edirne, Elazığ, Erzincan, Erzurum, Gaziantep, Hakkari, İstanbul, İzmir, Kars, Kırklareli, Kocaeli, Muş, Sakarya, Siirt, Yalova.

REMARKS

In recent paper on Albanian ants Wagner *et al.* (2018b) suggested that southern populations from Balkan area and adjacent regions recorded as *Tapinoma erraticum* represent a cryptic undescribed species. Probably Turkish populations belong to the same taxon, but until a formal description we consider them as *T. erraticum*.

Tapinoma festae Emery, 1925

Tapinoma simrothi subsp. *festae* Emery, 1925: 51.

MATERIAL EXAMINED. — **Turkey** • 5 ♂, 15 ♀; **İzmir**, Karşıyaka; 38°27'16"N, 27°06'23"E; 5 m; 19.V.2013; C. Karaman leg.; EMTU 13/0149a.

DISTRIBUTION IN TURKEY. — Antalya.

Tapinoma cf. *festae* Emery, 1925

MATERIAL EXAMINED. — **Turkey** • 5 ♀; **Adana**; 37°03'46"N, 35°21'21"E; 154 m; 22.VI.2004; K. Kiran leg.; EMTU 04/0011f • 50 ♀; **Ceyhan**; 37°01'N, 35°49'E; 25.IV.2013; C. Karaman leg.; EMTU 13/0169a • 1 ♀; **Pozantı**, Kamışlı Vill.; 37°33'N, 34°56'E; 800 m; 18.VI.2010; I. Avcı leg.; EMTU 10/0146d • 14 ♀; **Amasya**; 40°39'N, 35°50'E; 450 m; 01.VIII.2015; C. Karaman leg.; EMTU 15/0048a • 4 ♀; **Antalya**, Belek; 36°51'N, 31°03'E; 01.VII.2012; C. Karaman leg.; EMTU 12/0069c • 9 ♀; **Gazipaşa**; 36°16'N, 32°20'E; 15.IV.2014; C. Karaman leg.; EMTU 14/0120d • 4 ♀; **Kemer**, Tekirova Vill.; 36°30.220'E, 30°31.373'E; 21 m; 17.V.2013; A. Lenoir leg.; EMTU 13/0067 • 5 ♀; **Manavgat**, Karacalar Vill.; 36°44'N, 31°33'E; 01.VII.2004; K. Kiran leg.; EMTU 04/0963b • 3 ♀; **Yeniköy**; 36°50'N, 31°22'E; 01.VII.2012; S. Ülgentürk leg.; EMTU 12/0072e • 3 ♀; **Serik**; 36°55'N, 31°06'E; 01.VII.2012; S. Ülgentürk leg.; EMTU 12/0070a • 26 ♀; **Aydın**; 37°50'N, 27°51'E; 05.V.2010; S. Ülgentürk leg.; EMTU 10/0217 • 5 ♀; **Didim**; 37°22'N, 27°15'E; 20.VIII.2014; C. Karaman leg.; EMTU 14/0117i • 45 ♀; **Kuşadası**; 37°50'40"N, 27°14'40"E; 16 m; 30.VI.2006; K. Kiran leg.; EMTU 06/0016 • 45 ♀; **Balıkesir**, Ayvalık; 39°20'10"N, 26°42'38"E; 0 m; 18.VII.2012; K. Kiran leg.; EMTU 12/0029a • 4 ♀; **Sarımsaklı**; 39°16'02"N, 26°40'58"E; 0 m; 13.VII.2012; K. Kiran leg.; EMTU 12/0028 • 1 ♀; **Burhaniye**, Ören Beach; 39°29'49"N, 26°55'58"E; 0 m; 19.V.2013; C. Karaman leg.; EMTU 13/0153g • 10 ♀; **Hatay**; 36°12'N, 36°11'E; 10.V.2015; S. Yıldız leg.; EMTU 15/0043a • 13 ♀; **İstanbul**; 41°00'N, 28°58'E; 03.XI.2012; A. Lenoir leg.; EMTU 12/0085 • 11 ♀; **Büyükçekmece**, Göktürk; 41°00'N, 28°31'E; 12.V.2012; C. Karaman leg.; EMTU 12/0021c • 3 ♀,

12 ♀; **Eyüp**; 41°03'15"N, 28°56'01"E; 74 m; 01.V.2014; C. Karaman leg.; EMTU 14/0126a • 13 ♀; **Maltepe**; 40°55'N, 29°09'E; 12.V.2013; C. Karaman leg.; EMTU 13/0167a • 27 ♀; **İzmir**, Bayraklı; 38°29'39"N, 27°08'47"E; 252 m; 18.V.2013; C. Karaman leg.; EMTU 13/0148a • 9 ♀; **Bornova**; 38°27'N, 27°14'E; 10.IX.2004; K. Kiran leg.; EMTU 04/0395a • 2 ♀; **Çeşme**, Ilıca; 38°18'56"N, 26°20'44"E; 0 m; 21.VII.2009; K. Kiran leg.; EMTU 09/0041c • 4 ♀; **Karaburun**; 38°37'54"N, 26°31'34"E; 11 m; 21.VII.2013; C. Karaman leg.; EMTU 13/0152c • 50 ♀; **Konak**; 38°25'07"N, 27°07'43"E; 9 m; 17.V.2013; C. Karaman leg.; EMTU 13/0145a • 2 ♀; **Seferihisar**, Sığacık Vill.; 38°11'N, 26°46'E; 27.VII.2013; C. Karaman leg.; EMTU 13/0164a • 8 ♀; **Selçuk**, Şirince; 37°56'N, 27°25'E; 17.VIII.2014; C. Karaman leg.; EMTU 14/0118b • 2 ♀; **Kayseri**; 38°43'N, 35°28'E; 21.VIII.2013; C. Karaman leg.; EMTU 13/0171a • 11 ♀; **Kırşehir**, Kaman, Hirfanlı Vill.; 39°16'15"N, 33°30'57"E; 880 m; 23.VIII.2004; K. Kiran leg.; EMTU 04/0585 • 1 ♀; **Malatya**, Akçadağ, Sultansuyu Studfarm; 38°20'36"N, 38°03'35"E; 881 m; 03.VI.2007; M. Yurtcan leg.; EMTU 07/0072 • 33 ♀; **Manisa**, Gölarmara, Yeniköy; 38°39'N, 28°02'E; 98 m; 09.VIII.2014; C. Karaman leg.; EMTU 07/2104a • 4 ♀; **Mersin**, Tarsus; 36°54'N, 34°53'E; 15.V.2015; S. Yıldız; EMTU 15/0044b • 9 ♀; **Muğla**, Bodrum, Türkbükü; 37°07'55"N, 27°22'51"E; 0 m; 18.IX.2010; C. Karaman leg.; EMTU 10/0152a • 3 ♀; **Nevşehir**, Avanos; 38°43'N, 34°51'E; 13.V.2013; A. Lenoir leg.; EMTU 13/0050 • 50 ♀; **Osmaniye**, Zorkun Upland; 36°56'55"N, 36°21'35"E; 1575 m; 13.VI.2010; I. Avcı leg.; EMTU 10/0142b • 21 ♀; **Şanlıurfa**, Bozova; 37°28'11"N, 38°18'41"E; 529 m; 25.IV.2015; C. Karaman leg.; EMTU 15/0012c.

REMARKS

Tapinoma subboreale Emery, 1925 is distributed in Albania, Austria, Belarus, Belgium, Bosnia and Hercegovina, Britain, Bulgaria, Croatia, Czech Rep., France: Corsica, mainland, Germany, Greece, Hungary, Italy: mainland, Lithuania, Luxembourg, Moldova, Montenegro, Netherlands, Poland, Portugal, Romania, Russia, Serbia, Slovakia, Slovenia, Spain: Balears, mainland, Sweden, Switzerland, Turkey, Ukraine (Borowiec & Salata 2012). Borowiec & Salata (2012) stated that *T. subboreale* occurs in Greece and Turkey but in eastern part of the Mediterranean basin this species is very rare and occurs only in its northern borders. In the Aegean and Anatolian Regions *T. subboreale* is replaced by a sister species: *T. festae*. Both species are extremely similar in worker and gyne castes and are easy to distinguish only by study male genitalia. Re-examination of material from Greece showed that only *T. festae* occurs in that country and that previous data on *T. subboreale* were based on misidentification (Lech Borowiec, personal communication). The material given here as *Tapinoma* cf. *festae* contains only workers and gynes, and it is not possible to separate *T. festae* from *T. subboreale* without examination on male genitalia. In this manner, according to their distributional dominance in the region this material without males are left as *Tapinoma* cf. *festae* for now and need further investigation.

Tapinoma simrothi Krausse, 1911

Tapinoma erraticum var. *simrothi* Krausse, 1911: 18.

MATERIAL EXAMINED. — **Turkey** • 7 ♀; **Afyonkarahisar**, Emirdağ, Çaykışla Vill.; 38°50'N, 31°16'E; 1450 m; 24.VIII.2014; C. Karaman

leg.; EMTU 08/2387b • 4 ♀; Bayat, Akpınar Vill.; 38°51'N, 30°56'E; 1399 m; 24.VIII.2014; C. Karaman leg.; EMTU 08/2360c • 22 ♀; **Aksaray**, Çiftlik; 38°37'07"N, 33°50'45"E; 1500 m; 21.VIII.2001; K. Kiran leg.; EMTU 01/0837b • 3 ♀; **Balıkesir**, Sındırgı, Aktaş Vill.; 39°08'N, 28°11'E; 793 m; 09.VIII.2014; C. Karaman leg.; EMTU 07/2047b • 1 ♀; **Bursa**, Gemlik, Şahinyurdu Vill.; 40°28'01"N, 29°12'58"E; 950 m; 12.VIII.1998; K. Kiran leg.; EMTU K98/0589c • 1 ♀, 1 ♂; **Elazığ**, Baskil, Canbeyler Vill.; 38°33'24"N, 38°49'00"E; 1116 m; 06.VI.2007; M. Yurtcan leg.; EMTU 07/0033b • 3 ♀; **İstanbul**, Şile, Ağva; 41°07'59"N, 29°50'33"E; 0 m; 20.VIII.2012; C. Karaman leg.; EMTU 12/0064a • 7 ♀; **Kastamonu**; 41°23'N, 33°46'E; 775 m; 30.IV.2011; C. Karaman leg.; EMTU 11/0102h • 4 ♀; **Kocaeli**, Karamürsel, Senaiye Vill.; 40°37'51"N, 29°41'10"E; 650 m; 16.VIII.1998; K. Kiran leg.; EMTU K98/0760a • 1 ♂; **Malatya**, Akçadağ, Darıca; 38°20'39"N, 38°40'22"E; 1540 m; 05.VI.2007; E. Çoban leg.; EMTU 07/0041a • 1 ♂; Sultansuyu Studfarm; 38°20'36"N, 38°03'35"E; 881 m; 05.VI.2007; E. Çoban leg.; EMTU 07/0039a • 2 ♀; Darende; 38°33'N, 37°29'E; 07.VI.2008; A. Beyarslan leg.; EMTU 08/0146 • 1 ♂; Doğanşehir, Polatdere; 38°08'55"N, 37°57'46"E; 1195 m; 02.VI.2007; E. Çoban leg.; EMTU 08/0144 • 1 ♂; Sürgü Town, Takas recreation area; 38°00'31"N, 37°59'24"E; 1344 m; 08.VI.2008; M. Yurtcan leg.; EMTU 07/0038b • 1 ♀; **Sakarya**, Pamukova, Keltepe; 40°33'43"N, 30°07'39"E; 1350 m; 29.VIII.2004; K. Kiran leg.; EMTU 04/0936b • 1 ♀; **Sivas**, Beypınarı Vill.; 39°51'15"N, 37°07'50"E; 1460 m; 25.VIII.2004; K. Kiran leg.; EMTU 04/0670b • 50 ♀; **Trabzon**, Çaykara, Uzungöl Lake; 40°38'33"N, 40°16'21"E; 1800 m; 17.VIII.2000; K. Kiran leg.; EMTU 00/0192a • 50 ♀; **Yalova**, Armutlu, Mecidiye Vill.; 40°31'22"N, 28°53'26"E; 550 m; 29.VII.1998; K. Kiran leg.; EMTU K98/0381 • 50 ♀; same collection data as for preceding; K. Kiran leg.; EMTU K98/0385 • 8 ♀; **Yozgat**, Akdağmadeni; 39°39'N, 35°53'E; 1370 m; 24.VIII.2004; K. Kiran leg.; EMTU 04/0646.

DISTRIBUTION IN TURKEY. — Artvin, Konya, Thrace.

Tapinoma subboreale Seifert, 2012 **

Tapinoma subboreale Seifert, 2012a: 143.

MATERIAL EXAMINED. — **Turkey** • 3 ♂; **Elazığ**, Cip Dam; 38°40'48"N, 39°03'59"E; 1006 m; 04.VI.2007; E. Çoban leg.; EMTU 07/0063a.

DISTRIBUTION IN TURKEY. — Edirne, Kırklareli. First record from Asia continent.

Subfamily FORMICINAE Latreille, 1809
Genus *Camponotus* Mayr, 1861

Camponotus aegaeus Emery, 1915

Camponotus (Orthonotomymrrex) libanicus var. *aegaea* Emery, 1915b: 4.

MATERIAL EXAMINED. — **Turkey** • 1 ♀; **Rize**, Çamlıhemşin, Ayder Upland; 40°57'N, 41°04'E; 28.VI.2008; Z. Okyar leg.; EMTU 05/0073.

DISTRIBUTION IN TURKEY. — Antalya, Aydın, Balıkesir, Bilecik, Bursa, Çanakkale, İstanbul, İzmir, Kırklareli, Muğla, Sakarya, Yalova.

Camponotus aethiops (Latreille, 1798)

Formica aethiops Latreille, 1798: 35.

MATERIAL EXAMINED. — **Turkey** • 2 ♀; **Burdur**, Göllhisar; 36°57'40"N, 29°27'53"E; 1223 m; 28.VI.2009; N. Jansson & M. Avcı leg.; EMTU 09/1071 • 1 ♀; same collection data as for preceding;

N. Jansson & M. Avcı leg.; EMTU 09/1077 • 1 ♀; same collection data as for preceding; N. Jansson & M. Avcı leg.; EMTU 09/1143 • 1 ♀; same collection data as for preceding; N. Jansson & M. Avcı leg.; EMTU 09/1149 • 1 ♀; same collection data as for preceding; N. Jansson & M. Avcı leg.; EMTU 09/1150 • 1 ♀; same collection data as for preceding; N. Jansson & M. Avcı leg.; EMTU 09/1153 • 9 ♀; **Kastamonu**; 41°23'N, 33°46'E; 775 m; 30.IV.2011; C. Karaman leg.; EMTU 11/0102c • 5 ♀; **Mersin**, Gülnar, Köseçobanlı Vill.; 36°30'22.5"N, 33°07'43.3"E; 24.VI.2006; N. Jansson & M. Coşkun leg.; EMTU 06/0489.

DISTRIBUTION IN TURKEY. — Afyonkarahisar, Ankara, Antalya, Ardahan, Artvin, Balıkesir, Bilecik, Bitlis, Bursa, Çanakkale, Edirne, Erzincan, Erzurum, Giresun, Hakkari, Isparta, İstanbul, İzmir, Kars, Kırklareli, Kocaeli, Konya, Muğla, Muş, Niğde, Sakarya, Siirt, Sivas, Trabzon, Van, Yalova.

Camponotus baldaccii Emery, 1908

Camponotus maculatus subsp. *baldaccii* Emery, 1908a: 198.

MATERIAL EXAMINED. — **Turkey** • 5 ♀; **Adana**, Pozantı, Kamışlı Vill.; 37°33'N, 34°56'E; 800 m; 18.VI.2010; I. Avcı leg.; EMTU 10/0148b • 1 ♀; **Aksaray**, İhlara Valley; 38°15.363' E34°17.772'E; 1295 m; 16.V.2013; A. Lenoir leg.; EMTU 13/0062 • 2 ♀; **Amasya**; 40°39'N, 35°50'E; 450 m; 01.VIII.2015; C. Karaman leg.; EMTU 15/0048g • 1 ♀; **Antalya**, Gündoğmuş; 36°48'N, 31°59'E; 22.V.1998; N. Jansson leg.; EMTU 98/1725 • 4 ♀; Kemer, Çıralı Vill.; 36°26.380'N, 30°29.459'E; 0 m; 18.V.2013; A. Lenoir leg.; EMTU 13/0075 • 1 ♀; Kumluca, Çavuşköy Vill.; 36°21.713'N, 30°28.374'E; 652 m; 20.V.2013; A. Lenoir leg.; EMTU 13/0081 • 40 ♀; **Çankırı**, Sungurlu; 40°09'N, 34°22'E; 825 m; 24.VIII.2004; K. Kiran leg.; EMTU 04/0615 • 2 ♀; **Denizli**; 37°43'N, 29°03'E; 24.VI.2010; K. Kiran leg.; EMTU 10/0047f • 2 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 10/0049c • 1 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 10/0049e • 2 ♀; **Hatay**, Antakya, Harbiye; 36°13'N, 36°09'E; 01.VII.2004; E. Şahutoğlu leg.; EMTU 04/0378 • 3 ♀; **Kırşehir**, Kaman, Hirfanlı Dam; 39°16'21"N, 33°32'09"E; 880 m; 23.VIII.2004; K. Kiran leg.; EMTU 04/0575 • 7 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0584 • 16 ♀; **Konya**, Emirgazi; 37°54'N, 33°50'E; 1210 m; 27.VIII.2006; A. Lenoir leg.; EMTU 04/0768 • 4 ♂, 8 ♀; Yunak, Cebrail Vill.; 38°40'N, 31°36'E; 1170 m; 28.VIII.2004; K. Kiran leg.; EMTU 04/0817 • 2 ♀; **Nevşehir**, Çat Vill.; 38°41.904'N, 34°39.345'E; 998 m; 15.V.2013; A. Lenoir leg.; EMTU 13/0059 • 1 ♀; **Niğde**, Ulukışla; 37°33'00"N, 34°28'58"E; 1800 m; 18.VIII.2001; K. Kiran leg.; EMTU 01/0774.

DISTRIBUTION IN TURKEY. — Antalya, Aydın, Bilecik, Bursa, Çanakkale, Balıkesir, İzmir, Muğla, Thrace.

Camponotus boghossiani Forel, 1911

Camponotus boghossiani Forel, 1911: 357.

MATERIAL EXAMINED. — **Turkey** • 1 ♀; **Burdur**, Göllhisar; 36°57'40"N, 29°27'53"E; 1223 m; 26.VII.2009; N. Jansson leg.; EMTU 09/1146 • 1 ♀; same collection data as for preceding; N. Jansson leg.; EMTU 09/1147 • 1 ♀; **Mersin**, Gülnar, Köseçobanlı Vill.; 36°30'22.5"N, 33°07'43.3"E; 24.VI.2006; N. Jansson & M. Avcı leg.; EMTU 06/0485 • 2 ♀; same collection data as for preceding; N. Jansson & M. Avcı leg.; EMTU 06/0486.

DISTRIBUTION IN TURKEY. — Antalya, Balıkesir, Çanakkale, Muğla.

Camponotus candiotes Emery, 1894

Camponotus lateralis var. *candiotes* Emery, 1894: 10.

MATERIAL EXAMINED. — **Turkey** • 1 ♀; **Mersin**, Erdemli, Devrent; 36°40'N, 34°11'E; 11.VIII.2005; N. Jansson leg.; EMTU 05/0157 • 1 ♀; Gülnar, Köseçobanlı Vill.; 36°30'22.5"N, 33°07'43.3"E; 24.V.2005; N. Jansson & M. Avcı leg.; EMTU 05/0158.

DISTRIBUTION IN TURKEY. — Bursa, Balıkesir, Çanakkale, Yalova.

Camponotus cilicicus Emery, 1908

Camponotus cilicicus Emery, 1908a: 186.

MATERIAL EXAMINED. — **Turkey** • 1 ♀; **Burdur**, Gölhisar; 36°57'40"N, 29°27'53"E; 1223 m; 04.X.2009; N. Jansson leg.; EMTU 09/1134 • 2 ♀; same collection data as for preceding; N. Jansson leg.; EMTU 09/1135 • 1 ♀; same collection data as for preceding; N. Jansson leg.; EMTU 09/1136 • 1 ♀; same collection data as for preceding; N. Jansson leg.; EMTU 09/1138 • 1 ♀; same collection data as for preceding; N. Jansson leg.; EMTU 09/1139 • 1 ♀; **Isparta**, Eğirdir, Yukarıgökdere Vill.; 37°42'984"N, 30°49'899"E; 24.VI.2007; N. Jansson & M. Avcı leg.; EMTU 07/2498 • 1 ♀; same collection data as for preceding; N. Jansson & M. Avcı leg.; EMTU 07/2499 • 1 ♀; same collection data as for preceding; N. Jansson & M. Avcı leg.; EMTU 07/2500 • 1 ♀; same collection data as for preceding; N. Jansson & M. Avcı leg.; EMTU 07/2502 • 3 ♀; **Mersin**, Erdemli; 36°36'N, 34°16'E; 01.VI.2001; N. Jansson leg.; EMTU 01/0168 • 1 ♀; Gülnar, Köseçobanlı Vill.; 36°30'22.5"N, 33°07'43.3"E; 24.V.2005; N. Jansson & M. Avcı leg.; EMTU 05/0154 • 6 ♀; same collection data as for preceding; 26.07.2006; N. Jansson & M. Avcı leg.; EMTU 06/0477.

DISTRIBUTION IN TURKEY. — Adana.

Camponotus dalmaticus (Nylander, 1849)

Formica dalmatica Nylander, 1849: 37.

MATERIAL EXAMINED. — **Turkey** • 10 ♀; **Malatya**, Akçadağ, Sultan-suyu Studfarm; 38°20'36"N, 38°03'35"E; 881 m; 24.VII.2007; M. Yurtcan leg.; EMTU 07/0036b.

DISTRIBUTION IN TURKEY. — Bursa, Çanakkale, İstanbul, Muğla, Yalova, Thrace.

Camponotus fallax (Nylander, 1856)

Formica fallax Nylander, 1856: 57.

MATERIAL EXAMINED. — **Turkey** • 2 ♀; **Burdur**, Gölhisar; 36°57'40"N, 29°27'53"E; 1223 m; 28.VI.2009; N. Jansson & M. Avcı leg.; EMTU 09/1142 • 6 ♀; **Kırklareli**, İğneada; 41°52'N, 27°59'E; 01.V.2013; C. Karaman leg.; EMTU 13/0138b • 1 ♀; **Mersin**, Gülnar, Köseçobanlı Vill.; 36°30'22.5"N, 33°07'43.3"E; 24.VI.2006; N. Jansson & M. Avcı leg.; EMTU 06/0483.

DISTRIBUTION IN TURKEY. — İstanbul, Sakarya, Yalova.

Camponotus gestroi Emery, 1878

Camponotus gestroi Emery, 1878: 44.

MATERIAL EXAMINED. — **Turkey** • 3 ♀; **Antalya**, Manavgat, Yeniköy; 36°50'N, 31°22'E; 01.VII.2012; C. Karaman leg.; EMTU 12/0072h • 1 ♀; **Burdur**, Gölhisar; 36°57'40"N, 29°27'53"E;

1223 m; 22.V.2009; N. Jansson & M. Avcı leg.; EMTU 09/1141 • 9 ♀; **Diyarbakır**, Çermik, Göktepe Vill.; 38°05'N, 39°20'E; 25.VI.2011; A. Şimşek leg.; EMTU 11/0108b • 1 ♀; **Mersin**, Erdemli, Devrent; 36°40'N, 34°11'E; 23.V.2005; N. Jansson & M. Coşkun leg.; EMTU 05/0155 • 1 ♀; same collection data as for preceding; 7.07.2005; N. Jansson & M. Coşkun leg.; EMTU 05/0156.

DISTRIBUTION IN TURKEY. — Balıkesir, Bitlis, Bursa, Çanakkale, Elazığ, Hakkari, İzmir, Thrace.

Camponotus ionius Emery, 1920

Camponotus samius var. *ionia* Emery, 1920: 6.

MATERIAL EXAMINED. — **Turkey** • 1 ♀; **Burdur**, Gölhisar; 36°57'40"N, 29°27'53"E; 1223 m; 25.VII.2009; N. Jansson & M. Avcı leg.; EMTU 09/1081.

DISTRIBUTION IN TURKEY. — Ankara, Aydın, Balıkesir, İzmir, Muğla.

Camponotus kiesenwetteri (Roger, 1859)

Formica (Hypoclinea) kiesenwetteri Roger, 1859: 241.

MATERIAL EXAMINED. — **Turkey** • 2 ♀; **Aydın**, Didim; 37°22'N, 27°15'E; 20.VIII.2014; C. Karaman leg.; EMTU 14/0117j • 1 ♀; **Akbük Vill.**; 37°23'N, 27°26'E; 02.V.2009; S. Ülgentürk leg.; EMTU 09/0296a.

DISTRIBUTION IN TURKEY. — Balıkesir, Muğla.

Camponotus lateralis (Olivier, 1792)

Formica lateralis Olivier, 1792: 497.

MATERIAL EXAMINED. — **Turkey** • 1 ♀; **Karabük**, Safranbolu; 41°15'N, 32°40'E; 287 m; 07.V.2005; K. Kiran leg.; EMTU 05/0004d • 1 ♀; **Bulak Vill.**; 41°15'N, 32°39'E; 21.V.2005; K. Kiran leg.; EMTU 05/0008k • 2 ♀; **Mersin**, Erdemli, Kızılen Vill.; 36°42'N, 34°05'E; 23.V.2005; N. Jansson leg.; EMTU 05/0160 • 1 ♀; Gülnar, Köseçobanlı Vill.; 36°30'22.5"N, 33°07'43.3"E; 24.VI.2006; N. Jansson & M. Coşkun leg.; EMTU 06/0484 • 1 ♀; **Tekirdağ**, Şarköy, İğdebağları; 40°38'11.10"N, 27°08'57.70"E; 95 m; 16.V.2015; C. Karaman leg.; EMTU 15/0014c • 1 ♀; **Uçmakedere**; 40°47'54.50"N, 27°21'55.10"E; 111 m; 17.V.2015; C. Karaman leg.; EMTU 15/0027b • 1 ♂; same collection data as for preceding; C. Karaman leg.; EMTU 15/0027d • 1 ♀, 8 ♀; **Yeniköy**; 40°38'N, 27°02'E; 232 m; 18.V.2015; C. Karaman leg.; EMTU 15/0037b.

DISTRIBUTION IN TURKEY. — Adana, Antalya, Aydın, Balıkesir, Bilecik, Bursa, Çanakkale, Edirne, İstanbul, İzmir, Kırklareli, Kocaeli, Sakarya, Yalova.

Camponotus libanicus André, 1881

Camponotus (Orthonotomyrmex) libanicus André, 1881: 54,

MATERIAL EXAMINED. — **Turkey** • 1 ♀; **Antalya**, Akseki; 37°02'N, 31°47'E; 23.V.1998; N. Jansson leg.; EMTU 98/1734 • 1 ♀; same collection data as for preceding; N. Jansson leg.; EMTU 98/1735.

DISTRIBUTION IN TURKEY. — Adana, Diyarbakır, Elazığ, İzmir.

Camponotus oasium Forel, 1890*Camponotus rubripes* r. *oasium* Forel, 1890: lxx.MATERIAL EXAMINED. — **Turkey** • 2 ♀; **Şanlıurfa**, Siverek; 37°45'N, 39°18'E; 13.V.2015; S. Yıldız leg.; EMTU 15/0047d.

DISTRIBUTION IN TURKEY. — Hakkari.

Camponotus oertzeni Forel, 1889*Camponotus rubripes* r. *Oertzeni* Forel, 1889: 263.MATERIAL EXAMINED. — **Turkey** • 7 ♀; **Burdur**, Gölhisar; 36°57'40"N, 29°27'53"E; 1223 m; 28.VI.2009; N. Jansson & M. Avcı leg.; EMTU 09/1072 • 14 ♀; **Kayseri**, Develi; 38°24'14"N, 35°29'38"E; 1800 m; 15.VIII.2001; K. Kiran leg.; EMTU 01/0711 • 1 ♀; Yeşilhisar, Akköy Dam; 38°20'26"N, 35°01'59"E; 1000 m; 16.VIII.2001; K. Kiran leg.; EMTU 01/0719c • 1 ♀; **Mersin**, Erdemli, Dervent; 36°40'N, 34°11'E; 11.VIII.2005; N. Jansson & M. Coşkun leg.; EMTU 05/0079 • 2 ♀; same collection data as for preceding; N. Jansson & M. Coşkun leg.; EMTU 05/0162 • 1 ♀; Kızılın Vill.; 36°42'N, 34°05'E; 23.V.2005; N. Jansson leg.; EMTU 05/0076 • 2 ♀; same collection data as for preceding; N. Jansson & M. Coşkun leg.; EMTU 05/0077 • 4 ♀; Gülnar, Köseçobanlı Vill.; 36°30'22,5"N, 33°07'43,3"E; 24.VI.2006; N. Jansson & M. Coşkun leg.; EMTU 06/0439 • 1 ♀, 7 ♀; **Nevşehir**, Ürgüp, Ayvalı Vill.; 38°32'52"N, 34°52'11"E; 1500 m; 17.VIII.2001; K. Kiran leg.; EMTU 01/0756b • 11 ♂, 12 ♀; **Niğde**, Çiflik; 38°37'07"N, 33°50'45"E; 1500 m; 21.VIII.2001; K. Kiran leg.; EMTU 01/0835 • 1 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 01/0837c.

DISTRIBUTION IN TURKEY. — Afyonkarahisar, Balıkesir.

Camponotus piceus (Leach, 1825)*Formica picea* Leach, 1825: 292.MATERIAL EXAMINED. — **Turkey** • 2 ♀; **Burdur**, Gölhisar; 36°57'40"N, 29°27'53"E; 1223 m; 28.VI.2009; N. Jansson & M. Avcı leg.; EMTU 09/1144 • 5 ♀; **Kırşehir**, Kaman, Hirfanlı Dam; 39°16'21"N, 33°32'09"E; 880 m; 23.VIII.2004; K. Kiran leg.; EMTU 04/0574a • 1 ♀, 31 ♀; **Nevşehir**, Ürgüp, Ayvalı; 38°32'52"N, 34°52'11"E; 1500 m; 17.VIII.2001; K. Kiran leg.; EMTU 01/0760 • 1 ♀; **Niğde**, Gümüşler Vill.; 37°59'39"N, 34°46'16"E; 1500 m; 20.VIII.2001; K. Kiran leg.; EMTU 01/0798b • 1 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 01/0805f • 5 ♀, 1 ♂, 26 ♀; Ulukışla, Aktoprak Vill.; 37°28'54"N, 34°28'05"E; 1800 m; 18.VIII.2001; K. Kiran leg.; EMTU 01/0779 • 3 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 01/0788b • 2 ♀; **Tekirdağ**, Şarköy, Yeniköy; 40°38'N, 27°02'E; 232 m; 18.V.2015; C. Karaman leg.; EMTU 15/0036h • 1 ♀; **Yozgat**; 39°49'N, 34°48'E; 1250 m; 24.VIII.2004; K. Kiran leg.; EMTU 04/0631 • 1 ♀; Kırım; 39°54'34"N, 34°46'23"E; 1278 m; 29.V.2007; A. Beyarslan leg.; EMTU 07/0091c • 1 ♀; Çayıralan Vill.; 39°18'N, 35°38'E; 1600 m; 26.VIII.2004; K. Kiran leg.; EMTU 04/0723b.

DISTRIBUTION IN TURKEY. — Afyonkarahisar, Ankara, Artvin, Balıkesir, Bilecik, Bursa, Çanakkale, Denizli, Edirne, Isparta, İstanbul, Kırklareli, Kocaeli, Konya, Sakarya, Sivas, Yalova.

Camponotus samius Forel, 1889*Camponotus rubripes* r. *Samius* Forel, 1889: 262.MATERIAL EXAMINED. — **Turkey** • 2 ♀; **Adıyaman**; 37°45'N, 38°16'E; 07.V.2015; S. Yıldız leg.; EMTU 15/0042h • 2 ♀; **Burdur**, Gölhisar;36°57'40"N, 29°27'53"E; 1223 m; 22.VI.2009; N. Jansson & M. Avcı leg.; EMTU 09/1078 • 2 ♀; same collection data as for preceding; 30.VI.2009; N. Jansson & M. Avcı leg.; EMTU 09/1080 • 2 ♀; **Mersin**, Erdemli, Kızılın Vill.; 36°42'N, 34°05'E; 17.VI.2005; N. Jansson & M. Coşkun leg.; EMTU 05/0085 • 1 ♀; **Tunceli**, Pertek, Ardıç Vill.; 38°58'N, 39°17'E; 02.VIII.2010; N. Deniz leg.; EMTU 10/0123.

DISTRIBUTION IN TURKEY. — Antalya, Balıkesir, Bilecik, Bursa, Çanakkale, Edirne, İstanbul, İzmir, Kırklareli, Kocaeli, Muğla, Sakarya, Yalova.

Camponotus sanctus Forel, 1904*Camponotus maculatus* r. *sanctus* Forel, 1904b: 18.MATERIAL EXAMINED. — **Turkey** • 2 ♀; **Antalya**; 36°53'N, 30°42'E; 01.VII.2012; C. Karaman leg.; EMTU 12/0071a • 6 ♀; Kemer, Tekirova Vill.; 36°30.220'N, 30°31.373'E; 21 m; 17.V.2013; A. Lenoir leg.; EMTU 13/0071.

DISTRIBUTION IN TURKEY. — Adana, Ankara, Balıkesir, Bursa, Çanakkale, Erzurum, İzmir, Muğla, Siirt.

Camponotus vogti Forel, 1906*Camponotus vogti* Forel, 1906: 187.MATERIAL EXAMINED. — **Turkey** • 1 ♀; **Adana**; 37°03'46"N, 35°21'21"E; 154 m; 22.VI.2004; K. Kiran leg.; EMTU 04/0011c.

DISTRIBUTION IN TURKEY. — Taurus Mt.

Camponotus xerxes Forel, 1904*Camponotus maculatus* r. *xerxes* Forel, 1904a: 424.MATERIAL EXAMINED. — **Turkey** • 1 ♀; **Adıyaman**; 37°45'N, 38°16'E; 07.V.2015; S. Yıldız leg.; EMTU 15/0042i • 2 ♀; **Erzincan**; 39°44'12"N, 39°28'33"E; 1191 m; 25.VIII.2008; E. Çoban leg.; EMTU 08/0027b • 1 ♀; **Gaziantep**; 36°56'39"N, 37°28'25"E; 696 m; 04.V.2012; U. Güner leg.; EMTU 12/0004h • 7 ♀; **Kilis**; 36°42'44"N, 37°05'23"E; 740 m; 03.V.2012; U. Güner leg.; EMTU 12/0003b • 1 ♀; **Şanlıurfa**, Bozova; 37°28'11"N, 38°18'41"E; 529 m; 25.IV.2015; C. Karaman leg.; EMTU 15/0012e • 1 ♀; **Harran**; 36°52'N, 39°01'E; 24.IV.2015; C. Karaman leg.; EMTU 15/0009d • 2 ♀; **Halfeti**; 37°14'53"N, 37°52'00"E; 395 m; 25.IV.2015; C. Karaman leg.; EMTU 15/0013f.

DISTRIBUTION IN TURKEY. — Elazığ, Kocaeli.

Genus *Cataglyphis* Foerster, 1850*Cataglyphis aenescens* (Nylander, 1849)*Formica aenescens* Nylander, 1849: 37.MATERIAL EXAMINED. — **Turkey** • 1 ♀; **Adıyaman**; 37°45'N, 38°16'E; 07.V.2015; S. Yıldız leg.; EMTU 15/0042k • 9 ♀; Afyonkarahisar, Emirdağ, Aşağıkurudere Vill.; 38°51'N, 31°05'E; 1200 m; 24.VIII.2014; C. Karaman leg.; EMTU 08/2365c • 22 ♀; Sandıklı, Dutağaç Vill.; 38°28'N, 30°22'E; 1800 m; 23.VIII.2014; C. Karaman leg.; EMTU 08/2316b • 1 ♀; Bayat, Akpınar Vill.; 38°51'N, 30°56'E; 1399 m; 24.VIII.2014; C. Karaman leg.; EMTU 08/2358c • 5 ♀;

Aksaray, Çiftlik; 38°37'07"N, 33°50'45"E; 1500 m; 21.VIII.2001; K. Kiran leg.; EMTU 01/0838 • 3 ♀; **Güzelyurt**; 38°17'07"N, 34°15'832"E; 1138 m; 16.V.2013; A. Lenoir leg.; EMTU 13/0064 • 1 ♀; **Güzelyurt**, Selime Vill.; 38°18'17"N, 34°15'30"E; 1000 m; 21.VIII.2001; K. Kiran leg.; EMTU 01/0852b • 1 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 01/0854e • 1 ♀; **Ortaköy**; 38°44'N, 34°02'E; 1140 m; 26.VIII.2004; K. Kiran leg.; EMTU 04/0756 • 1 ♀; **Balıkesir**, Dursunbey, Koyunoba Vill.; 39°14'906"N, 28°51'575"E; 1380 m; 15.VIII.2014; N. Jansson leg.; EMTU 07/2446b • 2 ♀; **Burdur**, Gölhisar; 36°57'40"N, 29°27'53"E; 1223 m; 28.VI.2009; N. Jansson & M. Avcı leg.; EMTU 09/1083 • 1 ♀; **Denizli**; 37°44'30"N, 29°06'12"E; 09.VI.2006; K. Kiran leg.; EMTU 06/0438 • 1 ♀; **Karaman**, Karadağ Mt.; 37°23'N, 33°09'E; 1800 m; 27.VIII.2006; K. Kiran leg.; EMTU 04/0783 • 1 ♀; **Kastamonu**; 41°23'N, 33°46'E; 775 m; 30.IV.2011; C. Karaman leg.; EMTU 11/0101f • 4 ♀; **Kırşehir**, Mucur; 39°03'N, 34°23'E; 26.VIII.2004; K. Kiran leg.; EMTU 04/0738 • 1 ♀; **Kütahya**, Radar Road; 39°24'680"N, 29°54'569"E; 1500 m; 17.VIII.2014; C. Karaman leg.; EMTU 08/2013b • 1 ♀; **Malatya**, Akçadağ, Sultansuyu Studfarm; 38°20'36"N, 38°03'35"E; 881 m; 05.VI.2007; E. Çoban leg.; EMTU 07/0040 • 6 ♀; **Manisa**, Gördes, Malaz Vill.; 39°04'N, 28°17'E; 1275 m; 09.VIII.2014; C. Karaman leg.; EMTU 07/2065 • 4 ♀; **Niğde**, Gümüşler Vill.; 37°59'39"N, 34°46'16"E; 1500 m; 20.VIII.2001; K. Kiran leg.; EMTU 01/0798a • 4 ♀; **Çamardı**, Elekgözü Vill.; 37°45'21"N, 35°01'36"E; 1550 m; 20.VIII.2001; K. Kiran leg.; EMTU 01/0814 • 4 ♀; **Ulukışla**; 37°33'00"N, 34°28'58"E; 1800 m; 18.VIII.2001; K. Kiran leg.; EMTU 01/0768 • 17 ♀; **Aktoprak Vill.**; 37°28'54"N, 34°28'05"E; 1861 m; 18.VIII.2001; K. Kiran leg.; EMTU 01/0790 • 2 ♀; **Sivas**, Beypınarı Vill.; 39°51'15"N, 37°07'50"E; 1460 m; 25.VIII.2004; K. Kiran leg.; EMTU 04/0670a • 1 ♀; **Zara**, Tedörüğe Lake; 39°52'08"N, 37°36'07"E; 1330 m; 25.VIII.2004; K. Kiran leg.; EMTU 04/0670a • 1 ♀; **Uşak**, Banaz, Gürlek Vill.; 38°54'N, 29°44'E; 1810 m; 18.VIII.2014; C. Karaman leg.; EMTU 08/2084b • 1 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 08/2086b • 30 ♀; **Yozgat**; 39°49'N, 34°48'E; 1250 m; 24.VIII.2004; K. Kiran leg.; EMTU 04/0627 • 1 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0638b • 24 ♀; **Akdeğirmenli**; 39°39'N, 35°53'E; 1370 m; 24.VIII.2004; K. Kiran leg.; EMTU 04/0641 • 3 ♀; **Çayıralan**; 39°18'N, 35°38'E; 1600 m; 26.VIII.2004; K. Kiran leg.; EMTU 04/0723a.

DISTRIBUTION IN TURKEY. — Ağrı, Ankara, Artvin, Bitlis, Bursa, Edirne, Erzinçan, Erzurum, Hakkari, Isparta, İstanbul, İzmir, Kars, Kırklareli, Konya, Muş, Sivas, Van.

Cataglyphis albicans (Roger, 1859)

Formica albicans Roger, 1859: 235.

MATERIAL EXAMINED. — **Turkey** • 3 ♀; **Aksaray**, Çiftlik, İhlara Valley; 38°14'23"N, 34°18'22"E; 1175 m; 21.VIII.2001; K. Kiran leg.; EMTU 01/0848a • 29 ♀; **Çankırı**, Sungurlu; 40°09'N, 34°22'E; 825 m; 24.VIII.2004; K. Kiran leg.; EMTU 04/0608a • 1 ♀; **Kütahya**, Hacıazizler Vill.; 39°22'N, 30°00'E; 1100 m; 17.VIII.2014; C. Karaman leg.; EMTU 08/2004c • 11 ♀; **Nevşehir**, Avanos, Çavuşin; 38°40'45"N, 34°50'32"E; 1100 m; 17.VIII.2001; K. Kiran leg.; EMTU 01/0751a • 2 ♀; **Gülşehir**; 38°44'30"N, 34°37'19"E; 950 m; 17.VIII.2001; K. Kiran leg.; EMTU 01/0754c • 7 ♀; **Şanlıurfa**, Harran; 36°52'01"N, 39°01'22"E; 363 m; 24.IV.2015; C. Karaman leg.; EMTU 15/0006b.

DISTRIBUTION IN TURKEY. — Denizli, Hakkari, Van.

Cataglyphis livida (André, 1881)

Myrmecocystus Albicans var. *lividus* André, 1881: 58.

MATERIAL EXAMINED. — **Turkey** • 1 ♀; **Adıyaman**; 37°45'N, 38°16'E; 07.V.2015; S. Yıldız leg.; EMTU 15/0042m • 1 ♀, 3 ♀; **Antalya**,

Manavgat, Yeniköy; 36°50'N, 31°22'E; 01.VII.2012; C. Karaman leg.; EMTU 12/0072c • 2 ♀; **Bursa**, Gemlik, Narlı Vill.; 40°28'53"N, 29°01'26"E; 350 m; 14.VIII.1998; K. Kiran leg.; EMTU K98/0632 • 2 ♀; **Elazığ**, Çip Dam; 38°40'48"N, 39°03'59"E; 1006 m; 04.VI.2007; E. Çoban leg.; EMTU 07/0063b • 12 ♀; **Erzinçan**, Yeşilçat Vill.; 39°48'N, 39°21'E; 1384 m; 25.VII.2004; E. Çoban leg.; EMTU 04/0377c • 5 ♀; **Kocaeli**, Karamürsel, Tahtalı Vill.; 40°34'39"N, 29°38'39"E; 500 m; 05.VIII.1998; K. Kiran leg.; EMTU K98/0499 • 1 ♀; **Malatya**, Arapgir, Aktaş Vill.; 38°55'N, 38°27'E; 09.VI.2008; M. Yurtcan leg.; EMTU 08/0018b • 3 ♀; **Muş**, Varto, Tepeköy; 39°05'N, 41°30'E; 11.VII.2010; F. Toprak leg.; EMTU 10/0091 • 8 ♀; **Şanlıurfa**; 37°09'12"N, 38°47'26"E; 23.VII.2011; C. Karaman leg.; EMTU 11/0090a • 1 ♀; **Tunceli**, Pertek, Ardiç Vill.; 38°58'N, 39°17'E; 24.VII.2010; N. Deniz leg.; EMTU 10/0121.

DISTRIBUTION IN TURKEY. — Bitlis, Edirne, İzmir, Siirt.

REMARKS

In the former studies, three taxa of the *C. albicans* group were reported from Turkey *C. livida*, *C. viaticoides* (André, 1881) and *C. rubra* (Forel, 1903). But our studies revealed that there are only two species. One of them is uniformly bright yellow and the other is distinctly bicolored. The occurrence of *C. rubra* is based on Radchenko's papers (Radchenko 1997a, 1998), who determined distinctly bicoloured specimens as *C. rubra* (Radchenko 1997a). His assumption was probably based on confusion related with the type labels of *C. livida* and *C. viaticoides*, which was explained by Bračko *et al.* (2016). After solving the mislabelling of the type specimens of *C. livida* and *C. viaticoides*, *C. rubra* was removed from the ant fauna of Turkey considering its North African, Central and South Middle East distribution (Borowiec 2014).

Cataglyphis machmal Radchenko & Arakelian, 1991 * (Fig. 2)

Cataglyphis machmal Radchenko & Arakelian, 1991: 73.

MATERIAL EXAMINED. — **Turkey** • 3 ♀; **Aksaray**, Çiftlik, İhlara Valley; 38°14'23"N, 34°18'22"E; 1175 m; 21.VIII.2001; K. Kiran leg.; EMTU 01/0848b • 1 ♀; **Ankara**, Keçiören, Bağlum; 40°10'17.18"N, 32°50'03.82"E; 1180 m; 27.VI.2014; E. Karapazarlıoğlu leg.; EMTU 14/0158 • 1 ♀; **Balıkesir**, Sındırgı, Sinandede Vill.; 39°08'N, 28°02'E; 773 m; 09.VIII.2014; C. Karaman leg.; EMTU 07/2026b • 1 ♀; **Burdur**, Gölhisar; 36°57'40"N, 29°27'53"E; 1223 m; 28.VI.2009; N. Jansson & M. Avcı leg.; EMTU 09/1084 • 1 ♀; **Denizli**, Honaz, Cumalı Vill.; 37°43'N, 29°30'E; 1343 m; 11.VIII.2014; C. Karaman leg.; EMTU 07/2192g • 2 ♀; **Kayseri**, Yeşilhisar, Akköy Dam; 38°20'26"N, 35°01'59"E; 1000 m; 16.VIII.2001; A. Lenoir leg.; EMTU 01/0719a • 3 ♀; **Nevşehir**, Avanos, Çavuşin Vill.; 38°40'45"N, 34°50'32"E; 1100 m; 17.VIII.2001; A. Lenoir leg.; EMTU 01/0751b • 1 ♀; **Göreme**; 38°38'N, 34°49'E; 13.V.2013; A. Lenoir leg.; EMTU 13/0052.

DISTRIBUTION IN TURKEY. — New for Turkey.

REMARKS

Cataglyphis machmal has been known so far as an endemic species in Armenia. Expansion of its distribution, by its present records, to North-western Turkey is an important finding. This species shows almost exactly similar taxonomic

characters as *C. nodus* (Brullé, 1833). However, the long hair on the head and mesosoma in the *C. nodus* is extremely sparse, while in *C. machmal* it is very abundant. We believe that distributional range of *C. machmal* in Turkey covers a wider area than known. We strongly suggest re-evaluation of former records of *C. nodus*, because due to its similarity with *C. machmal*, both taxa could be misidentified.

Cataglyphis nodus (Brullé, 1833)

Formica nodus Brullé, 1833: 326.

MATERIAL EXAMINED. — **Turkey** • 5 ♀, 11 ♂; **Adana**, Pozantı, Kamışlı Vill.; 37°33'N, 34°56'E; 800 m; 18.VI.2010; I. Avcı leg.; EMTU 10/0145c • 3 ♀, 17 ♂; same collection data as for preceding; I. Avcı leg.; EMTU 10/0146c • 1 ♀; **Adıyaman**; 37°45'N, 38°16'E; 07.V.2015; S. Yıldız leg.; EMTU 15/0042j • 2 ♀; **Aksaray**, Ortaköy; 38°44'N, 34°02'E; 1140 m; 26.VIII.2004; K. Kiran leg.; EMTU 04/0748 • 3 ♀; **Amasya**; 40°39'N, 35°50'E; 01.VIII.2015; C. Karaman leg.; EMTU 15/0048f • 1 ♀; **Ankara**, Keçiören, Bağlum; 40°10'17.18"N, 32°50'03.82"E; 1180 m; 10.X.2013; E. Karapazarlıoğlu leg.; EMTU 13/0304 • 1 ♀; same collection data as for preceding; E. Karapazarlıoğlu leg.; EMTU 14/0160 • 3 ♀; Şereflikoçhisar, Acıkuyu Vill.; 39°07'N, 33°27'E; 1040 m; 23.VIII.2004; K. Kiran leg.; EMTU 04/0558 • 1 ♀; **Aydın**, Serçeköy; 37°52'36"N, 28°11'20"E; 62 m; 03.VI.2010; M. Karagöz leg.; EMTU 10/0010 • 2 ♀; **Balıkesir**, Ayvalık, Sarımsaklı; 39°16'N, 26°38'E; 01.VIII.2014; C. Karaman leg.; EMTU 14/0128b • 6 ♀; Şeytan Sofrası; 39°17'08"N, 26°38'53"E; 0 m; 06.X.2004; N. Başak leg.; EMTU 04/0369c • 1 ♀; Sındırgı, Aktaş Vill.; 39°08'N, 28°11'E; 793 m; 09.VIII.2014; C. Karaman leg.; EMTU 07/2053b • 1 ♀; **Çankırı**, Kızılırmak; 40°20'N, 33°59'E; 560 m; 24.VIII.2004; K. Kiran leg.; EMTU 04/0599 • 2 ♀; **Hatay**, Samandağ; 36°05'N, 35°58'E; 18.VIII.2004; E. Şahutoğlu leg.; EMTU 04/0386 • 2 ♀; **Karabük**, Safranbolu; 41°15'N, 32°40'E; 287 m; 07.V.2005; K. Kiran leg.; EMTU 05/0003j • 2 ♀; **Kayseri**; 38°43'N, 35°28'E; 21.VIII.2013; C. Karaman leg.; EMTU 13/0171b • 2 ♀; **Kırıkkale**, Keskin, Cerit-müminli Vill.; 39°43'N, 33°47'E; 910 m; 23.VIII.2004; K. Kiran leg.; EMTU 04/0596 • 6 ♀; **Kilis**; 36°42'44"N, 37°05'23"E; 740 m; 03.V.2012; U. Güner leg.; EMTU 12/0003c • 23 ♀; **Malatya**, Akçadağ, Sultansuyu Studfarm; 38°20'36"N, 38°03'35"E; 881 m; 24.VII.2007; M. Yurtcan leg.; EMTU 07/0036a • 1 ♀; Doğanşehir, Polatdere Vill.; 38°08'55"N, 37°57'46"E; 1195 m; 02.VI.2007; E. Çoban leg.; EMTU 07/0038a • 3 ♀; Sürgü Dam; 38°00'35.41"N, 37°55'57.14"E; 1330 m; 01.V.2011; S. Hazır leg.; EMTU 11/0008a • 1 ♀; **Manisa**, Akhisar, Doğançaya Vill.; 38°59'N, 27°56'E; 560 m; 09.VIII.2014; C. Karaman leg.; EMTU 07/2093b • 1 ♀; Dingiller Vill.; 38°59'N, 27°53'E; 345 m; 09.VIII.2014; C. Karaman leg.; EMTU 07/2099e • 2 ♀; Gölarmara, Yeniköy; 38°39'N, 28°02'E; 98 m; 09.VIII.2014; C. Karaman leg.; EMTU 07/2103c • 1 ♀; Gördes, Malaz Vill.; 39°04'N, 28°17'E; 1275 m; 09.VIII.2014; C. Karaman leg.; EMTU 07/2060b • 21 ♀; Salihli, Yılmaz Town; 38°30'08"N, 28°06'18"E; 86 m; 27.VII.2002; K. Kiran leg.; EMTU 02/1043 • 25 ♀; **Mardin**; 37°18'N, 40°44'E; 13.IV.2010; I. Avcı leg.; EMTU 10/0141b • 28 ♀; Kızıltepe; 37°11'38"N, 40°35'08"E; 29.VII.2002; A. Beyarslan leg.; EMTU 02/1039 • 28 ♀; same collection data as for preceding; A. Beyarslan leg.; EMTU 02/1040 • 1 ♀, 2 ♀; **Muş**, Varto, Tepeköy; 39°05'N, 41°30'E; 11.VII.2010; F. Toprak leg.; EMTU 10/0092 • 1 ♀; **Nevşehir**, Çat Vill.; 38°41.904'N, 34°39.345'E; 998 m; 15.V.2013; A. Lenoir leg.; EMTU 13/0058 • 2 ♀; Gülşehir; 38°44'30"N, 34°37'19"E; 950 m; 17.VIII.2001; K. Kiran leg.; EMTU 01/0754a • 1 ♀; Uçhisar; 38°39.083'N, 34°49.189'E; 1095 m; 14.V.2013; A. Lenoir leg.; EMTU 13/0054 • 6 ♀; **Niğde**, Ulukışla; 37°33'00"N, 34°28'58"E; 1800 m; 18.VIII.2001; K. Kiran leg.; EMTU 01/0765 • 1 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 01/0766 • 1 ♀; **Şanlıurfa**; 37°09'45"N, 38°50'24"E; 488 m; 01.VIII.2011; C. Karaman leg.; EMTU

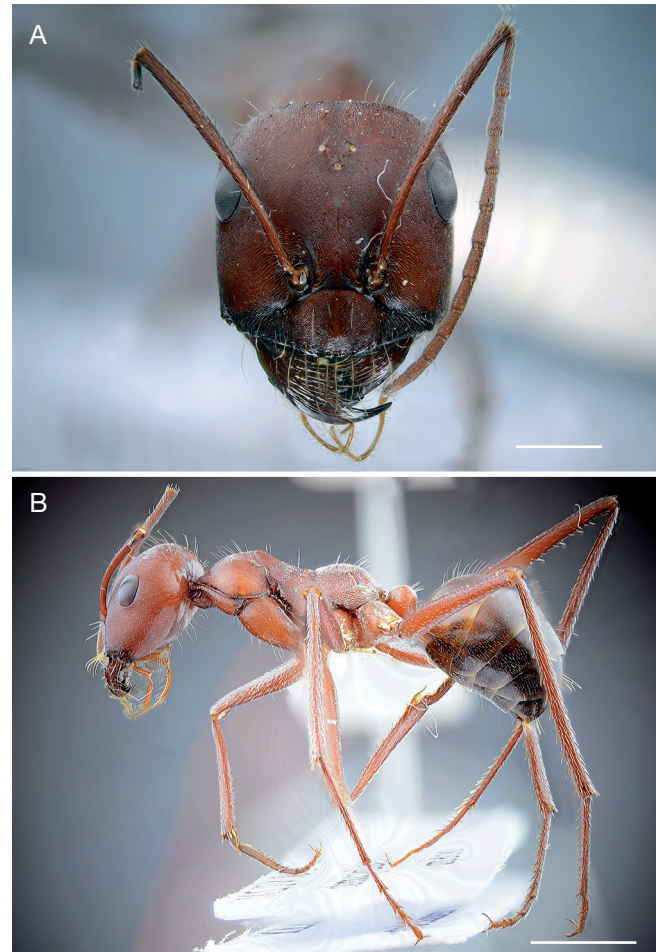


FIG. 2. — Worker of *C. machmal* Radchenko & Arakelian, 1991: **A**, head from dorsal view; **B**, whole body from lateral view. Scale bars: A, 1 mm; B, 2 mm.

11/0081c • 1 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 11/0084d • 1 ♀; same collection data as for preceding; 37°09'N, 38°47'E; C. Karaman leg.; EMTU 11/0091f • 7 ♀; Bozova; 37°28'11"N, 38°18'41"E; 529 m; 25.IV.2015; C. Karaman leg.; EMTU 15/0012b • 1 ♀; Siverek; 37°45'N, 39°18'E; 13.V.2015; S. Yıldız leg.; EMTU 15/0047h • 1 ♀; **Tekirdağ**, Şarköy, Uçmakdere; 40°47'54.50"N, 27°21'55.10"E; 111 m; 17.V.2015; C. Karaman leg.; EMTU 15/0027c • 1 ♀; Şarköy, Yeniköy; 40°38'N, 27°02'E; 232 m; 18.V.2015; C. Karaman leg.; EMTU 15/0037d.

DISTRIBUTION IN TURKEY. — Afyonkarahisar, Antalya, Bursa, Çanak-kale, Denizli, Diyarbakır, Edirne, Elazığ, Gaziantep, İstanbul, İzmir, Kırklareli, Kocaeli, Konya, Mersin, Muğla, Sakarya, Siirt, Yalova.

REMARKS

See comments on *C. machmal*.

Cataglyphis viaticoides (André, 1881)

Myrmecocystus albicans var. *viaticoides* André, 1881: 57.

MATERIAL EXAMINED. — **Turkey** • 2 ♀; **Amasya**; 40°39'N, 35°50'E; 450 m; 01.VIII.2015; C. Karaman leg.; EMTU 15/0048h • 4 ♀; **Aydın**, Didim; 37°22'N, 27°15'E; 20.VIII.2014; C. Karaman leg.; EMTU 14/0117g • 1 ♀; Kuşadası; 37°51'N, 27°15'E; 30.VI.2006;

K. Kiran leg.; EMTU 06/0022c • 3 ♀; **Balıkesir**, Sındırgı, Aktaş Vill.; 39°08'N, 28°11'E; 793 m; 09.VIII.2014; C. Karaman leg.; EMTU 07/2053a • 1 ♀; Sinandede Vill.; 39°08'N, 28°04'E; 1000 m; 02.VII.2007; C. Karaman leg.; EMTU 07/2012c • 1 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 07/2013c • 2 ♀; **Kayseri**; 38°43'N, 35°28'E; 21.VIII.2013; C. Karaman leg.; EMTU 13/0171c • 6 ♀; **Kütahya**; 39°12'22"N, 30°08'27"E; 1300 m; 13.VI.2004; K. Kiran leg.; EMTU 04/0183 • 2 ♀; İncik Vill.; 39°32'N, 30°14'E; 1045 m; 17.VIII.2014; C. Karaman leg.; EMTU 08/2020d • 1 ♀, 1 ♂, 19 ♀; Dumlupınar, Halaçlar Vill.; 38°52'N, 29°51'E; 1470 m; 18.VIII.2014; C. Karaman leg.; EMTU 08/2079 • 1 ♀; **Manisa**, Akhisar, Doğankaya Vill.; 38°59'N, 27°56'E; 560 m; 09.VIII.2014; C. Karaman leg.; EMTU 07/2092b • 2 ♀; Gölmmarmara, Yeniköy; 38°39'N, 28°02'E; 98 m; 09.VIII.2014; C. Karaman leg.; EMTU 07/2108 • 1 ♀; Köprübaşı, Kurtlar Vill.; 38°43'N, 28°17'E; 600 m; 10.VIII.2014; C. Karaman leg.; EMTU 07/2121b • 1 ♀; **Şanlıurfa**, Harran; 36°52'01"N, 39°01'22"E; 363 m; 24.IV.2015; C. Karaman leg.; EMTU 15/0006e.

DISTRIBUTION IN TURKEY. — Afyonkarahisar, Bitlis, Bursa, Denizli, Diyarbakır, Edirne, Gaziantep, İzmir, Kocaeli, Muğla, Sakarya, Siirt, Yalova.

REMARKS

See comments on *C. livida*.

Genus *Colobopsis* Mayr, 1861

Colobopsis truncata (Spinola, 1808)

Formica truncata Spinola, 1808: 244.

MATERIAL EXAMINED. — **Turkey** • 3 ♀; **Burdur**, Gölhisar; 36°57'40"N, 29°27'53"E; 1223 m; 22.V.2009; N. Jansson & M. Avcı leg.; EMTU 09/1131 • 1 ♀; **İstanbul**, Emirgan; 41°06'31"N, 29°03'06"E; 83 m; 01.V.2014; C. Karaman leg.; EMTU 14/0125m • 1 ♀; Erenköy; 40°58'30"N, 29°05'18"E; 73 m; 22.IV.2014; C. Karaman leg.; EMTU 14/0124g • 2 ♀; Üsküdar; 41°01'52"N, 29°01'33"E; 61 m; 01.VII.2015; C. Karaman leg.; EMTU 15/0105f • 1 ♀; **Karabük**, Safranbolu; 41°14'42"N, 32°43'26"E; 287 m; 19.VII.2005; K. Kiran leg.; EMTU 05/0016 • 1 ♀; Bulak Vill.; 41°15'N, 32°39'E; 287 m; 21.V.2005; K. Kiran leg.; EMTU 05/0008j • 1 ♀; **Mersin**, Erdemli, Kızılın Vill.; 36°42'N, 34°05'E; 23.V.2005; N. Jansson & M. Coşkun leg.; EMTU 05/0148 • 1 ♀; same collection data as for preceding; N. Jansson & M. Coşkun leg.; EMTU 05/0149 • 1 ♀; same collection data as for preceding; 11.VIII.2005; N. Jansson & M. Coşkun leg.; EMTU 05/0150 • 1 ♀; same collection data as for preceding; 7.VII.2005; N. Jansson & M. Coşkun leg.; EMTU 05/0151 • 1 ♀; same collection data as for preceding; 11.VIII.2005; N. Jansson & M. Coşkun leg.; EMTU 05/0152 • 1 ♀; same collection data as for preceding; 23.V.2005; N. Jansson & M. Coşkun leg.; EMTU 05/0153 • 1 ♀; Gülnar, Köseçobanlı Vill.; 36°30'22.5"N, 33°07'43.3"E; 26.VII.2006; N. Jansson & M. Avcı leg.; EMTU 06/0475.

DISTRIBUTION IN TURKEY. — Balıkesir, Çanakkale, Edirne, İzmir, Kırklareli, Muğla, Sakarya, Yalova.

Genus *Formica* Linnaeus, 1758

Formica clara Forel, 1886

Formica rufibarbis var. *clara* Forel, 1886: 206.

MATERIAL EXAMINED. — **Turkey** • 1 ♀, 13 ♀; **Afyonkarahisar**; 38°45'N, 30°32'E; 12.VI.2004; K. Kiran leg.; EMTU 04/0155 • 4 ♀; **Balıkesir**,

Burhaniye, Ören; 39°29'49"N, 26°55'58"E; 0 m; 19.V.2013; C. Karaman leg.; EMTU 13/0153f • 3 ♀; **Burdur**, Karamanlı, Kılavuzlar Vill.; 37°19'N, 29°58'E; 29.V.2012; K. Kiran leg.; EMTU 12/0101b • 17 ♀; **Çankırı**, Kızılırmak; 40°20'N, 33°59'E; 560 m; 24.VIII.2004; K. Kiran leg.; EMTU 04/0597 • 1 ♀; Korgun; 40°44'00"N, 33°31'25"E; 898 m; 28.V.2007; E. Çoban leg.; EMTU 07/0076b • 1 ♀; **Edirne**; 41°40'32"N, 26°33'37"E; 40 m; 03.X.2001; K. Kiran leg.; EMTU 01/0966e • 3 ♀; same collection data as for preceding; 9.X.2001; K. Kiran leg.; EMTU 01/0968e • 2 ♀; same collection data as for preceding; 22.X.2001; K. Kiran leg.; EMTU 01/0972 • 2 ♀; same collection data as for preceding; 25.X.2001; K. Kiran leg.; EMTU 01/0975a • 6 ♀; Avarız Vill.; 41°45'39"N, 26°31'47"E; 40 m; 12.V.2010; K. Kiran leg.; EMTU 10/0026b • 3 ♀; Karaağaç; 41°39'N, 26°31'E; 39 m; 08.V.2007; C. Karaman leg.; EMTU 07/0055c • 1 ♀; İpsala, Kocahıdır Vill.; 41°48'N, 26°24'E; 02.VIII.2001; K. Kiran leg.; EMTU 01/0964 • 4 ♀; Meriç, Adsarhanlı Vill.; 41°05'N, 26°21'E; 21.IX.2014; C. Karaman leg.; EMTU 14/0119d • 4 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 14/0119e • 1 ♀; **Erzincan**, Üzümlü; 39°42'N, 39°41'E; 23.VIII.2008; M. Yurtcan leg.; EMTU 08/0172 • 2 ♀; **Eskişehir**, Alpu, Çukurhisar; 39°50'N, 30°59'E; 880 m; 21.VIII.2004; K. Kiran leg.; EMTU 04/0509b • 1 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0512c • 17 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0514 • 9 ♀; **Gaziantep**; 36°56'39"N, 37°28'25"E; 696 m; 04.V.2012; U. Güner leg.; EMTU 12/0004b • 11 ♀; **İstanbul**, Çatalca, Yalıköy; 41°29'36"N, 28°16'39"E; 1 m; 23.V.2011; K. Kiran leg.; EMTU 11/0182b • 3 ♀; Kadıköy, Kozyatağı; 40°58'30"N, 29°05'37"E; 72 m; 22.IV.2012; C. Karaman leg.; EMTU 12/0019c • 2 ♀; Maltepe; 40°55'N, 29°09'E; 12.V.2013; C. Karaman leg.; EMTU 13/0167c • 4 ♀; Rumeli Kavağı; 41°11'N, 29°03'E; 01.VIII.2014; C. Karaman leg.; EMTU 14/0163a • 1 ♀; Sarıyer, Bahçeköy; 41°10'N, 28°59'E; 24.VIII.2006; K. Kiran leg.; EMTU 06/0027e • 1 ♀; Şile; 41°10'38"N, 29°36'36"E; 0 m; 20.VIII.2012; C. Karaman leg.; EMTU 12/0055b • 1 ♀; Ağva; 41°08'N, 29°51'E; 0 m; 20.VIII.2012; C. Karaman leg.; EMTU 12/0057b • 7 ♀; **Karabük**, Safranbolu; 41°14'42"N, 32°43'26"E; 287 m; 30.VI.2005; K. Kiran leg.; EMTU 05/0014a • 13 ♀; same collection data as for preceding; 41°15'N, 32°40'E; 7.VIII.2005; K. Kiran leg.; EMTU 05/0031a • 55 ♀; **Kayseri**, Yahyalı; 38°05'35"N, 35°21'41"E; 1100 m; 16.VIII.2001; K. Kiran leg.; EMTU 01/0717 • 1 ♀; Mustafaşeyli Vill.; 38°09'21"N, 35°22'05"E; 1113 m; 15.IX.2006; K. Kiran leg.; EMTU 06/0073 • 24 ♀; Yeşilhisar, Soğanlı Vill.; 38°20'15"N, 34°59'00"E; 1200 m; 16.VIII.2001; K. Kiran leg.; EMTU 01/0736 • 4 ♀; **Kırşehir**, Mucur; 39°03'N, 34°23'E; 26.VIII.2004; K. Kiran leg.; EMTU 04/0744 • 6 ♀; **Kütahya**, Fındık Vill.; 39°33'N, 30°12'E; 950 m; 17.VIII.2014; C. Karaman leg.; EMTU 08/2015a • 1 ♀; **Nevşehir**, Ürgüp, Ayvalı Vill.; 38°32'52"N, 34°52'11"E; 1500 m; 17.VIII.2001; K. Kiran leg.; EMTU 01/0764b • 19 ♀; **Niğde**, Gümüşler Vill.; 37°59'39"N, 34°46'16"E; 1500 m; 20.VIII.2001; K. Kiran leg.; EMTU 01/0800 • 11 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 01/0804a • 17 ♀; Çamardı; 37°49'53"N, 34°59'04"E; 1275 m; 20.VIII.2001; K. Kiran leg.; EMTU 01/0807b • 21 ♀; Üçkapılı Vill.; 37°54'53"N, 34°54'08"E; 1650 m; 20.VIII.2001; K. Kiran leg.; EMTU 01/0806 • 3 ♀; Ulukışla; 37°33'00"N, 34°28'58"E; 1800 m; 18.VIII.2001; K. Kiran leg.; EMTU 01/0775 • 1 ♀; **Sakarya**, Pamukova, Eskiayla Vill.; 40°33'43"N, 30°07'39"E; 1400 m; 20.VIII.1998; K. Kiran leg.; EMTU K98/0741b • 3 ♀; **Tekirdağ**, Şarköy, Uçmakdere; 40°47'54.50"N, 27°21'55.10"E; 111 m; 17.V.2015; C. Karaman leg.; EMTU 15/0030 • 1 ♀; **Uşak**; 38°40'N, 29°24'E; 908 m; 10.VI.2004; K. Kiran leg.; EMTU 04/0120 • 2 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0124b • 3 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0128 • 9 ♀; **Yozgat**; 39°49'N, 34°48'E; 1250 m; 24.VIII.2004; K. Kiran leg.; EMTU 04/0618 • 1 ♀; Akdağmadeni; 39°39'N, 35°53'E; 1410 m; 24.VIII.2004; K. Kiran leg.; EMTU 04/0649.

DISTRIBUTION IN TURKEY. — Aksaray, Ankara, Antalya, Ardahan, Artvin, Aydın, Bitlis, Elazığ, Erzurum, İzmir, Kars, Kırklareli, Konya, Mersin, Muğla, Rize, Sinop, Sivas, Van.

Formica cunicularia Latreille, 1798*Formica cunicularia* Latreille, 1798: 40.

MATERIAL EXAMINED. — **Turkey** • 6 ♀; **Afyonkarahisar**, İncehisar, Doğlat Vill.; 38°59'49"N, 30°50'33"E; 1345 m; 24.VIII.2014; C. Karaman leg.; EMTU 08/2391c • 2 ♀; **Antalya**, Serik; 36°55'N, 31°06'E; 01.VI.2014; C. Karaman leg.; EMTU 14/0121b • 1 ♀; **Karabük**, Safranbolu; 41°15'N, 32°40'E; 287 m; 07.V.2005; K. Kiran leg.; EMTU 05/0003l • 1 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 05/0013 • 4 ♀; **Kastamonu**; 41°23'N, 33°46'E; 775 m; 30.IV.2011; C. Karaman leg.; EMTU 11/0101e • 5 ♀; **Kırşehir**, Kaman, Hirfanlı Dam; 39°16'21"N, 33°32'09"E; 880 m; 23.VIII.2004; K. Kiran leg.; EMTU 04/0568c • 11 ♀; **Kütahya**; 39°44'41"N, 30°10'108"E; 1006 m; 13.VI.2004; K. Kiran leg.; EMTU 04/0199 • 1 ♀; Dağardı; 39°21'478"N, 29°06'293"E; 1540 m; 20.VIII.2014; C. Karaman leg.; EMTU 08/2204c • 7 ♀; **Ordu**, Korgan, Asarkaya Vill.; 40°48'N, 37°23'E; 1000 m; 24.VIII.2009; E. Çoban leg.; EMTU 09/0124a • 1 ♀; **Rize**, Madenli, Buzlupınar; 40°59'43"N, 40°47'40"E; 400 m; 12.VIII.2000; K. Kiran leg.; EMTU 00/0016b • 1 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 00/0018 • 3 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 00/0020b • 2 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 00/0022b • 1 ♀, 1 ♀; **Sivas**, Zara, Tödürge Lake; 39°52'08"N, 37°36'07"E; 1330 m; 25.VIII.2004; K. Kiran leg.; EMTU 04/0677 • 1 ♀; **Tunceli**, Hozat, Akpınar Vill.; 39°00'N, 39°12'E; 28.VIII.2012; E. Çoban leg.; EMTU 08/2643 • 16 ♀; **Yozgat**; 39°49'N, 34°48'E; 1250 m; 24.VIII.2004; K. Kiran leg.; EMTU 04/0622a • 43 ♀; Çayıralan; 39°18'N, 35°38'E; 1600 m; 26.VIII.2004; K. Kiran leg.; EMTU 04/0729 • 15 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0731.

DISTRIBUTION IN TURKEY. — Ağrı, Ankara, Ardahan, Artvin, Balıkesir, Bursa, Çanakkale, Edirne, Erzincan, Erzurum, Giresun, Isparta, İstanbul, İzmir, Kars, Kırklareli, Kocaeli, Muğla, Muş, Sakarya, Sinop, Trabzon, Yalova.

Formica exsecta Nylander, 1846*Formica exsecta* Nylander, 1846b: 909.

MATERIAL EXAMINED. — **Turkey** • 1 ♀; **Gümüşhane**, Kelkit, Gürüzdağı Mt.; 40°15'57"N, 39°28'58"E; 1871 m; 02.VII.2004; A. Beyarslan leg.; EMTU 04/0371.

DISTRIBUTION IN TURKEY. — Ağrı, Ardahan

Formica foreli Bondroit, 1918*Formica foreli* Bondroit, 1918: 65.

MATERIAL EXAMINED. — **Turkey** • 42 ♀; **Artvin**, Şavşat, Koraklı Vill.; 41°26'46"N, 42°22'38"E; 2202 m; 11.VIII.2015; C. Karaman leg.; EMTU 15/0101.

DISTRIBUTION IN TURKEY. — Ardahan, Erzurum, Kars.

Formica fusca Linnaeus, 1758*Formica fusca* Linnaeus, 1758: 580.

MATERIAL EXAMINED. — **Turkey** • 16 ♀; **Karaman**, Karadağ Mt.; 37°23'N, 33°09'E; 2100 m; 27.VIII.2006; K. Kiran leg.; EMTU 04/0773 • 6 ♀; same collection data as for preceding; K. Kiran

leg.; EMTU 04/0776 • 13 ♀; **Niğde**, Ulukışla, Aktoprak Vill.; 37°28'54"N, 34°28'05"E; 1861 m; 18.VIII.2001; K. Kiran leg.; EMTU 01/0782 • 13 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 01/0783 • 16 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 01/0789b • 9 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 01/0792b • 50 ♀; **Yozgat**, Akdağmadeni; 39°39'N, 35°53'E; 1410 m; 24.VIII.2004; K. Kiran leg.; EMTU 04/0654 • 13 ♀; Çayıralan; 39°18'N, 35°38'E; 1640 m; 26.VIII.2004; K. Kiran leg.; EMTU 04/0697 • 2 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0699b • 35 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0701 • 19 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0713 • 3 ♀, 25 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0717.

DISTRIBUTION IN TURKEY. — Ardahan, Artvin, Bursa, Erzincan, Erzurum, Giresun, İstanbul, İzmir, Kars, Kırklareli, Kocaeli, Rize, Sakarya, Trabzon, Yalova.

Formica gagates Latreille, 1798*Formica gagates* Latreille, 1798: 36.

MATERIAL EXAMINED. — **Turkey** • 1 ♀; **Antalya**, Serik; 36°55'N, 31°06'E; 01.VI.2014; C. Karaman leg.; EMTU 14/0121c • 1 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 14/0121i • 4 ♀; **Karabük**, Safranbolu, Bulak Vill.; 41°15'N, 32°39'E; 287 m; 21.V.2005; K. Kiran leg.; EMTU 05/0008e • 1 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 05/0009b • 5 ♀; **Kütahya**, Sabuncupınar, Başören Vill.; 39°31'677"N, 30°18'019"E; 1161 m; 17.VIII.2014; C. Karaman leg.; EMTU 08/2027 • 4 ♀; Simav, Demirci Vill.; 39°05'979"N, 28°54'969"E; 1000 m; 20.VIII.2014; C. Karaman leg.; EMTU 08/2193b • 3 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 08/2194e • 7 ♀; **Ordu**, Korgan, Asarkaya Vill.; 40°48'N, 37°23'E; 1000 m; 24.VIII.2009; E. Çoban leg.; EMTU 09/0124c.

DISTRIBUTION IN TURKEY. — Bursa, Çanakkale, Edirne, İstanbul, Kırklareli, Kocaeli, Sakarya, Trabzon, Yalova.

Formica lemani Bondroit, 1917*Formica lemani* Bondroit, 1917: 186.

MATERIAL EXAMINED. — **Turkey** • 30 ♀; **Bursa**, Uludağ Mt.; 40°12'40"N, 29°01'15"E; 1900 m; 24.VII.2001; K. Kiran leg.; EMTU 01/0939 • 12 ♀; Uludağ Mt., Kilimli Lake; 40°12'40"N, 29°01'15"E; 2250 m; 25.VII.2001; K. Kiran leg.; EMTU 01/0946 • 7 ♀; **Rize**, Çayeli, İncesu Vill.; 40°48'49"N, 40°46'10"E; 2300 m; 12.VIII.2000; K. Kiran leg.; EMTU 00/0043a • 8 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 00/0045 • 50 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 00/0049 • 4 ♀; Yenice Vill.; 40°49'16"N, 40°45'00"E; 1850 m; 12.VIII.2000; K. Kiran leg.; EMTU 00/0033 • 1 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 00/0035 • 50 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 00/0036 • 2 ♀, 2 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 00/0037 • 1 ♀, 4 ♂, 50 ♀; İkizdere, Rüzgarlı Vill.; 40°45'17"N, 40°33'15"E; 2100 m; 13.VIII.2000; K. Kiran leg.; EMTU 00/0083 • 50 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 00/0085 • 50 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 00/0087a.

DISTRIBUTION IN TURKEY. — Ağrı, Ardahan, Erzincan, Erzurum, Kars, Muş.

Formica rufa Linnaeus, 1761*Formica rufa* Linnaeus, 1761: 426.

MATERIAL EXAMINED. — **Turkey** • 10 ♀; **Afyonkarahisar**, Alanyurt Vill.; 39°01'493"N, 30°45'394"E; 1660 m; 24.VIII.2014; C. Karaman leg.; EMTU 08/2397a • 13 ♀; Bayat, Mallica Vill.; 39°03'N, 30°48'E; 1505 m; 24.VIII.2014; C. Karaman leg.; EMTU 08/2403b • 1 ♀; Emirdağ, Çaykışla Vill.; 38°50'N, 31°16'E; 1450 m; 24.VIII.2014; C. Karaman leg.; EMTU 08/2387c • 9 ♀; Sinanpaşa, Akharım Vill.; 38°39'188"N, 30°14'292"E; 1485 m; 22.VIII.2014; C. Karaman leg.; EMTU 08/2250a • 11 ♀; **Balıkesir**, Dursunbey; 39°22'594"N, 28°51'491"E; 1616 m; 15.VIII.2014; C. Karaman leg.; EMTU 07/2434a • 1 ♀; **Yozgat**, Akdağmadeni; 39°39'N, 35°53'E; 1410 m; 24.VIII.2004; K. Kiran leg.; EMTU 04/0656 • 14 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0658 • 1 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0659b • 14 ♀; Çayıralan; 39°18'N, 35°38'E; 1640 m; 26.VIII.2004; K. Kiran leg.; EMTU 04/0703.

DISTRIBUTION IN TURKEY. — Amasya, Ankara, Antalya, Ardahan, Artvin, Bolu, Bursa, Erzincan, Erzurum, Eskişehir, Giresun, Isparta, İstanbul, Karabük, Kars, Kastamonu, Kütahya, Samsun, Sinop, Zonguldak.

Formica rufibarbis Fabricius, 1793*Formica rufibarbis* Fabricius, 1793: 355.

MATERIAL EXAMINED. — **Turkey** • 50 ♀; **Artvin**, Şavşat, Yavuzköy; 41°14'00"N, 42°23'29"E; 1600 m; 14.VIII.2000; K. Kiran leg.; EMTU 00/0120 • 6 ♀; **Erzincan**, Yeşilçat Vill.; 39°48'N, 39°21'E; 1384 m; 25.VII.2004; E. Çoban leg.; EMTU 04/0377b.

DISTRIBUTION IN TURKEY. — Ankara, Bursa, Edirne, Gaziantep, Iğdır, İstanbul, İzmir, Konya, Trabzon.

Formica sanguinea Latreille, 1798*Formica sanguinea* Latreille, 1798: 37.

MATERIAL EXAMINED. — **Turkey** • 4 ♀; **Aksaray**, Güzeyurt, Selime Vill.; 38°18'17"N, 34°15'30"E; 1000 m; 21.VIII.2001; K. Kiran leg.; EMTU 01/0852a • 11 ♀; **Ankara**, Polatlı, Yaralı Vill.; 39°15'N, 32°05'E; 760 m; 28.VIII.2004; K. Kiran leg.; EMTU 04/0846a • 17 ♀; **Denizli**, Honaz; 37°45'826"N, 29°15'391"E; 492 m; 11.VIII.2014; C. Karaman leg.; EMTU 07/2195 • 6 ♀; **Erzincan**, Yeşilçat Vill.; 39°48'N, 39°21'E; 1384 m; 25.VII.2004; E. Çoban leg.; EMTU 04/0377i • 1 ♀; **Kütahya**, Fındık Vill.; 39°33'N, 30°12'E; 950 m; 17.VIII.2014; C. Karaman leg.; EMTU 08/2018b • 18 ♀; **Manisa**, Salihli, Yılmaz Town; 38°30'08"N, 28°06'18"E; 86 m; 27.VII.2002; E. Çoban leg.; EMTU 02/1044 • 1 ♀; **Sivas**, Yıldızeli; 39°52'07"N, 36°37'45"E; 1352 m; 30.V.2007; E. Çoban leg.; EMTU 07/0088a.

DISTRIBUTION IN TURKEY. — Ardahan, Artvin, Bursa, Kırklareli, Kocaeli, Trabzon.

Genus *Lasius* Fabricius, 1804*Lasius alienus* (Foerster, 1850)*Formica aliena* Foerster, 1850: 36.

MATERIAL EXAMINED. — **Turkey** • 12 ♀; **Afyonkarahisar**, Emirdağ, Güveççi Vill.; 38°54'N, 31°15'E; 1403 m; 24.VIII.2014; C. Karaman leg.; EMTU 08/2389b • 21 ♀; **Balıkesir**, Burhaniye, Ören Beach;

39°29'49"N, 26°55'58"E; 0 m; 19.V.2013; C. Karaman leg.; EMTU 13/0153e • 3 ♀; Sındırgı, Aktaş Vill.; 39°11'133"N, 28°19'023"E; 801 m; 09.VIII.2014; C. Karaman leg.; EMTU 07/2030b • 15 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 07/2033a • 1 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 07/2037c • 34 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 07/2038 • 4 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 07/2048b • 8 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 07/2050 • 2 ♀; **Çankırı**, Korgun; 40°44'00"N, 33°31'25"E; 898 m; 28.V.2007; E. Çoban leg.; EMTU 07/0076a • 1 ♀; **Denizli**, Babadağ, Yeniköy; 37°47'N, 28°52'E; 840 m; 13.VIII.2014; C. Karaman leg.; EMTU 07/2315b • 1 ♀; **Eskişehir**, Odunpazarı, Çamlıca Vill.; 39°33'01"N, 30°22'21"E; 1010 m; 08.VII.2007; E. Çoban leg.; EMTU 07/0078b • 12 ♀; **Karabük**, Safranbolu, Bulak Vill.; 41°15'N, 32°39'E; 287 m; 21.V.2005; K. Kiran leg.; EMTU 05/0008b • 1 ♀; **Kastamonu**, Day, Sorkun Vill.; 41°27'13"N, 33°31'26"E; 887 m; 01.VII.2001; A. Beyarslan leg.; EMTU 01/0929 • 2 ♀; **Kütahya**, Fındık Vill.; 39°33'N, 30°12'E; 950 m; 17.VIII.2014; C. Karaman leg.; EMTU 08/2015d • 1 ♀, 5 ♀; Emet, Çobanlar Vill.; 39°28'061"N, 29°07'610"E; 712 m; 21.VIII.2014; C. Karaman leg.; EMTU 08/2227d • 1 ♀; **Malatya**, Akçadağ, Sultansuyu Studfarm; 38°20'36"N, 38°03'35"E; 881 m; 13.VII.2007; M. Yurtcan leg.; EMTU 07/0073a • 1 ♀; **Manisa**, Göl-marmara, Yeniköy; 38°39'N, 28°02'E; 98 m; 09.VIII.2014; C. Karaman leg.; EMTU 07/2106 • 37 ♀; Gördes, Malaz Vill.; 39°04'N, 28°17'E; 1275 m; 09.VIII.2014; C. Karaman leg.; EMTU 07/2056a • 1 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 07/2062c • 17 ♀; same collection data as for preceding; C. Karaman leg.; 07/2070b • 1 ♀; **Mersin**, Erdemli; 36°36'N, 34°16'E; 31.V.2001; N. Jansson leg.; EMTU 01/1607 • 2 ♀; same collection data as for preceding; 31.V.2002; N. Jansson leg.; EMTU 02/1112 • 1 ♀; Devrent; 36°40'N, 34°11'E; 17.VI.2005; N. Jansson leg.; EMTU 05/0116 • 1 ♀; same collection data as for preceding; N. Jansson leg.; 05/0117 • 1 ♀; same collection data as for preceding; N. Jansson leg.; 05/0118 • 1 ♀; Kızılın Vill.; 36°42'N, 34°05'E; 17.VI.2005; N. Jansson leg.; EMTU 05/0164 • 1 ♀; Gülnar, Köseçobanlı Vill.; 36°30'22.5"N, 33°07'43.3"E; 24.V.2006; N. Jansson & M. Coşkun leg.; EMTU 06/0454 • 2 ♀; same collection data as for preceding; N. Jansson & M. Coşkun leg.; EMTU 06/0456 • 1 ♀; same collection data as for preceding; 26.V.2006; N. Jansson & M. Coşkun leg.; EMTU 06/0455 • 1 ♀; same collection data as for preceding; N. Jansson & M. Coşkun leg.; EMTU 06/0457 • 3 ♀; **Nevşehir**, Göreme; 38°38'N, 34°49'E; 13.V.2013; A. Lenoir leg.; EMTU 13/0053 • 3 ♀; **Sivas**, Beypınarı Vill.; 39°51'15"N, 37°07'50"E; 1460 m; 25.VIII.2004; K. Kiran leg.; EMTU 04/0663b • 13 ♀; Gürün, Ziyarettepe Pass; 38°49'29"N, 36°54'06"E; 1900 m; 22.V.2008; C. Karaman leg.; EMTU 08/0037 • 5 ♀; **Tekirdağ**, Saray, Küçükyoncalı Vill.; 41°24'42"N, 27°58'06"E; 151 m; 21.VIII.2001; E. Demirtaş leg.; EMTU 01/1052 • 5 ♀; Şarköy, Uçmakdere; 40°47'N, 27°22'E; 6 m; 17.V.2015; C. Karaman leg.; EMTU 15/0029b • 50 ♀; **Yozgat**; 39°49'N, 34°48'E; 1250 m; 24.VIII.2004; K. Kiran leg.; EMTU 04/0619b • 46 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0625 • 21 ♀; Akdağmadeni; 39°39'N, 35°53'E; 1410 m; 24.VIII.2004; K. Kiran leg.; EMTU 04/0655 • 8 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0659a • 14 ♂, 35 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0661 • 50 ♀; Çayıralan; 39°18'N, 35°38'E; 1600 m; 26.VIII.2004; K. Kiran leg.; EMTU 04/0714.

DISTRIBUTION IN TURKEY. — Ağrı, Ankara, Antalya, Ardahan, Artvin, Aydın, Bilecik, Bitlis, Bursa, Çanakkale, Edirne, Erzincan, Erzurum, Giresun, Hakkari, Isparta, İstanbul, İzmir, Kars, Kırklareli, Kocaeli, Konya, Muğla, Muş, Rize, Sakarya, Siirt, Trabzon, Van, Yalova.

Lasius balcanicus Seifert, 1988/*distinguendus* (Emery, 1916)*Lasius balcanicus* Seifert, 1988: 152.*Formicina umbrata* subsp. *distinguenda* Emery, 1916: 64.

MATERIAL EXAMINED. — **Turkey** • 36 ♂, 6 ♀; **Bursa**, Orhangazi, Mahmudiye Vill.; 40°33'04"N, 29°28'00"E; 700 m; 06.VIII.1998; K. Kiran leg.; EMTU K98/0559a • 11 ♀; Yıldırım, Küreklidere Waterfall; 40°09'N, 29°12'E; 950 m; 29.VI.2003; U. Güner leg.; EMTU 03/0070a • 47 ♀; Kestel, Alaçam Vill.; 40°06'808"N, 29°17'245"E; 1090 m; 14.VIII.2014; K. Kiran leg.; EMTU 07/2362a • 2 ♀; İnegöl, Tahtaköprü Vill.; 39°55'606"N, 29°39'183"E; 834 m; 14.VIII.2014; K. Kiran leg.; EMTU 07/2366c • 32 ♀; **Edirne**; 41°40'07"N, 26°35'25"E; 97 m; 10.V.2006; K. Kiran leg.; EMTU 06/0387 • 6 ♀; **Kastamonu**; 41°23'N, 33°46'E; 775 m; 30.IV.2011; C. Karaman leg.; EMTU 11/0102e.

REMARKS

Workers of both species are very similar, definitive identification is only possible based on queen caste (Seifert 2007). We left the identification of the material as *Lasius balcanicus*/*distinguendus* for now, because of the lack of the queen caste.

Lasius bicornis (Foerster, 1850)

Formica bicornis Foerster, 1850: 41.

MATERIAL EXAMINED. — **Turkey** • 3 ♀; **Burdur**, Gölhisar; 36°57'40"N, 29°27'53"E; 1223 m; 22.VI.2009; N. Jansson & M. Avcı leg.; EMTU 09/1103 • 3 ♂; **Erzincan**; 39°44'12"N, 39°28'33"E; 1191 m; 25.VIII.2008; E. Çoban leg.; EMTU 08/0027a.

DISTRIBUTION IN TURKEY. — Bursa, İstanbul, Thrace.

Lasius bombycina Seifert & Galkowski, 2016

Lasius bombycina Seifert & Galkowski, 2016: 56.

MATERIAL EXAMINED. — **Turkey** • 17 ♀; **Düzce**, Pınarlar Vill.; 40°48'29"N, 31°11'13"E; 15.VII.2001; K. Kiran leg.; EMTU 01/0978a • 1 ♀; **Edirne**, Hıdırağa Vill.; 41°44'N, 26°39'E; 18.X.2004; K. Kiran leg.; EMTU 04/0367a • 1 ♀; Keşan, Karacaali Vill.; 40°59'N, 26°39'E; 120 m; 25.VI.2003; T. Koldaş leg.; EMTU 03/0090 • 3 ♀; **Eskişehir**, Alpu, Çukurhisar Vill.; 39°50'N, 30°59'E; 880 m; 21.VIII.2004; K. Kiran leg.; EMTU 04/0512b • 1 ♀; same collection data as for preceding; K. Kiran leg.; 04/0512e • 2 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0515 • 16 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0517 • 1 ♀; **Gümüşhane**, Şiran, Arıtış Vill.; 40°09'43"N, 39°01'40"E; 1300 m; 02.VII.2004; A. Beyarslan leg.; EMTU 04/0370 • 8 ♀; **İstanbul**, Şile, Ağva; 41°08'20"N, 29°52'00"E; 0 m; 20.VIII.2012; C. Karaman leg.; EMTU 12/0054 • 6 ♀; Beykoz, Polonezköy; 41°06'N, 29°12'E; 20.IV.2008; K. Kiran leg.; EMTU 08/0150b • 20 ♀; Çatalca, Celepköy; 41°22'48"N, 28°30'47"E; 16 m; 23.V.2011; K. Kiran leg.; EMTU 11/0190c • 1 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 11/0196d • 5 ♀; İnceğiz Vill.; 41°11'N, 28°24'E; 01.VII.2009; C. Karaman leg.; EMTU 09/0127a • 2 ♂, 50 ♀; **Kırşehir**, Mucur; 39°03'N, 34°23'E; 26.VIII.2004; K. Kiran leg.; EMTU 04/0740 • 54 ♀; **Kocaeli**, Derbent, Sultanıye Vill.; 40°36'38"N, 30°05'12"E; 1150 m; 29.VIII.2004; K. Kiran leg.; EMTU 04/0917 • 25 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0922 • 3 ♀; Serindere Vill.; 40°39'08"N, 30°00'41"E; 560 m; 29.VIII.2004; K. Kiran leg.; EMTU 04/0938 • 7 ♀; Kandıra, Kerpe; 41°08'N, 30°12'E; 21.VII.2003; K. Kiran leg.; EMTU 03/0094b • 10 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 03/0095a • 1 ♀; **Kütahya**, Geriz Vill.; 39°59'06"N, 31°08'06"E; 1266 m; 09.VII.2007; M. Aydoğdu leg.; EMTU 07/0084 • 1 ♀; Gediz, Saruhanlar Vill.; 39°04'891"N, 29°18'905"E; 1396 m; 19.VIII.2014; C. Karaman leg.; EMTU 08/2142c • 17 ♀; **Manisa**, Gördes, Malaz Vill.; 39°04'N, 28°17'E;

1275 m; 09.VIII.2014; C. Karaman leg.; EMTU 07/2069 • 1 ♀; **Yozgat**, Kırım Vill.; 39°54'34"N, 34°46'23"E; 1278 m; 29.V.2007; T. Yılmaz leg.; EMTU 07/0081b • 2 ♀; same collection data as for preceding; T. Yılmaz leg.; EMTU 07/0091b • 2 ♀; **Sorgun**, Mahmatlı Vill.; 39°42'05"N, 35°21'50"E; 1083 m; 20.V.2007; M. Yurtcan leg.; EMTU 07/0048.

DISTRIBUTION IN TURKEY. — Ankara, Bitlis, Bursa, Isparta, Kars, Kastamonu, Kayseri, Kırklareli, Nevşehir, Sakarya, Sivas, Tekirdağ, Trabzon.

REMARKS

Seifert (1992) separated the largely distributed *L. alienus* into the five Westpalaeartic species *L. alienus*, *L. paralienus* Seifert, 1992, *L. piliferus* Seifert, 1992, *L. psammophilus* Seifert, 1992 and *Lasius obscuratus* Stitz, 1930. Additionally, Seifert & Galkowski (2016) recently divided *L. paralienus* into complex of tree species *L. paralienus*, *L. casevitzi* Seifert & Galkowski, 2016 and *L. bombycina*. They indicated that the only known sympatric occurrence of *L. paralienus* is in NW Balkans and Bulgaria. Therefore, we suggest here to remove *L. paralienus* from Turkish ant fauna considering its European distribution from France to Bulgaria. All previously determined *L. paralienus* materials should refer to *L. bombycina*.

Lasius brunneus (Latreille, 1798)

Formica brunnea Latreille, 1798: 41.

MATERIAL EXAMINED. — **Turkey** • 14 ♀; **Afyonkarahisar**; 38°45'N, 30°32'E; 12.VI.2004; K. Kiran leg.; EMTU 04/0154 • 14 ♀; Emirdağ, Güveççi Vill.; 38°54'N, 31°15'E; 1403 m; 24.VIII.2014; C. Karaman leg.; EMTU 08/2389e • 6 ♀; Bayat, Akpınar Vill.; 38°51'N, 30°56'E; 1399 m; 24.VIII.2014; C. Karaman leg.; EMTU 08/2358b • 13 ♀; **Aksaray**, Çiftlik, İhlara Valley; 38°14'23"N, 34°18'22"E; 1175 m; 21.VIII.2001; K. Kiran leg.; EMTU 01/0840 • 1 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 01/0844c • 17 ♀; **Ankara**, Elmadağ, Tohumlular Vill.; 39°44'09"N, 32°57'49"E; 1220 m; 22.VIII.2001; K. Kiran leg.; EMTU 01/0858 • 1 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 01/0859b • 15 ♀; Haymana, Oyaca Vill.; 39°32'N, 32°36'E; 1200 m; 22.VIII.2004; K. Kiran leg.; EMTU 04/0547 • 35 ♀; Polatlı, Beyceğiz Vill.; 39°38'N, 32°09'E; 900 m; 22.VIII.2004; K. Kiran leg.; EMTU 04/0526a • 1 ♀, 3 ♀; **Burdur**, Gölhisar; 36°57'40"N, 29°27'53"E; 1223 m; 26.VII.2009; N. Jansson & M. Avcı leg.; EMTU 09/1104 • 1 ♀; same collection data as for preceding; 26.VI.2009; N. Jansson & M. Avcı leg.; EMTU 09/1105 • 4 ♀; same collection data as for preceding; 25.VII.2009; N. Jansson & M. Avcı leg.; EMTU 09/1106 • 3 ♀; same collection data as for preceding; 22.V.2009; N. Jansson & M. Avcı leg.; EMTU 09/1107 • 3 ♀; same collection data as for preceding; 22.V.2009; N. Jansson & M. Avcı leg.; EMTU 09/1108 • 4 ♀; **Denizli**, Honaz; 37°42'662"N, 29°17'369"E; 1377 m; 11.VIII.2014; C. Karaman leg.; EMTU 07/2178c • 2 ♀; **Isparta**, Eğirdir, Yukarıgökderre Vill.; 37°42'984"N, 30°49'899"E; 07.VI.2007; N. Jansson & M. Avcı leg.; EMTU 07/2487 • 1 ♀; same collection data as for preceding; N. Jansson & M. Avcı leg.; EMTU 07/2493 • 1 ♀; same collection data as for preceding; 27.VI.2007; N. Jansson & M. Avcı leg.; EMTU 07/2488 • 1 ♀; same collection data as for preceding; 15.V.2007; N. Jansson & M. Avcı leg.; EMTU 07/2489 • 4 ♀; same collection data as for preceding; 19.VII.2007; N. Jansson & M. Avcı leg.; EMTU 07/2490 • 4 ♀; same collection data as for preceding; N. Jansson & M. Avcı leg.; EMTU 07/2492 • 4 ♀; same collection data as for preceding; 27.VI.2007; N. Jansson & M. Avcı leg.; EMTU 07/2491 • 3 ♀; **Karabük**, Safranbolu; 41°15'N, 32°40'E; 287 m; 07.V.2005; K. Kiran leg.; EMTU

05/0003i • 21 ♀; Kiranköy; 41°14'N, 32°41'E; 287 m; 31.VII.2005; K. Kiran leg.; EMTU 05/0023 • 6 ♀; **Kayseri**, Yeşilhisar, Soğanlı Vill.; 38°20'15"N, 34°59'00"E; 1200 m; 16.VIII.2001; K. Kiran leg.; EMTU 01/0731 • 1 ♀; **Konya**, Akşehir; 38°21'N, 31°24'E; 10.VI.2004; K. Kiran leg.; EMTU 04/0146 • 27 ♀; **Kütahya**; 39°25'N, 29°58'E; 945 m; 12.VI.2004; K. Kiran leg.; EMTU 04/0166 • 4 ♀; Göynükören Vill.; 39°20'960"N, 29°59'592"E; 1264 m; 17.VIII.2014; C. Karaman leg.; EMTU 08/2007b • 1 ♀; Dağardı, Sudöşeği Vill.; 39°21'804"N, 29°01'068"E; 1018 m; 20.VIII.2014; C. Karaman leg.; EMTU 08/2200e • 1 ♀; **Mersin**, Erdemli, Kızılın Vill.; 36°42'N, 34°05'E; 23.V.2005; N. Jansson & M. Coşkun leg.; EMTU 05/0103a • 1 ♀; same collection data as for preceding; N. Jansson & M. Coşkun leg.; EMTU 05/0103b • 1 ♀; same collection data as for preceding; N. Jansson & M. Coşkun leg.; EMTU 05/0106 • 4 ♀; same collection data as for preceding; 7.VII.2007; N. Jansson & M. Coşkun leg.; EMTU 05/0104 • 2 ♀; same collection data as for preceding; 11.VIII.2007; N. Jansson & M. Coşkun leg.; EMTU 05/0105 • 1 ♀; **Sivas**, Gürün; 38°43'N, 37°16'E; 04.VI.2001; N. Jansson leg.; EMTU 01/1605 • 1 ♀; same collection data as for preceding; N. Jansson leg.; EMTU 01/1606 • 1 ♀; **Tekirdağ**, Saray, Küçükyoncalı Vill.; 41°24'42"N, 27°58'06"E; 151 m; 29.VII.2001; E. Demirtaş leg.; EMTU 01/1017b • 12 ♀; same collection data as for preceding; 14.VIII.2001; E. Demirtaş leg.; EMTU 01/1037 • 8 ♀; same collection data as for preceding; 17.VIII.2001; E. Demirtaş leg.; EMTU 01/1043 • 8 ♀; same collection data as for preceding; 23.VIII.2001; E. Demirtaş leg.; EMTU 01/1063a • 2 ♀; same collection data as for preceding; E. Demirtaş leg.; EMTU 01/1064b • 1 ♀; same collection data as for preceding; 20.IV.2002; E. Demirtaş leg.; EMTU 02/1018c • 1 ♀; Şarköy, Uçmakdere Vill.; 40°47'54.50"N, 27°21'55.10"E; 111 m; 17.V.2015; C. Karaman leg.; EMTU 15/0024b • 1 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 15/0028 • 33 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 15/0033 • 6 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 15/0034c.

DISTRIBUTION IN TURKEY. — Amasya, Balıkesir, Bursa, Çanakkale, Edirne, Erzincan, Erzurum, İstanbul, Kırklareli, Kocaeli, Sakarya, Yalova.

Lasius emarginatus (Olivier, 1792)

Formica emarginata Olivier, 1792: 494.

MATERIAL EXAMINED. — **Turkey** • 1 ♀; **Hatay**; 36°12'N, 36°11'E; 10.V.2015; S. Yıldız leg.; EMTU 15/0043g • 1 ♀; Dört Yol, Sincan Vill.; 36°43'N, 36°15'E; 21.VIII.2005; E. Şahutoğlu leg.; EMTU 05/0047c.

DISTRIBUTION IN TURKEY. — Artvin, Bursa, İstanbul, İzmir, Kırklareli, Rize, Trabzon, Zonguldak.

REMARKS

After Borowiec & Salata (2013) restored *L. illyricus* Zimmerman, 1935 to species rank from the synonym of *L. emarginatus*, we also recorded *L. illyricus* species in Anatolia. Our studies revealed that *L. illyricus* is more abundant than *L. emarginatus* in Turkey. Therefore, some previous records determined as *L. emarginatus* should refer to *L. illyricus*.

Lasius flavus (Fabricius, 1782)

Formica flava Fabricius, 1782: 491.

MATERIAL EXAMINED. — **Turkey** • 30 ♀; **Afyonkarahisar**, Alanyurt Vill.; 39°01'493"N, 30°45'394"E; 1660 m; 24.VIII.2014; C. Karaman leg.; EMTU 08/2394b • 19 ♀; Bayat, Mallica Vill.; 39°03'N, 30°48'E;

1505 m; 24.VIII.2014; C. Karaman leg.; EMTU 08/2400b • 10 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 08/2401b • 4 ♀; Hocalar, Çukurca Vill.; 38°38'676"N, 30°07'902"E; 1433 m; 22.VIII.2014; C. Karaman leg.; EMTU 08/2254b • 8 ♀; Sinanpaşa, Yürükmezari Vill.; 38°40'855"N, 30°08'929"E; 1615 m; 22.VIII.2014; C. Karaman leg.; EMTU 08/2238b • 7 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 08/2241b • 3 ♀; **Artvin**, Kafkasör Upland; 41°10'00"N, 41°47'38"E; 1200 m; 14.VIII.2000; K. Kiran leg.; EMTU 00/0100 • 1 ♂, 50 ♀; same collection data as for preceding; 41°10'N, 41°47'E; 1730 m; K. Kiran leg.; EMTU 00/0106 • 50 ♀; same collection data as for preceding; 1600 m; K. Kiran leg.; EMTU 00/0114 • 31 ♀; Şavşat, Akdamla Upland; 41°26'57"N, 42°24'32"E; 2140 m; 03.VIII.2015; C. Karaman leg.; EMTU 15/0066 • 50 ♀; Yavuzköy; 41°14'00"N, 42°23'29"E; 1600 m; 14.VIII.2000; K. Kiran leg.; EMTU 00/0122 • 1 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 00/0125b • 12 ♀; **Manisa**, Demirci, Güldürlek; 39°07'988"N, 28°35'982"E; 1200 m; 19.VIII.2014; C. Karaman leg.; EMTU 08/2176c • 30 ♀; Gördes, Malaz Vill.; 39°04'N, 28°17'E; 1275 m; 09.VIII.2014; C. Karaman leg.; EMTU 07/2057 • 39 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 07/2059a.

DISTRIBUTION IN TURKEY. — Ankara, Ardahan, Bilecik, Bursa, Erzincan, Erzurum, Giresun, Kars, Sakarya, Trabzon.

Lasius fuliginosus (Latreille, 1798)

Formica fuliginosa Latreille, 1798: 36.

MATERIAL EXAMINED. — **Turkey** • 47 ♀; **Ankara**, Elmadağ, Tohumlular Vill.; 39°44'09"N, 32°57'49"E; 1220 m; 22.VIII.2001; K. Kiran leg.; EMTU 01/0856a • 28 ♀; Sincan, Erkeksu Vill.; 39°57'N, 32°34'E; 900 m; 22.VIII.2004; K. Kiran leg.; EMTU 04/0541a • 50 ♀; **Eskişehir**, Alpu, Çukurhisar Vill.; 39°50'N, 30°59'E; 880 m; 21.VIII.2004; K. Kiran leg.; EMTU 04/0504 • 7 ♀; **Karabük**, Safranbolu; 41°14'42"N, 32°43'26"E; 287 m; 27.VIII.2005; K. Kiran leg.; EMTU 05/0044a • 6 ♀; **Kastamonu**; 41°23'N, 33°46'E; 775 m; 30.IV.2011; C. Karaman leg.; EMTU 11/0102f • 12 ♀; **Tekirdağ**, Saray, Küçükyoncalı Vill.; 41°24'42"N, 27°58'06"E; 151 m; 31.VIII.2001; E. Demirtaş leg.; EMTU 01/1078a.

DISTRIBUTION IN TURKEY. — Ardahan, Bilecik, Bursa, Edirne, İstanbul, Kırklareli, Sakarya.

Lasius illyricus Zimmerman, 1935 * (Fig. 3)

Lasius alienus subsp. *illyricus* Zimmermann, 1935: 50.

MATERIAL EXAMINED. — **Turkey** • 4 ♀; **Artvin**, Borçka; 41°21'49"N, 41°40'45"E; 640 m; 17.VIII.2000; C. Karaman leg.; EMTU 00/0163 • 6 ♀; Şavşat, Akdamla Vill.; 41°24'38"N, 42°22'50"E; 1412 m; 05.VIII.2015; C. Karaman leg.; EMTU 15/0094 • 3 ♀; Menekşeköy; 41°18'27"N, 42°28'56"E; 1633 m; 09.VIII.2015; C. Karaman leg.; EMTU 15/0097h • 2 ♀; **Balıkesir**, Sındırgı, Aktaş Vill.; 39°11'133"N, 28°19'023"E; 801 m; 09.VIII.2014; C. Karaman leg.; EMTU 07/2037a • 3 ♀; Sinandede Vill.; 39°08'N, 28°04'E; 1000 m; 09.VIII.2014; C. Karaman leg.; EMTU 07/2006 • 1 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 07/2012b • 14 ♀; **Bursa**, Gemlik, Şahinyurdu Vill.; 40°28'01"N, 29°12'58"E; 750 m; 12.VIII.1998; K. Kiran leg.; EMTU K98/0600 • 4 ♀; same collection data as for preceding; K. Kiran leg.; EMTU K98/0612 • 50 ♀; İznik, Sarısu Vill.; 40°34'50"N, 29°47'19"E; 905 m; 07.VII.1996; K. Kiran leg.; EMTU K96/0296a • 10 ♀; Orhangazi, Mahmudiye Vill.; 40°33'04"N, 29°28'00"E; 700 m; 06.VIII.1998; K. Kiran leg.; EMTU K98/0566 • 2 ♀; Yeniköy; 40°32'09"N, 29°21'06"E;

750 m; 31.VII.1998; K. Kiran leg.; EMTU K98/0434 • 2 ♀; same collection data as for preceding; K. Kiran leg.; EMTU K98/0443 • 16 ♀; **Düzce**, Pınarlar Vill.; 40°48'29"N, 31°11'13"E; 07.VII.2001; K. Kiran leg.; EMTU 01/0976 • 50 ♀; **İstanbul**, Beşiktaş; 41°03'N, 29°00'E; 45 m; 27.VII.2004; K. Kiran leg.; EMTU 04/0310 • 37 ♀; Çatalca, Binkılıç; 41°25'N, 28°11'E; 21.VIII.1998; B. Özkan leg.; EMTU 98/1722 • 8 ♀; Emirgan; 41°06'31"N, 29°03'06"E; 83 m; 01.V.2014; C. Karaman leg.; EMTU 14/0125a • 1 ♀; Erenköy; 40°58'30"N, 29°05'18"E; 73 m; 22.IV.2014; C. Karaman leg.; EMTU 14/0124h • 50 ♀; Yalıköy; 41°29'36"N, 28°16'39"E; 1 m; 23.V.2011; K. Kiran leg.; EMTU 11/0177a • 9 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 11/0189b • 4 ♀; Şile, Ağva; 41°07'59"N, 29°50'33"E; 0 m; 20.VIII.2012; C. Karaman leg.; EMTU 12/0067 • 32 ♀; **Kocaeli**, Derbent, Sultanıye Vill.; 40°36'38"N, 30°05'12"E; 930 m; 29.VIII.2004; K. Kiran leg.; EMTU 04/0921 • 3 ♀; same collection data as for preceding; K. Kiran leg.; MNHN 04/0921 • 3 ♀; Gölcük, Hamidiye Vill.; 40°39'56"N, 29°49'27"E; 450 m; 16.VIII.1998; K. Kiran leg.; EMTU K98/0722 • 8 ♀; İrşadiye Vill.; 40°38'12"N, 29°47'55"E; 750 m; 16.VIII.1998; K. Kiran leg.; EMTU K98/0775 • 13 ♀; Kandıra, Babatepesi; 41°07'N, 30°11'E; 340 m; 12.IX.2003; K. Kiran leg.; EMTU 03/0201b • 50 ♀; Karamürsel, Kızderbent Vill.; 40°33'10"N, 29°31'05"E; 150 m; 05.VIII.1998; K. Kiran leg.; EMTU K98/0452 • 2 ♀; same collection data as for preceding; K. Kiran leg.; EMTU K98/0459b • 38 ♀; **Kırklareli**, Pınarhisar, Evciler Vill.; 41°46'75"N, 27°37'52"E; 900 m; 11.V.2003; K. Kiran leg.; EMTU 03/0008 • 4 ♀; **Kütahya**, Belce Upland; 39°29'128"N, 30°19'721"E; 1445 m; 17.VIII.2014; C. Karaman leg.; EMTU 08/2033b • 1 ♀; Fındık Vill.; 39°33'N, 30°12'E; 950 m; 17.VIII.2014; C. Karaman leg.; EMTU 08/2016b • 8 ♀; **Ordu**, Korgan, Asarkaya Vill.; 40°48'N, 37°23'E; 1000 m; 24.VIII.2009; E. Çoban leg.; EMTU 09/0124d • 1 ♀; **Sakarya**, Pamukova, Eskiayla Vill.; 40°33'43"N, 30°07'39"E; 1400 m; 20.VIII.1998; K. Kiran leg.; EMTU K98/0746b • 6 ♀; same collection data as for preceding; K. Kiran leg.; EMTU K98/0748 • 1 ♀; same collection data as for preceding; K. Kiran leg.; EMTU K98/0791 • 12 ♀; **Tekirdağ**, Ganos Mt.; 40°47'N, 27°15'E; 360 m; 17.V.2003; K. Kiran leg.; EMTU 03/0209b • 1 ♀; Şarköy, Ormanlı Vill.; 40°47'N, 27°13'E; 700 m; 01.VII.2004; K. Kiran leg.; EMTU 04/0376g • 1 ♀; **Yalova**, Altınova, Aktoprak Vill.; 40°34'49"N, 29°28'36"E; 450 m; 06.VIII.1998; K. Kiran leg.; EMTU K98/0545 • 1 ♀; same collection data as for preceding; K. Kiran leg.; EMTU K98/0549 • 23 ♀; same collection data as for preceding; K. Kiran leg.; EMTU K98/0551 • 7 ♀; Armutlu, Hayriye Vill.; 40°30'03"N, 28°57'59"E; 520 m; 15.VIII.1998; K. Kiran leg.; EMTU K98/0755.

DISTRIBUTION IN TURKEY. — New for Turkey.

REMARKS

See comments on *L. emarginatus*.

Lasius myops Forel, 1894

Lasius flavus r. *myops* Forel, 1894: 12.

MATERIAL EXAMINED. — **Turkey** • 40 ♀; **Afyonkarahisar**, İncehisar, Doğlat Vill.; 38°59'49"N, 30°50'338"E; 1345 m; 24.VIII.2014; C. Karaman leg.; EMTU 08/2255a • 1 ♀; Mallica Vill.; 39°03'963"N, 30°48'430"E; 1471 m; 24.VIII.2014; C. Karaman leg.; EMTU 08/2403e • 35 ♀; Dazkırı, Darıcalar Vill.; 37°53'N, 29°44'E; 1162 m; 23.VIII.2014; C. Karaman leg.; EMTU 08/2331c • 45 ♀; İdris Vill.; 37°53'475"N, 29°41'284"E; 1508 m; 23.VIII.2014; C. Karaman leg.; EMTU 08/2334b • 7 ♀; Emirdağ, Güveççi Vill.; 38°54'N, 31°15'E; 1403 m; 24.VIII.2014; C. Karaman leg.; EMTU 08/2389c • 3 ♀; Hocalar, Çukurca Vill.; 38°38'676"N, 30°07'902"E; 1433 m; 22.VIII.2014; C. Karaman leg.; EMTU 08/2252c • 1 ♂, 27 ♀; Yeşilhisar Vill.; 38°43'374"N, 29°57'530"E; 1310 m; 22.VIII.2014; C. Karaman

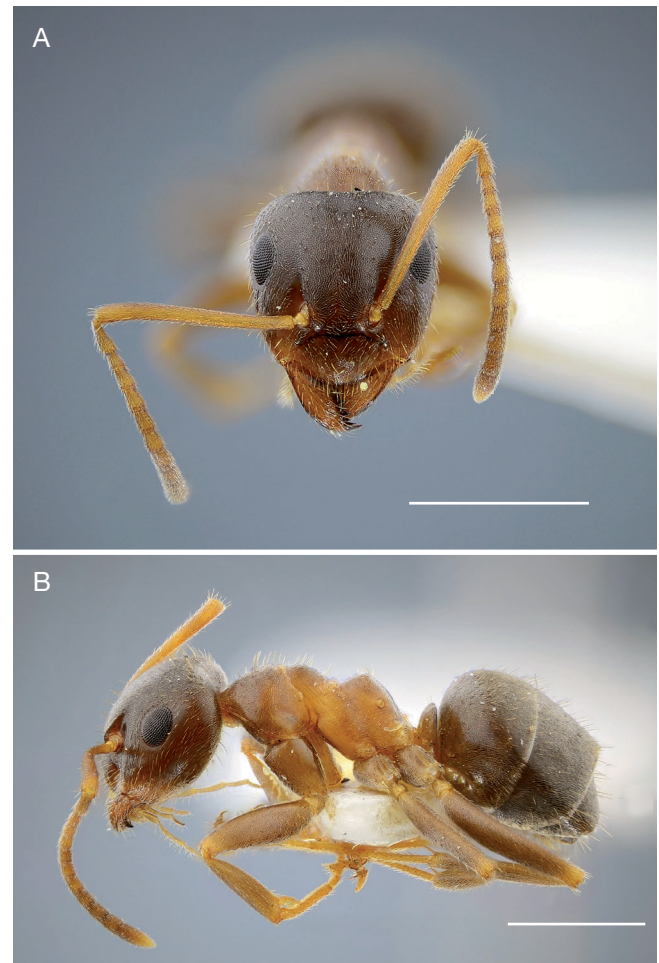


FIG. 3. — Worker of *L. illyricus* Zimmerman, 1935: **A**, head from dorsal view; **B**, whole body from lateral view. Scale bars: 1 mm.

leg.; EMTU 08/2255a • 11 ♀; **Bolu**, Bakırlı Vill.; 40°47'01"N, 31°38'16"E; 920 m; 15.VIII.2013; K. Kiran, C. Karaman & V. Aksoy leg.; EMTU 13/0011b • 10 ♀; **Bursa**, İnegöl, Çayyaka Vill.; 39°57'143"N, 29°22'136"E; 1620 m; 14.VIII.2014; C. Karaman leg.; EMTU 07/2373 • 50 ♀; İznik, Elmalı Vill.; 40°31'03"N, 29°53'02"E; 780 m; 26.VI.1996; K. Kiran leg.; EMTU K96/0212 • 50 ♀; Kırıntı Vill.; 40°33'47"N, 29°52'33"E; 795 m; 25.VI.1996; K. Kiran leg.; EMTU K96/0185 • 7 ♀, 8 ♂, 50 ♀; **Denizli**, Çivril, Kocaalan Upland; 38°22'513"N, 29°59'476"E; 1576 m; 23.VIII.2014; C. Karaman leg.; EMTU 08/2301b • 12 ♀; **Kütahya**, Bayat Vill.; 39°27'623"N, 30°17'282"E; 1482 m; 17.VIII.2014; C. Karaman leg.; EMTU 08/2046a • 1 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 08/2049b • 15 ♀; Belce Upland; 39°27'N, 30°21'E; 1660 m; 17.VIII.2014; C. Karaman leg.; EMTU 08/2028a • 8 ♀; Fındık Vill.; 39°32'932"N, 30°14'570"E; 1045 m; 17.VIII.2014; C. Karaman leg.; EMTU 08/2020c • 25 ♀; Emet, Musalar Vill.; 39°24'N, 29°08'E; 1713 m; 21.VIII.2014; C. Karaman leg.; EMTU 08/2214c • 20 ♀; **Manisa**, Demirci, Bardakçı Vill.; 39°07'939"N, 28°31'315"E; 1399 m; 19.VIII.2014; C. Karaman leg.; EMTU 08/2173c • 24 ♀; Mahmutlar Town; 39°06'401"N, 28°44'176"E; 1415 m; 20.VIII.2014; C. Karaman leg.; EMTU 08/2185b • 16 ♀; **Niğde**, Çamardı, Elekgözü Vill.; 37°45'21"N, 35°01'36"E; 1550 m; 20.VIII.2001; K. Kiran leg.; EMTU 01/0824 • 5 ♀, 25 ♂, 50 ♀; Ulukışla, Aktoprak Vill.; 37°28'54"N, 34°28'05"E; 1800 m; 18.VIII.2001; K. Kiran leg.; EMTU 01/0780.

DISTRIBUTION IN TURKEY. — Artvin, Karabük, Kırklareli, Sakarya, Yozgat.

Lasius niger (Linnaeus, 1758)*Formica nigra* Linnaeus, 1758: 580.

MATERIAL EXAMINED. — **Turkey** • 50 ♀; **Nevşehir**, Ürgüp, Mustafapaşa Town; 38°35'04"N, 34°53'52"E; 1150 m; 17.VIII.2001; K. Kiran leg.; EMTU 01/0747.

DISTRIBUTION IN TURKEY. — Ağrı, Artvin, Bilecik, Bitlis, Bursa, Edirne, Gaziantep, İstanbul, Sakarya.

Lasius platythorax Seifert, 1991*Lasius (Lasius) platythorax* Seifert, 1991: 73.

MATERIAL EXAMINED. — **Turkey** • 15 ♀, 11 ♀; **Düzce**, Pınarlar Vill.; 40°48'29"N, 31°11'13"E; 07.VII.2001; C. Karaman leg.; EMTU 01/0977 • 1 ♀; **Kütahya**, Dağardı, Yağmur Vill.; 39°23'685"N, 29°03'001"E; 1188 m; 20.VIII.2014; C. Karaman leg.; EMTU 08/2205c.

DISTRIBUTION IN TURKEY. — Kırklareli, Sakarya.

Lasius turcicus Santschi, 1921*Lasius niger* st. *turcica* Santschi, 1921: 115.

MATERIAL EXAMINED. — **Turkey** • 1 ♀; **Adıyaman**; 37°45'N, 38°16'E; 07.V.2015; S. Yıldız leg.; EMTU 15/0042r • 9 ♀; **Aksaray**, Çifillik, İhlara Valley; 38°14'23"N, 34°18'22"E; 1175 m; 21.VIII.2001; K. Kiran leg.; EMTU 01/0839 • 11 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 01/0842a • 2 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 01/0844b • 1 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 01/0846b • 2 ♀; **Ortaköy**; 38°44'N, 34°02'E; 1140 m; 26.VIII.2004; K. Kiran leg.; EMTU 04/0747b • 23 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0749 • 5 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0752 • 6 ♀; **Amasya**; 40°39'N, 35°50'E; 01.VIII.2015; C. Karaman leg.; EMTU 15/0048e • 1 ♀; **Aydın**, Kuşadası; 37°50'40"N, 27°14'40"E; 16 m; 30.VI.2006; K. Kiran leg.; EMTU 06/0018b • 4 ♀; **Sultanhisar**; 37°53'N, 28°09'E; 28.VII.2007; H. Başpınar leg.; EMTU 06/0066 • 1 ♀; same collection data as for preceding; 27.VII.2007; H. Başpınar leg.; EMTU 06/0069a • 5 ♀; **Söke**; 37°45'N, 27°24'E; 15.VII.2014; C. Karaman leg.; EMTU 14/0141b • 1 ♀; **Batman**; 37°52'N, 41°07'E; 07.VII.2010; F. Toprak leg.; EMTU 10/0101b • 1 ♀; **Bitlis**; 38°23'59"N, 42°06'30"E; 22.IX.2002; A. Beyarslan leg.; EMTU 02/1047e • 1 ♀; **Bolu**; 40°43'N, 31°27'E; 05.IX.2004; K. Kiran leg.; EMTU 04/0391d • 12 ♀; **Çankırı**, Kızılırmak; 40°20'N, 33°59'E; 560 m; 24.VIII.2004; K. Kiran leg.; EMTU 04/0605a • 50 ♀; **Edirne**; 41°40'31"N, 26°33'38"E; 40 m; 25.VI.2003; K. Kiran leg.; EMTU 03/0064 • 3 ♀; **Avarız Vill.**; 41°45'39"N, 26°31'47"E; 40 m; 12.V.2010; K. Kiran leg.; EMTU 10/0027b • 13 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 10/0029a • 1 ♀; **İskenderköy**; 41°37'N, 26°40'E; 28.VI.2008; K. Kiran leg.; EMTU 08/0026b • 1 ♀; **Karaağaç**; 41°39'N, 26°31'E; 39 m; 03.IV.2012; C. Karaman leg.; EMTU 12/0008e • 1 ♀; **Erzurum**, Pazaryolu; 40°24'N, 40°46'E; 01.IX.2008; A. Beyarslan leg.; EMTU 08/0169c • 3 ♀; **Karabük**, Safranbolu; 41°15'N, 32°40'E; 287 m; 07.V.2005; A. Beyarslan leg.; EMTU 05/0003h • 1 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 05/0004e • 1 ♀; **Bulak Vill.**; 41°15'N, 32°39'E; 287 m; 21.V.2005; K. Kiran leg.; EMTU 05/0008m • 21 ♀; **Kıranköy**; 41°14'N, 32°41'E; 287 m; 31.VII.2005; K. Kiran leg.; EMTU 05/0024 • 35 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 05/0025 • 1 ♀; **Kayseri**, İncesu, Örenşehir Vill.; 38°41'28"N, 35°14'37"E; 1058 m;

14.IX.2006; A. Beyarslan leg.; EMTU 06/0072 • 12 ♀; **Yeşilhisar**, Soğanlı Vill.; 38°20'15"N, 34°59'00"E; 1200 m; 16.VIII.2001; K. Kiran leg.; EMTU 01/0725a • 23 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 01/0730a • 6 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 01/0734 • 1 ♀; **Kırkkale**, Keskin, Ceritmüminli Vill.; 39°43'N, 33°47'E; 910 m; 23.VIII.2004; K. Kiran leg.; EMTU 04/0587b • 24 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0589a • 50 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0590 • 27 ♀; **Kırşehir**, Kaman, Hirfanlı Dam; 39°16'21"N, 33°32'09"E; 880 m; 23.VIII.2004; K. Kiran leg.; EMTU 04/0568a • 10 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0569 • 27 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0579 • 6 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0580b • 1 ♀; **Özbağ**; 39°14'32"N, 34°07'43"E; 1036 m; 16.IX.2006; E. Çoban leg.; EMTU 06/0074a • 1 ♀; **Manisa**, Gölçümlü, Yeniköy; 38°39'N, 28°02'E; 98 m; 09.VIII.2014; C. Karaman leg.; EMTU 07/2104c • 11 ♀; **Göğdes**, Kabakoz Vill.; 39°00'727"N, 28°11'892"E; 988 m; 09.VIII.2014; C. Karaman leg.; EMTU 07/2082 • 7 ♀; **Nevşehir**, Ürgüp, Mustafapaşa Town; 38°35'04"N, 34°53'52"E; 1150 m; 17.VIII.2001; K. Kiran leg.; EMTU 01/0742 • 23 ♀; **Ayvalı Vill.**; 38°32'52"N, 34°52'11"E; 1500 m; 17.VIII.2001; K. Kiran leg.; EMTU 01/0756a • 3 ♀; **Niğde**, Gümüşler Vill.; 37°59'39"N, 34°46'16"E; 1500 m; 20.VIII.2001; K. Kiran leg.; EMTU 01/0799a • 15 ♀; **Çamardı**; 37°49'53"N, 34°59'04"E; 1275 m; 20.VIII.2001; K. Kiran leg.; EMTU 01/0807a • 1 ♀; **Ulukışla**; 37°33'00"N, 34°28'58"E; 1800 m; 18.VIII.2001; K. Kiran leg.; EMTU 01/0769 • 26 ♀; same collection data as for preceding; K. Kiran leg.; 01/0771a • 9 ♀; **Sivas**, Beypınarı Vill.; 39°51'15"N, 37°07'50"E; 1460 m; 25.VIII.2004; K. Kiran leg.; EMTU 04/0671 • 1 ♀; **Suşehri**; 40°09'N, 38°05'E; 12.VI.2003; A. Beyarslan leg.; EMTU 03/0208 • 2 ♀; **Şanlıurfa**; 37°09'12"N, 38°47'26"E; 524 m; 23.VII.2011; C. Karaman leg.; EMTU 11/0090c • 1 ♀; **Birecik**; 37°01'N, 38°00'E; 14.V.2015; S. Yıldız leg.; EMTU 15/0045e • 1 ♀; same collection data as for preceding; 13.V.2015; S. Yıldız leg.; EMTU 15/0045f • 1 ♀; **Siverek**; 37°45'N, 39°18'E; 13.V.2015; S. Yıldız leg.; EMTU 15/0047k • 13 ♀; **Tekirdağ**, Şarköy, İğdebağları; 40°38'11.10"N, 27°08'57.70"E; 95 m; 16.V.2015; C. Karaman leg.; EMTU 15/0014a • 25 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 15/0016 • 22 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 15/0017 • 2 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 15/0019a • 1 ♀; **Uçmakdere Vill.**; 40°47'54.50"N, 27°21'55.10"E; 111 m; 17.V.2015; C. Karaman leg.; EMTU 15/0024c • 5 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 15/0019a.

DISTRIBUTION IN TURKEY. — Afyonkarahisar, Ankara, Antalya, Artvin, Balıkesir, Bilecik, Bursa, Çanakkale, Eskişehir, Isparta, İstanbul, İzmir, Kastamonu, Kırklareli, Kocaeli, Konya, Kütahya, Rize, Sakarya, Trabzon, Uşak, Yalova.

Lasius umbratus (Nylander, 1846)*Formica umbrata* Nylander, 1846a: 1048.

MATERIAL EXAMINED. — **Turkey** • 3 ♀, 6 ♂, 45 ♀; **Afyonkarahisar**, Sorkun, Kavakalanı Vill.; 38°25'513"N, 30°00'231"E; 1197 m; 23.VIII.2014; C. Karaman leg.; EMTU 08/2312b • 50 ♀; **Ankara**, Haymana, Yenice Vill.; 39°16'N, 32°40'E; 1200 m; 22.VIII.2004; K. Kiran leg.; EMTU 04/0552 • 1 ♂, 18 ♀; **Artvin**, Şavşat, Akdamla Upland; 41°26'57"N, 42°24'32"E; 2140 m; 03.VIII.2015; C. Karaman leg.; EMTU 15/0050 • 26 ♀; **Düzce**, Pınarlar Vill.; 40°48'29"N, 31°11'13"E; 16.IX.2001; K. Kiran leg.; EMTU 01/0983 • 50 ♀; **İstanbul**, Çatalca, Celepköy; 41°22'48"N, 28°30'47"E; 16 m; 23.V.2011; K. Kiran leg.; EMTU 11/0194a.

DISTRIBUTION IN TURKEY. — Ağrı, Ardahan, Bursa, Edirne, Erzurum.

Genus *Lepisiota* Santschi, 1926*Lepisiota dolabellae* (Forel, 1911)*Acantholepis frauenfeldi* var. *Dolabellae* Forel, 1911: 351.MATERIAL EXAMINED. — **Turkey** • 1 ♀; **Mardin**; 37°18'N, 40°44'E; 13.IV.2010; S. Yıldız leg.; EMTU 10/0141c.

DISTRIBUTION IN TURKEY. — Antalya, İzmir.

Lepisiota frauenfeldi (Mayr, 1855)*Hypoclinea frauenfeldi* Mayr, 1855: 378.

MATERIAL EXAMINED. — **Turkey** • 2 ♀; **Adıyaman**; 37°45'N, 38°16'E; 07.V.2015; S. Yıldız leg.; EMTU 15/0042e • 11 ♀; **Antalya**, Belek; 36°51'N, 31°03'E; 01.VII.2012; C. Karaman leg.; EMTU 12/0069a • 4 ♀; Elmalı, İslamlar Vill.; 36°18'N, 29°24'E; 31.VII.2009; S. Ülgentürk leg.; EMTU 09/0303 • 2 ♀; Gazipaşa; 36°16'N, 32°20'E; 15.IV.2014; C. Karaman leg.; EMTU 14/0120h • 4 ♀; Manavgat, Yeniköy; 36°50'N, 31°22'E; 01.VII.2012; C. Karaman leg.; EMTU 12/0072b • 2 ♀; **Batman**; 37°52'N, 41°07'E; 10.VI.2010; F. Toprak leg.; EMTU 10/0074 • 4 ♀; **Burdur**, Gölhisar; 36°57'40"N, 29°27'53"E; 1223 m; 30.VIII.2009; N. Jansson & M. Avcı leg.; EMTU 09/1101 • 1 ♀; same collection data as for preceding; N. Jansson & M. Avcı leg.; EMTU 09/1102 • 1 ♀; **Gaziantep**; 36°56'39"N, 37°28'25"E; 696 m; 04.V.2012; U. Güner leg.; EMTU 12/0004d • 7 ♀; **Manisa**, Akhisar, Doğanakaya Vill.; 38°59'N, 27°56'E; 560 m; 09.VIII.2014; C. Karaman leg.; EMTU 07/2093a • 11 ♀; Dingiller Vill.; 38°59'N, 27°53'E; 345 m; 09.VIII.2014; C. Karaman leg.; EMTU 07/2099a • 20 ♀; Gölarmara, Musalar Vill.; 38°41'03"N, 28°08'748"E; 653 m; 09.VIII.2014; C. Karaman leg.; EMTU 07/2109a • 10 ♀; Yeniköy; 38°39'N, 28°02'E; 98 m; 09.VIII.2014; C. Karaman leg.; EMTU 07/2105 • 8 ♀; Gördes, Kabakoz Vill.; 39°00'727"N, 28°11'892"E; 988 m; 09.VIII.2014; C. Karaman leg.; EMTU 07/2072 • 7 ♀; Köprübaşı, Kurtlar Vill.; 38°43'N, 28°17'E; 600 m; 10.VIII.2014; C. Karaman leg.; EMTU 07/2114d • 1 ♀; Salihli, Adala Vill.; 38°36'695"N, 28°18'522"E; 221 m; 10.VIII.2014; C. Karaman leg.; EMTU 07/2124c • 19 ♀; **Şanlıurfa**; 37°28'11"N, 38°18'41"E; 514 m; 23.IV.2015; C. Karaman leg.; EMTU 15/0002a • 9 ♀; Bozova; 37°28'11"N, 38°18'41"E; 529 m; 25.IV.2015; C. Karaman leg.; EMTU 15/0012a • 2 ♀; Birecik; 37°01'N, 38°00'E; 14.V.2015; S. Yıldız leg.; EMTU 15/0045b • 2 ♀; Halfeti; 37°14'N, 38°52'E; 14.V.2015; S. Yıldız leg.; EMTU 15/0046d • 3 ♀; Siverek; 37°45'N, 39°18'E; 13.V.2015; S. Yıldız leg.; EMTU 15/0047c • 2 ♀; **Tekirdağ**, Şarköy, Uçmakdere; 40°47'54.50"N, 27°21'55.10"E; 111 m; 17.V.2015; C. Karaman leg.; EMTU 15/0026c • 4 ♀; Şarköy, Yeniköy; 40°38'N, 27°02'E; 232 m; 18.V.2015; C. Karaman leg.; EMTU 15/0036g.

DISTRIBUTION IN TURKEY. — Aydın, Balıkesir, Bilecik, Bursa, Çanakkale, Denizli, Diyarbakır, Edirne, Elazığ, Hatay, İstanbul, İzmir, Kocaeli, Mersin, Muğla, Sakarya, Siirt, Yalova.

Genus *Plagiolepis* Mayr, 1861*Plagiolepis pallescens* Forel, 1889*Plagiolepis pygmaea* var. *pallescens* Forel, 1889: 265.MATERIAL EXAMINED. — **Turkey** • 50 ♀; **Artvin**, Borçka; 41°21'49"N, 41°40'45"E; 110 m; 14.VIII.2000; K. Kiran leg.; EMTU 00/0090 • 50 ♀; Adagül Vill.; 41°18'46"N, 41°45'03"E; 100 m; 14.VIII.2000;

K. Kiran leg.; EMTU 00/0118a • 33 ♀; Şavşat, Ciritdüzü Vill.; 41°16'40"N, 42°24'01"E; 1178 m; 09.VIII.2015; C. Karaman leg.; EMTU 15/0095f • 9 ♀; **Aydın**, Didim; 37°22'N, 27°15'E; 20.VIII.2014; C. Karaman leg.; EMTU 14/0117f • 1 ♀; **Balıkesir**, Ayvalık, Sarımsaklı Vill.; 39°17'20"N, 26°38'34"E; 111 m; 19.V.2012; C. Karaman leg.; EMTU 13/0150b • 4 ♀; Bayramiç, Aşağıcamlık Vill.; 39°22'721"N, 28°25'377"E; 745 m; 16.VIII.2014; C. Karaman leg.; EMTU 07/2468b • 1 ♀; **Burdur**, Gölhisar; 36°57'40"N, 29°27'53"E; 1223 m; 22.V.2009; N. Jansson & M. Avcı leg.; EMTU 09/1089 • 50 ♀; **Çankırı**, Sungurlu; 40°09'N, 34°22'E; 825 m; 24.VIII.2004; K. Kiran leg.; EMTU 04/0609 • 1 ♀; **Denizli**, Kapandamları; 37°56'350"N, 29°10'035"E; 1165 m; 11.VIII.2014; C. Karaman leg.; EMTU 07/2212b • 2 ♀; Honaz; 37°42'662"N, 29°17'369"E; 1377 m; 11.VIII.2014; C. Karaman leg.; EMTU 07/2181b • 2 ♀; **Eskişehir**, Sivrihisar, Sarıkavak Vill.; 39°31'N, 31°26'E; 1400 m; 28.VIII.2004; K. Kiran leg.; EMTU 04/0861 • 1 ♀; **Isparta**, Eğirdir, Yukarıgökdere Vill.; 37°42'984"N, 30°49'899"E; 07.VIII.2007; N. Jansson & M. Avcı leg.; EMTU 07/2480 • 1 ♀; **İstanbul**, Beykoz, Polonezköy; 41°06'N, 29°12'E; 20.IV.2008; K. Kiran leg.; EMTU 08/0150f • 1 ♀; Erenköy; 40°58'30"N, 29°05'18"E; 73 m; 22.IV.2014; C. Karaman leg.; EMTU 14/0124i • 50 ♀; Ümraniye; 41°02'N, 29°06'E; 31.III.2013; C. Karaman leg.; EMTU 13/0166a • 1 ♀; **Kayseri**; 38°43'N, 35°28'E; 21.VIII.2013; C. Karaman leg.; EMTU 13/0171f • 6 ♀; Develi; 38°24'14"N, 35°29'38"E; 1800 m; 15.VIII.2001; K. Kiran leg.; EMTU 01/0712a • 3 ♀, 15 ♀; **Kütahya**; 39°12'22"N, 30°08'27"E; 1300 m; 13.VI.2004; K. Kiran leg.; EMTU 04/0172 • 1 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0187b • 1 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0187b • 2 ♀, 5 ♂, 20 ♀; same collection data as for preceding; 39°11'394"N, 30°08'025"E; 1135 m; K. Kiran leg.; EMTU 04/0192 • 2 ♀; same collection data as for preceding; 39°44'419"N, 30°10'108"E; 1006 m; K. Kiran leg.; EMTU 04/0198b • 1 ♀; Emet, Musalar Vill.; 39°22'N, 29°12'E; 934 m; 21.VIII.2014; C. Karaman leg.; EMTU 08/2218h • 1 ♀; **Malatya**, Darende, Yazıköy; 38°40'13"N, 37°26'25"E; 1203 m; 05.VI.2007; A. Beyarslan leg.; EMTU 07/0042 • 1 ♀; same collection data as for preceding; A. Beyarslan leg.; EMTU 07/0045 • 1 ♀; Yazırhan, Sürür Vill.; 38°58'N, 39°09'E; 08.VI.2008; M. Aydoğdu leg.; EMTU 08/0145b • 15 ♀; **Manisa**, Akhisar, Doğanakaya Vill.; 38°59'N, 27°56'E; 560 m; 09.VIII.2014; C. Karaman leg.; EMTU 07/2096a • 1 ♀; Dingiller Vill.; 38°59'N, 27°53'E; 345 m; 09.VIII.2014; C. Karaman leg.; EMTU 07/2101d • 2 ♀; Gölarmara, Yeniköy; 38°39'N, 28°02'E; 98 m; 09.VIII.2014; C. Karaman leg.; EMTU 07/2107b • 11 ♀; Gördes, Kabakoz Vill.; 39°00'727"N, 28°11'892"E; 988 m; 09.VIII.2014; C. Karaman leg.; EMTU 07/2079a • 25 ♀; Malaz Vill.; 39°04'N, 28°17'E; 1275 m; 09.VIII.2014; C. Karaman leg.; EMTU 07/2071 • 31 ♀; Köprübaşı, Kurtlar Vill.; 38°43'N, 28°17'E; 600 m; 10.VIII.2014; C. Karaman leg.; EMTU 07/2114a • 2 ♀, 50 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 07/2120a • 1 ♀; **Nevşehir**, Hacıbektaş; 38°57'43"N, 34°33'29"E; 1255 m; 07.VI.2007; M. Aydoğdu leg.; EMTU 07/0083a • 7 ♀; **Şanlıurfa**, Halfeti; 37°14'53"N, 37°52'00"E; 395 m; 25.IV.2015; C. Karaman leg.; EMTU 15/0013e • 9 ♀; **Tekirdağ**, Şarköy, İğdebağları; 40°38'11.10"N, 27°08'57.70"E; 95 m; 16.V.2015; C. Karaman leg.; EMTU 15/0018 • 1 ♀; Uçmakdere; 40°47'54.50"N, 27°21'55.10"E; 111 m; 17.V.2015; C. Karaman leg.; EMTU 15/0034d.

DISTRIBUTION IN TURKEY. — Ankara, Antalya, Bursa, Kocaeli, Kırklareli, Konya, Muğla, Sakarya, Sivas, Trabzon, Yalova (as *P. taurica* Santschi, 1920); Afyonkarahisar, Ankara, Antalya, Bilecik, Bursa, Çanakkale, Edirne, Erzincan, Erzurum, Hakkari, İzmir, Kars, Kocaeli, Muğla, Muş, Yalova (as *P. pallescens* nec. Radchenko).

REMARKS

See comments of *P. perperamus* Salata, Borowiec & Radchenko, 2018.

Plagiolepis perperamus

Salata, Borowiec & Radchenko, 2018

Plagiolepis perperamus Salata, Borowiec & Radchenko, 2018: 816.

MATERIAL EXAMINED. — **Turkey** • 26 ♀; **Adana**; 37°03'46"N, 35°21'21"E; 154 m; 22.VI.2004; K. Kiran leg.; EMTU 04/0011a • 3 ♀; Ceyhan; 37°01'N, 35°49'E; 25.IV.2013; C. Karaman leg.; EMTU 13/0169b • 1 ♀; **Amasya**; 40°39'N, 35°50'E; 450 m; 01.VIII.2015; C. Karaman leg.; EMTU 15/0048i • 6 ♀; **Artvin**, Borçka; 41°21'49"N, 41°40'45"E; 110 m; 14.VIII.2000; K. Kiran leg.; EMTU 00/0094 • 1 ♀; Adagül Vill.; 41°18'46"N, 41°45'03"E; 100 m; 14.VIII.2000; K. Kiran leg.; EMTU 00/0116b • 4 ♀; **Batman**; 37°52'N, 41°07'E; 10.VI.2010; F. Toprak leg.; EMTU 10/0072 • 2 ♀; **Bolu**, Bakırlı Vill.; 40°47'01"N, 31°38'16"E; 920 m; 15.VIII.2013; K. Kiran, C. Karaman & V. Aksoy leg.; EMTU 13/0023 • 1 ♀; **Çankırı**, Ilgaz, İndağı; 40°53'16"N, 33°39'42"E; 1017 m; 28.V.2007; M. Aydoğdu leg.; EMTU 07/0030b • 44 ♀; Kızılırmak; 40°20'N, 33°59'E; 560 m; 24.VIII.2004; K. Kiran leg.; EMTU 04/0602 • 4 ♀; **Elazığ**, Cip Dam; 38°40'48"N, 39°03'59"E; 12.VI.2008; M. Aydoğdu leg.; EMTU 08/0019 • 1 ♀; Yukarıçakmak Vill.; 38°43'N, 38°56'E; 11.VI.2008; M. Aydoğdu leg.; EMTU 08/0148 • 1 ♀, 2 ♀; Baskil, Canbeyler Vill.; 38°33'24"N, 38°49'00"E; 1116 m; 06.VI.2007; M. Yurtcan leg.; EMTU 07/0033a • 1 ♀; Topalkent Vill.; 38°28'15"N, 38°50'46"E; 903 m; 06.VI.2007; M. Yurtcan leg.; EMTU 07/0034c • 1 ♀, 50 ♀; **Eskişehir**, Alpu, Çukurhisar Vill.; 39°50'N, 30°59'E; 880 m; 21.VIII.2004; K. Kiran leg.; EMTU 04/0508a • 12 ♀; **İstanbul**, Çatalca, Celepköy; 41°22'48"N, 28°30'47"E; 16 m; 23.V.2011; K. Kiran leg.; EMTU 11/0193 • 1 ♀; Şişli; 41°08'N, 29°00'E; 120 m; 28.VII.2004; K. Kiran leg.; EMTU 04/0328c • 4 ♀; **Karabük**, Safranbolu; 41°15'N, 32°40'E; 287 m; 07.V.2005; K. Kiran leg.; EMTU 05/0003f • 1 ♀; same collection data as for preceding; 41°14'42"N, 32°43'26"E; 287 m; 07.VI.2005; K. Kiran leg.; EMTU 05/0010c • 10 ♀; same collection data as for preceding; 23.VII.2005; K. Kiran leg.; EMTU 05/0020c • 2 ♀; same collection data as for preceding; 30.VII.2005; K. Kiran leg.; EMTU 05/0021c • 8 ♀; same collection data as for preceding; 24.VIII.2005; K. Kiran leg.; EMTU 05/0043a • 2 ♀; **Karaman**, Yeşildere; 37°08'N, 33°31'E; 26.VI.2009; M. Yurtcan leg.; EMTU 09/0123 • 47 ♀; **Kastamonu**; 41°23'N, 33°46'E; 775 m; 30.IV.2011; C. Karaman leg.; EMTU 11/0102a • 15 ♀; **Kayseri**, Bünyan, Sultanhanı; 38°58'N, 35°54'E; 960 m; 26.VIII.2004; K. Kiran leg.; EMTU 04/0760 • 1 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0762b • 1 ♀; Talas, Başakpınar Vill.; 38°49'12"N, 35°37'56"E; 1097 m; 14.IX.2006; A. Beyarslan leg.; EMTU 06/0071 • 3 ♀; **Kırklareli**, Pınarhisar, Poyralı Vill.; 41°39'00"N, 27°36'21"E; 300 m; 11.V.2003; K. Kiran leg.; EMTU 03/0006b • 50 ♀; **Kırşehir**, Kaman, Hirfanlı Dam; 39°16'21"N, 33°32'09"E; 880 m; 23.VIII.2004; K. Kiran leg.; EMTU 04/0578 • 1 ♀, 50 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0583b • 1 ♀; Özbağ; 39°14'32"N, 34°07'43"E; 1036 m; 16.IX.2006; E. Çoban leg.; EMTU 06/0074b • 1 ♀; **Malatya**, Akçadağ, Sarıhacı Vill.; 38°23'N, 37°52'E; 22.VI.2009; Ö. Erdoğan leg.; EMTU 09/0119 • 1 ♀; Sultansuyu Studfarm; 38°20'36"N, 38°03'35"E; 881 m; 05.VI.2007; E. Çoban leg.; EMTU 07/0039b • 1 ♀; Doğanşehir, Reşadiye; 37°59'01"N, 38°00'50"E; 1346 m; 14.VII.2007; M. Yurtcan leg.; EMTU 07/0071 • 1 ♀; Takaz; 38°00'35"N, 37°59'28"E; 1286 m; 14.VII.2007; A. Beyarslan leg.; EMTU 07/0047 • 1 ♀; Hekimhan; 38°48'N, 37°55'E; 09.VI.2008; T. Yılmaz leg.; EMTU 08/0014 • 50 ♀; **Niğde**, Ulukışla, Aktoprak Vill.; 37°28'54"N, 34°28'05"E; 1861 m; 18.VIII.2001; K. Kiran leg.; EMTU 01/0784 • 38 ♀; Çamardı, Elekgölü Vill.; 37°45'21"N, 35°01'36"E; 1550 m; 20.VIII.2001; K. Kiran leg.; EMTU 01/0823 • 1 ♀; **Ordu**, Mesudiye; 40°26'45"N, 37°46'42"E; 1330 m; 06.VII.2004; A. Beyarslan leg.; EMTU 04/0331 • 6 ♀; **Siirt**, Kurtalan; 37°55'N, 41°42'E; 26.VI.2010; F. Toprak leg.; EMTU 10/0082 • 1 ♀; **Sivas**, Yıldızeli; 39°52'07"N, 36°37'45"E; 1552 m; 30.V.2007; E. Çoban leg.; EMTU 07/0028b • 38 ♀; Zara, Tödürge Lake; 39°52'08"N, 37°36'07"E; 1330 m; 25.VIII.2004; K. Kiran leg.; EMTU 04/0675a

• 10 ♀; **Şanlıurfa**; 37°09'58"N, 38°47'44"E; 529 m; 26.VI.2011; C. Karaman leg.; EMTU 11/0072b • 1 ♀; Sırrın; 37°09'45"N, 38°50'24"E; 488 m; 1.VIII.2011; C. Karaman leg.; EMTU 11/0075d • 1 ♀; same collection data as for preceding; 15.VII.2011; C. Karaman leg.; EMTU 11/0080d • 3 ♀; same collection data as for preceding; 1.VIII.2011; C. Karaman leg.; EMTU 11/0089c • 1 ♀; same collection data as for preceding; 30.VIII.2011; C. Karaman leg.; EMTU 11/0096g • 10 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 11/0097b • 24 ♀; same collection data as for preceding; 19.VI.2011; C. Karaman leg.; EMTU 11/0100a • 1 ♀; Siverek; 37°45'N, 39°18'E; 13.V.2015; S. Yıldız leg.; EMTU 15/0047j • 6 ♀; **Tekirdağ**, Saray, Küçükyoncalı Vill.; 41°24'42"N, 27°58'06"E; 165 m; 29.VII.2001; E. Demirtaş leg.; EMTU 01/1011c • 15 ♀; same collection data as for preceding; 14.VIII.2001; E. Demirtaş leg.; EMTU 01/1039 • 23 ♀; same collection data as for preceding; 23.VIII.2001; E. Demirtaş leg.; EMTU 01/1055 • 33 ♀; same collection data as for preceding; 4.IX.2001; E. Demirtaş leg.; EMTU 01/1079a • 1 ♀; **Tunceli**, Kutu River; 39°06'N, 39°32'E; 14.VI.2008; T. Yılmaz leg.; EMTU 08/0023 • 1 ♀; **Yozgat**, Şafaatlı, Karanlıkdere Vill.; 39°34'28"N, 34°38'48"E; 840 m; 29.V.2007; E. Çoban leg.; EMTU 07/0049b • 1 ♀; same collection data as for preceding; E. Çoban leg.; EMTU 07/0049c.

DISTRIBUTION IN TURKEY. — Antalya.

REMARKS

Bračko *et al.* (2016) stated that all species identified as *P. pallescens* sensu Radchenko should be considered as a different species. This taxonomical problem was resolved two years later by Salata *et al.* (2018). The authors stated that all specimens previously determined as *P. pallescens* sensu Radchenko should be designed to *P. perperamus*. None of the specimens hitherto identified as *P. pallescens* in Turkey was clearly given as sensu Radchenko. Therefore, in our opinion all the specimens identified so far as *P. pallescens* from Turkey should remain in *P. pallescens* sensu Salata *et al.* (2018).

Plagiolepis pygmaea (Latreille, 1798)*Formica pygmaea* Latreille, 1798: 45.

MATERIAL EXAMINED. — **Turkey** • 1 ♀; **Ağrı**, Doğubeyazıt, Telçeker Vill.; 39°28'47"N, 44°16'40"E; 1700 m; 16.V.2009; A. Pektaş leg.; EMTU 09/0022d • 4 ♀; **Çankırı**, Kızılırmak; 40°20'N, 33°59'E; 560 m; 24.VIII.2004; K. Kiran leg.; EMTU 04/0604b • 1 ♀; Sungurlu; 40°09'N, 34°22'E; 825 m; 24.VIII.2004; K. Kiran leg.; EMTU 04/0607 • 1 ♀; **Denizli**, Babadağ, Demirli Vill.; 37°48'810"N, 28°47'467"E; 1300 m; 11.VIII.2014; C. Karaman leg.; EMTU 07/2240b • 3 ♀; **Diyarbakır**, Sur, Köşk; 38°03'N, 40°22'E; 630 m; 11.IX.2011; A. Şimşek leg.; EMTU 11/0112 • 1 ♀; **Sivas**, Hafik, Durulmuş Vill.; 39°50'18"N, 37°18'53"E; 1275 m; 31.V.2007; M. Aydoğdu leg.; EMTU 07/0092c • 16 ♀; **Tekirdağ**, Şarköy, Uçmakdere Vill.; 40°47'54.50"N, 27°21'55.10"E; 111 m; 17.V.2015; C. Karaman leg.; EMTU 15/0026a • 1 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 15/0026d • 7 ♀; Yeniköy; 40°38'N, 27°02'E; 232 m; 18.V.2015; C. Karaman leg.; EMTU 15/0036f • 1 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 15/0037e • 2 ♀; **Yozgat**; 39°49'N, 34°48'E; 1250 m; 24.VIII.2004; K. Kiran leg.; EMTU 04/0632c • 1 ♂; Akdağmadeni; 39°39'N, 35°53'E; 1370 m; 24.VIII.2004; K. Kiran leg.; EMTU 04/0647b • 1 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0647c • 3 ♀; Kırım Vill.; 39°54'34"N, 34°46'23"E; 1278 m; 29.V.2007; A. Beyarslan leg.; EMTU 07/0091a.

DISTRIBUTION IN TURKEY. — Afyonkarahisar, Balıkesir, Bitlis, Bursa, Çanakkale, Edirne, Gaziantep, Hakkari, İstanbul, İzmir, Kahramanmaraş, Kırklareli, Kocaeli, Sakarya, Trabzon, Van, Yalova.

Genus *Polyergus* Latreille, 1804*Polyergus rufescens* (Latreille, 1798)*Formica rufescens* Latreille, 1798: 44.

MATERIAL EXAMINED. — **Turkey** • 1 ♀; **Düzce**, Pınarlar Vill.; 40°48'29"N, 31°11'13"E; 05.VIII.2001; K. Kiran leg.; EMTU 01/0980 • 5 ♀; **Edirne**, Sazlıdere Vill.; 41°36'N, 26°40'E; 41 m; 17.VI.2005; V. Aksoy leg.; EMTU 05/0048 • 3 ♀; **Nevşehir**, Ürgüp, Mustafapaşa Town; 38°35'04"N, 34°53'52"E; 1150 m; 17.VIII.2001; K. Kiran leg.; EMTU 01/0748a.

DISTRIBUTION IN TURKEY. — Aksaray, İstanbul, Kırklareli, Kırşehir.

Genus *Prenolepis* Mayr, 1861*Prenolepis nitens* (Mayr, 1853)*Tapinoma nitens* Mayr, 1853b: 144.

MATERIAL EXAMINED. — **Turkey** • 1 ♀; **Burdur**, Gölhisar; 36°57'40"N, 29°27'53"E; 1223 m; 22.V.2009; N. Jansson & M. Avcı leg.; EMTU 09/1094 • 1 ♀; same collection data as for preceding; N. Jansson & M. Avcı leg.; EMTU 09/1095 • 1 ♀; same collection data as for preceding; 28.VI.2009; N. Jansson & M. Avcı leg.; EMTU 09/1096 • 1 ♀; same collection data as for preceding; 22 May. 2009; N. Jansson & M. Avcı leg.; EMTU 09/1097 • 1 ♀; same collection data as for preceding; N. Jansson & M. Avcı leg.; EMTU 09/1098 • 2 ♀; same collection data as for preceding; N. Jansson & M. Avcı leg.; EMTU 09/1099 • 1 ♀; same collection data as for preceding; 28.VI.2009; N. Jansson & M. Avcı leg.; EMTU 09/1100 • 15 ♀; **Denizli**, Bozkurt, Mecidiye Vill.; 37°55'66"N, 29°38'048"E; 1325 m; 23.VIII.2014; C. Karaman leg.; EMTU 08/2342b • 27 ♀; Çivril, Kavakalanı Vill.; 38°25'51"N, 30°00'231"E; 1197 m; 23.VIII.2014; C. Karaman leg.; EMTU 08/2313b • 50 ♀; Honaz; 37°44'048"N, 29°14'721"E; 1087 m; 11.VIII.2014; C. Karaman leg.; EMTU 07/2189a • 18 ♀; **Düzce**, Pınarlar Vill.; 40°48'29"N, 31°11'13"E; 16.IX.2001; K. Kiran leg.; EMTU 01/0982 • 1 ♀; **Mersin**, Erdemli; 36°36'N, 34°16'E; 31.V.2002; N. Jansson leg.; EMTU 02/1113 • 3 ♀; Devrent; 36°40'N, 34°11'E; 04.V.2005; N. Jansson & M. Coşkun leg.; EMTU 05/0098 • 13 ♀; **Ordu**, Korgan, Asarkaya Vill.; 40°48'N, 37°23'E; 1000 m; 24.VIII.2009; E. Çoban leg.; EMTU 09/0124b • 16 ♀; **Sakarya**, Sapanca, Maşukiye Vill.; 40°41'23"N, 30°07'32"E; 221 m; 17.X.2013; K. Kiran leg.; EMTU 13/0172a • 14 ♀; **Tekirdağ**, Şarköy, Uçmakdere; 40°47'54.50"N, 27°21'55.10"E; 111 m; 17.V.2015; C. Karaman leg.; EMTU 15/0024a • 18 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 15/0031a.

DISTRIBUTION IN TURKEY. — Isparta, İstanbul, Kars, Kırklareli, Kocaeli, Konya, Muğla.

Genus *Proformica* Ruzsky, 1902*Proformica korbi* (Emery, 1909)*Formica (Proformica) korbi* Emery, 1909: 202.

MATERIAL EXAMINED. — **Turkey** • 11 ♀; **Sivas**, Gürün, Ziyarettepe Pass; 38°49'29"N, 36°54'06"E; 1900 m; 22.V.2008; C. Karaman leg.; EMTU 08/0042a.

DISTRIBUTION IN TURKEY. — Ağrı, Ankara, Ardahan, Çanakkale, Edirne, Erzincan, Erzurum, Hakkari, Kars, Kırklareli, Konya, Van.

Proformica pilosiscapa Dlussky, 1969*Proformica pilosiscapa* Dlussky, 1969: 228.

MATERIAL EXAMINED. — **Turkey** • 1 ♀; **Aksaray**, Çiftlik; 38°37'07"N, 33°50'45"E; 1500 m; 21.VIII.2001; K. Kiran leg.; EMTU 01/0836 • 3 ♀; Güzelyurt, Selime Vill.; 38°18'17"N, 34°15'30"E; 1000 m; 21.VIII.2001; K. Kiran leg.; EMTU 01/0854c • 1 ♀; **Denizli**, Babadağ, Yeniköy; 37°47'N, 28°53'E; 874 m; 13.VIII.2014; C. Karaman leg.; EMTU 07/2323b • 2 ♀; **Karabük**; 41°14'42"N, 32°43'26"E; 287 m; 30.VII.2005; K. Kiran leg.; EMTU 05/0021d • 1 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 05/0021e • 8 ♀; **Kastamonu**; 41°23'N, 33°46'E; 775 m; 30.IV.2011; C. Karaman leg.; EMTU 11/0101d • 15 ♀; **Kayseri**, Erciyes Mt.; 38°33'12"N, 35°31'36"E; 2450 m; 15.VIII.2001; K. Kiran leg.; EMTU 01/0703 • 11 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 01/0704a • 11 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 01/0704b • 28 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 01/0706a • 10 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 01/0706b • 1 ♀; Bünyan, Köprübaşı Vill.; 38°40'N, 36°02'E; 06.VI.2008; M. Aydoğdu leg.; EMTU 08/0149a • 3 ♀; Yeşilhisar, Soğanlı; 38°20'15"N, 34°59'00"E; 1200 m; 16.VIII.2001; K. Kiran leg.; EMTU 01/0735c • 1 ♀; **Kırşehir**, Mucur, Kurugöl Vill.; 39°01'54"N, 34°26'41"E; 1046 m; 07.VI.2007; A. Beyarslan leg.; EMTU 07/0053 • 48 ♀; **Kütahya**; 39°12'22"N, 30°08'27"E; 1300 m; 13.VI.2004; K. Kiran leg.; EMTU 04/0174 • 1 ♀; Emet, Musalar Vill.; 39°24'N, 29°08'E; 1713 m; 21.VIII.2014; C. Karaman leg.; EMTU 08/2214e • 9 ♀; **Nevşehir**, Gülşehir; 38°44'30"N, 34°37'19"E; 950 m; 17.VIII.2001; K. Kiran leg.; EMTU 01/0753a • 2 ♀; Ürgüp, Ayvalı Vill.; 38°32'52"N, 34°52'11"E; 1500 m; 17.VIII.2001; K. Kiran leg.; EMTU 01/0756c • 1 ♀; **Niğde**, Gümüşler Vill.; 37°59'39"N, 34°46'16"E; 1500 m; 20.VIII.2001; K. Kiran leg.; EMTU 01/0799b • 1 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 01/0805e • 1 ♀; **Sivas**, Gürün, İncesu Vill.; 38°45'N, 37°06'E; 23.VI.2009; A. Beyarslan leg.; EMTU 09/0115 • 1 ♀, 50 ♀; Ziyarettepe Pass; 38°49'29"N, 36°54'06"E; 1900 m; 22.V.2008; C. Karaman leg.; EMTU 08/0033 • 1 ♀; **Ulaş**, Yağdonduran Vill.; 39°20'28"N, 37°08'43"E; 1630 m; 04.VI.2007; E. Çoban leg.; EMTU 07/0032a • 1 ♀; **Yozgat**, Kırım Vill.; 39°54'34"N, 34°46'23"E; 1278 m; 29.V.2007; T. Yılmaz leg.; EMTU 07/0081a • 1 ♀; same collection data as for preceding; A. Beyarslan leg.; EMTU 07/0091d.

DISTRIBUTION IN TURKEY. — Ağrı, Bitlis, Erzincan, Erzurum, Giresun, Kars, Muş, Van.

Proformica striaticeps (Forel, 1911)*Formica nasuta* var. *striaticeps* Forel, 1911: 352.

MATERIAL EXAMINED. — **Turkey** • 1 ♀; **Antalya**, Serik; 36°55'N, 31°06'E; 01.VI.2014; C. Karaman leg.; EMTU 14/0121g • 8 ♀; **Karabük**, Safranbolu; 41°15'N, 32°40'E; 287 m; 07.V.2005; K. Kiran leg.; EMTU 05/0003e • 1 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 05/0006a • 2 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 05/0020d • 2 ♀; **Manisa**, Demirci, Bardakçı Vill.; 39°07'882"N, 28°28'446"E; 1144 m; 19.VIII.2014; C. Karaman leg.; EMTU 08/2171c • 1 ♀; Gölarmara, Musalar Vill.; 38°41'037"N, 28°08'748"E; 653 m; 09.VIII.2014; C. Karaman leg.; EMTU 07/2109d • 1 ♀; **Yozgat**, Kuşçu Vill.; 39°39'15"N, 34°43'14"E; 1202 m; 29.V.2007; A. Beyarslan leg.; EMTU 07/0086.

DISTRIBUTION IN TURKEY. — Artvin, Isparta, Sivas.

REMARKS

Collingwood & Heatwole (2000) reported that the general distribution of *P. striaticeps* covers Turkey. Some other researchers also

mentioned that the general distribution of the species included Turkey (Borowiec & Salata 2012; Bračko *et al.* 2014). However, no physical record has been given so far within any study in the country till Karaman *et al.* (2017). Although *P. nasuta* (Nylander, 1856) was recorded from several localities in Turkey, recent studies showed that *P. nasuta* is distributed in the western part of Mediterranean (Borowiec 2014; Bračko *et al.* 2014; Galkowski *et al.* 2017). Therefore, we suggest here to exclude Turkey from the distributional range of *P. nasuta* and all previously determined *P. nasuta* material should refer *P. striaticeps*.

Subfamily MYRMICINAE Lepeletier de Saint-Fargeau, 1835
Genus *Aphaenogaster* Mayr, 1853

Aphaenogaster aktaci Kiran & Tezcan, 2008

Aphaenogaster (*Attomyrma*) *aktaci* Kiran & Tezcan, in Kiran *et al.* 2008: 690.

MATERIAL EXAMINED. — **Turkey** • 46 ♀; **Denizli**, Honaz; 37°42'662"N, 29°17'369"E; 1377 m; 11.VIII.2014; C. Karaman leg.; EMTU 07/2180 • 50 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 07/2183 • 50 ♀; **Manisa**, Sarıgöl, Güneydamları Vill.; 38°15'816"N, 28°49'476"E; 1195 m; 10.VIII.2014; C. Karaman leg.; EMTU 07/2170.

DISTRIBUTION IN TURKEY. — İzmir.

Aphaenogaster balcanica (Emery, 1898)

Stenamma (*Aphaenogaster*) *testaceopilosa* var. *balcanica* Emery, 1898: 136.

MATERIAL EXAMINED. — **Turkey** • 2 ♀; **Aydın**, Didim; 37°22'N, 27°15'E; 20.VIII.2014; C. Karaman leg.; EMTU 14/0117m • 2 ♀; **Mersin**, Anamur, Anıtlı Vill.; 36°07'N, 32°35'E; 25.IV.1988; A. Schulz leg.; EMTU 2529.

DISTRIBUTION IN TURKEY. — Afyonkarahisar, Antalya, Balıkesir, Bursa, Çanakkale, İstanbul, İzmir, Muğla.

Aphaenogaster epirotes (Emery, 1895)

Stenamma (*Aphaenogaster*) *epiotes* Emery, 1895: 72.

MATERIAL EXAMINED. — **Turkey** • 16 ♀; **Edirne**, Avarız Vil.; 41°45'39"N, 26°31'47"E; 40 m; 12.V.2010; K. Kiran leg.; EMTU 10/0026e • 2 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 10/0028d.

DISTRIBUTION IN TURKEY. — Çanakkale, İstanbul, Kırklareli, Tekirdağ.

Aphaenogaster holtzi (Emery, 1898)

Stenamma (*Aphaenogaster*) *subterraneum* subsp. *holtzi* Emery, 1898: 139.

MATERIAL EXAMINED. — **Turkey** • 8 ♀; **Yozgat**; 39°49'N, 34°48'E; 1250 m; 24.VIII.2004; K. Kiran leg.; EMTU 04/0632b • 1 ♀; Çayıralan; 39°18'N, 35°39'E; 1600 m; 26.VIII.2004; K. Kiran leg.; EMTU 04/0730 • 7 ♀, 50 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0732 • 8 ♀, 13 ♂, 50 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0733 • 3 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0736b.

DISTRIBUTION IN TURKEY. — Erzincan, Kars, Kayseri, Mersin, Siirt.

Aphaenogaster maculifrons Kiran & Aktaş, 2008

Aphaenogaster (*Attomyrma*) *maculifrons* Kiran & Aktaş, in Kiran *et al.* 2008: 691.

MATERIAL EXAMINED. — **Turkey** • 50 ♀; **Afyonkarahisar**, Sandıklı, Sorkun Vill.; 38°25'513"N, 30°00'231"E; 1197 m; 23.VIII.2014; C. Karaman leg.; EMTU 08/2313a • 50 ♀; Dazkırı, Çiftlik Vill.; 37°57'263"N, 29°41'329"E; 1401 m; 23.VIII.2014; C. Karaman leg.; EMTU 08/2343a • 50 ♀; Emirdağ, Çatalı Vill.; 38°55'789"N, 31°08'357"E; 1190 m; 24.VIII.2014; C. Karaman leg.; EMTU 08/2371b • 30 ♀; Bayat, Mallica Vill.; 39°03'N, 30°48'E; 1505 m; 24.VIII.2014; C. Karaman leg.; EMTU 08/2403a • 50 ♀; **Denizli**, Honaz; 37°42'662"N, 29°17'369"E; 1377 m; 11.VIII.2014; C. Karaman leg.; EMTU 07/2179 • 50 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 07/2184a • 9 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 07/2187b • 30 ♀; Cumalı Vill.; 37°43'N, 29°30'E; 1343 m; 11.VIII.2014; C. Karaman leg.; EMTU 07/2194a • 50 ♀; Güzelpınar; 37°58'634"N, 29°14'656"E; 1533 m; 11.VIII.2014; C. Karaman leg.; EMTU 07/2213 • 9 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 07/2216b • 2 ♀; Çivril, Aşağı Çapak Vill.; 38°25'115"N, 29°52'068"E; 1077 m; 22.VIII.2014; C. Karaman leg.; EMTU 08/2272c.

DISTRIBUTION IN TURKEY. — Antalya, Isparta, Konya.

Aphaenogaster obsidiana (Mayr, 1861)

Atta obsidiana Mayr, 1861: 67.

MATERIAL EXAMINED. — **Turkey** • 50 ♀; **Rize**, İkizdere, Rüzgarlı Vill.; 40°45'17"N, 40°33'15"E; 2100 m; 13.VIII.2000; K. Kiran leg.; EMTU 00/0084 • 2 ♂, 50 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 00/0086 • 1 ♂, 50 ♀; **Trabzon**, Uzungöl Lake; 40°38'33"N, 40°16'21"E; 1800 m; 17.VIII.2000; K. Kiran leg.; EMTU 00/0170a • 50 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 00/0172.

DISTRIBUTION IN TURKEY. — Artvin.

Aphaenogaster cf. *splendida* (Roger, 1859)

Atta splendida Roger, 1859: 257.

MATERIAL EXAMINED. — **Turkey** • 11 ♀; **Aydın**, Karacasu, Geyre Town; 37°42'419"N; 39°33'N, 26°34'E; 28°45'219"E; 559 m; 12.VIII.2014; C. Karaman leg.; EMTU 07/2251a • 1 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 07/2254c • 2 m; **Çanakkale**, Küçükkuyu, 19.VII.2003; K. Kiran leg.; EMTU 03/0211b • 2 ♂, 22 ♀; Eceabat, Yalova Vill.; 40°15'N, 26°24'E; 50 m; 22.VII.2004; K. Kiran leg.; EMTU 04/0297 • 10 ♀; **Denizli**, Babadağ, Demirli Vill.; 37°47'810"N, 28°49'788"E; 1040 m; 11.VIII.2014; C. Karaman leg.; EMTU 07/2234b • 1 m; **Kütahya**, Şaphane, Yağmurlar Vill.; 39°03'956"N, 29°06'925"E; 1040 m; 19.VIII.2014; C. Karaman leg.; EMTU 08/2156e • 50 ♀; **Manisa**, Gördes, Kabakoz Vill.; 39°00'727"N, 28°11'892"E; 988 m; 09.VIII.2014; C. Karaman leg.; EMTU 07/2086 • 1 ♀; **Mersin**, Erdemli, Devrent; 36°40'N, 34°11'E; 17.VI.2005; N. Jansson leg.; EMTU 05/0119 • 1 ♀; same collection data as for preceding; 17.V.2005; N. Jansson leg.; EMTU 05/0120 • 2 ♀; same collection data as for preceding; 17.VIII.2005; N. Jansson leg.; EMTU 05/0121 • 1 ♀; same collection data as for preceding; 17.VI.2005; N. Jansson leg.; EMTU 05/0122 • 1 ♀; same collection data as for preceding; N. Jansson leg.; EMTU 05/0123a • 1 ♀; same collection data as for preceding; N. Jansson leg.; EMTU 05/0123b • 3 ♀; Gülnar, Köseçobanlı Vill.;

36°30'225"N, 33°07'433"E; 24.VI.2006; N. Jansson & M. Coşkun leg.; EMTU 06/0458 • 1 ♀; same collection data as for preceding; 26.VII.2006; N. Jansson leg.; EMTU 06/0459 • 1 ♀; same collection data as for preceding; 24.VI.2006; N. Jansson leg.; EMTU 06/0461 • 6 ♀; **Siirt**, Kurtalan; 37°55'N, 41°42'E; 15.VII.2010; F. Toprak leg.; EMTU 10/0078 • 1 ♀; **Uşak**, Eşme, Ağabey Vill.; 38°14'765"N, 28°51'872"E; 1210 m; 10.VIII.2014; C. Karaman leg.; EMTU 07/2164b • 1 ♀, 7 ♂, 50 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 0 07/2168.

REMARKS

Aphaenogaster splendida (Roger, 1859) has a very wide distribution in the Mediterranean region: from North Africa to Ukraine and from Spain to Georgia (Arnol'di & Dlussky 1978; Arakelian 1994; Borowiec 2014). On the other hand, recent studies including Greece and Turkey show a least three different species very close to *A. splendida* (Lech Borowiec, pers. comm.). Therefore, until a revision of this species group our samples have uncertain status.

Genus *Cardiocondyla* Emery, 1869

Cardiocondyla bulgarica Forel, 1892

Cardiocondyla elegans var. *bulgarica* Forel, 1892: 312.

MATERIAL EXAMINED. — **Turkey** • 2 ♀; **Kırklareli**, Alpullu; 41°22'01"N, 27°08'55"E; 57 m; 05.V.2013; K. Kiran leg.; EMTU 13/0122j • 1 ♀; **Kütahya**, Sabuncupınar, Fındık Vill.; 39°33'N, 30°12'E; 950 m; 17.VIII.2014; C. Karaman leg.; EMTU 08/2015e • 2 ♀; **Mersin**, Tarsus; 36°54'N, 34°53'E; 15.V.2015; S. Yıldız leg.; EMTU 15/0044c.

DISTRIBUTION IN TURKEY. — Antalya, Aydın, Bitlis, Burdur, Denizli, Isparta, İzmir, Kocaeli.

Cardiocondyla mauritanica Forel, 1890

Cardiocondyla nuda var. *mauritanica* Forel, 1890: lxxv.

MATERIAL EXAMINED. — **Turkey** • 23 ♀; **Balıkesir**, Ayvalık; 39°20'10"N, 26°42'38"E; 0 m; 18.VII.2012; K. Kiran leg.; EMTU 12/0029b • 1 ♀; **Şanlıurfa**, Sırrın; 37°09'45"N, 38°50'24"E; 488 m; 01.VIII.2011; C. Karaman leg.; EMTU 11/0075e • 1 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 11/0096e • 1 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 11/0098g • 13 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 11/0100b.

DISTRIBUTION IN TURKEY. — Antalya, Bartın, Kayseri, Mersin.

Cardiocondyla sahlbergi Forel, 1913

Cardiocondyla elegans var. *Sahlbergi* Forel, 1913: 429.

MATERIAL EXAMINED. — **Turkey** • 21 ♀; **Ankara**, Ayaş, Gökler Vill.; 39°56'N, 32°23'E; 1020 m; 22.VIII.2004; K. Kiran leg.; EMTU 04/0531a • 9 ♀; Polatlı; 39°09'25"N, 32°08'01"E; 960 m; 28.VIII.2004; K. Kiran leg.; EMTU 04/0839 • 1 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0840b • 27 ♀; **Çankırı**, Kızılırmak; 40°20'N, 33°59'E; 560 m; 24.VIII.2004; K. Kiran leg.; EMTU 04/0600 • 5 ♀; Sungurlu; 40°09'N, 34°22'E;

825 m; 24.VIII.2004; K. Kiran leg.; EMTU 04/0610b • 1 ♀; **Elazığ**, Baskil, Canbeyler Vill.; 38°33'24"N, 38°49'00"E; 1116 m; 06.VI.2007; M. Yurtcan leg.; EMTU 07/0033c • 2 ♀; **Karabük**, Safranbolu; 41°15'N, 32°40'E; 287 m; 07.V.2005; K. Kiran leg.; EMTU 05/0003k • 4 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 05/0007d • 7 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 05/0010b • 50 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 05/0020a • 4 ♀, 23 ♀; **Kırıkkale**, Keskin, Ceritümünli Vill.; 39°43'N, 33°47'E; 910 m; 23.VIII.2004; K. Kiran leg.; EMTU 04/0587a • 1 ♀; **Malatya**, Darende, Gümüşdere; 38°33'N, 37°29'E; 30.VIII.2008; E. Çoban leg.; EMTU 08/0017 • 2 ♀; **Manisa**, Köprübaşı, Kurtlar Vill.; 38°43'N, 28°17'E; 600 m; 10.VIII.2014; C. Karaman leg.; EMTU 07/2114f • 1 ♀, 1 ♀; **Niğde**, Gümüşler Vill.; 37°59'39"N, 34°46'16"E; 1700 m; 20.VIII.2001; K. Kiran leg.; EMTU 01/0805c • 50 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 01/0805d • 4 ♀; **Şanlıurfa**, Sırrın; 37°09'45"N, 38°50'24"E; 488 m; 01.VIII.2011; C. Karaman leg.; EMTU 11/0066b • 18 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 11/0075a • 11 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 11/0089a • 1 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 11/0098f • 7 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 11/0100c.

DISTRIBUTION IN TURKEY. — Adana, Aksaray, Batman, Erzincan, Hatay, Iğdır, İzmir, Kayseri, Konya, Yalova.

Cardiocondyla stambuloffii Forel, 1892

Cardiocondyla stambuloffii Forel, 1892: 310.

MATERIAL EXAMINED. — **Turkey** • 3 ♀; **Eskişehir**, Sivrihisar; 39°26'N, 31°32'E; 740 m; 28.VIII.2004; K. Kiran leg.; EMTU 04/0849c.

DISTRIBUTION IN TURKEY. — Artvin, Edirne, Iğdır, Kars, Konya.

Genus *Crematogaster* Lund, 1831

Crematogaster gullukdagensis Salata & Borowiec, 2015

Crematogaster gullukdagensis Salata & Borowiec, 2015a: 69.

MATERIAL EXAMINED. — **Turkey** • 27 ♀; **Afyonkarahisar**, Hocalar, Örencik Vill.; 38°28'698"N, 29°53'793"E; 1147 m; 22.VIII.2014; C. Karaman leg.; EMTU 08/2263b • 1 ♀, 28 ♀; Yukarıçapak Vill.; 38°26'612"N, 29°52'878"E; 1150 m; 22.VIII.2014; C. Karaman leg.; EMTU 08/2267b • 13 ♀; Sultandağı, Dereçine Vill.; 38°29'01"N, 31°15'18"E; 1270 m; 31.VII.2002; K. Kiran leg.; EMTU 02/0738a • 42 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 02/0739 • 1 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 02/0741b • 1 ♀, 25 ♀; **Aydın**, Didim; 37°22'N, 27°15'E; 20.VIII.2014; C. Karaman leg.; EMTU 14/0117d • 1 ♀; **Denizli**; 37°42'691"N, 29°04'972"E; 910 m; 12.VIII.2014; C. Karaman leg.; EMTU 07/2306d • 1 ♀; Bozkurt, Mecidiye Vill.; 37°55'661"N, 29°38'048"E; 1325 m; 23.VIII.2014; C. Karaman leg.; EMTU 08/2342c • 50 ♀; **Konya**, Akşehir; 38°31'33"N, 31°25'23"E; 1500 m; 01.VIII.2002; K. Kiran leg.; EMTU 02/0745a • 2 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 02/0746b • 21 ♀; Çamlı Vill.; 38°16'23"N, 31°31'05"E; 1420 m; 01.VIII.2002; K. Kiran leg.; EMTU 02/0787 • 12 ♀; **Manisa**, Akhisar, Doğankaya Vill.; 38°59'N, 27°56'E; 560 m; 09.VIII.2014; C. Karaman leg.; EMTU 07/2090b • 2 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 07/2092a • 50 ♀; **Uşak**, Sivaslı; 38°30'031"N, 29°44'158"E; 1365 m; 23.VIII.2014; C. Karaman leg.; EMTU 08/2281a.

DISTRIBUTION IN TURKEY. — Antalya.

Crematogaster ionia Forel, 1911*Crematogaster scutellaris* var. *ionia* Forel, 1911: 340.

MATERIAL EXAMINED. — **Turkey** • 2 ♀; **Adana**; 37°03'46"N, 35°21'21"E; 154 m; 22.VI.2004; K. Kiran leg.; EMTU 04/0011h • 1 ♀, 13 ♀; **Afyonkarahisar**, Emirdağ, Sorgun; 38°54'065"N, 31°07'454"E; 1230 m; 24.VIII.2014; C. Karaman leg.; EMTU 08/2363c • 1 ♀; **Denizli**, Güzelpınar; 37°54'736"N, 29°12'519"E; 587 m; 11.VIII.2014; C. Karaman leg.; EMTU 07/2203b • 1 ♀; Tavas, Pınarlık Vill.; 37°38'038"N, 29°06'534"E; 1205 m; 12.VIII.2014; C. Karaman leg.; EMTU 07/2299b • 3 ♀; **Kütahya**, Emet, Eğrigöz; 39°24'N, 29°14'E; 21.VIII.2014; C. Karaman leg.; EMTU 08/2221c • 2 ♀; Şaphane, Yağmurlar; 39°03'956"N, 29°06'925"E; 1040 m; 19.VIII.2014; C. Karaman leg.; EMTU 08/2155b • 18 ♀; **Manisa**, Akhisar, Doğankaya Vill.; 38°59'N, 27°56'E; 560 m; 09.VIII.2014; C. Karaman leg.; EMTU 07/2095 • 2 ♀; Dingiller Vill.; 38°59'N, 27°53'E; 345 m; 09.VIII.2014; C. Karaman leg.; EMTU 07/2099b • 9 ♀; Gölarmara, Musalar Vill.; 38°41'037"N, 28°08'748"E; 653 m; 09.VIII.2014; C. Karaman leg.; EMTU 07/2111a • 2 ♀; **Mersin**, Erdemli, Devrent; 36°40'N, 34°11'E; 04.V.2005; N. Jansson & M. Coşkun leg.; EMTU 05/0091 • 1 ♀; Gülnar, Köseçobanlı Vill.; 36°30'22.5"N, 33°07'43.3"E; 26.VII.2006; N. Jansson & M. Avcı leg.; EMTU 06/0445 • 2 ♀; same collection data as for preceding; N. Jansson & M. Avcı leg.; EMTU 06/0446 • 3 ♀; same collection data as for preceding; N. Jansson & M. Avcı leg.; EMTU 06/0447 • 1 ♀; **Tekirdağ**, Şarköy, Uçmakdere; 40°47'54.50"N, 27°21'55.10"E; 111 m; 17.V.2015; C. Karaman leg.; EMTU 15/0024d • 25 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 15/0025 • 12 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 15/0029a • 7 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 15/0034b • 1 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 15/0034e • 6 ♀; Şarköy, Yeniköy; 40°38'N, 27°02'E; 232 m; 18.V.2015; C. Karaman leg.; EMTU 15/0036d • 11 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 15/0037c • 1 ♀; **Uşak**, Eşme, Yeleğen Vill.; 38°20'N, 28°57'E; 693 m; 10.VIII.2014; C. Karaman leg.; EMTU 07/2153c.

DISTRIBUTION IN TURKEY. — Antalya, Aydın, Balıkesir, Burdur, Bursa, Çanakkale, Diyarbakır, Elazığ, İstanbul, İzmir, Kocaeli, Muğla, Sakarya.

Crematogaster lorteti Forel, 1910*Crematogaster lorteti* Forel, 1910b: 435.

MATERIAL EXAMINED. — **Turkey** • 2 ♀; **Adıyaman**; 37°45'N, 38°16'E; 07.V.2015; S. Yıldız leg.; EMTU 15/0042f • 1 ♀; **Burdur**, Gölhisar; 36°57'40"N, 29°27'53"E; 1223 m; 25.VII.2009; N. Jansson & M. Avcı leg.; EMTU 09/1087 • 1 ♀; **Diyarbakır**, Çermik; 38°08'N, 39°27'E; 11.VI.2011; A. Şimşek leg.; EMTU 11/0110b • 3 ♀; same collection data as for preceding; 773 m; A. Şimşek leg.; EMTU 11/0111 • 2 ♀; Göktepe Vill.; 38°05'N, 39°20'E; 25.X.2011; A. Şimşek leg.; EMTU 11/0114b • 7 ♀; **Kütahya**, Simav, Hisarbey Vill.; 39°07'578"N, 28°45'618"E; 787 m; 20.VIII.2014; C. Karaman leg.; EMTU 08/2192c • 14 ♀; **Şanlıurfa**, Halfeti; 37°14'53"N, 37°52'00"E; 395 m; 25.IV.2015; C. Karaman leg.; EMTU 15/0013b.

DISTRIBUTION IN TURKEY. — Antalya, Mersin.

Crematogaster schmidtii (Mayr, 1853)*Acrocoelia schmidtii* Mayr, 1853b: 149.

MATERIAL EXAMINED. — **Turkey** • 8 ♀; **Balıkesir**, Bandırma; 40°20'N, 27°54'E; 17.VI.2009; S. Ülgentürk leg.; EMTU 09/0270 • 1 ♀; Dursunbey, Çatalçam Vill.; 39°30'037"N, 28°33'353"E; 770 m; 15.VIII.2014;

C. Karaman leg.; EMTU 07/2423c • 6 ♀; Sındırgı, Aktaş Vill.; 39°11'133"N, 28°19'023"E; 801 m; 03.VII.2007; C. Karaman leg.; EMTU 07/2043 • 6 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 07/2048a • 2 ♀; Kiran Vill.; 39°17'777"N, 28°24'210"E; 1305 m; 16.VIII.2014; C. Karaman leg.; EMTU 07/2457b • 46 ♀; Sinandede Vill.; 39°08'N, 28°04'E; 1020 m; 09.VIII.2014; C. Karaman leg.; EMTU 07/2001a • 1 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 07/2017c • 5 ♀; same collection data as for preceding; 773 m; C. Karaman leg.; EMTU 07/2020b • 1 ♀; same collection data as for preceding; 773 m; C. Karaman leg.; EMTU 07/2028c • 1 ♀; **Burdur**, Gölhisar; 36°57'40"N, 29°27'53"E; 1223 m; 28.VI.2009; N. Jansson & M. Avcı leg.; EMTU 09/1085 • 1 ♀; same collection data as for preceding; 773 m; N. Jansson & M. Avcı leg.; EMTU 07/2028c • 7 ♀; **Bursa**, Uludağ Mt.; 40°07'58"N, 29°01'02"E; 423 m; 26.VII.2009; K. Kiran leg.; EMTU 09/0045c • 3 ♀; Gemlik, Şahinyurdu Vill.; 40°28'01"N, 29°12'58"E; 950 m; 12.VIII.1998; K. Kiran leg.; EMTU K98/0596 • 7 ♀; **Denizli**, Honaz; 37°44'048"N, 29°14'721"E; 1087 m; 11.VIII.2014; C. Karaman leg.; EMTU 07/2187c • 1 ♀; **Karabük**, Safranbolu; 41°14'42"N, 32°43'26"E; 287 m; 30.VII.2005; K. Kiran leg.; EMTU 05/0021f • 27 ♀; **Kocaeli**, Derbent, Serindere Vill.; 40°39'08"N, 30°00'41"E; 560 m; 29.VIII.2004; K. Kiran leg.; EMTU 04/0944 • 15 ♀; Kandıra, Kerpe; 41°08'N, 30°12'E; 21.VII.2003; K. Kiran leg.; EMTU 03/0095b • 1 ♀; same collection data as for preceding; 773 m; K. Kiran leg.; EMTU 03/0096c • 1 ♀; Karamürsel, Senaiye Vill.; 40°37'51"N, 29°41'10"E; 750 m; 05.VIII.1998; K. Kiran leg.; EMTU K98/0507b • 1 ♀; Tahtalı Vill.; 40°34'39"N, 29°38'39"E; 500 m; 05.VIII.1998; K. Kiran leg.; EMTU K98/0483b • 1 ♀, 1 ♀; **Kütahya**, Gediz, Çukurören Vill.; 38°59'N, 29°44'E; 1233 m; 18.VIII.2014; C. Karaman leg.; EMTU 08/2127 • 1 ♀; Hisarcık, Yenice; 39°19'267"N, 29°07'390"E; 1261 m; 21.VIII.2014; C. Karaman leg.; EMTU 08/2210b • 4 ♀; Şaphane, Değirmendere Vill.; 39°04'959"N, 29°13'317"E; 1150 m; 19.VIII.2014; C. Karaman leg.; EMTU 08/2148b • 1 ♀; **Malatya**, Akçadağ, Sultansuyu Studfarm; 38°20'36"N, 38°03'35"E; 881 m; 24.VII.2007; M. Yurtcan leg.; EMTU 07/0036g • 1 ♀; **Manisa**, Gördes, Kabakoz Vill.; 39°00'727"N, 28°11'892"E; 988 m; 09.VIII.2014; C. Karaman leg.; EMTU 07/2077b • 4 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 07/2078b • 1 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 07/2083b • 22 ♀; **Osmaniye**, Zorkun Upland; 36°56'55"N, 36°21'35"E; 1575 m; 13.VI.2010; I. Avcı leg.; EMTU 10/0142c • 3 ♀; **Uşak**, Banaz, Bahadır Vill.; 38°52'757"N, 29°45'078"E; 1565 m; 18.VIII.2014; C. Karaman leg.; EMTU 08/2088b • 1 ♀, 2 ♀; **Yalova**, Altınova, Ahmediye Vill.; 40°38'21"N, 29°27'08"E; 250 m; 06.VIII.1998; K. Kiran leg.; EMTU K98/0532b.

DISTRIBUTION IN TURKEY. — Artvin, İstanbul, Kırklareli.

REMARKS

Crematogaster scutellaris (Olivier, 1792) is distributed in Western Palaearctic and its easternmost distribution border is Bulgaria and Greece (Borowiec 2014). Therefore, the material previously determined as *C. scutellaris* should refer to *C. schmidtii*.

Crematogaster sordidula (Nylander, 1849)*Myrmica sordidula* Nylander, 1849: 44.

MATERIAL EXAMINED. — **Turkey** • 68 ♀; **Aksaray**, Çiftlik; 38°37'07"N, 33°50'45"E; 1500 m; 21.VIII.2001; K. Kiran leg.; EMTU 01/0833 • 26 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 01/0837a • 1 ♂; **Artvin**, Yusufeli, Morkaya Vill.; 40°43'N, 41°36'E; 01.VI.2012; M. Yurtcan leg.; EMTU 12/0106 • 1 ♀; **Balıkesir**, Sındırgı, Sinandede Vill.; 39°08'N, 28°04'E; 1000 m; 09.VIII.2014; C. Karaman leg.; EMTU 07/2004b • 1 ♂, 50 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 07/2029 • 2 ♀; **Edirne**, Avarız Vill.; 41°45'39"N,

26°31'47"E; 40 m; 12.V.2010; K. Kiran leg.; EMTU 10/0025b • 1 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 10/0029g • 1 ♂; Pazarkule; 41°39'13"N, 26°29'19"E; 28.IX.2013; C. Karaman leg.; EMTU 13/0185 • 1 ♀; **Karabük**, Safranbolu, Bulak Vill.; 41°15'N, 32°39'E; 287 m; 21.V.2005; K. Kiran leg.; EMTU 05/0008l • 1 ♀; **Kayseri**, Bünyan, Köprübaşı Vill.; 38°40'N, 36°02'E; 06.VI.2008; M. Aydoğdu leg.; EMTU 08/0149c • 1 ♀; Melikgazi, Hisarcık; 38°38'N, 35°31'E; 25.VI.2009; Ö. Erdoğan leg.; EMTU 09/0116 • 1 ♀; same collection data as for preceding; Ö. Erdoğan leg.; EMTU 09/0118 • 7 ♀; **Kütahya**; 39°12'22"N, 30°08'27"E; 1300 m; 13.VI.2004; K. Kiran leg.; EMTU 04/0176a • 1 ♂, 32 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0194a • 1 ♀; **Malatya**, Akçadağ, Sarıhacı Vill.; 38°23'N, 37°52'E; 24.VI.2009; M. Yurtcan leg.; EMTU M. Yurtcan • 1 ♀; same collection data as for preceding; M. Yurtcan leg.; EMTU 04/0194a • 4 ♀; Yazırhan, Sürür Vill.; 38°58'N, 39°09'E; 08.VI.2008; M. Aydoğdu leg.; EMTU 08/0145a • 11 ♀; **Manisa**, Akhisar, Doğanlıyaya Vill.; 38°59'N, 27°56'E; 560 m; 09.VIII.2014; C. Karaman leg.; EMTU 07/2090a • 25 ♀; **Niğde**, Gümüşler Vill.; 37°59'39"N, 34°46'16"E; 1500 m; 20.VIII.2001; K. Kiran leg.; EMTU 01/0797 • 50 ♀; Çamardı, Elekgözü Vill.; 37°45'21"N, 35°01'36"E; 1550 m; 20.VIII.2001; K. Kiran leg.; EMTU 01/0818 • 5 ♀; **Tekirdağ**, Şarköy, Yeniköy; 40°38'N, 27°02'E; 232 m; 18.V.2015; C. Karaman leg.; EMTU 15/0036e • 1 ♀; **Tunceli**, Pülümür, Cankurtaran; 39°29'N, 39°53'E; 13.VI.2008; T. Yılmaz leg.; EMTU 08/0021b • 43 ♀; **Uşak**, Banaz, Özbekli Vill.; 38°36'130"N, 29°47'030"E; 1230 m; 23.VIII.2014; C. Karaman leg.; EMTU 08/2288c • 1 ♀; **Yozgat**; 39°49'N, 34°48'E; 1250 m; 24.VIII.2004; K. Kiran leg.; EMTU 04/0632d • 1 ♀; Kırım Vill.; 39°54'34"N, 34°46'23"E; 1278 m; 29.V.2007; A. Beyarslan leg.; EMTU 07/0091e • 50 ♀; Akdağmadeni; 39°39'N, 35°53'E; 1370 m; 24.VIII.2004; K. Kiran leg.; EMTU 04/0643 • 50 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0647a • 50 ♀; Çayıralan; 39°18'N, 35°38'E; 1600 m; 26.VIII.2004; K. Kiran leg.; EMTU 04/0726.

DISTRIBUTION IN TURKEY. — Afyonkarahisar, Ankara, Antalya, Bursa, Çanakkale, Eskişehir, Hakkari, İstanbul, Kırklareli, Kocaeli, Muğla, Sakarya, Yalova.

Crematogaster subdentata Mayr, 1877

Crematogaster subdentata Mayr, 1877: 19.

MATERIAL EXAMINED. — **Turkey** • 2 ♀; **Şanlıurfa**, Sırrın; 37°09'45"N, 38°50'24"E; 488 m; 30.VI.2011; C. Karaman leg.; EMTU 11/0094b.

DISTRIBUTION IN TURKEY. — Eastern Turkey?

REMARKS

Arakelian (1994) reported that distributional range of this species included Caucasus, Iran, Kazakhstan, Afghanistan and Eastern Turkey. However, this distribution was not based on a material collected from Turkey. Therefore, the present record is the first material-based record of the species from Turkey.

Genus *Harpagoxenus* Forel, 1893

Harpagoxenus sublaevis (Nylander, 1849)

Myrmica sublaevis Nylander, 1849: 33.

MATERIAL EXAMINED. — **Turkey** • 3 ♀; **Artvin**, Şavşat, Menekşeköy; 41°18'27"N, 42°28'56"E; 1633 m; 09.VIII.2015; C. Karaman leg.; EMTU 15/0065a.

DISTRIBUTION IN TURKEY. — Çankırı.

Genus *Leptothorax* Mayr, 1855

Leptothorax acervorum (Fabricius, 1793)

Formica acervorum Fabricius, 1793: 358.

MATERIAL EXAMINED. — **Turkey** • 1 ♀; **Artvin**, Şavşat, Akdamla Upland; 41°26'57"N, 42°24'32"E; 2140 m; 03.VIII.2015; C. Karaman leg.; EMTU 15/0065a • 1 ♀; **Rize**, Çayeli, İncesu Vill.; 40°48'49"N, 40°46'10"E; 2350 m; 12.VIII.2000; K. Kiran leg.; EMTU 00/0052 • 50 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 00/0053a • 1 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 00/0053b.

DISTRIBUTION IN TURKEY. — Ardahan, Çankırı, Kars.

Leptothorax muscorum (Nylander, 1846)

Myrmica muscorum Nylander, 1846a: 1054.

MATERIAL EXAMINED. — **Turkey** • 5 ♀; **Artvin**, Şavşat, Akdamla Upland; 41°26'57"N, 42°24'32"E; 2140 m; 03.VIII.2015; C. Karaman leg.; EMTU 15/0056a • 1 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 15/0058 • 11 ♀, 8 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 15/0064 • 1 ♀, 4 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 15/0068b • 5 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 15/0082 • 1 ♀; Akdamla Vill.; 41°24'38"N, 42°22'50"E; 1412 m; 05.VIII.2015; C. Karaman leg.; EMTU 15/0091a • 2 ♂, 28 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 15/0092 • 21 ♀; **Balıkesir**, Dursunbey, Aktuzla Vill.; 39°23'690"N, 28°35'724"E; 1455 m; 15.VIII.2014; C. Karaman leg.; EMTU 07/2415a • 25 ♀; **Bursa**, Uludağ Mt.; 40°06'865"N, 29°05'642"E; 1543 m; 14.VIII.2014; C. Karaman leg.; EMTU 07/2352b • 1 ♀, 8 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 15/0092 • 1 ♀, 12 ♀; **Eskişehir**, Seyitgazi, İdrisayla Vill.; 39°26'677"N, 30°21'927"E; 1653 m; 17.VIII.2014; C. Karaman leg.; EMTU 08/2050c • 13 ♀; **Kütahya**, Belce Upland; 39°27'N, 30°21'E; 1660 m; 17.VIII.2014; C. Karaman leg.; EMTU 08/2032a • 2 ♀, 45 ♀; **Yozgat**, Çayıralan; 39°18'N, 35°38'E; 1640 m; 26.VIII.2004; K. Kiran leg.; EMTU 04/0696 • 10 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0698 • 2 ♀, 2 ♂, 14 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0699a • 4 ♀, 1 ♂, 28 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0700 • 7 ♀, 14 ♂, 14 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0702.

DISTRIBUTION IN TURKEY. — Çankırı, Kars, Kırklareli, Sakarya, Tokat, Trabzon.

Genus *Messor* Forel, 1890

Messor hellenius Agosti & Collingwood, 1987 **

Messor hellenius Agosti & Collingwood, 1987: 54.

MATERIAL EXAMINED. — **Turkey** • 6 ♀; **Aydın**, Didim; 37°22'N, 27°15'E; 20.VIII.2014; C. Karaman leg.; EMTU 14/0117l • 1 ♀; **Balıkesir**, Ayvalık, Sarımsaklı; 39°16'N, 26°38'E; 01.VIII.2014; C. Karaman leg.; EMTU 14/0128d • 8 ♀; **Çanakkale**, Gelibolu, Kalealtı Vill.; 40°41'211"N, 26°47'339"E; 92 m; 18.V.2015; C. Karaman leg.; EMTU 15/0039e • 3 ♀; **İzmir**, Selçuk, Efes; 37°56'N, 27°20'E; 17.VIII.2014; C. Karaman leg.; EMTU 14/0116p • 25 ♀; **Tekirdağ**, Şarköy, İğdebağları; 40°38'111"N, 27°08'577"E; 95 m;

16.V.2015; C. Karaman leg.; EMTU 15/0020 • 3 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 15/0021.

DISTRIBUTION IN TURKEY. — Thrace. First record from Asia continent.

Messor oertzeni Forel, 1910

Messor oertzeni Forel, 1910a: 25.

MATERIAL EXAMINED. — **Turkey** • 1 ♀; **Aydın**, Kuşadası; 37°50'40"N, 27°14'40"E; 16 m; 30.VI.2006; K. Kiran leg.; EMTU 06/0021b • 6 ♀; **Kırklareli**, Pınarhisar, Hacifakılı Vill.; 41°45'52"N, 27°28'14"E; 456 m; K. Kiran leg.; EMTU 11/0259b.

DISTRIBUTION IN TURKEY. — Ankara, Antalya, Bursa, Çanakkale, Edirne, Denizli, İstanbul, İzmir, Kocaeli, Muğla, Sakarya.

Messor semirufus (André, 1883)

Aphaenogaster barbara var. *semirufa* André, 1883: 355.

MATERIAL EXAMINED. — **Turkey** • 50 ♀; **Adana**, Pozantı, Kamışlı Vill.; 37°33'N, 34°56'E; 800 m; 18.VI.2010; I. Avcı leg.; EMTU 10/0145a • 50 ♀; same collection data as for preceding; I. Avcı leg.; EMTU 01/0910 • 3 ♀; **Adıyaman**; 37°45'N, 38°16'E; 07.V.2015; S. Yıldız leg.; EMTU 15/0042b • 1 ♀; **Hatay**; 36°12'N, 36°11'E; 10.V.2015; S. Yıldız leg.; EMTU 15/0043d • 1 ♀; same collection data as for preceding; S. Yıldız leg.; EMTU 15/0043c • 23 ♀; **Mardin**, Kızıltepe; 37°11'38"N, 40°35'08"E; 29.VII.2002; A. Beyarslan leg.; EMTU 02/1041 • 15 ♀; **Şanlıurfa**, Harran; 36°52'01"N, 39°01'22"E; 363 m; 24.IV.2015; C. Karaman leg.; EMTU 15/0006a • 3 ♀; **Hal-feti**; 37°14'N, 38°52'E; 14.V.2015; S. Yıldız leg.; EMTU 15/0046c • 1 ♀; **Siverek**; 37°45'N, 39°18'E; 13.V.2015; S. Yıldız leg.; EMTU 15/0047f • 4 ♀; **Şırnak**, Silopi, Nerdus River; 37°18'24.79"N, 42°20'1; 407 m; 11.IV.2011; S. Hazır leg.; EMTU 11/0001b.

DISTRIBUTION IN TURKEY. — Ankara, Antalya, Denizli, Edirne, Isparta, İstanbul, İzmir, Kırklareli, Muğla, Siirt.

Messor wasmanni Krausse, 1910

Messor barbarus subsp. *wasmanni* Krausse, 1910: 524.

MATERIAL EXAMINED. — **Turkey** • 12 ♀; **Aydın**, Didim; 37°22'N, 27°15'E; 20.VIII.2014; C. Karaman leg.; EMTU 14/0117a • 10 ♀; **Balıkesir**, Ayvalık, Şeytan Sofrası; 39°17'08"N, 26°38'53"E; 0 m; 06.X.2004; N. Başak leg.; EMTU 04/0369a • 11 ♀; same collection data as for preceding; N. Başak leg.; EMTU 04/0403a • 1 ♀; **Bursa**, Orhangazi, Hamzalı Vill.; 40°31'27"N, 29°15'46"E; 300 m; 31.VII.1998; K. Kiran leg.; EMTU K98/0403 • 7 ♀; **Üreğil** Vill.; 40°31'27"N, 29°24'32"E; 480 m; 06.VIII.1998; K. Kiran leg.; EMTU K98/0568 • 5 ♀; **Çanakkale**, Bayramiç; 39°48'N, 26°36'E; 175 m; 08.VI.2004; K. Kiran leg.; EMTU 04/0067c • 17 ♀; **Külcüler** Vill.; 39°48'N, 26°48'E; 300 m; 21.VII.2004; K. Kiran leg.; EMTU 04/0242 • 14 ♀; **Eceabat**, Yalova Vill.; 40°13'87"N, 26°25'58"E; 0 m; 22.VII.2004; K. Kiran leg.; EMTU 04/0263a • 31 ♀; **Çankırı**, Kızılırmak; 40°20'N, 33°59'E; 560 m; 24.VIII.2004; K. Kiran leg.; EMTU 04/0601 • 10 ♀; **Denizli**; 37°44'30"N, 29°06'12"E; 448 m; 24.VI.2010; K. Kiran leg.; EMTU 10/0047a • 11 ♀; **Düzce**, Yığılca; 40°56'27.23"N, 31°22'10.52"E; 307 m; 28.VI.2015; B. Gülcü leg.; EMTU 15/0147 • 10 ♀; same collection data as for preceding; B. Gülcü leg.; EMTU 15/0148 • 9 ♀; **Edirne**; 41°40'32"N, 26°33'37"E; 40 m; 03.VI.2001; K. Kiran leg.; EMTU 01/0909 • 50 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 01/0910

• 50 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 01/0912 • 50 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 01/0914 • 8 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 01/0915 • 50 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 01/0916 • 1 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 01/0917c • 30 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 06/0334 • 7 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 06/0334 • 1 ♂, 7 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 10/0036a • 7 ♀; **Avarız** Vill.; 41°45'39"N, 26°31'47"E; 40 m; 12.V.2010; K. Kiran leg.; EMTU 10/0024 • 1 ♂, 6 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 10/0034b • 4 ♀; **Kırklareli**, Alpullu; 41°22'01"N, 27°08'55"E; 57 m; 05.V.2013; K. Kiran leg.; EMTU 13/0122b • 15 ♀; **Demirköy**, İğneada; 41°52'N, 27°59'E; 01.V.2013; C. Karaman leg.; EMTU 13/0142 • 2 ♀; **Kuştepe** Vill.; 41°22'24"N, 26°57'37"E; 14.IV.2002; K. Kiran leg.; EMTU 02/1010b • 23 ♀; **Kocaeli**, Kandıra, Babatepesi; 41°07'N, 30°11'E; 340 m; 12.IX.2003; K. Kiran leg.; EMTU 03/0200a • 1 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 03/0201e • 31 ♀; **Kütahya**; 39°12'22"N, 30°08'27"E; 1300 m; 13.VI.2004; K. Kiran leg.; EMTU 04/0173 • 27 ♀; **Manisa**, Köprübaşı, Kurtlar Vill.; 38°43'N, 28°17'E; 600 m; 10.VIII.2014; C. Karaman leg.; EMTU 07/2122 • 17 ♀; **Şanlıurfa**; 36°52'N, 39°01'E; 363 m; 24.IV.2015; C. Karaman leg.; EMTU 15/0011 • 19 ♀; **Göbeklitepe**; 37°13'22"N, 38°55'22"E; 24.IV.2015; C. Karaman leg.; EMTU 15/0005a.

DISTRIBUTION IN TURKEY. — Afyonkarahisar, Ankara, Antalya, İstanbul, İzmir.

Genus *Monomorium* Mayr, 1855

Monomorium barbatulum Mayr, 1877 *
(Fig. 4)

Monomorium barbatulum Mayr, 1877: 17.

MATERIAL EXAMINED. — **Turkey** • 3 ♀; **Şanlıurfa**, Harran; 36°52'01"N, 39°01'22"E; 363 m; 24.IV.2015; C. Karaman leg.; EMTU 15/0006d • 19 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 15/0008a • 3 ♀; same collection data as for preceding; C. Karaman leg.; MNHN 15/0008a • 1 ♀; same collection data as for preceding; 36°52'N, 39°01'E; C. Karaman leg.; EMTU 15/0009f.

DISTRIBUTION IN TURKEY. — New for Turkey.

REMARKS

Monomorium barbatulum, distributed in southern part of European Russia, Arabian Peninsula, Israel and Central Asia (Collingwood & Agosti 1996; Vonshak & Ionescu-Hirsch 2009; Collingwood *et al.* 2011; Dubovikoff & Yusupov 2017), was recently recorded in North of Iran very near to South of Turkey (Ghahari *et al.* 2015). Iranian locality is very close to the Turkish one.

Monomorium monomorium Bolton, 1987

Monomorium monomorium Bolton, 1987: 287.

MATERIAL EXAMINED. — **Turkey** • 2 ♀; **Balıkesir**, Sındırgı, Sinandede Vill.; 39°08'N, 28°02'E; 773 m; 09.VIII.2014; C. Karaman leg.; EMTU 07/2028b • 1 ♀; **Kırklareli**, İğneada; 41°52'N, 27°59'E; 01.V.2013; C. Karaman leg.; EMTU 13/0138h • 1 ♀; **Manisa**, Gordes,

Kabakoz Vill.; 39°00'727"N, 28°11'892"E; 988 m; 09.VIII.2014; C. Karaman leg.; EMTU 07/2088b • 1 ♀; Köprübaşı, Kurtlar Vill.; 38°43'N, 28°17'E; 600 m; 10.VIII.2014; C. Karaman leg.; EMTU 07/2114g • 1 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 07/2115c • 1 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 07/2119b • 1 ♀; Uşak, Eşme, Eşmeli Vill.; 38°27'161"N, 28°50'653"E; 873 m; 10.VIII.2014; C. Karaman leg.; EMTU 07/2135c.

DISTRIBUTION IN TURKEY. — Çanakkale, Denizli, İstanbul, İzmir, Kocaeli, Muğla.

Genus *Myrmecina* Curtis, 1829

Myrmecina graminicola (Latreille, 1802)

Formica graminicola Latreille, 1802b: 255.

MATERIAL EXAMINED. — **Turkey** • 1 ♀; **Afyonkarahisar**, Sandikli, Menteş Vill.; 38°18'743"N, 30°05'277"E; 1276 M; 23.VIII.2014; C. Karaman Leg.; Emtu 08/2326C • 1 ♀; **Edirne**; 41°40'N, 26°34'E; 40 M; 09.IV.2006; K. Kiran Leg.; Emtu 06/0284E • 51 ♀; **İstanbul**, Çatalca, Yalıköy; 41°29'36"N, 28°16'39"E; 1 M; 23.V.2011; K. Kiran Leg.; Emtu 11/0178A • 50 ♀; Same Collection Data As For Preceding; K. Kiran Leg.; Emtu 11/0188B • 1 ♀, 1 ♀; **Emirgan**; 41°06'31"N, 29°03'06"E; 83 M; 01.V.2014; C. Karaman Leg.; Emtu 14/0125K • 19 ♀; **Kocaeli**, Gölcük, Hamidiye Vill.; 40°39'56"N, 29°49'27"E; 450 M; 16.VIII.1998; K. Kiran Leg.; Emtu K98/0774 • 1 ♀; **Mersin**, Erdemli, Kizilen Village; 36°42'N, 34°05'E; 17.VI.2005; N. Jansson & M. Coşkun Leg.; Emtu 05/0141 • 20 ♀; **Sakarya**, Sapanca, Erdemli Vill.; 40°38'48"N, 30°13'50"E; 590 M; 29.VIII.2004; K. Kiran Leg.; Emtu 04/0959A.

DISTRIBUTION IN TURKEY. — Bursa, Kırklareli, Yalova.

Genus *Myrmica* Latreille, 1804

Myrmica caucasicola Arnol'di, 1934 *
(Fig. 5)

Myrmica schencki nat. *caucasicola* Arnol'di, 1934: 172.

MATERIAL EXAMINED. — **Turkey** • 1 ♀; **Artvin**, Şavşat, Akdamla Upland; 41°26'57"N, 42°24'32"E; 2140 m; 03.VIII.2015; C. Karaman leg.; EMTU 15/0052b • 1 ♀, 2 ♂, 50 ♀; **Bursa**, Uludağ Mt.; 40°06'865"N, 29°05'642"E; 1543 m; 14.VIII.2014; C. Karaman leg.; EMTU 07/2351a • 50 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 07/2355a • 1 ♀, 8 ♂, 50 ♀; **Karaman**, Karadağ Mt.; 37°23'N, 33°09'E; 2100 m; 27.VIII.2006; K. Kiran leg.; EMTU 04/0772 • 62 ♀; **Kütahya**, Belce Upland; 39°27'N, 30°21'E; 1660 m; 17.VIII.2014; C. Karaman leg.; EMTU 08/2031 • 3 ♀; same collection data as for preceding; C. Karaman leg.; MNHN 08/2031.

DISTRIBUTION IN TURKEY. — New for Turkey.

REMARKS

This Caucasian species has been known previously from Armenia and Azerbaijan (Radchenko & Elmes 2010) and the present records extended its distribution towards Anatolia.

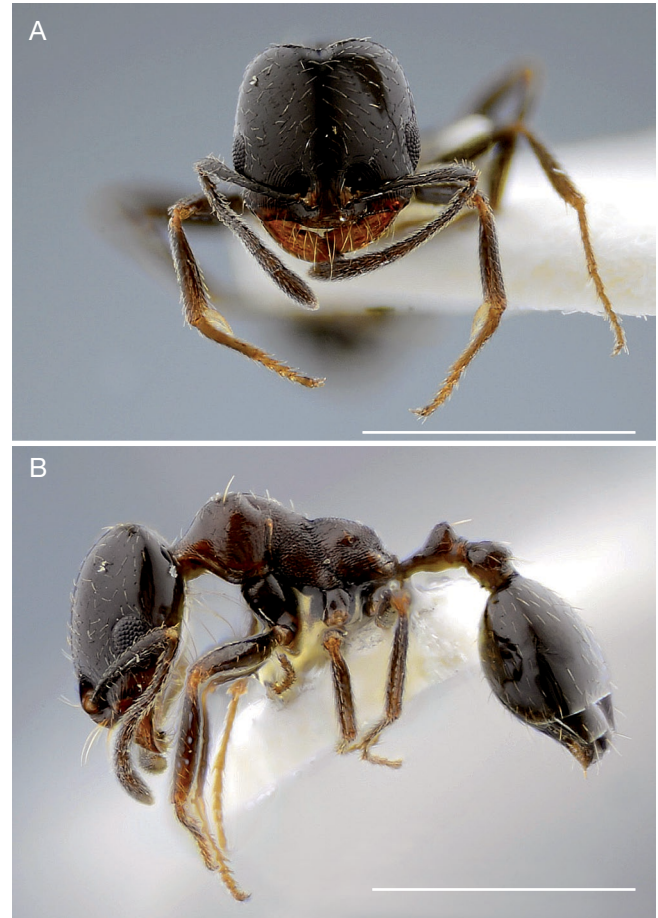


FIG. 4. — Worker of *M. barbatulum* Mayr, 1877: **A**, head from dorsal view; **B**, whole body from lateral view. Scale bars: 1 mm.

Myrmica hellenica Finzi, 1926

Myrmica rugulosa var. *hellenica* Finzi, 1926: 93.

MATERIAL EXAMINED. — **Turkey** • 3 ♀; **Eskişehir**, Seyitgazi, İdrisayla Vill.; 39°24'850"N, 30°24'672"E; 1481 m; 17.VIII.2014; C. Karaman leg.; EMTU 08/2051a • 27 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 08/2054a • 10 ♀; **Kütahya**, Dağardı, Yağmur Vill.; 39°23'685"N, 29°03'001"E; 1188 m; 20.VIII.2014; C. Karaman leg.; EMTU 08/2205b • 1 ♀; **Tokat**, Erbaa, Çerkezfındıcak Vill.; 40°34'32"N, 36°26'38"E; 1250 m; 08.VII.2003; T. Koldaş leg.; EMTU 03/0092.

DISTRIBUTION IN TURKEY. — Ankara, Artvin, Ardahan, Bursa, Karabük, Kastamonu, Kırklareli, Kocaeli, Ordu, Rize, Sakarya, Trabzon, Zonguldak.

Myrmica lonae Finzi, 1926

Myrmica scabrinodis subsp. *lonae* Finzi, 1926: 103.

MATERIAL EXAMINED. — **Turkey** • 31 ♀; **Afyonkarahisar**, Bayat, Mallica Vill.; 39°03'N, 30°48'E; 1505 m; 24.VIII.2014; C. Karaman leg.; EMTU 08/2401c • 86 ♀; **Sinanpaşa**, Yürükmezari Vill. 38°41'030"N, 30°05'209"E; 1628 m; 22.VIII.2014; C. Karaman leg.; EMTU 08/2244 • 1 ♀; **Bursa**, İnegöl, Tahtaköprü Vill.; 39°55'606"N, 29°39'183"E; 834 m; 14.VIII.2014;

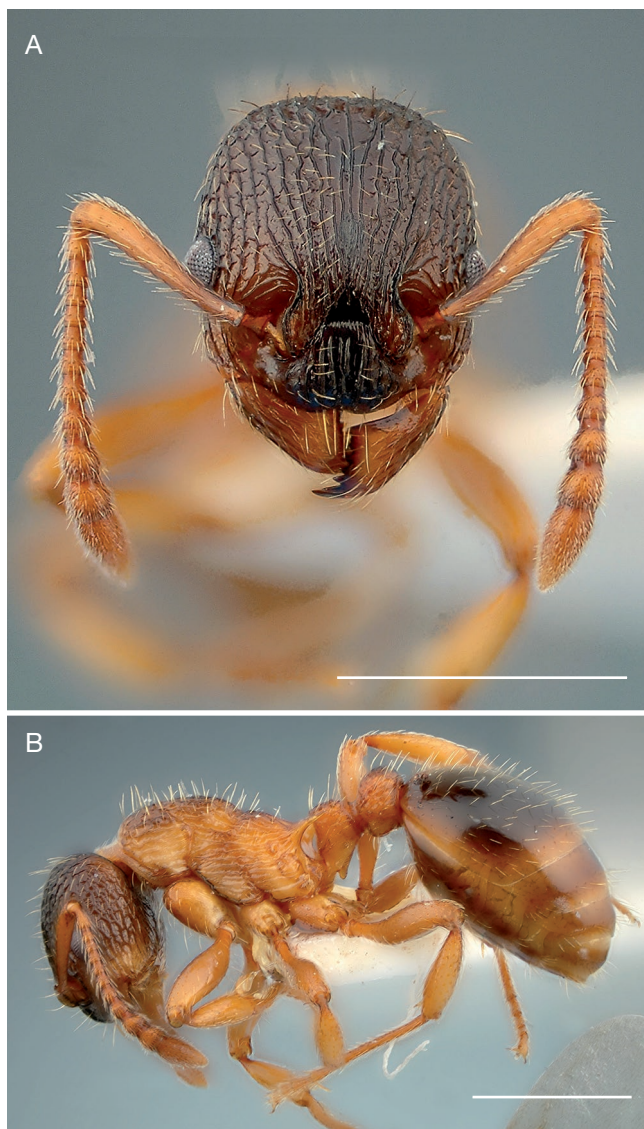


FIG. 5. — Worker of *M. caucasicola* Arnol'di, 1934: **A**, head from dorsal view; **B**, whole body from lateral view. Scale bars: 1 mm.

C. Karaman leg.; EMTU 07/2366b; 24 ♀; Keles, Soğukpınar Vill.; 40°02'784"N, 29°07'656"E; 977 m; 16.VIII.2014; C. Karaman leg.; EMTU 07/2476 • 1 ♀, 36 ♀; Kestel, Alaçam Vill.; 40°06'808"N, 29°17'245"E; 1090 m; 14.VIII.2014; C. Karaman leg.; EMTU 07/2363a • 12 ♀; Uludağ Mt. Bakacak Hill; 40°12'40"N, 29°01'15"E; 1700 m; 25.VII.2001; K. Kiran leg.; EMTU 01/0952b • 1 ♀; **Erzincan**, Tercan, Kargın Vill.; 39°40'N, 40°41'E; 24.VIII.2008; E. Çoban leg.; EMTU 08/0024 • 6 ♀; Yeşilçat Vill.; 39°48'N, 39°21'E; 1384 m; 25.VII.2004; E. Çoban leg.; EMTU 04/0377 • 50 ♀; **Karabük**, Safranbolu, Bulak Vill.; 41°15'N, 32°39'E; 622 m; 14.VIII.2005; K. Kiran leg.; EMTU 05/0035a • 10 ♀; **Kocaeli**, Gölcük, İrşadiye Vill.; 40°38'12"N, 29°47'55"E; 750 m; 16.VIII.1998; K. Kiran leg.; EMTU K98/0778 • 10 ♀; Karamürsel, Senaiye Vill.; 40°37'51"N, 29°41'10"E; 750 m; 05.VIII.1998; K. Kiran leg.; EMTU K98/0507a • 50 ♀; Tahtalı Vill.; 40°34'39"N, 29°38'39"E; 500 m; 05.VIII.1998; K. Kiran leg.; EMTU K98/0486b • 38 ♀; **Kütahya**, Dağardı, Yağmur Vill.; 39°23'685"N, 29°03'001"E; 1188 m; 20.VIII.2014; C. Karaman leg.; EMTU 08/2206a • 33 ♀; Gediz, Çukurören Vill.; 38°57'808"N, 29°43'818"E; 1400 m; 18.VIII.2014; C. Karaman leg.; EMTU 08/2121a • 26 ♀; Ece Vill.; 39°03'222"N,

29°19'650"E; 1491 m; 19.VIII.2014; C. Karaman leg.; EMTU 08/2140 • 2 ♀; Simav, Demirci Vill.; 39°05'979"N, 28°54'969"E; 1000 m; 20.VIII.2014; C. Karaman leg.; EMTU 08/2194h • 93 ♀; **Manisa**, Demirci; 39°07'988"N, 28°35'982"E; 1200 m; 19.VIII.2014; C. Karaman leg.; EMTU 08/2176b • 11 ♀; **Sakarya**, Pamukova, Eskiyaşla Vill.; 40°33'43"N, 30°07'39"E; 950 m; 20.VIII.1998; K. Kiran leg.; EMTU K98/0795 • 6 ♀; same collection data as for preceding; K. Kiran leg.; EMTU K98/0798b • 2 ♂, 1 ♀; same collection data as for preceding; K. Kiran leg.; EMTU K98/0800 • 47 ♀; **Uşak**, Banaz, Çamsu Vill.; 38°53'221"N, 29°41'613"E; 1690 m; 18.VIII.2014; C. Karaman leg.; EMTU 08/2106a.

DISTRIBUTION IN TURKEY. — Kırklareli.

Myrmica ravasinii Finzi, 1923

Myrmica ravasinii Finzi, 1923: 2.

MATERIAL EXAMINED. — **Turkey** • 1 ♀; **Afyonkarahisar**, Alanyurt Vill.; 39°01'493"N, 30°45'394"E; 1660 m; 24.VIII.2014; C. Karaman leg.; EMTU 08/2394d • 3 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 08/2397b • 6 ♀; **Balıkesir**, Dursunbey; 39°22'594"N, 28°51'491"E; 1616 m; 15.VIII.2014; C. Karaman leg.; EMTU 07/2434b • 36 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 07/2435a • 1 ♀; **Bursa**, Ösmangazi; 40°06'837"N, 29°04'169"E; 1320 m; 14.VIII.2014; C. Karaman leg.; EMTU 07/2350c • 10 ♀, 19 ♂, 40 ♀; **Uludağ Mt.**; 40°06'865"N, 29°05'642"E; 1543 m; 14.VIII.2014; C. Karaman leg.; EMTU 07/2353a • 42 ♀; **Kütahya**, Bayat Vill.; 39°27'623"N, 30°17'282"E; 1482 m; 17.VIII.2014; C. Karaman leg.; EMTU 08/2042a • 53 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 08/2049a • 1 ♀; **Belce Upland**; 39°27'N, 30°21'E; 1660 m; 17.VIII.2014; C. Karaman leg.; EMTU 08/2028c • 50 ♀; **Dağardı**; 39°21'478"N, 29°06'293"E; 1540 m; 20.VIII.2014; C. Karaman leg.; EMTU 08/2202a • 41 ♀; **Dumlupınar**, Halaçlar Vill.; 38°52'986"N, 29°51'787"E; 1470 m; 18.VIII.2014; C. Karaman leg.; EMTU 08/2082 • 6 ♀; **Emet**, Musalar Vill.; 39°23'N, 29°08'E; 1460 m; 21.VIII.2014; C. Karaman leg.; EMTU 08/2216b • 10 ♀; **Manisa**, Demirci, Mahmutlar Town; 39°07'025"N, 28°36'797"E; 1533 m; 20.VIII.2014; C. Karaman leg.; EMTU 08/2184b • 40 ♀; **Yozgat**, Akdağmadeni; 39°39'N, 35°53'E; 1410 m; 24.VIII.2004; K. Kiran leg.; EMTU 04/0657 • 2 ♀; **Çayıralan**; 39°18'N, 35°38'E; 1600 m; 26.VIII.2004; K. Kiran leg.; EMTU 04/0706 • 2 ♀, 3 ♂, 40 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 04/0708a • 40 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 04/0720.

DISTRIBUTION IN TURKEY. — Artvin, Eskişehir, Kastamonu, Niğde.

Myrmica ruginodis Nylander, 1846

Myrmica ruginodis Nylander, 1846b: 929.

MATERIAL EXAMINED. — **Turkey** • 7 ♀; **Karabük**, Safranbolu; 41°14'42"N, 32°43'26"E; 287 m; 14.VIII.2005; K. Kiran leg.; EMTU 05/0036b • 3 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 05/0044d • 1 ♀, 56 ♀; **Kütahya**, Dumlupınar, Saraylar Vill.; 38°57'709"N, 29°49'179"E; 1220 m; 18.VIII.2014; C. Karaman leg.; EMTU 08/2066b • 1 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 05/0044d.

DISTRIBUTION IN TURKEY. — Ankara, Ardahan, Artvin, Bursa, Erzincan, Erzurum, Hakkari, Kars, Sakarya, Rize, Trabzon.

Myrmica sabuleti Meinert, 1861*Myrmica sabuleti* Meinert, 1861: 327.

MATERIAL EXAMINED. — **Turkey** • 1 ♀; **Tekirdağ**, Şarköy, Ormanlı Vill.; 40°47'N, 27°13'E; 700 m; 01.VII.2004; K. Kiran leg.; EMTU 04/0376h • 3 ♀; **Yozgat**, Çayıralan; 39°18'N, 35°38'E; 1600 m; 26.VIII.2004; K. Kiran leg.; EMTU 04/0727.

DISTRIBUTION IN TURKEY. — Ağrı, Bursa, Erzurum, Kırklareli, Kocaeli, Muş, Sakarya.

Myrmica scabrinodis Nylander, 1846*Myrmica scabrinodis* Nylander, 1846b: 930.

MATERIAL EXAMINED. — **Turkey** • 1 ♀; **Bursa**, İnegöl, Tahtaköprü Vill.; 39°55'60"N, 29°39'183"E; 834 m; 14.VIII.2014; C. Karaman leg.; EMTU 07/2366g • 11 ♀; **İstanbul**, Çatalca, Celepköy; 41°22'48"N, 28°30'47"E; 16 m; 23.V.2011; K. Kiran leg.; EMTU 11/0192 • 14 ♀, 21 ♀; **İnceğiz** Vill.; 41°11'N, 28°24'E; 01.VII.2009; K. Kiran leg.; EMTU 09/0125a • 41 ♀; **Kütahya**, Altıntaş, Aykırıkcı Vill.; 39°08'768"N, 30°10'617"E; 1048 m; 18.VIII.2014; C. Karaman leg.; EMTU 08/2064 • 9 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 08/2065.

DISTRIBUTION IN TURKEY. — Afyonkarahisar, Ağrı, Ankara, Ardahan, Artvin, Edirne, Erzincan, Erzurum, Hakkari, İzmir, Kırıkkale, Kırklareli, Rize, Trabzon.

Myrmica specioides Bondroit, 1918*Myrmica specioides* Bondroit, 1918: 100.

MATERIAL EXAMINED. — **Turkey** • 50 ♀; **Aksaray**, Ortaköy; 38°44'N, 34°02'E; 1140 m; 26.VIII.2004; K. Kiran leg.; EMTU 04/0750 • 14 ♀; **Çiftlik**, İhlara Valley; 38°14'23"N, 34°18'22"E; 1175 m; 21.VIII.2001; K. Kiran leg.; EMTU 01/0844a • 50 ♀; **Eskişehir**, Alpu, Çukurhisar Vill.; 39°50'N, 30°59'E; 880 m; 21.VIII.2004; K. Kiran leg.; EMTU 04/0501 • 3 ♀, 3 ♂, 50 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0502 • 1 ♂, 36 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0503a • 1 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0505b • 1 ♂, 50 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0503a • 7 ♀; **İstanbul**, Çatalca, Celepköy; 41°22'48"N, 28°30'47"E; 16 m; 23.V.2011; K. Kiran leg.; EMTU 11/0191b • 2 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 11/0196b • 3 ♀; **Kırıkkale**, Keskin, Ceritmüminli Vill.; 39°43'N, 33°47'E; 910 m; 23.VIII.2004; K. Kiran leg.; EMTU 04/0591a • 47 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0593 • 1 ♀; **Kırşehir**, Mucur; 39°03'N, 34°23'E; 26.VIII.2004; K. Kiran leg.; EMTU 04/0745 • 13 ♀; **Konya**, Akşehir; 38°21'N, 31°24'E; 120 m; 12.VI.2004; K. Kiran leg.; EMTU 04/0153 • 17 ♀; **Doğanhisar**, Ketenlik Upland; 38°07'N, 31°34'E; 1270 m; 27.VIII.2006; K. Kiran leg.; EMTU 04/0800 • 5 ♂, 50 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0801 • 9 ♂, 50 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0803 • 1 ♀; **Yunak**, İmamoglu Vill.; 38°53'N, 31°58'E; 920 m; 28.VIII.2004; K. Kiran leg.; EMTU 04/0830d • 50 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0832 • 50 ♀; **Kütahya**; 39°25'N, 29°58'E; 945 m; 12.VI.2004; K. Kiran leg.; EMTU 04/0164 • 12 ♀; **Göynükören** Vill.; 39°20'960"N, 29°59'592"E; 1264 m; 17.VIII.2014; C. Karaman leg.; EMTU 08/2010a • 4 ♀; **Findık** Vill.; 39°33'N, 30°12'E; 950 m; 17.VIII.2014; C. Karaman leg.; EMTU 08/2015b • 41 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 08/2017

• 5 ♀; **Sakarya**, Pamukova, Eskiyailla Vill.; 40°33'43"N, 30°07'39"E; 1100 m; 20.VIII.1998; K. Kiran leg.; EMTU K98/0740 • 1 ♀, 50 ♀; **Yozgat**; 39°49'N, 34°48'E; 1250 m; 24.VIII.2004; K. Kiran leg.; EMTU 04/0619a • 1 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0620b • 41 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0621 • 27 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0621.

DISTRIBUTION IN TURKEY. — Ankara, Antalya, Edirne, Erzurum, Iğdır, Kastamonu, Kırklareli, Sivas.

Myrmica sulcinodis Nylander, 1846*Myrmica sulcinodis* Nylander, 1846b: 934.

MATERIAL EXAMINED. — **Turkey** • 27 ♀, 11 ♂, 50 ♀; **Artvin**, Şavşat, Akdamla Upland; 41°26'57"N, 42°24'32"E; 2140 m; 03.VIII.2015; C. Karaman leg.; EMTU 15/0059 • 1 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 15/0077d.

DISTRIBUTION IN TURKEY. — Ardahan, Bursa, Erzurum, Kars, Trabzon.

Myrmica tulinae Elmes, Radchenko, Aktaş, 2002*Myrmica tulinae* Elmes, Radchenko, Aktaş, 2002: 158.

MATERIAL EXAMINED. — **Turkey** • 6 ♀; **Yozgat**, Çayıralan; 39°18'N, 35°38'E; 1600 m; 26.VIII.2004; K. Kiran leg.; EMTU 04/0736a.

DISTRIBUTION IN TURKEY. — Ardahan, Kırklareli.

REMARKS

Myrmica tulinae was described from Kırklareli and Artvin provinces in Turkey (Elmes *et al.* 2002). The researchers gave no coordinate data for the locality in Artvin province and mentioned it only with the expression "NE Turkey, South edge of Artvin Region, high pass ca. 10km N of Ardeşen, alt. 2150m". However, this locality cannot be located in Artvin province because Ardeşen city is located along sea side and 10 km north of Ardeşen corresponds to a place in the middle of sea. Radchenko & Elmes (2010) altered the locality of the species as "NE Turkey, South edge of Artvin Region, high pass ca. 10km N of Ardahan, alt. 2150m". Therefore, we preferred to use Ardahan instead of Artvin for the distribution of *M. tulinae* in Turkey.

Genus *Oxyopomyrmex* André, 1881*Oxyopomyrmex polybotesi* Salata & Borowiec, 2015*Oxyopomyrmex polybotesi* Salata & Borowiec, 2015b: 50.

MATERIAL EXAMINED. — **Turkey** • 1 ♀; **Muğla**, Fethiye; 36°39'N, 29°07'E; 01.VI.1998; A. Aras leg.; EMTU 241c • 2 ♀; same collection data as for preceding; A. Aras leg.; EMTU 323 • 2 ♀; same collection data as for preceding; A. Aras leg.; EMTU 389 • 2 ♀; same collection data as for preceding; A. Aras leg.; EMTU 431 • 1 ♀, 1 ♂, 2 ♀; same collection data as for preceding; A. Aras leg.; EMTU 599 • 2 ♀; same collection data as for preceding; A. Aras leg.; EMTU 667.

DISTRIBUTION IN TURKEY. — İzmir.

Genus *Pheidole* Westwood, 1839*Pheidole* cf. *pallidula* (Nylander, 1849)*Myrmica pallidula* Nylander, 1849: 42.

MATERIAL EXAMINED. — **Turkey** • 2 ♀, 1 ♂; **Adana**; 37°03'46"N, 35°21'21"E; 154 m; 22.VI.2004; K. Kiran leg.; EMTU 04/0011g • 1 ♀; **Adıyaman**; 37°45'N, 38°16'E; 07.V.2015; S. Yıldız leg.; EMTU 15/0042n • 10 ♀; **Aksaray**, Çiftlik, İhlara Valley; 38°14'23"N, 34°18'22"E; 1175 m; 21.VIII.2001; K. Kiran leg.; EMTU 01/0845 • 2 ♀; **Ortaköy**; 38°44'N, 34°02'E; 1140 m; 26.VIII.2004; C. Karaman leg.; EMTU 04/0758 • 7 ♀; **Amasya**; 40°39'N, 35°50'E; 450 m; 01.VIII.2015; C. Karaman leg.; EMTU 15/0048b • 50 ♀; **Artvin**, Borçka; 41°21'49"N, 41°40'45"E; 110 m; 14.VIII.2000; K. Kiran leg.; EMTU 00/0089b • 1 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 00/0096 • 1 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 00/0097b • 1 ♀; **Adagül Vill.**; 41°18'46"N, 41°45'03"E; 100 m; 14.VIII.2000; K. Kiran leg.; EMTU 00/0116c • 1 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 00/0119b • 1 ♀, 4 ♂; **Batman**; 37°52'N, 41°07'E; 07.VII.2010; F. Toprak leg.; EMTU 10/0101a • 1 ♀; **Burdur**, Gölhisar; 36°57'40"N, 29°27'53"E; 1223 m; 25.VII.2009; N. Jansson & M. Avcı leg.; EMTU 09/1115 • 1 ♀; same collection data as for preceding; N. Jansson & M. Avcı leg.; EMTU 09/1117 • 1 ♀, 2 ♂; same collection data as for preceding; N. Jansson & M. Avcı leg.; EMTU 09/1118 • 1 ♀; same collection data as for preceding; N. Jansson & M. Avcı leg.; EMTU 09/1119 • 1 ♀; same collection data as for preceding; N. Jansson & M. Avcı leg.; EMTU 09/1120 • 1 ♀; same collection data as for preceding; N. Jansson & M. Avcı leg.; EMTU 09/1121 • 2 ♀; **Çankırı**, Sungurlu; 40°09'N, 34°22'E; 825 m; 24.VIII.2004; K. Kiran leg.; EMTU 04/0611 • 1 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0613b • 7 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0616 • 2 ♀, 24 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0617 • 1 ♀; **Denizli**; 37°44'30"N, 29°06'12"E; 448 m; 24.VI.2010; K. Kiran leg.; EMTU 10/0047d • 1 ♀; **Güzelpınar Town**; 37°54'736"N, 29°12'519"E; 587 m; 11.VIII.2014; C. Karaman leg.; EMTU 07/2200b • 1 ♀; **Tavas**, Pınarlık Vill.; 37°38'038"N, 29°06'534"E; 1205 m; 12.VIII.2014; C. Karaman leg.; EMTU 07/2301a • 2 ♀; **Babadag**, Kelci Vill.; 37°47'811"N, 28°54'978"E; 845 m; 13.VIII.2014; C. Karaman leg.; EMTU 07/2326b • 5 ♀, 10 ♀; **Bozkurt**, Hayrettin Vill.; 37°56'138"N, 29°39'168"E; 1528 m; 23.VIII.2014; C. Karaman leg.; EMTU 08/2336b • 1 ♀, 7 ♀; **Gaziantep**; 36°56'39"N, 37°28'25"E; 696 m; 04.V.2012; U. Güner leg.; EMTU 12/0004c • 1 ♀; **Hatay**; 36°12'N, 36°11'E; 10.V.2015; S. Yıldız leg.; EMTU 15/0043b • 7 ♀; **Samandağ**; 36°05'N, 35°58'E; 05.VIII.2004; E. Şahutoğlu leg.; EMTU 04/0381b • 1 ♀; **Isparta**, Eğirdir, Yukarıgökde Vill.; 37°42'984"N, 30°49'899"E; 19.VII.2007; N. Jansson & M. Avcı leg.; EMTU 07/2495 • 8 ♀, 50 ♀; **Karabük**, Safranbolu; 41°14'42"N, 32°43'09"E; 287 m; 07.V.2005; K. Kiran leg.; EMTU 05/0003a • 4 ♀; **Bulak Vill.**; 41°15'N, 32°39'E; 287 m; 21.V.2005; K. Kiran leg.; EMTU 05/0008f • 1 ♀; **Kayseri**; 38°43'N, 35°28'E; 21.VIII.2013; C. Karaman leg.; EMTU 13/0171e • 1 ♀; **Kırşehir**, Kaman, Hirfanlı Dam; 39°16'21"N, 33°32'09"E; 880 m; 23.VIII.2004; K. Kiran leg.; EMTU 04/0570 • 2 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0571 • 3 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0573 • 1 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0576b • 2 ♀, 35 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0582 • 5 ♀, 6 ♀; **Mucur**; 39°03'N, 34°23'E; 26.VIII.2004; K. Kiran leg.; EMTU 04/0737 • 1 ♀; **Kütahya**, Emet, Musalar Vill.; 39°22'774"N, 29°12'108"E; 934 m; 21.VIII.2014; C. Karaman leg.; EMTU 08/2218g • 1 ♀; **Gediz**, Çukurören Vill.; 38°59'N, 29°44'E; 1233 m; 18.VIII.2014; C. Karaman leg.; EMTU 08/2123b • 1 ♀; **Simav**,

Kiçir Vill.; 39°15'108"N, 28°41'595"E; 1143 m; 16.VIII.2014; C. Karaman leg.; EMTU 07/2451c • 2 ♀; **Manisa**, Akhisar, Dingiller Vill.; 38°59'N, 27°53'E; 345 m; 09.VIII.2014; C. Karaman leg.; EMTU 07/2101b • 2 ♀, 11 ♀; **Gölmarmara**, Yeniköy; 38°39'N, 28°02'E; 98 m; 09.VIII.2014; C. Karaman leg.; EMTU 07/2103a • 1 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 07/2104b • 1 ♀; **Görses**, Kabakoz Vill.; 39°00'727"N, 28°11'892"E; 988 m; 09.VIII.2014; C. Karaman leg.; EMTU 07/2077d • 10 ♀; **Köprübaşı**, Kurtlar Vill.; 38°43'N, 28°17'E; 600 m; 10.VIII.2014; C. Karaman leg.; EMTU 07/2114b • 1 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 07/2119c • 6 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 07/2123b • 7 ♀; **Mersin**, Erdemli, Kızılın Vill.; 36°42'N, 34°05'E; 07.VII.2005; N. Jansson leg.; EMTU 05/0124 • 4 ♀; **Devrent**; 36°40'N, 34°11'E; 11.VIII.2005; N. Jansson & M. Coşkun leg.; EMTU 05/0125 • 1 ♀; same collection data as for preceding; N. Jansson & M. Coşkun leg.; EMTU 05/0126 • 1 ♀; same collection data as for preceding; N. Jansson & M. Coşkun leg.; EMTU 05/0127 • 2 ♀; same collection data as for preceding; N. Jansson & M. Coşkun leg.; EMTU 05/0129 • 1 ♀; same collection data as for preceding; N. Jansson & M. Coşkun leg.; EMTU 05/0132 • 1 ♀; same collection data as for preceding; N. Jansson & M. Coşkun leg.; EMTU 05/0133 • 2 ♀; **Gülner**, Köseçobanlı Vill.; 36°30'22.5"N, 33°07'43.3"E; 26.VIII.2006; N. Jansson leg.; EMTU 06/0462 • 3 ♀; same collection data as for preceding; N. Jansson leg.; EMTU 06/0463 • 50 ♀; **Muğla**, Bodrum; 37°00'N, 27°44'E; 15.VII.2015; S. Yıldız leg.; EMTU 15/0136b • 6 ♀; **Nevşehir**, Ürgüp, Mustafapaşa Town; 38°35'04"N, 34°53'52"E; 16.VIII.2001; K. Kiran leg.; EMTU 01/0740 • 2 ♀, 27 ♀; **Niğde**, Gümüşler Vill.; 37°59'39"N, 34°46'16"E; 1500 m; 20.VIII.2001; K. Kiran leg.; EMTU 01/0801 • 4 ♀; same collection data as for preceding; N. Jansson leg.; EMTU 01/0805b • 1 ♀; **Ulukışla**; 37°33'00"N, 34°28'58"E; 1800 m; 18.VIII.2001; K. Kiran leg.; EMTU 01/0770 • 1 ♀, 9 ♀; same collection data as for preceding; N. Jansson leg.; EMTU 01/0773 • 1 ♀, 5 ♀; **Sivas**, Beypınarı Vill.; 39°51'15"N, 37°07'50"E; 1460 m; 25.VIII.2004; K. Kiran leg.; EMTU 04/0668 • 1 ♀, 18 ♀; **Şanlıurfa**; 37°09'N, 38°47'E; 488 m; 10.IX.2011; C. Karaman leg.; EMTU 11/0074b • 1 ♀; **Birecik**; 37°01'N, 38°00'E; 14.V.2015; S. Yıldız leg.; EMTU 15/0045d • 3 ♀; **Harran**; 36°52'N, 39°01'E; 24.IV.2015; C. Karaman leg.; EMTU 15/0009b • 12 ♀, 32 ♀; **Halfeti**; 37°14'53"N, 37°52'00"E; 395 m; 25.IV.2015; C. Karaman leg.; EMTU 15/0013a • 3 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 15/0046b • 2 ♀; **Sırrın**; 37°09'45"N, 38°50'24"E; 488 m; 01.VIII.2011; C. Karaman leg.; EMTU 11/0082 • 2 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 11/0084c • 9 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 11/0094a • 1 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 11/0097d • 1 ♀; **Siverek**; 37°45'N, 39°18'E; 13.V.2015; C. Karaman leg.; EMTU 15/0047n • 1 ♀; **Tekirdağ**, Şarköy, Uçmakdere; 40°47'54.50"N, 27°21'55.10"E; 111 m; 17.V.2015; C. Karaman leg.; EMTU 15/0026e • 3 ♀, 8 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 11/0097d • 5 ♀, 25 ♀; **Şarköy**, Yeniköy; 40°38'N, 27°02'E; 232 m; 18.V.2015; C. Karaman leg.; EMTU 15/0036c • 3 ♀, 19 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 15/0037a • 1 ♀; **Tunceli**, Pertek, Ardic Vill.; 38°58'N, 39°17'E; 08.VIII.2010; N. Deniz leg.; EMTU 10/0129 • 1 ♀; same collection data as for preceding; N. Deniz leg.; EMTU 15/0037a • 1 ♀; **Uşak**, Eşme, Eşmeli Vill.; 38°25'082"N, 28°51'769"E; 1143 m; 10.VIII.2014; C. Karaman leg.; EMTU 07/2141b • 6 ♀, 32 ♀; **Sivaslı**; 38°30'031"N, 29°44'158"E; 1365 m; 23.VIII.2014; C. Karaman leg.; EMTU 08/2283a.

REMARKS

Recently Seifert (2016) divided the hyper-diverse species *P. pallidula* (Nylander, 1849) into four species. One of them,

P. cicatricosa Stitz, 1917 has a North African distribution but other tree species: *P. pallidula*, *P. balcanica* Seifert, 2016 and *P. kosheunikovi* Ruzsky, 1905 have an Eurasian distribution. Since there exists no morphological differences between species of the *P. pallidula* complex, except for NUMOBAT (numeric morphology-based alpha-taxonomy), we gave our specimens as *P. cf. pallidula* at the moment.

Pheidole indica Mayr, 1879

Pheidole indica Mayr, 1879: 679.

Pheidole teneriffana Forel, 1893: 465.

MATERIAL EXAMINED. — **Turkey** • 7 ♀, 5 ♂; **Antalya**, Muratpaşa; 36°53'N, 30°46'E; 01.VIII.2011; C. Karaman leg.; EMTU 11/0105 • 1 ♀; Serik; 36°55'N, 31°06'E; 01.VII.2012; C. Karaman leg.; EMTU 12/0070g • 1 ♀; **Hatay**, Dörtöl, Sincan Vill.; 36°43'N, 36°15'E; 21.VIII.2005; E. Şahutoğlu leg.; EMTU 05/0047b.

DISTRIBUTION IN TURKEY. — İzmir.

REMARKS

After Sarnat *et al.* (2015) the tramp taxon *P. teneriffana* Forel, 1893 is synonym of *P. indica*.

Genus *Solenopsis* Westwood, 1840

Solenopsis cf. *fugax* (Latreille, 1798)/*lusitanica* Emery, 1915

Formica fugax Latreille, 1798: 46.

Solenopsis latro subsp. *lusitanica* Emery, 1915a: 259.

MATERIAL EXAMINED. — **Turkey** • 5 ♀; **Aksaray**, Çiftlik; 38°37'07"N, 33°50'45"E; 1500 m; 21.VIII.2001; K. Kiran leg.; EMTU 01/0834b • 50 ♀; **Ankara**, Kulu, Düden Lake; 39°05'03"N, 33°07'44"E; 960 m; 23.VIII.2004; K. Kiran leg.; EMTU 04/0562 • 1 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0565c • 50 ♀; **Antalya**, Elmalı, Akçay Vill.; 36°30'968"N, 29°42'291"E; 1546 m; 14.VIII.2009; K. Kiran leg.; EMTU 09/0050 • 50 ♀; **Artvin**, Borçka; 41°21'49"N, 41°40'45"E; 640 m; 17.VIII.2000; K. Kiran leg.; EMTU 00/0168b • 50 ♀; Adagül Vill.; 41°18'46"N, 41°45'03"E; 100 m; 14.VIII.2000; K. Kiran leg.; EMTU 00/0116a • 1 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 00/0117 • 50 ♀; Şavşat, Ciritdüzü Vill.; 41°16'40"N, 42°24'01"E; 1178 m; 09.VIII.2015; K. Kiran leg.; EMTU 15/0095b • 2 ♀; **Balıkesir**, Dursunbey, Sağırlar Vill.; 39°28'802"N, 28°34'186"E; 901 m; 15.VIII.2014; K. Kiran leg.; EMTU 07/2420c • 5 ♀; Güğü Vill.; 39°27'128"N, 28°38'905"E; 880 m; 15.VIII.2014; K. Kiran leg.; EMTU 07/2410b • 2 ♀, 50 ♀; Sındırgı, Dedeler Vill.; 39°18'297"N, 28°29'262"E; 1190 m; 16.VIII.2014; K. Kiran leg.; EMTU 07/2455a • 50 ♀; Sinandede Vill.; 39°08'N, 28°04'E; 1000 m; 09.VIII.2014; K. Kiran leg.; EMTU 07/2017a • 50 ♀; same collection data as for preceding; 773 m; C. Karaman leg.; EMTU 07/2024 • 1 ♀; **Çankırı**, Kızılırmak; 40°20'N, 33°59'E; 560 m; 24.VIII.2004; K. Kiran leg.; EMTU 04/0604c • 1 ♀; **Denizli**, Babadağ, Kiranyer Vill.; 37°48'N, 28°48'E; 966 m; 11.VIII.2014; C. Karaman leg.; EMTU 07/2242c • 31 ♀; Çivril, Belence Vill.; 38°26'073"N, 29°49'135"E; 1250 m; 22.VIII.2014; C. Karaman leg.; EMTU 08/2277c • 2 ♀; Bozkurt, Hayrettin Vill.; 37°56'138"N, 29°39'168"E; 1528 m; 23.VIII.2014; C. Karaman leg.; EMTU 08/2335d • 1 ♀; Honaz; 37°42'662"N, 29°17'369"E; 1377 m; 11.VIII.2014; C. Karaman

leg.; EMTU 07/2178e • 50 ♀; **Kayseri**, Yeşilhisar, Soğanlı Vill.; 38°20'15"N, 34°59'00"E; 1200 m; 16.VIII.2001; K. Kiran leg.; EMTU 01/0729 • 1 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 07/2024 • 50 ♂, 50 ♀; **Kırşehir**, Kaman, Hirfanlı Dam; 39°16'21"N, 33°32'09"E; 880 m; 23.VIII.2004; K. Kiran leg.; EMTU 04/0580a • 6 ♂, 25 ♀; **Konya**, Çumra, Gökhüyük Vill.; 37°29'39"N, 32°42'12"E; 1000 m; 27.VIII.2006; K. Kiran leg.; EMTU 04/0784 • 45 ♀; Yunak, İmamoglu Vill.; 38°53'N, 31°58'E; 920 m; 28.VIII.2004; K. Kiran leg.; EMTU 04/0830a • 24 ♀; **Kütahya**; 39°12'22"N, 30°08'27"E; 1300 m; 13.VI.2004; K. Kiran leg.; EMTU 04/0181 • 21 ♀; Emet, Çobanlar Vill.; 39°26'913"N, 29°12'926"E; 1080 m; 21.VIII.2014; C. Karaman leg.; EMTU 08/2223b • 1 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 08/2225c • 1 ♀; Simav, Demirci Vill.; 39°05'979"N, 28°54'969"E; 1000 m; 20.VIII.2014; K. Kiran leg.; EMTU 08/2193e • 10 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 08/2194b • 6 ♂, 50 ♀; Kıcıllı Vill.; 39°15'108"N, 28°41'595"E; 1143 m; 16.VIII.2014; C. Karaman leg.; EMTU 07/2452a • 30 ♀; Şaphane, Yağmurlar Vill.; 39°05'649"N, 29°08'988"E; 1216 m; 19.VIII.2014; C. Karaman leg.; EMTU 08/2158a • 22 ♀, 50 ♀; **Niğde**, Çamardı, Elekgölü Vill.; 37°45'21"N, 35°01'36"E; 1550 m; 20.VIII.2001; K. Kiran leg.; EMTU 01/0817 • 2 ♂, 50 ♀; Ulukışla, Aktoprak Vill.; 37°28'54"N, 34°28'05"E; 1861 m; 18.VIII.2001; K. Kiran leg.; EMTU 01/0787 • 50 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 01/0789a • 1 ♀, 50 ♂, 50 ♀; **Rize**, İkizdere, Rüzgarlı Vill.; 40°45'17"N, 40°33'15"E; 600 m; 13.VIII.2000; K. Kiran leg.; EMTU 00/0060 • 1 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 00/0065b • 41 ♀; **Sivas**, Gürün, Ziyarettepe Pass; 38°49'29"N, 36°54'06"E; 1900 m; 22.V.2008; C. Karaman leg.; EMTU 08/0041 • 2 ♀; Hafik, Aktaş Vill.; 39°35'08"N, 37°29'06"E; 1660 m; 25.VIII.2004; K. Kiran leg.; EMTU 04/0682c • 19 ♂, 50 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0687a • 6 ♀; **Yozgat**; 39°49'N, 34°48'E; 1250 m; 24.VIII.2004; K. Kiran leg.; EMTU 04/0622b • 1 ♀, 50 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0637 • 25 ♀; Akdağmadeni; 39°39'N, 35°53'E; 1370 m; 24.VIII.2004; K. Kiran leg.; EMTU 04/0644a.

DISTRIBUTION IN TURKEY. — Afyonkarahisar, Bursa, Çanakkale, Edirne, Eskişehir, İstanbul, Kırklareli, Kocaeli, Sakarya, Trabzon, Yalova.

REMARKS

Recently Galkowski *et al.* (2010) redescribed *S. fugax* (Latreille, 1798). They also indicated four species groups distributed in Europe and the Mediterranean region. Bračko *et al.* (2016) mentioned that in Greece *S. fugax* is less common than *S. lusitanica* Emery, 1915a which dominated lowland and warm areas in the country. On the other hand, both species complexes have many undetermined species (Bračko *et al.* 2016). Therefore, the material is given here as uncertain taxa until taxonomical chaos solved.

Genus *Stenamma* Westwood, 1839

Stenamma debile (Foerster, 1850)

Myrmica debilis Foerster, 1850: 52.

MATERIAL EXAMINED. — **Turkey** • 1 ♀, 70 ♀; **Artvin**, Şavşat, Menekşeköy; 41°18'27"N, 42°28'56"E; 1633 m; 09.VIII.2015; C. Karaman leg.; EMTU 15/0096a.

DISTRIBUTION IN TURKEY. — Antalya, Bursa, Yalova.

Genus *Temnothorax* Mayr, 1861*Temnothorax affinis* (Mayr, 1855)*Leptothorax affinis* Mayr, 1855: 442.

MATERIAL EXAMINED. — **Turkey** • 37 ♀; **Afyonkarahisar**, Bayat, Akpınar Vill.; 38°51'N, 30°56'E; 1399 m; 24.VIII.2014; C. Karaman leg.; EMTU 08/2359b • 1 ♀; **Artvin**, Şavşat, Akdamla Vill.; 41°24'38"N, 42°22'50"E; 1412 m; 05.VIII.2015; C. Karaman leg.; EMTU 15/0091b • 1 ♀, 49 ♀; **Balıkesir**, Dursunbey, Koyunoba Vill.; 39°14'906"N, 28°51'575"E; 1380 m; 15.VIII.2014; C. Karaman leg.; EMTU 07/2445a • 1 ♀, 43 ♀; **Panayır** Vill.; 39°21'233"N, 28°28'352"E; 845 m; 16.VIII.2014; C. Karaman leg.; EMTU 07/2471a • 3 ♀; **Sındırgı**, Sinandede Vill.; 39°08'N, 28°04'E; 1020 m; 09.VIII.2014; C. Karaman leg.; EMTU 07/2003b • 1 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 07/2015c • 1 ♀, 30 ♀; same collection data as for preceding; 773 m; C. Karaman leg.; EMTU 07/2022 • 14 ♂, 34 ♀; **Kiran** Vill.; 39°17'777"N, 28°24'210"E; 1305 m; 16.VIII.2014; C. Karaman leg.; EMTU 07/2458a • 50 ♀; **Denizli**, Çivril, Kavakalanı Vill., Kocaalan Upland; 38°22'513"N, 29°59'476"E; 1576 m; 23.VIII.2014; C. Karaman leg.; EMTU 08/2299a • 1 ♀; **Kütahya**, Başören Vill.; 39°31'677"N, 30°18'019"E; 1161 m; 17.VIII.2014; C. Karaman leg.; EMTU 08/2024c • 1 ♀, 50 ♀; **Efir** Vill.; 39°12'909"N, 28°47'570"E; 1170 m; 16.VIII.2014; C. Karaman leg.; EMTU 07/2449a • 43 ♀; **Kiçir** Vill.; 39°15'108"N, 28°41'595"E; 1143 m; 16.VIII.2014; C. Karaman leg.; EMTU 07/2451b • 1 ♀; **Sakarya**, Pamukova, Eskiayla Vill.; 40°33'43"N, 30°07'39"E; 1600 m; 20.VIII.1998; K. Kiran leg.; EMTU K98/0751 • 9 ♀; same collection data as for preceding; K. Kiran leg.; EMTU K98/0790 • 1 ♀; **Sivas**, Gürün, Ziyarettepe Pass; 38°49'29"N, 36°54'06"E; 1900 m; 22.V.2008; C. Karaman leg.; EMTU 08/0034c • 2 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 08/0039c • 7 ♀; **Uşak**, Banaz, Özbeyli Vill.; 38°36'130"N, 29°47'030"E; 1230 m; 23.VIII.2014; C. Karaman leg.; EMTU 08/2290 • 1 ♀, 4 ♀; **Eşme**, Eşmeli Vill.; 38°25'082"N, 28°51'769"E; 1143 m; 10.VIII.2014; C. Karaman leg.; EMTU 07/2141a.

DISTRIBUTION IN TURKEY. — Bursa, Kırklareli.

Temnothorax anticoni (Forel, 1911)*Leptothorax* (*Temnothorax*) *anticoni* Forel, 1911: 333.

MATERIAL EXAMINED. — **Turkey** • 1 ♀, 40 ♀; **Afyonkarahisar**, Dazkırı, Danıcalı Vill.; 37°53'N, 29°44'E; 1162 m; 23.VIII.2014; C. Karaman leg.; EMTU 08/2331b • 4 ♀; **Balıkesir**, Dursunbey, Güğü Vill.; 39°31'772"N, 28°38'525"E; 416 m; 15.VIII.2014; C. Karaman leg.; EMTU 07/2406b • 11 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 07/2407a • 1 ♀, 50 ♀; **Bursa**, Orhangazi, Hamzalı Vill.; 40°31'27"N, 29°15'46"E; 300 m; 31.VII.1998; K. Kiran leg.; EMTU K98/0411 • 1 ♀, 11 ♀; **Çanakkale**, Eceabat, Yalova Vill.; 40°13'87"N, 26°25'58"E; 50 m; 22.VII.2004; K. Kiran leg.; EMTU 04/0286 • 25 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0296 • 50 ♀; **Kocaeli**, Karamürsel, Tahtalı Vill.; 40°34'39"N, 29°38'39"E; 500 m; 05.VIII.1998; K. Kiran leg.; EMTU K98/0481 • 1 ♀, 6 ♀; **Kütahya**; 39°11'394"N, 30°08'025"E; 1135 m; 13.VI.2004; K. Kiran leg.; EMTU 04/0196a • 1 ♀; **Mersin**, Erdemli, Kızılın Vill.; 36°42'N, 34°05'E; 07.VII.2005; N. Jansson & M. Coşkun leg.; EMTU 05/0144 • 1 ♀, 13 ♀; **Tekirdağ**, Şarköy, Uçmakdere Vill.; 40°47'54.50"N, 27°21'55.10"E; 111 m; 17.V.2015; C. Karaman leg.; EMTU 15/0032a • 5 ♀; **Yeniköy**; 40°38'N, 27°02'E; 232 m; 18.V.2015; C. Karaman leg.; EMTU 15/0035b.

DISTRIBUTION IN TURKEY. — Antalya, İzmir.

Temnothorax artvinensis Seifert, 2006*Temnothorax artvinense* Seifert, 2006: 10.

MATERIAL EXAMINED. — **Turkey** • 1 ♀; **Rize**, Çayeli, Buzlupınar Vill.; 40°59'43"N, 40°47'40"E; 400 m; 12.VIII.2000; K. Kiran leg.; EMTU 00/0012b • 5 ♂, 50 ♀; **Çataldere** Vill.; 40°54'13"N, 40°45'55"E; 960 m; 12.VIII.2000; K. Kiran leg.; EMTU 00/0031 • 2 ♂, 50 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 00/0032 • 50 ♀; **İkizdere**, Çağırın Upland; 40°49'40"N, 40°41'52"E; 850 m; 11.VIII.2000; K. Kiran leg.; EMTU 00/0011 • 6 ♀, 2 ♂, 50 ♀; **Trabzon**, Çaykara, Uzungöl Lake; 40°38'33"N, 40°16'21"E; 750 m; 17.VIII.2000; K. Kiran leg.; EMTU 00/0200 • 1 ♀, 5 ♀; same collection data as for preceding; K. Kiran leg.; 00/0201a • 1 ♀; same collection data as for preceding; K. Kiran leg.; 00/0203.

DISTRIBUTION IN TURKEY. — Artvin, Giresun.

Temnothorax bulgaricus (Forel, 1892)*Leptothorax bulgaricus* Forel, 1892: 314.

MATERIAL EXAMINED. — **Turkey** • 25 ♀; **Afyonkarahisar**, Bolvadin, Özburun Town; 38°49'376"N, 30°59'689"E; 1169 m; 24.VIII.2014; C. Karaman leg.; EMTU 08/2355d • 50 ♀; **Dazkırı**, Çiftlik Vill.; 37°57'263"N, 29°41'329"E; 1401 m; 23.VIII.2014; C. Karaman leg.; EMTU 08/2343b • 1 ♀, 35 ♀; **Hisaralan** Vill.; 37°58'845"N, 29°49'088"E; 1335 m; 24.VIII.2014; C. Karaman leg.; EMTU 08/2345b • 3 ♀, 3 ♂, 37 ♀; **İdris** Vill.; 37°53'475"N, 29°41'284"E; 1508 m; 23.VIII.2014; C. Karaman leg.; EMTU 08/2332b • 1 ♀, 44 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 08/2334c • 4 ♀; **Sinanpaşa**, Kırka Town; 38°42'750"N, 30°14'151"E; 1202 m; 22.VIII.2014; C. Karaman leg.; EMTU 08/2232b • 24 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 08/2237a • 10 ♀; **Ankara**, Gölbaşı; 39°48'34.80"N, 32°50'03.95"E; 1069 m; 18.IV.2014; E. Karapazarlıoğlu leg.; EMTU 14/0156 • 1 ♀; **Balıkesir**, Dursunbey, Çamlık Vill.; 39°19'243"N, 28°50'599"E; 1085 m; 15.VIII.2014; C. Karaman leg.; EMTU 07/2438b • 20 ♀; **Sındırgı**, Sinandede Vill.; 39°08'N, 28°02'E; 773 m; 09.VIII.2014; C. Karaman leg.; EMTU 07/2018 • 2 ♀, 3 ♂, 15 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 07/2023a • 14 ♂, 31 ♀; **Denizli**, Bozkurt, Hayrettin Vill.; 37°56'138"N, 29°39'168"E; 1528 m; 23.VIII.2014; C. Karaman leg.; EMTU 08/2335c • 1 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 08/2336c • 51 ♀; **Çivril**, Belence Vill.; 38°25'115"N, 29°52'068"E; 1077 m; 22.VIII.2014; C. Karaman leg.; EMTU 08/2272b • 30 ♀; **Özdemirci** Vill.; 38°00'516"N, 29°41'375"E; 1444 m; 24.VIII.2014; C. Karaman leg.; EMTU 08/2352b • 20 ♀; **Honaz**; 37°42'662"N, 29°17'369"E; 1377 m; 11.VIII.2014; C. Karaman leg.; EMTU 07/2178a • 50 ♀; **Kayseri**, Yeşilhisar, Soğanlı Vill.; 38°20'15"N, 34°59'00"E; 1200 m; 16.VIII.2001; K. Kiran leg.; EMTU 01/0720 • 1 ♀; **Kırşehir**, Kaman, Hirfanlı Dam; 39°16'21"N, 33°32'09"E; 880 m; 23.VIII.2004; K. Kiran leg.; EMTU 04/0574b • 1 ♀, 14 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0577 • 10 ♀; **Manisa**, Demirci; 39°07'465"N, 28°44'065"E; 1057 m; 19.VIII.2014; C. Karaman leg.; EMTU 08/2165c • 1 ♀; **Göğdes**, Kabakoz Vill.; 39°00'727"N, 28°11'892"E; 988 m; 09.VIII.2014; C. Karaman leg.; EMTU 07/2077c • 2 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 07/2084 • 1 ♀; **Mersin**, Erdemli, Kızılın Vill.; 36°42'N, 34°05'E; 17.VI.2005; N. Jansson & M. Coşkun leg.; EMTU 05/0109 • 1 ♀, 34 ♀; **Sivas**, Beypinari Vill.; 39°51'15"N, 37°07'50"E; 1460 m; 25.VIII.2004; K. Kiran leg.; EMTU 04/0674 • 1 ♀; **Uşak**, Eşme, Eşmeli Vill.; 38°27'161"N, 28°50'653"E; 873 m; 10.VIII.2014; C. Karaman leg.; EMTU 07/2133c.

DISTRIBUTION IN TURKEY. — Antalya, Aydın, Bursa, İzmir, Kocaeli, Kütahya, Sakarya, Yalova.

Temnothorax clypeatus (Mayr, 1853) *, **
(Fig. 6)

Myrmica clypeata Mayr, 1853a: 282.

MATERIAL EXAMINED. — **Turkey** • 1 ♀; **Burdur**, Göllhisar; 36°57'40"N, 29°27'53"E; 1223 m; 22.V.2009; N. Jansson leg.; EMTU 09/1127 • 1 ♀; same collection data as for preceding; N. Jansson leg.; EMTU 09/1129 • 1 ♀; **Mersin**, Gülnar, Köseçobanlı Vill.; 36°30'22.5"N, 33°07'43.3"E; 26.VIII.2006; N. Jansson & M. Avcı leg.; EMTU 06/0472a • 1 ♀; same collection data as for preceding; N. Jansson & M. Avcı leg.; EMTU 06/0473.

DISTRIBUTION IN TURKEY. — New for **Turkey** and Asia continent.

REMARKS

General distribution of the species is South Europe and its present records extends the distribution of the species to Asia.

Temnothorax crasecundus Seifert & Csösz, 2015

Temnothorax crasecundus Seifert & Csösz, 2015: 43.

MATERIAL EXAMINED. — **Turkey** • 1 ♀; **Afyonkarahisar**, Bayat, Mallica Vill.; 39°03'N, 30°48'E; 1505 m; 24.VIII.2014; C. Karaman leg.; EMTU 08/2403d • 1 ♀, 26 ♀; Sinanpaşa, Akharım Vill.; 38°39'188"N, 30°14'292"E; 1485 m; 22.VIII.2014; C. Karaman leg.; EMTU 08/2247a • 14 ♀; same collection data as for preceding; N. Jansson & M. Avcı leg.; EMTU 09/1112 • 29 ♀; **Balıkesir**, Dursunbey; 39°22'594"N, 28°51'491"E; 1616 m; 15.VIII.2014; C. Karaman leg.; EMTU 07/2435b • 27 ♀; Sındırgı, Aktaş Vill.; 39°11'133"N, 28°19'023"E; 801 m; 09.VIII.2014; C. Karaman leg.; EMTU 07/2034 • 2 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 07/2037b • 3 ♀; **Manisa**, Demirci, Mahmutlar Town; 39°07'025"N, 28°36'797"E; 1533 m; 20.VIII.2014; C. Karaman leg.; EMTU 08/2184d • 1 ♀; Gördes, Malaz Vill.; 39°04'N, 28°17'E; 1275 m; 09.VIII.2014; C. Karaman leg.; EMTU 07/2063 • 1 ♀, 1 ♂, 100 ♀; **Trabzon**, Çaykara, Uzungöl Lake; 40°38'33"N, 40°16'21"E; 1800 m; 17.VIII.2000; K. Kiran leg.; EMTU 00/0182 • 2 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 00/0184 • 3 ♀, 2 ♂, 45 ♀; **Yozgat**; 39°49'N, 34°48'E; 1250 m; 24.VIII.2004; K. Kiran leg.; EMTU 04/0624.

DISTRIBUTION IN TURKEY. — Ardahan, Artvin, Bilecik, Bolu, Bursa, Erzincan, Erzurum, İstanbul, Kastamonu, Kırklareli, Kocaeli, Kütahya, Ordu, Sakarya, Sivas, Tokat, Tunceli, Yalova.

REMARKS

Temnothorax nylanderi (Förster, 1850) was the only species of the *T. nylanderi* complex known from Turkey until Radchenko (2000) raised *T. crassispinus* (Karavajev, 1926) to species rank and limited the distribution of *T. nylanderi* to Central and West Europe. In addition, Csösz *et al.* (2015) recently described a new species, *T. crasecundus*, from Balkans and Asia Minor. Therefore, we decided to exclude *T. nylanderi* and *T. crassispinus* from Turkish ant fauna. All specimens previously determined as *T. nylanderi* and *T. crassispinus* from Turkey refer to *T. crasecundus*.

Temnothorax dessyi (Menozi, 1936)

Leptothorax (Leptothorax) dessyi Menozzi, 1936: 289.

MATERIAL EXAMINED. — **Turkey** • 24 ♀; **Afyonkarahisar**, Sandıklı, Menteş Vill.; 38°18'743"N, 30°05'277"E; 1276 m; 23.VIII.2014;



Fig. 6. — Worker of *T. clypeatus* (Mayr, 1853): A, head from dorsal view; B, whole body from lateral view. Scale bars: 0.5 mm.

C. Karaman leg.; EMTU 08/2326b • 2 ♀, 40 ♀; Sinanpaşa, Vill.; 38°39'188"N, 30°14'292"E; 1485 m; 22.VIII.2014; C. Karaman leg.; EMTU 08/2247b • 22 ♀; Kırka Town; 38°42'750"N, 30°14'151"E; 1202 m; 22.VIII.2014; C. Karaman leg.; EMTU 08/2235a • 1 ♀; **Antalya**, Gündoğmuş; 36°48'N, 31°59'E; 22.V.1998; N. Jansson leg.; EMTU 98/1733 • 1 ♀; Kaş; 36°12'N, 29°38'E; 26.V.2000; N. Jansson leg.; EMTU 00/1771 • 1 ♀, 21 ♀; **Balıkesir**, Bayramiç, Aşağıcamlık Vill.; 39°22'721"N, 28°25'377"E; 745 m; 16.VIII.2014; C. Karaman leg.; EMTU 07/2467b • 2 ♀, 7 ♂, 19 ♀; Dursunbey, Osmaniye Vill.; 39°21'476"N, 28°47'308"E; 935 m; 15.VIII.2014; C. Karaman leg.; EMTU 07/2441b • 1 ♀; **Burdur**, Göllhisar; 36°57'40"N, 29°27'53"E; 1223 m, 30.VIII.2009; N. Jansson & M. Avcı leg.; EMTU 09/1110 • 1 ♀; same collection data as for preceding; N. Jansson & M. Avcı leg.; EMTU 09/1112 • 1 ♀; same collection data as for preceding; N. Jansson & M. Avcı leg.; EMTU 09/1130 • 1 ♀; same collection data as for preceding; N. Jansson & M. Avcı leg.; EMTU 09/1137 • 1 ♀; same collection data as for preceding; N. Jansson & M. Avcı leg.; EMTU 09/1140 • 1 ♀, 30 ♀; **Denizli**, Çivril, Aktaş Vill.; 38°21'739"N, 29°57'369"E; 1260 m. 23.VIII.2014; C. Karaman leg.; EMTU 08/2298a • 16 ♀; **Kütahya**, Göynükören Vill.; 39°20'960"N, 29°59'592"E; 1264 m; 17.VIII.2014; C. Karaman leg.; EMTU 08/2009a • 2 ♀, 3 ♀; Dağardı, Sudöşge Vill.; 39°21'804"N, 29°01'068"E; 1018 m; 20.VIII.2014; C. Karaman leg.; EMTU 08/2200f • 5 ♀; Emet, Musalar Vill.; 39°22'774"N, 29°12'108"E; 934 m; 21.VIII.2014; C. Karaman leg.; EMTU 08/2218f • 10 ♀, 6 ♀; Şaphane, Yağmurlar Vill.; 39°03'956"N, 29°06'925"E; 1040 m; 19.VIII.2014; C. Karaman leg.; EMTU 08/2153b • 1 ♀; **Mersin**, Erdemli, Devrent; 36°40'N, 34°11'E; 23.V.2005; N. Jansson leg.; EMTU 05/0078 • 2 ♀; same collection data as for preceding; N. Jansson leg.; EMTU 05/0096 • 3 ♀; same collection data as for preceding; N. Jansson leg.; EMTU 05/0159 • 1 ♀; Kızılen Vill.; 36°42'N, 34°05'E; 07.VII.2005; N. Jansson & M. Coşkun leg.; EMTU 05/0075 • 1 ♀; same collection data as for preceding; N. Jansson & M. Coşkun leg.; EMTU 05/0084 • 1 ♀; same collection data as for preceding; N. Jansson & M. Coşkun leg.; EMTU 05/0087 • 3 ♀; same collection data as for preceding; N. Jansson & M. Coşkun leg.; EMTU 05/0092 • 1 ♀; same collection data as for preceding; N. Jansson & M. Coşkun leg.; EMTU 05/0097 • 1 ♀; same collection data as for preceding; N. Jansson & M. Coşkun leg.; EMTU 05/0100 • 1 ♀; same collection data as for preceding; N. Jansson & M. Coşkun leg.; EMTU 05/0108 • 1 ♀; same collection data as for preceding; N. Jansson & M. Coşkun leg.; EMTU 05/0110 • 1 ♀; same collection data as for preceding;

N. Jansson & M. Coşkun leg.; EMTU 05/0161 • 1 ♀; Gülnar, Köseçobanlı Vill.; 36°30'22.5"N, 33°07'43.3"E; 24.V.2006; N. Jansson & M. Avcı leg.; EMTU 06/0460 • 1 ♀; same collection data as for preceding; N. Jansson & M. Coşkun leg.; EMTU 06/0464 • 1 ♀; same collection data as for preceding; N. Jansson & M. Coşkun leg.; EMTU 06/0474 • 6 ♀; Sakarya, Pamukova, Ahiler; 40°27'29"N, 30°00'33"E; 530 m; 17.VIII.1998; K. Kiran leg.; EMTU K98/0704 • 1 ♀; Sivas, Gürün, Ziyarettepe Pass; 38°49'29"N, 36°54'06"E; 1900 m; 22.V.2008; C. Karaman leg.; EMTU 08/0035b • 4 ♀; Uşak, Banaz, Bahadır Vill.; 38°50'550"N, 29°45'879"E; 1115 m; 18.VIII.2014; C. Karaman leg.; EMTU 08/2096a.

DISTRIBUTION IN TURKEY. — Sultan Mts.

Temnothorax flavicornis (Emery, 1870)

Leptothorax flavicornis Emery, 1870: 197.

MATERIAL EXAMINED. — **Turkey** • 1 ♀, 40 ♀; Çanakkale, Gelibolu, Kalealtı Vill.; 40°41'21.16"N, 26°47'33.91"E; 92 m; 18.V.2015; C. Karaman leg.; EMTU 15/0039j.

DISTRIBUTION IN TURKEY. — Bursa, Kırklareli.

Temnothorax interruptus (Schenck, 1852)

Myrmica interrupta Schenck, 1852: 106.

MATERIAL EXAMINED. — **Turkey** • 1 ♀; Afyonkarahisar, Dazkırı, Örtülü Vill.; 37°52'493"N, 29°45'010"E; 1278 M; 23.VIII.2014; C. Karaman Leg.; Emtu 08/2327C • 1 ♀; Bilecik, Osmaneli, Yeşilçimen Vill.; 40°26'51"N, 29°53'17"E; 380 M; 17.VIII.1998; K. Kiran Leg.; Emtu K98/0689B • 1 ♀, 28 ♀; Kütahya, Bayat Vill.; 39°27'623"N, 30°17'282"E; 1482 M; 17.VIII.2014; C. Karaman Leg.; Emtu 08/2047B.

DISTRIBUTION IN TURKEY. — Ağrı, Artvin, Hatay, Kars, Kayseri, Kırklareli.

Temnothorax nadigi (Kutter, 1925)

Leptothorax nadigi Kutter, 1925: 409.

MATERIAL EXAMINED. — **Turkey** • 1 ♀; Afyonkarahisar, Bayat, Mallica Vill.; 39°03'N, 30°48'E; 1505 m; 24.VIII.2014; C. Karaman leg.; EMTU 08/2403c.

DISTRIBUTION IN TURKEY. — Artvin, Bolu, Erzurum, Gümüşhane, Kastamonu, Sakarya.

Temnothorax nigriceps (Mayr, 1855)

Leptothorax nigriceps Mayr, 1855: 441.

MATERIAL EXAMINED. — **Turkey** • 3 ♀; Artvin, Şavşat, Akdamla Upland; 41°26'57"N, 42°24'32"E; 2140 m; 03.VIII.2015; C. Karaman leg.; EMTU 15/0053d • 78 ♀; Denizli, Çivril, Kocaalan Upland; 38°21'068"N, 30°00'066"E; 1730 m; 23.VIII.2014; C. Karaman leg.; EMTU 08/2305 • 11 ♀; Manisa, Demirci, Mahmutlar Town; 39°06'401"N, 28°44'176"E; 1415 m; 20.VIII.2014; C. Karaman leg.; EMTU 08/2186b.

DISTRIBUTION IN TURKEY. — Sinop.

Temnothorax parvulus (Schenck, 1852)

Myrmica parvula Schenck, 1852: 103.

MATERIAL EXAMINED. — **Turkey** • 3 ♀; Afyonkarahisar, Dazkırı, Darıcalar Vill.; 37°53'N, 29°44'E; 1162 m; 23.VIII.2014; C. Karaman leg.; EMTU 08/2329c • 2 ♀; Balıkesir, Sındırgı, Aktaş Vill.; 39°11'133"N, 28°19'023"E; 801 m; 09.VIII.2014; C. Karaman leg.; EMTU 07/2033b • 1 ♀, 50 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 07/2054a • 59 ♀; Denizli, Çivril, Aktaş Vill.; 38°21'739"N, 29°57'369"E; 1260 m; 23.VIII.2014; C. Karaman leg.; EMTU 08/2296c • 9 ♀; İstanbul, Çatalca, Yalıköy; 41°29'36"N, 28°16'39"E; 1 m; 23.V.2011; K. Kiran leg.; EMTU 11/0178c • 4 ♀; Emirgan; 41°06'31"N, 29°03'06"E; 83 m; 01.V.2014; C. Karaman leg.; EMTU 14/0125g • 16 ♀; Kütahya, Başören Vill.; 39°31'677"N, 30°18'019"E; 1161 m; 17.VIII.2014; C. Karaman leg.; EMTU 08/2024b • 18 ♀; Dağardı; 39°21'478"N, 29°06'293"E; 1540 m; 20.VIII.2014; C. Karaman leg.; EMTU 08/2202b • 40 ♀; Manisa, Gördes, Malaz Vill.; 39°04'N, 28°17'E; 1275 m; 09.VIII.2014; C. Karaman leg.; EMTU 07/2058 • 16 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 07/2060a • 18 ♀; Nevşehir, Ürgüp, Mustafapaşa Town; 38°35'04"N, 34°53'52"E; 1150 m; 17.VIII.2001; K. Kiran leg.; EMTU 01/0749b.

DISTRIBUTION IN TURKEY. — Ardahan, Artvin, Bolu, Bursa, Kastamonu, Kırklareli, Kocaeli, Sakarya, Samsun, Yalova.

Temnothorax rogeri Emery, 1869 *

(Fig. 7)

Temnothorax rogeri Emery, 1869: 18.

MATERIAL EXAMINED. — **Turkey** • 1 ♀, 46 ♀; Kırklareli, Pınarhisar, Evciler Vill.; 41°46'75"N, 27°37'52"E; 900 m; 11.V.2003; K. Kiran leg.; EMTU 03/0012 • 3 ♀; same collection data as for preceding; K. Kiran leg.; MNHN 03/0012.

DISTRIBUTION IN TURKEY. — New for Turkey

REMARKS

The distribution of the species covers Balkans and a finding from Turkish Thrace is not unexpected.

Temnothorax semiruber (André, 1881)

Leptothorax rottenbergi var. *semiruber* André, 1881: 72.

MATERIAL EXAMINED. — **Turkey** • 1 ♀; Antalya, Elmalı, Akçay Vill.; 36°30'968"N, 29°42'291"E; 1546 m; 14.VIII.2009; K. Kiran leg.; EMTU 09/0049a • 1 ♀; Aydın, Karacasu, Geyre Town; 37°42'419"N, 28°45'219"E; 559 m; 12.VIII.2014; C. Karaman leg.; EMTU 07/2254d • 1 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 07/2257b • 50 ♀; Çankırı, Sungurlu; 40°09'N, 34°22'E; 825 m; 24.VIII.2004; K. Kiran leg.; EMTU 04/0612 • 10 ♀; Denizli, Babadağ, Yeniköy; 37°47'N, 28°53'E; 874 m; 13.VIII.2014; C. Karaman leg.; EMTU 07/2322 • 1 ♀; Honaz, Cumalı Vill.; 37°43'N, 29°30'E; 1343 m; 11.VIII.2014; C. Karaman leg.; EMTU 07/2193b • 1 ♀; Tavas, Kızılcabölük Town; 37°39'811"N, 28°57'273"E; 1152 m; 12.VIII.2014; C. Karaman leg.; EMTU 07/2278b • 1 ♀; Pınarlık Vill.; 37°38'047"N, 29°05'126"E; 1069 m; 12.VIII.2014; C. Karaman leg.; EMTU 07/2294b • 1 ♀; Edirne; 41°38'41"N, 26°37'20"E; 41 m; 10.IX.2009; K. Kiran leg.; EMTU 09/0061b • 21 ♀; Avarız Vill.; 41°45'39"N, 26°31'47"E; 40 m; 12.V.2010; K. Kiran leg.; EMTU 10/0031 • 1 ♀; Kütahya, Şaphane, Yağmurlar Vill.; 39°03'956"N, 29°06'925"E; 1040 m;

19.VIII.2014; C. Karaman leg.; EMTU 08/2154b • 1 ♀; **Manisa**, Demirci, Mahmutlar Town; 39°07'025"N, 28°36'797"E; 1533 m; 20.VIII.2014; C. Karaman leg.; EMTU 08/2184c • 40 ♀; **Gördes**, Malaz Vill.; 39°04'N, 28°17'E; 1275 m; 09.VIII.2014; C. Karaman leg.; EMTU 08/2184c.

DISTRIBUTION IN TURKEY. — Ankara, Bursa, Kastamonu, Kırklareli, Kocaeli, Konya, Sakarya.

Temnothorax strymonensis
Csösz, Salata & Borowiec, 2018

Temnothorax strymonensis Csösz, Salata & Borowiec, 2018: 112.

MATERIAL EXAMINED. — **Turkey** • 30 ♀; **Balıkesir**, Bayramiç, Adalı Vill.; 39°22'116"N, 28°16'525"E; 528 m; 16.VIII.2014; C. Karaman leg.; EMTU 07/2466a • 5 ♀; **Dursunbey**, Sağırlar Vill.; 39°28'802"N, 28°34'186"E; 901 m; 15.VIII.2014; C. Karaman leg.; EMTU 07/2420a • 1 ♀, 50 ♀; **Sındırgı**, Aktaş Vill.; 39°11'133"N, 28°19'023"E; 801 m; 09.VIII.2014; C. Karaman leg.; EMTU 07/2041.

DISTRIBUTION IN TURKEY. — Kayseri, Sinop, Van.

Temnothorax turcicus (Santschi, 1934)

Leptothorax turcicus Santschi, 1934: 278.

MATERIAL EXAMINED. — **Turkey** • 7 ♀; **Afyonkarahisar**, Hocalar, Davulga Vill.; 38°36'203"N, 29°54'049"E; 1310 m; 22.VIII.2014; C. Karaman leg.; EMTU 08/2260b • 1 ♀; **Aydın**, Kuşadası, Güzelcamlı Vill.; 37°42'N, 27°13'E; 26.IV.2009; S. Ülgentürk leg.; EMTU 09/0258 • 8 ♀; **Balıkesir**, Dursunbey, Güğü Vill.; 39°27'128"N, 28°38'905"E; 880 m; 15.VIII.2014; C. Karaman leg.; EMTU 07/2409b • 3 ♀; **Koyunoba** Vill.; 39°14'906"N, 28°51'575"E; 1380 m; 15.VIII.2014; C. Karaman leg.; EMTU 07/2444b • 19 ♀; **Osmaniye** Vill.; 39°21'476"N, 28°47'308"E; 935 m; 15.VIII.2014; C. Karaman leg.; EMTU 07/2442a • 5 ♀; **Bilecik**, Bozüyük, Varyüzü Vill.; 39°55'603"N, 29°58'857"E; 720 m; 13.VI.2004; K. Kiran leg.; EMTU 04/0205 • 1 ♀, 50 ♀; **Bursa**, Gemlik, Narlı Vill.; 40°28'53"N, 29°01'26"E; 350 m; 14.VIII.1998; K. Kiran leg.; EMTU K98/0640 • 3 ♀, 31 ♀; **Şahinyurdu** Vill.; 40°28'01"N, 29°12'58"E; 650 m; 12.VIII.1998; K. Kiran leg.; EMTU K98/0608 • 33 ♀; same collection data as for preceding; K. Kiran leg.; EMTU K98/0609 • 4 ♀, 1 ♂, 50 ♀; **İzmit**, Sarısu Vill.; 40°34'50"N, 29°47'19"E; 940 m; 09.VIII.1997; K. Kiran leg.; EMTU K97/0339 • 1 ♀, 20 ♀; **Kestel**, Babasultan Vill.; 40°06'094"N, 29°22'752"E; 680 m; 14.VIII.2014; C. Karaman leg.; EMTU 07/2364c • 1 ♀; **Orhangazi**, Üreğil Vill.; 40°31'27"N, 29°24'32"E; 480 m; 06.VIII.1998; K. Kiran leg.; EMTU K98/0580 • 1 ♂, 50 ♀; **Eskişehir**, Alpu, Çukurhisar Vill.; 39°50'N, 30°59'E; 880 m; 21.VIII.2004; K. Kiran leg.; EMTU 04/0500 • 1 ♀, 50 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0503b • 4 ♀; **Seyitgazi**, İdrisayla Vill.; 39°23'747"N, 30°26'944"E; 1277 m; 17.VIII.2014; C. Karaman leg.; EMTU 08/2057a • 27 ♀; **Kocaeli**, Gölcük, Hamidiye Vill.; 40°39'56"N, 29°49'27"E; 450 m; 16.VIII.1998; C. Karaman leg.; EMTU K98/0770 • 21 ♀; same collection data as for preceding; K. Kiran leg.; EMTU K98/0773 • 2 ♀; **Karamürsel**, Senaiye Vill.; 40°37'51"N, 29°41'10"E; 850 m; C. Karaman leg.; EMTU K98/0512 • 50 ♀; same collection data as for preceding; 650 m; 16.VIII.1998; K. Kiran leg.; EMTU K98/0763 • 31 ♀; same collection data as for preceding; 650 m; 16.VIII.1998; K. Kiran leg.; EMTU K98/0767 • 1 ♂, 50 ♀; **Tahtalı** Vill.; 40°34'39"N, 29°38'39"E; 500 m; 05.VIII.1998; C. Karaman leg.; EMTU K98/0487 • 10 ♂, 9 ♀; **Kütahya**, Bayat Vill.; 39°30'291"N, 30°14'548"E; 1090 m;

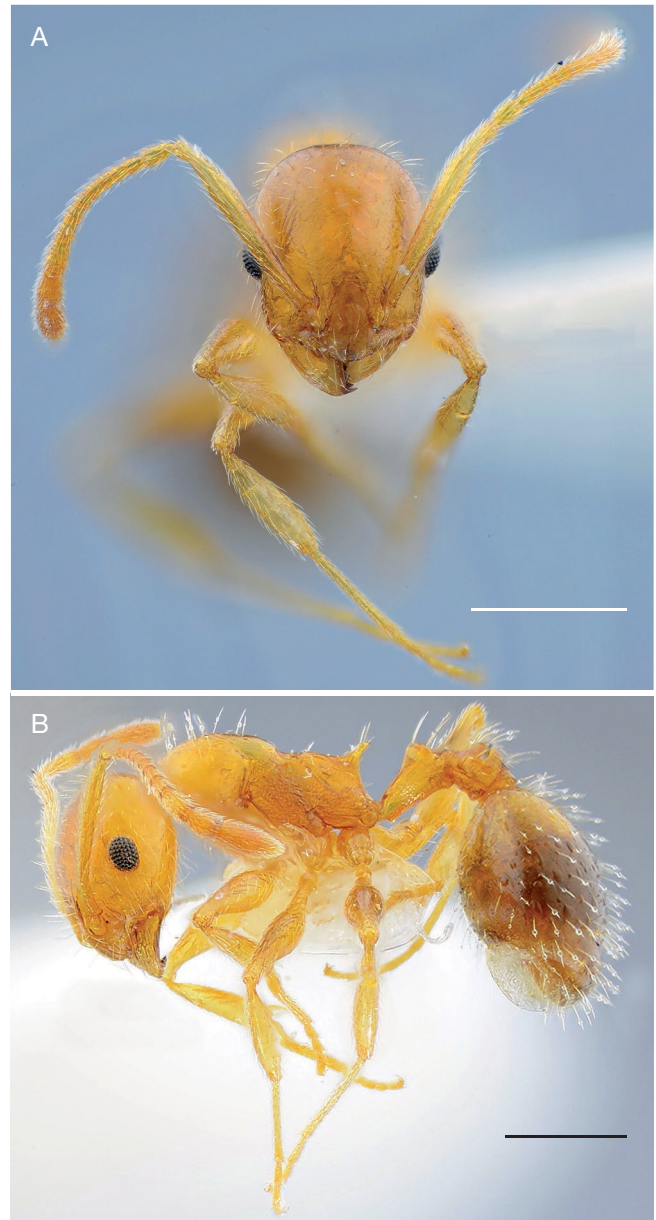


FIG. 7. — Worker of *T. rogeri* Emery, 1869: **A**, head from dorsal view; **B**, whole body from lateral view. Scale bars: 0.5 mm.

17.VIII.2014; C. Karaman leg.; EMTU 08/2043b • 1 ♂, 8 ♀; **Simav**, Yeşildere Vill.; 39°16'244"N, 29°01'026"E; 958 m; 20.VIII.2014; C. Karaman leg.; EMTU 08/2196d • 9 ♀; **Muğla**, Bodrum, Mazi Vill.; 37°00'N, 27°44'E; 16.V.2009; S. Ülgentürk leg.; EMTU 09/0275 • 14 ♀; **Sakarya**, Pamukova, Ahiler; 40°27'29"N, 30°00'33"E; 530 m; 17.VIII.1998; K. Kiran leg.; EMTU K98/0710 • 1 ♀, 29 ♀; **Kemaliye** Vill.; 40°31'27"N, 30°00'18"E; 650 m; 17.VIII.1998; K. Kiran leg.; EMTU K98/0718c • 37 ♀; same collection data as for preceding; K. Kiran leg.; EMTU K98/0718d • 1 ♀, 35 ♀; **Uşak**, Banaz, Özbeyle Vill.; 38°36'130"N, 29°47'030"E; 1230 m; 23.VIII.2014; C. Karaman leg.; EMTU 08/2291 • 1 ♀, 6 ♀; **Yalova**, Altınova, Ahmediye Vill.; 40°38'21"N, 29°27'08"E; 250 m; 06.VIII.1998; K. Kiran leg.; EMTU K98/0520 • 33 ♀; **Aktoprak** Vill.; 40°34'49"N, 29°28'36"E; 450 m; 06.VIII.1998; K. Kiran leg.; EMTU K98/0538 • 14 ♀; same collection data as for preceding; K. Kiran leg.; EMTU K98/0556 • 1 ♀; **Armutlu**, Esenköy; 40°37'05"N, 28°57'30"E; 600 m; 15.VIII.1998; K. Kiran leg.; EMTU K98/0676 • 28 ♀;

Hayriye Vill.; 40°30'03"N, 28°57'59"E; 500 m; 14.VIII.1998; K. Kiran leg.; EMTU K98/0654.

DISTRIBUTION IN TURKEY. — İzmir.

Temnothorax unifasciatus (Latreille, 1798)

Formica unifasciata Latreille, 1798: 47.

MATERIAL EXAMINED. — **Turkey** • 2 ♀, 50 ♂, 50 ♀; **Balıkesir**, Sındırgı, Sinandede Vill.; 39°08'N, 28°04'E; 1000 m; 09.VIII.2014; C. Karaman leg.; EMTU 07/2013a • 1 ♀; **Burdur**, Gölhisar; 36°57'40"N, 29°27'53"E; 1223 m; 28.VI.2009; N. Jansson & M. Avcı leg.; EMTU 09/1116 • 1 ♀; same collection data as for preceding; N. Jansson & M. Avcı leg.; EMTU 09/1123 • 2 ♀; **Karabük**, Safranbolu, Bulak Vill.; 41°15'N, 32°39'E; 287 m; 21.V.2005; K. Kiran leg.; EMTU 05/0008h • 2 ♂, 15 ♀; **Kütahya**, Başören Vill.; 39°31'677"N, 30°18'019"E; 1161 m; 17.VIII.2014; C. Karaman leg.; EMTU 08/2026b • 11 ♀, 9 ♀; Belce Upland; 39°29'128"N, 30°19'721"E; 1445 m; 17.VIII.2014; C. Karaman leg.; EMTU 08/2035 • 1 ♀, 28 ♀; Dağardı; 39°21'478"N, 29°06'293"E; 1540 m; 20.VIII.2014; C. Karaman leg.; EMTU 08/2203b • 4 ♀, 4 ♂, 25 ♀; Yağmur Vill.; 39°23'685"N, 29°03'001"E; 1188 m; 20.VIII.2014; C. Karaman leg.; EMTU 08/2206b • 10 ♀; Dumlupınar, Saraylar Vill.; 38°57'709"N, 29°49'179"E; 1220 m; 18.VIII.2014; C. Karaman leg.; EMTU 08/2067b • 49 ♀; **Manisa**, Gördes, Malaz Vill.; 39°04'N, 28°17'E; 1275 m; 09.VIII.2014; C. Karaman leg.; EMTU 07/2064 • 41 ♀; **Sivas**, Yağmurluseki Vill.; 39°32'N, 37°21'E; 1740 m; 25.VIII.2004; K. Kiran leg.; EMTU 04/0692 • 1 ♀; **Tunceli**, Aktuluk Vill.; 39°02'N, 39°30'E; 27.VIII.2008; E. Çoban leg.; EMTU 08/0020.

DISTRIBUTION IN TURKEY. — Artvin, Bolu, Bursa, Giresun, İstanbul, İzmir, Kırklareli, Kocaeli, Sakarya, Trabzon, Yalova.

Genus *Tetramorium* Mayr, 1855

Tetramorium anatolicum Csösz & Schulz, 2007

Tetramorium anatolicum Csösz & Schulz, 2007: 13.

MATERIAL EXAMINED. — **Turkey** • 1 ♀; **Bursa**, Orhangazi, Mahmudiye Vill.; 40°33'04"N, 29°28'00"E; 700 m; 06.VIII.1998; K. Kiran leg.; EMTU K98/0558b • 17 ♀; **Kocaeli**, Karamürsel, Senaiye Vill.; 40°37'51"N, 29°41'10"E; 650 m; 16.VIII.1998; K. Kiran leg.; EMTU K98/0765 • 21 ♀; **Niğde**, Çamardı, Elekgölü Vill.; 37°45'21"N, 35°01'36"E; 1550 m; 20.VIII.2001; K. Kiran leg.; EMTU 01/0813 • 2 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 01/0815b.

DISTRIBUTION IN TURKEY. — Antalya, Erzurum, Van.

Tetramorium chefketi Forel, 1911

Tetramorium caespitum var. *cheketi* Forel, 1911: 332.

MATERIAL EXAMINED. — **Turkey** • 50 ♀; **Afyonkarahisar**, Sandıklı, Okkur Upland; 38°18'239"N, 30°04'196"E; 1653 m; 23.VIII.2014; C. Karaman leg.; EMTU 08/2324c • 5 ♀; **Aydın**, Serçeköy; 37°52'36"N, 28°11'20"E; 62 m; 03.VI.2010; M. Karagöz leg.; EMTU 10/0009 • 1 ♀; **Burdur**, Gölhisar; 36°57'40"N, 29°27'53"E; 1223 m; 25.VII.2009; N. Jansson & M. Avcı leg.; EMTU 09/1124 • 5 ♀; **Çankırı**, Sungurlu; 40°09'N, 34°22'E; 825 m; 24.VIII.2004; K. Kiran leg.; EMTU 04/0610a • 32 ♀; **Eskişehir**, Seyitgazi, İdrisayla Vill.; 39°24'850"N, 30°24'672"E; 1481 m; 17.VIII.2014; C. Karaman leg.; EMTU 08/2053a • 1 ♀; same collection data as for preceding;

C. Karaman leg.; EMTU 08/2053c • 1 ♀, 6 ♀; **Karabük**, Safranbolu; 41°15'N, 32°40'E; 287 m; 20.V.2005; K. Kiran leg.; EMTU 05/0007b • 8 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 05/0020b • 1 ♀, 8 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 05/0037b • 11 ♀; **Şanlıurfa**, Siverek; 37°45'N, 39°18'E; 13.V.2015; S. Yıldız leg.; EMTU 15/0047m • 7 ♀; **Tekirdağ**, Şarköy, İğdebağları; 40°38'11.10"N, 27°08'57.70"E; 95 m; 16.V.2015; C. Karaman leg.; EMTU 15/0014b • 15 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 15/0015 • 12 ♀; Yeniköy; 40°38'N, 27°02'E; 232 m; 18.V.2015; C. Karaman leg.; EMTU 15/0036a.

DISTRIBUTION IN TURKEY. — Aksaray, Ankara, Antalya, Artvin, Balıkesir, Bayburt, Bilecik, Bursa, Çanakkale, Denizli, Edirne, Giresun, Gümüşhane, İstanbul, İzmir, Karaman, Kars, Kastamonu, Kayseri, Kırklareli, Kocaeli, Konya, Kütahya, Mersin, Niğde, Sakarya, Sinop, Sivas, Trabzon, Yalova, Yozgat.

Tetramorium diomedaeum Emery, 1908

Tetramorium caespitum var. *diomedea* Emery, 1908c: 24.

MATERIAL EXAMINED. — **Turkey** • 1 ♀; **Edirne**; 41°40'N, 26°34'E; 40 m; 09.IV.2006; K. Kiran leg.; EMTU 06/0284f • 1 ♀; **Kütahya**; 39°44'419"N, 30°10'108"E; 1006 m; 13.VI.2004; K. Kiran leg.; EMTU 04/0201 • 6 ♀; **Manisa**, Akhisar, Dingiller Vill.; 38°59'N, 27°53'E; 345 m; 09.VIII.2014; C. Karaman leg.; EMTU 07/2101a • 22 ♀; **Tekirdağ**, Şarköy, Yeniköy; 40°38'N, 27°02'E; 232 m; 18.V.2015; C. Karaman leg.; EMTU 15/0036b • 1 ♀; **Yalova**, Armutlu; 40°31'12"N, 28°49'52"E; 100 m; 29.VII.1998; K. Kiran leg.; EMTU K. Kiran.

DISTRIBUTION IN TURKEY. — Antalya, Gaziantep, Hatay, İstanbul, Kayseri, Kocaeli, Mersin, Muğla.

Tetramorium ferox Ruzsky, 1903

Tetramorium caespitum var. *ferox* Ruzsky, 1903: 309.

MATERIAL EXAMINED. — **Turkey** • 12 ♀; **Afyonkarahisar**, Emirdağ, Karacalar Vill.; 38°56'272"N, 31°14'678"E; 1306 m; 24.VIII.2014; C. Karaman leg.; EMTU 08/2382d • 10 ♀; **Amasya**; 40°39'N, 35°50'E; 450 m; 01.VIII.2015; C. Karaman leg.; EMTU 15/0048d • 8 ♀; **Antalya**, Serik; 36°55'N, 31°06'E; 01.VI.2014; C. Karaman leg.; EMTU 14/0121a • 3 ♀; **Aydın**, Söke; 37°45'N, 27°24'E; 15.VII.2014; C. Karaman leg.; EMTU 14/0140b • 1 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 14/0141d • 12 ♀; **Balıkesir**, Burhaniye, Ören Beach; 39°29'49"N, 26°55'58"E; 0 m; 19.V.2013; C. Karaman leg.; EMTU 13/0153b • 6 ♀; **Susurluk**, Aziziye Vill.; 39°50'44"N, 28°08'43"E; 51 m; 24.VII.2009; K. Kiran leg.; EMTU 09/0044 • 8 ♀; **Çankırı**; 40°36'N, 33°36'E; 02.VI.2010; K. Kiran leg.; EMTU 10/0738 • 16 ♀; **Kızılırmak**; 40°20'N, 33°59'E; 560 m; 24.VIII.2004; K. Kiran leg.; EMTU 04/0604a • 1 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0605b • 50 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0606 • 6 ♀; **Eskişehir**, Alpu, Çukurhisar Vill.; 39°50'N, 30°59'E; 880 m; 21.VIII.2004; K. Kiran leg.; EMTU 04/0510 • 50 ♀; **Beylikova**; 39°41'N, 31°12'E; 750 m; 21.VIII.2004; K. Kiran leg.; EMTU 04/0518 • 50 ♀; **İstanbul**, Ümraniye; 41°02'N, 29°06'E; 31.III.2013; C. Karaman leg.; EMTU 13/0166b • 21 ♀; **Üsküdar**; 41°00'N, 29°02'E; 31.III.2013; C. Karaman leg.; EMTU 13/0165c • 1 ♀; **Karabük**, Safranbolu; 41°14'42"N, 32°43'26"E; 287 m; 10.VI.2005; K. Kiran leg.; EMTU 05/0018b • 50 ♀; **Karaman**, Karadağ Mt.; 37°23'N, 33°09'E; 2100 m; 27.VIII.2006; K. Kiran leg.; EMTU 04/0779 • 8 ♀; **Kırşehir**, Mucur; 39°03'N, 34°23'E; 26.VIII.2004; K. Kiran leg.; EMTU 04/0741 • 25 ♀; same collection data as for

preceding; K. Kiran leg.; EMTU 04/0742 • 2 ♀; **Tekirdağ**, Şarköy, Uçmakdere; 40°47'54.50"N, 27°21'55.10"E; 111 m; 17.V.2015; C. Karaman leg.; EMTU 15/0032b • 3 ♀; **Trabzon**, Çaykara, Uzungöl Lake; 40°38'33"N, 40°16'21"E; 750 m; 17.VIII.2000; K. Kiran leg.; EMTU 00/0201b • 8 ♀; **Yozgat**; 39°49'N, 34°48'E; 1250 m; 24.VIII.2004; K. Kiran leg.; EMTU 04/0620a • 26 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0626 • 7 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0629.

DISTRIBUTION IN TURKEY. — Aksaray, Ankara, Artvin, Bursa, Çanakkale, İzmir, Kars, Kastamonu, Kayseri, Kırklareli, Kocaeli, Konya, Kütahya, Mersin, Niğde, Sakarya, Sivas, Yalova.

Tetramorium flavidulum Emery, 1924

Tetramorium caespitum var. *flavidula* Emery, 1924: 276.

MATERIAL EXAMINED. — **Turkey** • 12 ♀; **Aksaray**, Çiflik; 38°37'07"N, 33°50'45"E; 1500 m; 21.VIII.2001; K. Kiran leg.; EMTU 01/0834a • 1 ♀; **Balıkesir**, Bayramiç, Adalı Vill.; 39°22'116"N, 28°16'525"E; 528 m; 16.VIII.2014; C. Karaman leg.; EMTU 07/2463d • 4 ♀; **Dursunbey**, Güğü Vill.; 39°27'128"N, 28°38'905"E; 880 m; 15.VIII.2014; C. Karaman leg.; EMTU 07/2410c • 1 ♀; **Sındırgı**, Sinandede Vill.; 39°08'N, 28°04'E; 1000 m; 09.VIII.2014; C. Karaman leg.; EMTU 07/2003c • 50 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 07/2014a • 7 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 07/2015b • 5 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 07/2016a • 50 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 07/2017b • 10 ♀; **Bursa**, Uludağ Mt.; 40°06'865"N, 29°05'642"E; 1543 m; 14.VIII.2014; C. Karaman leg.; EMTU 07/2352c • 26 ♀; **Denizli**, Çankurtaran Vill.; 37°39'661"N, 29°14'919"E; 1230 m; 13.VIII.2014; C. Karaman leg.; EMTU 07/2341a • 6 ♀; **Çivril**, Belence Vill.; 38°26'073"N, 29°49'135"E; 1250 m; 22.VIII.2014; C. Karaman leg.; EMTU 08/2277d • 6 ♀; **Honaz**; 37°42'662"N, 29°17'369"E; 1377 m; 11.VIII.2014; C. Karaman leg.; EMTU 07/2178b • 1 ♀; **Babadag**, Demirli Vill.; 37°48'810"N, 28°47'467"E; 1300 m; 11.VIII.2014; C. Karaman leg.; EMTU 07/2178b • 50 ♀; **Eskişehir**, Sivrihisar, Sarıkavak Vill.; 39°31'N, 31°26'E; 1400 m; 28.VIII.2004; K. Kiran leg.; EMTU 04/0857 • 1 ♀; **Isparta**, Eğirdir, Yukarıgökdere Vill.; 37°42'984"N, 30°49'899"E; 19.VII.2007; N. Jansson & M. Avcı leg.; EMTU 07/2496 • 4 ♀; **Şarkikaraağaç**, Çarıkarsaray; 38°07'08"N, 31°24'57"E; 1630 m; 02.VIII.2002; K. Kiran leg.; EMTU 02/0846 • 30 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 02/0850 • 1 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 02/0856b • 5 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 02/0861c • 7 ♀; **Yalvaç**, Çamharman Vill.; 38°24'58"N, 31°06'59"E; 1420 m; 03.VIII.2002; K. Kiran leg.; EMTU 02/0863a • 1 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 02/0863b • 50 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 02/0869 • 1 ♀; **Kayseri**, Develi; 38°24'14"N, 35°29'38"E; 1800 m; 15.VIII.2001; K. Kiran leg.; EMTU 01/0708b • 9 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 01/0709 • 1 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 01/0712b • 21 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 01/0713 • 50 ♀; **Kocaeli**, Derbent, Karaçayır Vill.; 40°40'27"N, 30°01'54"E; 830 m; 29.VIII.2004; K. Kiran leg.; EMTU 04/0901a • 7 ♀; **Konya**, Altınapa Dam; 37°52'55"N, 32°18'27"E; 1270 m; 27.VIII.2006; K. Kiran leg.; EMTU 04/0794 • 1 ♀; **Akşehir**; 38°31'33"N, 31°25'23"E; 1730 m; 01.VIII.2002; K. Kiran leg.; EMTU 02/0773 • 3 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 02/0775a • 3 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 02/0775c • 23 ♀; **Çakıllı** Vill.; 38°14'49"N, 31°31'51"E; 1620 m; 01.VIII.2002; K. Kiran leg.; EMTU 02/0793b • 50 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 02/0798 • 4 ♀; **Çamlı** Vill.; 38°16'23"N, 31°31'05"E; 1420 m; 01.VIII.2002; K. Kiran

leg.; EMTU 02/0791 • 19 ♀; **Eskiler** Vill.; 38°09'16"N, 31°31'17"E; 1770 m; 02.VIII.2002; K. Kiran leg.; EMTU 02/0813 • 15 ♀; same collection data as for preceding; EMTU 02/0814b • 50 ♀; same collection data as for preceding; EMTU 02/0819 • 1 ♀; **Yellibel** Hill; 38°31'N, 31°25'E; 2080 m; 01.VIII.2002; K. Kiran leg.; EMTU 02/0777b • 18 ♀; **Kütahya**; 39°12'22"N, 30°08'27"E; 1300 m; 13.VI.2004; K. Kiran leg.; EMTU 04/0170 • 50 ♀; same collection data as for preceding; EMTU 04/0187a • 1 ♀, 13 ♂, 50 ♀; same collection data as for preceding; 39°22'099"N, 30°00'032"E; C. Karaman leg.; EMTU 08/2002a • 35 ♀; **Emet**, Musalar Vill.; 39°24'N, 29°08'E; 1713 m; 21.VIII.2014; C. Karaman leg.; EMTU 08/2214d • 20 ♀; **Dumlupınar**, Yüglük Vill.; 38°54'660"N, 29°56'559"E; 1397 m; 18.VIII.2014; C. Karaman leg.; EMTU 08/2072b • 8 ♀; **Malatya**, Topbük; 38°08'2.37"N, 37°55'17.66"E; 1112 m; 01.V.2011; S. Hazır leg.; EMTU 11/0014 • 1 ♀; **Manisa**, Gördes, Kabakoz Vill.; 39°00'727"N, 28°11'892"E; 988 m; 09.VIII.2014; C. Karaman leg.; EMTU 07/2080 • 1 ♀; **Malaz** Vill.; 39°04'N, 28°17'E; 1275 m; 09.VIII.2014; C. Karaman leg.; EMTU 07/2056b • 2 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 07/2067a • 1 ♀; **Sarıgöl**, Güneydamları Vill.; 38°15'816"N, 28°49'476"E; 1195 m; 10.VIII.2014; C. Karaman leg.; EMTU 07/2174b • 50 ♀; **Niğde**, Çamardı, Elekgölü Vill.; 37°45'21"N, 35°01'36"E; 1550 m; 20.VIII.2001; K. Kiran leg.; EMTU 01/0820 • 1 ♀; same collection data as for preceding; EMTU 01/0821b • 50 ♀; **Ulukışla**, Aktoprak Vill.; 37°28'54"N, 34°28'05"E; 1800 m; 18.VIII.2001; K. Kiran leg.; EMTU 01/0777 • 50 ♀; **Darboğaz** Vill.; 37°28'12"N, 34°33'43"E; 1600 m; 18.VIII.2001; K. Kiran leg.; EMTU 01/0793 • 1 ♀; **Osmaniye**, Zorkun Upland; 36°56'55"N, 36°21'35"E; 1575 m; 13.VI.2010; I. Avcı leg.; EMTU 10/0142f • 26 ♀; **Sakarya**, Pamukova, Ağaççılar Vill.; 40°32'32"N, 30°07'35"E; 750 m; 17.VIII.1998; K. Kiran leg.; EMTU K98/0729 • 4 ♀; **Sivas**, Yağmurluseki Vill.; 39°32'N, 37°21'E; 1740 m; 25.VIII.2004; K. Kiran leg.; EMTU 04/0691b • 50 ♀; **Şanlıurfa**, Göbeklitepe; 37°13'22"N, 38°55'22"E; 771 m; 24.IV.2015; C. Karaman leg.; EMTU 15/0004 • 38 ♀; **Uşak**, Banaz, Bahadır Vill.; 38°52'757"N, 29°45'078"E; 1565 m; 18.VIII.2014; C. Karaman leg.; EMTU 08/2091a • 50 ♀; **Yozgat**; 39°49'N, 34°48'E; 1250 m; 24.VIII.2004; K. Kiran leg.; EMTU 04/0636 • 50 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0639 • 40 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0640 • 3 ♀; **Akdağmadeni**; 39°39'N, 35°53'E; 1370 m; 24.VIII.2004; K. Kiran leg.; EMTU 04/0644b • 48 ♀; **Çayıralan**; 39°18'N, 35°38'E; 1600 m; 26.VIII.2004; K. Kiran leg.; EMTU 04/0704 • 2 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0705.

DISTRIBUTION IN TURKEY. — Afyonkarahisar, Mersin.

Tetramorium galaticum Menozzi, 1936

Tetramorium semilaeve var. *galatica* Menozzi, 1936: 292.

MATERIAL EXAMINED. — **Turkey** • 10 ♀; **Afyonkarahisar**, Sandıklı, Dutağaç Vill.; 38°28'N, 30°22'E; 1800 m; 23.VIII.2014; C. Karaman leg.; EMTU 08/2315c • 4 ♀; **Batman**; 37°52'N, 41°07'E; 10.VI.2010; F. Toprak leg.; EMTU 10/0075 • 1 ♀; **Burdur**, Gölhisar; 36°57'40"N, 29°27'53"E; 1223 m; 22.V.2009; N. Jansson & M. Avcı leg.; EMTU 09/1122 • 1 ♀; same collection data as for preceding; 30.V.2009; N. Jansson & M. Avcı leg.; EMTU 09/1125 • 1 ♀; same collection data as for preceding; 22.V.2009; N. Jansson & M. Avcı leg.; EMTU 09/1126 • 8 ♀; **Çankırı**, Sungurlu; 40°09'N, 34°22'E; 825 m; 24.VIII.2004; K. Kiran leg.; EMTU 04/0614 • 15 ♀; **Edirne**; 41°40'N, 26°34'E; 40 m; 09.IV.2006; K. Kiran leg.; EMTU 06/0284c • 12 ♀; **Karabük**, Safranbolu; 41°15'N, 32°40'E; 287 m; 07.V.2005; K. Kiran leg.; EMTU 05/0007a • 3 ♀; **Konya**, Ilgın, Çavuşçugöl Vill.; 38°23'N, 31°51'E; 1030 m; 28.VIII.2004; K. Kiran leg.; EMTU 04/0816 • 19 ♀; **Yunak**; 38°48'N, 31°44'E; 1300 m; 28.VIII.2004; K. Kiran leg.; EMTU 04/0825 • 50 ♀;

Kütahya; 39°12'22"N, 30°08'27"E; 1300 m; 13.VI.2004; K. Kiran leg.; EMTU 04/0184b • 1 ♂, 50 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0186 • 4 ♀, 16 ♂, 32 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0190 • 1 ♀; Gediz, Çukurören Vill.; 38°57'808"N, 29°43'818"E; 1400 m; 18.VIII.2014; C. Karaman leg.; EMTU 08/2119b • 1 ♀; **Mersin**, Erdemli, Devrent; 36°40'N, 34°11'E; 23.V.2005; N. Jansson & M. Coşkun leg.; EMTU 05/0134 • 1 ♀; Kızılen Vill.; 36°42'N, 34°05'E; 07.VII.2005; N. Jansson & M. Coşkun leg.; EMTU 05/0139; 1 ♀; same collection data as for preceding; N. Jansson & M. Coşkun leg.; EMTU 05/0140 • 1 ♀; Gülnar, Köseçobanlı Vill.; 36°30'22.5"N, 33°07'43.3"E; 26.VII.2006; N. Jansson & M. Avcı leg.; EMTU 06/0465 • 1 ♀; same collection data as for preceding; N. Jansson & M. Avcı leg.; EMTU 06/0466 • 1 ♀; same collection data as for preceding; 26.VII.2006; N. Jansson & M. Avcı leg.; EMTU 06/0471 • 7 ♀; **Siirt**, Kurtalan; 37°55'N, 41°42'E; 12.VI.2010; F. Toprak leg.; EMTU 10/0076 • 1 ♀; **Sivas**, Gürün, Ziyarettepe Pass; 38°49'29"N, 36°54'06"E; 1900 m; 22.V.2008; C. Karaman leg.; EMTU 08/0034d • 14 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 08/0040 • 2 ♂, 35 ♀; **Uşak**, Banaz, Bahadır Vill.; 38°50'550"N, 29°45'879"E; 1115 m; 18.VIII.2014; C. Karaman leg.; EMTU 08/2100a • 8 ♀; **Yozgat**; 39°49'N, 34°48'E; 1250 m; 24.VIII.2004; K. Kiran leg.; EMTU 04/0632a.

DISTRIBUTION IN TURKEY. — Ankara.

REMARKS

After redescription and lectotype designation of *T. semilaeve* André, 1883 recent studies showed that distribution of this species is restricted to the Western Mediterranean area (Borowiec *et al.* 2015). Borowiec *et al.* (2015) also confirmed that *T. galaticum* is a distinct species from the *T. semilaeve*, and suggested that probably most of *T. semilaeve* records from North-eastern part of Mediterranean basin refer to *T. galaticum* or other species of the *T. semilaeve* complex.

Tetramorium hippocratis Agosti & Collingwood, 1987

Tetramorium hippocratis Agosti & Collingwood, 1987: 56.

MATERIAL EXAMINED. — **Turkey** • 1 ♀, 5 ♀; **Denizli**; 37°44'30"N, 29°06'12"E; 448 m; 24.VI.2010; K. Kiran leg.; EMTU 10/0046d • 13 ♀; **Kocaeli**, Karamürsel, Tahtalı Vill.; 40°34'39"N, 29°38'39"E; 500 m; 05.VIII.1998; K. Kiran leg.; EMTU K98/0492 • 1 ♀; **Manisa**, Akhisar, Doğankaya Vill.; 38°59'N, 27°56'E; 560 m; 09.VIII.2014; C. Karaman leg.; EMTU 07/2094 • 2 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 07/2096b • 11 ♀; **Gördes**, Kabakoz Vill.; 39°00'727"N, 28°11'892"E; 988 m; 09.VIII.2014; C. Karaman leg.; EMTU 07/2088a • 2 ♀; **Köprübaşı**, Kurtlar Vill.; 38°43'N, 28°17'E; 600 m; 10.VIII.2014; C. Karaman leg.; EMTU 07/2121a • 30 ♀; **Tekirdağ**, Saray, Küçükyoncalı Vill.; 41°24'42"N, 27°58'06"E; 151 m; 10.VIII.2001; E. Demirtaş leg.; EMTU 01/1021 • 1 ♀; **Uşak**, Eşme, Eşmeli Vill.; 38°25'082"N, 28°51'769"E; 1143 m; 10.VIII.2014; C. Karaman leg.; EMTU 07/2148b.

DISTRIBUTION IN TURKEY. — Antalya, Çanakkale, İstanbul, Muğla.

Tetramorium hungaricum Rösler, 1935 **

Tetramorium caespitum subsp. *hungarica* Rösler, 1935: 78.

MATERIAL EXAMINED. — **Turkey** • 2 ♀; **Bursa**, Gemlik, Narlı Vill.; 40°28'53"N, 29°01'26"E; 350 m; 14.VIII.1998; K. Kiran leg.; EMTU K98/0633 • 1 ♀; **Denizli**, Irlıganlı Town; 37°53'488"N,

29°11'647"E; 465 m; 11.VIII.2014; C. Karaman leg.; EMTU 07/2197c • 8 ♀; **İstanbul**, Şile, Ağva; 41°08'N, 29°51'E; 0 m; 20.VIII.2012; C. Karaman leg.; EMTU 12/0059 • 50 ♀; **Kütahya**; 39°12'22"N, 30°08'27"E; 1300 m; 13.VI.2004; K. Kiran leg.; EMTU 04/0179 • 1 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0184c • 20 ♀; **Manisa**, Köprübaşı, Kurtlar Vill.; 38°43'N, 28°17'E; 600 m; 10.VIII.2014; C. Karaman leg.; EMTU 07/2115a.

DISTRIBUTION IN TURKEY. — Kırklareli. First record from Asia continent.

Tetramorium inerme Mayr, 1877

Tetramorium caespitum var. *inerme* Mayr, 1877: 17.

MATERIAL EXAMINED. — **Turkey** • 4 ♀; **Şanlıurfa**, Harran; 36°52'N, 39°01'E; 24.IV.2015; C. Karaman leg.; EMTU 15/0009a.

DISTRIBUTION IN TURKEY. — Turkey?

REMARKS

Tetramorium inerme is distributed in Kazakhstan, Turkmenistan, Armenia, Azerbaijan, Iran and Caucasus (Mayr 1877, 1880; Paknia *et al.* 2008; Borowiec 2014). Borowiec (2014) noted this species also from Turkey without indicating an exact locality. This species was collected in locality along the border with Syria.

Tetramorium lucidulum Menozzi, 1933

Tetramorium punicum var. *lucidulum* Menozzi, 1933: 69.

MATERIAL EXAMINED. — **Turkey** • 4 ♀; **Antalya**, Kumluca, Çavuşköy; 36°21.13'N, 30°28.374'E; 652 m; 20.V.2013; A. Lenoir leg.; EMTU 13/0083 • 1 ♀; **Gaziantep**; 37°02'N, 37°18'E; 880 m; 29.X.2013; H. İ. Kılıç leg.; EMTU 13/0229b • 15 ♀; **Hatay**, Samandağ; 36°05'N, 35°58'E; 05.VIII.2004; E. Şahutoğlu leg.; EMTU 04/0381c • 14 ♀; same collection data as for preceding; E. Şahutoğlu leg.; EMTU 04/0384 • 4 ♀; **Şanlıurfa**, Sırrın; 37°09'45"N, 38°50'24"E; 488 m; 01.VIII.2011; C. Karaman leg.; EMTU 11/0085c.

DISTRIBUTION IN TURKEY. — Ankara, Bursa, Çanakkale, Kırklareli, Kocaeli, Konya, Siirt, Yalova.

Tetramorium moravicum Kratochvil, 1941

Tetramorium moravicum Novák & Sadil, 1941: 86.

MATERIAL EXAMINED. — **Turkey** • 1 ♀; **Balıkesir**, Sındırgı, Aktaş Vill.; 39°11'133"N, 28°19'023"E; 801 m; 09.VIII.2014; C. Karaman leg.; EMTU 07/2046a • 1 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 07/2046a • 7 ♀; **Karabük**, Safranbolu, Bulak Vill.; 41°15'N, 32°39'E; 287 m; 21.V.2005; K. Kiran leg.; EMTU 05/0008d • 1 ♀; **Konya**, Doğanhisar, Ketenlik Upland; 38°07'N, 31°34'E; 1270 m; 27.VIII.2006; K. Kiran leg.; EMTU 05/0008d • 11 ♀; **Kütahya**; 39°44'419"N, 30°10'108"E; 1006 m; 13.VI.2004; K. Kiran leg.; EMTU 04/0198a • 1 ♀; **Mersin**, Gülnar, Köseçobanlı Vill.; 36°30'22.5"N, 33°07'43.3"E; 26.VII.2006; N. Jansson & M. Avcı leg.; EMTU 06/0467 • 1 ♀; same collection data as for preceding; N. Jansson & M. Avcı leg.; EMTU 06/0468

• 1 ♀; same collection data as for preceding; N. Jansson & M. Avci leg.; EMTU 06/0469 • 1 ♀; same collection data as for preceding; N. Jansson & M. Avci leg.; EMTU 06/0470 • 14 ♀, 1 ♀; **Sivas**, Hafik, Aktaş Vill.; 39°35'08"N, 37°29'06"E; 1660 m; 25.VIII.2004; K. Kiran leg.; EMTU 04/0689 • 1 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 04/0690 • 50 ♀; **Trabzon**, Çaykara, Uzungöl Lake; 40°38'33"N, 40°16'21"E; 1800 m; 17.VIII.2000; K. Kiran leg.; EMTU 00/0176b • 50 ♀; same collection data as for preceding; K. Kiran leg.; EMTU 00/0183 • 50 ♀; **Yozgat**; 39°49'N, 34°48'E; 1250 m; 24.VIII.2004; K. Kiran leg.; EMTU 04/0630.

DISTRIBUTION IN TURKEY. — Ağrı, Ardahan, Artvin, Bayburt, Bitlis, Erzurum, Kırklareli, Rize, Van.

Genus *Trichomyrmex* Mayr, 1865

Trichomyrmex perplexus (Radchenko, 1997)

Monomorium perplexum Radchenko, 1997b: 213.

MATERIAL EXAMINED. — **Turkey** • 1 ♀; **Adana**; 37°03'46"N, 35°21'21"E; 154 m; 22.VI.2004; K. Kiran leg.; EMTU 04/0011j • 1 ♀; **Adıyaman**; 37°45'N, 38°16'E; 07.V.2015; S. Yıldız leg.; EMTU 15/0042o • 6 ♀; **İzmir**, Karaburun, İncirli Bay; 38°38'N, 26°30'E; 21.VII.2013; C. Karaman leg.; EMTU 13/0157b • 6 ♂, 3 ♀; same collection data as for preceding; C. Karaman leg.; EMTU 13/0157g • 1 ♀; Selçuk, Efes; 37°56'N, 27°20'E; 17.VIII.2014; C. Karaman leg.; EMTU 14/0116n • 5 ♀; **Mersin**, Tarsus; 36°54'N, 34°53'E; 15.V.2015; S. Yıldız leg.; EMTU 15/0044a • 8 ♂, 21 ♀; **Şanlıurfa**, Göbeklitepe; 37°13'22"N, 38°55'22"E; 771 m; 24.IV.2015; C. Karaman leg.; EMTU 15/0003.

DISTRIBUTION IN TURKEY. — Adana, Antalya, Burdur, Denizli, Manisa.

Subfamily PONERINAE Lepeletier de Saint-Fargeau, 1835 Genus *Cryptopone* Emery, 1893

Cryptopone ochracea (Mayr, 1855)

Ponera ochracea Mayr, 1855: 390 (footnote).

MATERIAL EXAMINED. — **Turkey** • 1 ♀; **Afyonkarahisar**, Sandıklı, Sorkun; 38°22'236"N, 30°02'357"E; 1479 m; 23.VIII.2014; C. Karaman leg.; EMTU 08/2308d.

DISTRIBUTION IN TURKEY. — İstanbul, Kırklareli.

Genus *Hypoponera* Santschi, 1938

Hypoponera eduardi (Forel, 1894)

Ponera eduardi Forel, 1894: 15.

MATERIAL EXAMINED. — **Turkey** • 2 ♀; **Adana**; 37°03'46"N, 35°21'21"E; 154 m; 22.VI.2004; K. Kiran leg.; EMTU 04/0011i • 1 ♀; **Burdur**, Gölhisar; 36°57'40"N, 29°27'53"E; 1223 m; 04.X.2009; N. Jansson & M. Avci leg.; EMTU 09/1088.

DISTRIBUTION IN TURKEY. — Denizli, Hatay, İstanbul, İzmir, Kırklareli.

Genus *Ponera* Latreille, 1804

Ponera coarctata (Latreille, 1802)

Formica coarctata Latreille, 1802a: 65.

MATERIAL EXAMINED. — **Turkey** • 14 ♀; **Artvin**, Şavşat, Ciritdüzü Vill.; 41°16'40"N, 42°24'01"E; 1178 m; 09.VIII.2015; C. Karaman leg.; EMTU 15/0095a.

DISTRIBUTION IN TURKEY. — Edirne, Bilecik, Bursa, Kırklareli, Kocaeli, Sakarya, Yalova, Tekirdağ.

Subfamily PROCERATIINAE Emery, 1895 Genus *Proceratium* Roger, 1863

Proceratium numidicum Santschi, 1912

Proceratium numidicum Santschi, 1912: 172.

MATERIAL EXAMINED. — **Turkey** • 1 ♀; **Antalya**, Kaş; 36°12'N, 29°38'E; 26.V.2000; N. Jansson leg.; EMTU 00/1767 • 1 ♀; same collection data as for preceding; N. Jansson leg.; EMTU 00/1768 • 1 ♀; same collection data as for preceding; N. Jansson leg.; EMTU 00/1769 • 1 ♀; **Gündoğmuş**; 36°48'N, 31°59'E; 26.V.2000; N. Jansson leg.; EMTU 00/1770.

DISTRIBUTION IN TURKEY. — Isparta.

DISCUSSION

After publishing of the first and the only checklist of ants known from Turkey (Kiran & Karaman 2012), which reported 306 valid names of species-group taxa, many studies have been carried out in Turkey and many new species were recorded (Karaman 2012; Csősz *et al.* 2013; Karaman & Aktaş 2013; Borowiec & Salata 2014; Lapeva-Gjonova *et al.* 2014; Csősz *et al.* 2015, 2018; Karaman *et al.* 2015; Salata & Borowiec 2015a; Seifert 2016; Kiran *et al.* 2017; Salata & Borowiec 2017; Wagner *et al.* 2017, 2018a). Additionally some species were excluded from Turkish ant fauna (Salata & Borowiec 2015b; Bračko *et al.* 2016) and taxonomic status of some other species was changed (Boer 2013; Sarnat *et al.* 2015; Salata *et al.* 2018). The outcome of these studies increased the number of taxa in ant fauna of Turkey from 306 to 371 (but see below). However, this relatively high number most probably does not represent the real number of the ant species of Turkey. The main weakness of the former studies is that the studied areas were restricted to popular touristic destinations like İstanbul, İzmir, Ankara or south of Turkey (Rigler 1852; Emery 1921; Santschi 1921; Schkaff 1924; Baroni Urbani 1964). This restriction problem of former studies was clearly showed in the data presented the checklist of ant fauna of Turkey. Apart from this, there were also places (nine provinces) for which no ant record was given (Kiran & Karaman 2012).

Presented here records of 143 valid species from 33 genera within the subfamilies Dolichoderinae, Formicinae, Myrmicinae, Ponerinae and Proceratiinae include the first faunistic records of ants for several provinces. Six of these species,

Cataglyphis machmal, *Lasius illyricus*, *Monomorium barbatulum*, *Myrmica caucasicola*, *Temnothorax clypeatus* and *Temnothorax rogeri* are new for Turkish fauna. We also excluded from Turkish ant fauna fifteen species: *Bothriomyrmex corsicus* Santschi, 1923, *Anoplolepis gracilipes* (F. Smith, 1857), *Cataglyphis cursor* (Fonscolombe, 1846), *C. rubra*, *Lasius paralienus*, *Plagiolepis pallescens maura* Santschi, 1920, *Proformica nasuta*, *Aphaenogaster semipolita* (Nylander, 1856), *A. testaceopilosa* (Lucas, 1849), *Crematogaster auberti* Emery, 1869, *C. scutellaris*, *Solenopsis geminata* (Fabricius, 1804), *Temnothorax nylanderi*, *T. crassispinus* and *Tetramorium semilaeve* considering their taxonomical status and distributional patterns.

Exclusion reasons of seven of fifteen species (*Cataglyphis rubra*, *Lasius paralienus*, *Proformica nasuta*, *Crematogaster scutellaris*, *Temnothorax nylanderi*, *T. crassispinus* and *Tetramorium semilaeve*) are discussed in the result section in detail. The reasons why the other species are excluded from the Turkish fauna are discussed below.

Bothriomyrmex corsicus is unlikely to occur in Turkey according to Seifert (2012b). He mentioned that the distribution of the species is limited between 41.5 and 49.4° N. Salata *et al.* (2019) stated that Greek records of *Anoplolepis gracilipes* are based on Fauna Europea (Radchenko 2007) without any confirmed material. The lack of material is also seen in Turkish *A. gracilipes* record. *Cataglyphis cursor* is distributed only in South-western part of Europe, and the representative of the “cursor” group in the Balkans and Turkey is *C. aenescens*. *Plagiolepis pallescens maura* was described from Algeria, Morocco and Tunisia (Santschi 1920), therefore the presence of the species in Turkey is doubtful. According to Boer (2013), *Aphaenogaster semipolita* distributes only in southern Italy, and *A. semipolita* records of Emery (1908b) from Turkey are most probably belong to *A. ionia* which was a variety of *A. semipolita*. *Aphaenogaster testaceopilosa* is limited to Algeria and the other records in Mediterranean basin belong to other species in *A. testaceopilosa* species group (Boer 2013). *Crematogaster auberti* distributes only in western part of the Mediterranean region, therefore the records of the species from Turkey are doubtful. Although Borowiec & Salata (2012) gave the distribution of *Solenopsis geminata* to include Turkey without giving an exact locality, most recently Salata *et al.* (2019) gave the distribution of the species as only Cyprus, Italy mainland, United Arab Emirates and Greece, because of their previous Turkish record based on Fauna Europea (Radchenko 2007) without any confirmed material (Lech Borowiec; personal communication).

Eventually we estimated that the Turkish ant fauna is currently represented by 362 species (except with uncertain taxa, see Appendix) (Table 1).

As shown in Figure 1, western part of Turkey is the most intensively studied region of this country. Within this region, where most of the ant data of Turkey originated, Bursa (with 103 species), İstanbul (with 89 species) and Kırklareli (with 87 species) are the most species rich provinces in Turkey. However, it is hard to classify other provinces as species-poor considering limited resources providing data on their biodiversity. These provinces are places where more studies are needed to

obtain a clearer picture of their ant fauna. When the current ant diversity of the well-studied regions is considered, one might expect more species also from these less studied. For this purpose, two successive studies were performed in order to determine the ant fauna of Central Anatolia and Eastern Black Sea regions, and the data obtained within these studies is in preparation (Kiran *et al.* unpublished data).

The distributions of some ant species in Turkey included many gaps until the present study. The East Mediterranean ant species *Messor wasmanni*, for example, was known only from Ankara, İstanbul and İzmir. It was difficult, based on the former data, to explain the discontinuous distribution of this species. Our present study clearly showed that such cases based on incomplete data and the real distributions cover almost the whole Turkey. This issue also applies to some other species in Turkey and the records given in our study covers the distribution gaps of some species and their distributions can be interpreted more meaningfully.

Four European species, among the species given in this study, *Messor hellenius*, *Tapinoma subboreale*, *Temnothorax clypeatus* and *Tetramorium hungaricum* are recorded for the first time from Asia (see Appendix) (Table 1).

Acknowledgements

The Authors thank all other collectors of the material for their contribution to the Turkish ant fauna. They also thank the referees for their helpful comments and suggestions.

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Submitted on 20 February 2019;
accepted on 12 December 2019;
published on 24 June 2020.

APPENDIX

APPENDIX 1. — Updated checklist of Turkish ant species. Abbreviations: **AN**, Anatolia (Asian Part of Turkey); **TH**, Thrace (European Part of Turkey); **EI**, Egean Islands; **MI**, Marmara Sea Islands; (i), introduced, cosmopolitan or invasive; * new record for Turkish ant fauna; ** new record for Asia.

No	Taxa	Distribution	No	Taxa	Distribution
1.	<i>Aenictus rhodiensis</i> Menozzi, 1936	AN	62.	<i>Camponotus rebecca</i> Forel, 1913	AN
2.	<i>Anergates atratulus</i> (Schenck, 1852)	AN, TH	63.	<i>Camponotus ruseni</i> Karaman, 2012	AN
3.	<i>Aphaenogaster aktaci</i> Kiran & Tezcan, 2008	AN	64.	<i>Camponotus samius</i> Forel, 1889	AN, TH EI, MI
4.	<i>Aphaenogaster balcanica</i> (Emery, 1898)	AN, TH	65.	<i>Camponotus sanctus</i> Forel, 1904	AN, EI
5.	<i>Aphaenogaster burri</i> (Donisthorpe, 1950)	AN	66.	<i>Camponotus shaqualavensis</i> Pisarski, 1971	AN
6.	<i>Aphaenogaster depressa</i> Bolton, 1995	AN	67.	<i>Camponotus sylvaticus</i> (Oliver, 1792)	AN
7.	<i>Aphaenogaster epirotes</i> (Emery, 1895)	AN, TH	68.	<i>Camponotus tergestinus</i> Müller, 1921	TH
8.	<i>Aphaenogaster equestris</i> Borowiec & Salata, 2014	AN	69.	<i>Camponotus thoracicus</i> (Fabricius, 1804)	AN, MI
9.	<i>Aphaenogaster festae</i> Emery, 1915	AN	70.	<i>Camponotus turkestanus</i> André, 1882	AN
10.	<i>Aphaenogaster gibbosa</i> (Latreille, 1798)	AN, TH	71.	<i>Camponotus universitatis</i> Forel, 1890	AN, (i)
11.	<i>Aphaenogaster holtzi</i> (Emery, 1898)	AN	72.	<i>Camponotus vagus</i> (Scopoli, 1763)	AN, TH, MI
12.	<i>Aphaenogaster kervillei</i> Forel, 1910	AN	73.	<i>Camponotus variegatus</i> (Smith, F., 1858)	AN
13.	<i>Aphaenogaster lykiaensis</i> Borowiec & Salata, 2014	AN	74.	<i>Camponotus vogti</i> Forel, 1906	AN
14.	<i>Aphaenogaster maculifrons</i> Kiran & Aktaş, 2008	AN	75.	<i>Camponotus xerxes</i> Forel, 1904	AN
15.	<i>Aphaenogaster obsidiana</i> (Mayr, 1861)	AN	76.	<i>Cardiocondyla brachyceph</i> Seifert, 2003	AN
16.	<i>Aphaenogaster radchenkoi</i> Kiran, Aktaş & Tezcan, 2008	AN	77.	<i>Cardiocondyla bulgarica</i> Forel, 1892	AN, TH
17.	<i>Aphaenogaster simonellii</i> Emery, 1894	AN, TH, EI	78.	<i>Cardiocondyla elegans</i> Emery, 1869	AN, TH
18.	<i>Aphaenogaster splendida</i> (Roger, 1859)	AN, TH, (i)	79.	<i>Cardiocondyla emeryi</i> Forel, 1881	?
	<i>Aphaenogaster cf. splendida</i>	AN	80.	<i>Cardiocondyla mauritanica</i> Forel, 1890	AN, (i)
19.	<i>Aphaenogaster sporadis</i> Santschi, 1933	AN	81.	<i>Cardiocondyla nigra</i> Forel, 1905	AN, TH
20.	<i>Aphaenogaster subcostata</i> Viehmeyer, 1922	AN	82.	<i>Cardiocondyla sahlbergi</i> Forel, 1913	AN, TH
21.	<i>Aphaenogaster subterranea</i> (Latreille, 1798)	AN, TH, EI	83.	<i>Cardiocondyla semirubra</i> Seifert, 2003	AN
22.	<i>Aphaenogaster subterraneoides</i> Emery, 1881	TH	84.	<i>Cardiocondyla stambuloffii</i> Forel, 1892	AN, TH
23.	<i>Bothriomyrmex adriacus anaticolicus</i> Emery, 1925	?	85.	<i>Cardiocondyla ulianini</i> Emery, 1889	?
24.	<i>Bothriomyrmex communista</i> Santschi, 1919	AN, TH	86.	<i>Carebara oertzeni</i> (Forel, 1886)	AN, TH
25.	<i>Bothriomyrmex syrius</i> Forel, 1910	?	87.	<i>Cataglyphis aenescens</i> (Nylander, 1849)	AN, TH
26.	<i>Camponotus abrahami</i> Forel, 1913	AN	88.	<i>Cataglyphis albicans</i> (Roger, 1859)	AN, TH
27.	<i>Camponotus aegaeus</i> Emery, 1915	AN, TH	89.	<i>Cataglyphis frigida</i> (André, 1881)	AN
28.	<i>Camponotus aethiops</i> (Latreille, 1798)	AN, TH, EI, MI	90.	<i>Cataglyphis kurdistanicus</i> Pisarski, 1965	AN
29.	<i>Camponotus aethiops escherichi</i> Emery, 1925	AN	91.	<i>Cataglyphis laevior</i> Santschi, 1929	AN
30.	<i>Camponotus aktaci</i> Karaman, 2013	AN	92.	<i>Cataglyphis livida</i> (André, 1881)	AN, TH
31.	<i>Camponotus anaticolicus</i> Karaman & Aktaş, 2013	AN	93.	<i>Cataglyphis lunatica</i> Baroni Urbani, 1969	AN
32.	<i>Camponotus armeniacus</i> Arnol'di, 1967	AN	94.	<i>Cataglyphis machmal</i> Radchenko & Arakelian, 1991*	AN
33.	<i>Camponotus attricolor</i> (Nylander, 1849)	AN, TH	95.	<i>Cataglyphis nodus</i> (Brullé, 1833)	AN, TH, EI
34.	<i>Camponotus baldaccii</i> Emery, 1908	AN, TH	96.	<i>Cataglyphis setipes</i> (Forel, 1894)	AN
35.	<i>Camponotus boghossiani</i> Forel, 1911	AN	97.	<i>Cataglyphis viatica</i> (Fabricius, 1787)	AN
36.	<i>Camponotus buddhae</i> Forel, 1892	AN	98.	<i>Cataglyphis viaticoides</i> (André, 1881)	AN, TH
37.	<i>Camponotus candidus</i> Emery, 1894	AN, MI	99.	<i>Chalepoxenus muellerianus</i> (Finzi, 1922)	AN
38.	<i>Camponotus ciliocinctus</i> Emery, 1908	AN	100.	<i>Colobopsis truncata</i> (Spinola, 1808)	AN, TH
39.	<i>Camponotus compressus</i> (Fabricius, 1787)	?	101.	<i>Crematogaster gullukdagensis</i> Salata & Borowiec, 2015	AN
40.	<i>Camponotus dalmaticus</i> (Nylander, 1849)	AN, TH, EI, MI	102.	<i>Crematogaster ionia</i> Forel, 1911	AN, TH, EI, MI
41.	<i>Camponotus fallax</i> (Nylander, 1856)	AN, TH	103.	<i>Crematogaster jehovae</i> Forel, 1907	?
42.	<i>Camponotus fedtschenkoi</i> Mayr, 1877	AN	104.	<i>Crematogaster laestrygon</i> Emery, 1869	AN, TH
43.	<i>Camponotus fellah</i> Dalla Torre, 1893	AN	105.	<i>Crematogaster lorteti</i> Forel, 1910	AN, TH
44.	<i>Camponotus festai</i> Emery, 1894	AN	106.	<i>Crematogaster schmidtii</i> (Mayr, 1853)	AN, TH, EI, MI
45.	<i>Camponotus gestroi</i> Emery, 1878	AN, TH	107.	<i>Crematogaster sordidula</i> (Nylander, 1849)	AN, TH, EI, MI
46.	<i>Camponotus herculeanus</i> (Linnaeus, 1758)	AN	108.	<i>Crematogaster sordidula aeolia</i> Forel, 1911	AN
47.	<i>Camponotus hirtus</i> Karaman & Aktaş, 2013	AN	109.	<i>Crematogaster sordidula osmanica</i> Santschi, 1921	AN
48.	<i>Camponotus honaziensis</i> Karaman & Aktaş, 2013	AN	110.	<i>Crematogaster subdentata</i> Mayr, 1877	AN
49.	<i>Camponotus ionius</i> Emery, 1920	AN	111.	<i>Cryptopone ochracea</i> (Mayr, 1855)	AN, TH
50.	<i>Camponotus jaliensis</i> Dalla Torre, 1893	AN	112.	<i>Dolichoderus quadripunctatus</i> (Linnaeus, 1771)	AN, TH, EI
51.	<i>Camponotus kiesenwetteri</i> (Roger, 1859)	AN	113.	<i>Dorylus affinis</i> Shuckard, 1840	AN
52.	<i>Camponotus kurdistanicus</i> Emery, 1898	AN	114.	<i>Dorylus fulvus</i> (Westwood, 1839)	AN
53.	<i>Camponotus lateralis</i> (Olivier, 1792)	AN, TH, EI	115.	<i>Dorylus fulvus juvenculus</i> Shuckard, 1840	AN
	<i>Camponotus cf. lateralis</i> sp. 1	?	116.	<i>Formica anatolica</i> Seifert & Schultz, 2009	AN
54.	<i>Camponotus libanicus</i> André, 1881	AN	117.	<i>Formica cinerea</i> Mayr, 1853	AN, TH
55.	<i>Camponotus ligniperda</i> (Latreille, 1802)	AN, TH	118.	<i>Formica cinereofusca</i> Karavaiev, 1929	AN, TH
56.	<i>Camponotus maculatus</i> (Fabricius, 1782)	?	119.	<i>Formica clara</i> Forel, 1886	AN, TH
57.	<i>Camponotus maculatus sylvaticomaculatus</i> Dalla Torre, 1893	AN	120.	<i>Formica cunicularia</i> Latreille, 1798	AN, TH, EI
58.	<i>Camponotus oasis</i> Forel, 1890	AN	121.	<i>Formica exsecta</i> Nylander, 1846	AN, TH
59.	<i>Camponotus oertzeni</i> Forel, 1889	AN	122.	<i>Formica foreli</i> Bondroit, 1918	AN
60.	<i>Camponotus piceus</i> (Leach, 1825)	AN, TH, EI	123.	<i>Formica fusca</i> Linnaeus, 1758	AN, TH
61.	<i>Camponotus praegracilis</i> Karaman & Kiran, 2017	AN	124.	<i>Formica gagates</i> Latreille, 1798	AN, TH, EI
			125.	<i>Formica georgica</i> Seifert, 2002	AN

Appendix 1. — Continuation.

No	Taxa	Distribution	No	Taxa	Distribution
126.	<i>Formica lemani</i> Bondroit, 1917	AN, TH	193.	<i>Messor ponticus</i> Steiner, Csósz, Markó, Gamisch, Rinnhofer, Folterbauer, Hammerle, Stauffer, Arthofer & Schlick-Steiner, 2018	AN
127.	<i>Formica lugubris</i> Zetterstedt, 1838	AN	194.	<i>Messor rugosus</i> (André, 1881)	AN
128.	<i>Formica pratensis</i> Retzius, 1783	AN, TH	195.	<i>Messor semirufus</i> (André, 1883)	AN, TH
129.	<i>Formica rufa</i> Linnaeus, 1761	AN	196.	<i>Messor structor</i> (Latreille, 1798)	AN, TH, EI, MI
130.	<i>Formica rufibarbis</i> Fabricius, 1793	AN, TH	197.	<i>Messor sultanus</i> Santschi, 1917	TH, EI
131.	<i>Formica sanguinea</i> Latreille, 1798	AN, TH	198.	<i>Messor syriacus</i> Tohmé, G. 1969	AN
132.	<i>Formica subpilosa</i> Ruzsky, 1902	AN	199.	<i>Messor testaceus</i> Donisthorpe, 1950	AN
133.	<i>Formica truncorum</i> Fabricius, 1804	AN	200.	<i>Messor varrialei</i> Emery, 1921	AN, TH
134.	<i>Formicoxenus nitidulus</i> (Nylander, 1846)	AN	201.	<i>Messor wasmanni</i> Krausse, 1910	AN, TH
135.	<i>Harpagoxenus sublaevis</i> (Nylander, 1849)	AN	202.	<i>Monomorium barbatulum</i> Mayr, 1877*	AN
136.	<i>Hypoponera eduardi</i> (Forel, 1894)	AN, TH, (i)	203.	<i>Monomorium dentigerum</i> (Roger, 1862)	AN, TH
137.	<i>Hypoconera punctatissima</i> (Roger, 1859)	?, (i)	204.	<i>Monomorium kusnezovi</i> Santschi, 1928	AN
138.	<i>Lasius alienus</i> (Förster, 1850)	AN, TH, EI, MI	205.	<i>Monomorium monomorium</i> Bolton, 1987	AN, TH, EI, (i)
139.	<i>Lasius austriacus</i> Schlick-Steiner, 2003	AN, TH	206.	<i>Monomorium pharaonis</i> (Linnaeus 1758)	AN, TH, (i)
140.	<i>Lasius balcanicus</i> Seifert, 1988	AN, TH	207.	<i>Monomorium phoenicum</i> Santschi, 1927	?, (i)
	<i>Lasius balcanicus/distinguendus</i>	AN, TH	208.	<i>Monomorium ruzskyi</i> Dlussky & Zabelin, 1985	?
141.	<i>Lasius bicornis</i> (Förster, 1850)	AN, TH	209.	<i>Monomorium sommieri</i> Emery, 1908	AN
142.	<i>Lasius bombycinus</i> Seifert & Galkowski, 2016	AN, TH	210.	<i>Monomorium subopacum</i> (Smith, F. 1858)	AN, (i)
143.	<i>Lasius brunneus</i> (Latreille, 1798)	AN, TH, EI, MI	211.	<i>Myrmecina graminicola</i> (Latreille, 1802)	AN, TH
144.	<i>Lasius carnolicus</i> Mayr, 1861	AN	212.	<i>Myrmica anatolica</i> Elmes, Radchenko, Aktaş, 2002	AN
145.	<i>Lasius distinguendus</i> (Emery, 1916)	AN, TH	213.	<i>Myrmica bergi</i> Ruzsky, 1902	AN
146.	<i>Lasius emarginatus</i> (Olivier, 1792)	AN, TH	214.	<i>Myrmica caucasicola</i> Arnol'di, 1934*	AN
147.	<i>Lasius flavoniger</i> Seifert, 1992	AN	215.	<i>Myrmica deplanata</i> Emery, 1921	TH
148.	<i>Lasius flavus</i> (Fabricius, 1782)	AN, TH	216.	<i>Myrmica gallienii</i> Bondroit, 1920	TH
149.	<i>Lasius fuliginosus</i> (Latreille, 1798)	AN, TH	217.	<i>Myrmica hellenica</i> Finzi, 1926	AN, TH
150.	<i>Lasius illyricus</i> Zimmermann, 1935*	AN, TH	218.	<i>Myrmica jennyae</i> Elmes, Radchenko, Aktaş, 2002	AN
151.	<i>Lasius lasioides</i> (Emery, 1869)	AN, TH	219.	<i>Myrmica lobicornis</i> Nylander, 1846	AN, TH
152.	<i>Lasius meridionalis</i> (Bondroit, 1920)	TH	220.	<i>Myrmica lonae</i> Finzi, 1926	AN, TH
153.	<i>Lasius mixtus</i> (Nylander, 1846)	AN	221.	<i>Myrmica ravasinii</i> Finzi, 1923	AN, TH
154.	<i>Lasius myops</i> Forel, 1894	AN, TH	222.	<i>Myrmica rubra</i> (Linnaeus 1758)	AN, TH
155.	<i>Lasius neglectus</i> Van Loon, Boomsma, Andrasfalvy, 1990	AN, TH	223.	<i>Myrmica ruginodis</i> Nylander, 1846	AN, TH
156.	<i>Lasius niger</i> (Linnaeus, 1758)	AN, TH	224.	<i>Myrmica rugulosa</i> Nylander, 1849	AN, TH
157.	<i>Lasius nitidigaster</i> Seifert, 1996	?	225.	<i>Myrmica sabuleti</i> Meinert, 1861	AN, TH
158.	<i>Lasius platythorax</i> Seifert, 1991	AN, TH	226.	<i>Myrmica salina</i> Ruzsky, 1905	AN
159.	<i>Lasius psammophilus</i> Seifert, 1992	AN, TH	227.	<i>Myrmica scabrinodis</i> Nylander, 1846	AN, TH
160.	<i>Lasius rabaudi</i> (Bondroit, 1917)	TH	228.	<i>Myrmica schencki</i> Viereck, 1903	AN, TH
161.	<i>Lasius reginae</i> Faber, 1967	?	229.	<i>Myrmica speciosus</i> Bondroit, 1918	AN, TH
162.	<i>Lasius schulzi</i> Seifert, 1992	AN	230.	<i>Myrmica spinosior</i> Santschi, 1931	AN
163.	<i>Lasius turcicus</i> Santschi, 1921	AN, TH	231.	<i>Myrmica sulcinodis</i> Nylander, 1846	AN, TH
164.	<i>Lasius umbratus</i> (Nylander 1846)	AN, TH	232.	<i>Myrmica tamarae</i> Elmes, Radchenko, Aktaş, 2002	AN, TH
165.	<i>Lepisiota caucasica</i> (Santschi, 1917)	AN	233.	<i>Myrmica tulinae</i> Elmes, Radchenko, Aktaş, 2002	AN, TH
166.	<i>Lepisiota dolabellae</i> (Forel, 1911)	AN	234.	<i>Myrmoxenus gordiagini</i> Ruzsky, 1902	AN
167.	<i>Lepisiota frauenfeldi</i> (Mayr, 1855)	AN, TH, EI, MI	235.	<i>Myrmoxenus krausse</i> (Emery, 1915)	AN
168.	<i>Lepisiota melas</i> (Emery, 1915)	AN	236.	<i>Myrmoxenus ravouxi</i> (André, 1896)	AN
169.	<i>Lepisiota syriaca</i> (André, 1881)	AN, (i)	237.	<i>Myrmoxenus stumperi</i> (Kutter, 1950)	AN
170.	<i>Leptothorax acervorum</i> (Fabricius, 1793)	AN, TH	238.	<i>Nylanderia jaegerskioeldi</i> (Mayr, 1904)	AN, (i)
171.	<i>Leptothorax muscorum</i> (Nylander, 1846)	AN, TH	239.	<i>Nylanderia vividula</i> (Nylander, 1846)	AN, TH, (i)
172.	<i>Leptothorax scanni</i> Ruzsky, 1905	AN, TH	240.	<i>Oxyopomyrmex krueperi</i> Forel, 1911	AN, TH
173.	<i>Linepithema humile</i> (Mayr, 1868)	?, (i)	241.	<i>Oxyopomyrmex polybotesi</i> Salata & Borowiec, 2015	AN
174.	<i>Liometopum microcephalum</i> (Panzer, 1798)	AN, TH	242.	<i>Parasyscia piochardi</i> Emery, 1882	AN
175.	<i>Manica rubida</i> (Latreille, 1802)	AN, TH	243.	<i>Paratrechina longicornis</i> (Latreille, 1802)	AN, (i)
176.	<i>Messor alexandri</i> Tohmé & Tohmé, 1981	?	244.	<i>Pheidole balcanica</i> Seifert, 2016	AN, TH
177.	<i>Messor caducus</i> (Victor, 1839)	AN, TH, MI	245.	<i>Pheidole indica</i> Mayr, 1879	AN, (i)
178.	<i>Messor dentatus</i> Santschi, 1927	AN	246.	<i>Pheidole koshewnikovi</i> Ruzsky, 1905	AN
179.	<i>Messor denticulatus</i> Santschi, 1927	AN	247.	<i>Pheidole megacephala</i> (Fabricius, 1793)	AN
180.	<i>Messor ebeninus</i> Santschi, 1927	TH	248.	<i>Pheidole pallidula</i> (Nylander, 1849)	AN, TH, EI
181.	<i>Messor hellenius</i> Agosti & Collingwood, 1987**	AN, TH		<i>Pheidole cf. pallidula</i>	AN, TH
182.	<i>Messor himalayanus</i> (Forel, 1902)	AN	249.	<i>Plagiolepis ampeloni</i> (Faber, 1969)	AN
183.	<i>Messor intermedius</i> Santschi, 1927	AN	250.	<i>Plagiolepis pallescens</i> Forel, 1889	AN, TH, EI, MI
184.	<i>Messor lobicornis</i> Forel, 1894	?	251.	<i>Plagiolepis perperamus</i> Salata, Borowiec & Radchenko, 2018	AN, TH
185.	<i>Messor luridus</i> Santschi, 1927	AN	252.	<i>Plagiolepis pygmaea</i> (Latreille, 1798)	AN, TH, EI, MI
186.	<i>Messor mcarthuri</i> Steiner, Csósz, Markó, Gamisch, Rinnhofer, Folterbauer, Hammerle, Stauffer, Arthofer & Schlick-Steiner, 2018	AN	253.	<i>Plagiolepis pygmaea minu</i> Forel, 1911	AN
187.	<i>Messor mediosanguineus</i> Donisthorpe, 1946	AN	254.	<i>Plagiolepis xene</i> Stärcke, 1936	AN, TH
188.	<i>Messor meridionalis</i> (André, 1883)	AN, TH, EI	255.	<i>Polyergus rufescens</i> (Latreille, 1798)	AN, TH
189.	<i>Messor muticus</i> (Nylander, 1849)	AN, TH	256.	<i>Ponera coarctata</i> (Latreille, 1802)	AN, TH
190.	<i>Messor oertzeni</i> Forel, 1910	AN, TH, EI	257.	<i>Prenolepis nitens</i> (Mayr, 1853)	AN, TH
191.	<i>Messor oertzeni amasiensis</i> Emery, 1921	AN	258.	<i>Proceratium melinum</i> (Roger, 1860)	AN, TH
192.	<i>Messor orientalis</i> (Emery, 1898)	AN, TH	259.	<i>Proceratium numidicum</i> Santschi, 1912	AN

Appendix 1. — Continuation.

No	Taxa	Distribution	No	Taxa	Distribution
260.	<i>Proformica kobachidzei</i> Arnol'di, 1968	AN, TH	311.	<i>Temnothorax lichtensteini</i> (Bondroit, 1918)	AN, TH
261.	<i>Proformica korbi</i> (Emery, 1909)	AN, TH, EI	312.	<i>Temnothorax lucidus</i> Csősz, Heinze & Mikó, 2015	AN
262.	<i>Proformica kosswigi</i> (Donisthorpe, 1950)	AN	313.	<i>Temnothorax luteus</i> (Forel, 1874)	AN, TH
263.	<i>Proformica nitida</i> Kuznetsov-Ugamsky, 1923	?	314.	<i>Temnothorax morea</i> Csősz, Salata & Borowiec, 2018	AN, TH
264.	<i>Proformica pilosiscapa</i> Dlussky, 1969	AN	315.	<i>Temnothorax nadigi</i> (Kutter, 1925)	AN
265.	<i>Proformica striaticeps</i> (Forel, 1911)	AN	316.	<i>Temnothorax nigriceps</i> (Mayr, 1855)	AN, TH
266.	<i>Rossomyrmex anatolicus</i> Tinaut, 2007	AN	317.	<i>Temnothorax parvulus</i> (Schenck, 1852)	AN, TH
267.	<i>Solenopsis fugax</i> (Latreille, 1798)	AN, TH, EI	318.	<i>Temnothorax recedens</i> (Nylander, 1856)	AN, TH
	<i>Solenopsis cf. fugax/lusitanica</i>	AN, TH	319.	<i>Temnothorax rogeri</i> Emery, 1869*	TH
268.	<i>Solenopsis latro</i> Forel, 1894	TH	320.	<i>Temnothorax rottenbergii</i> (Emery, 1870)	?
269.	<i>Solenopsis orbula</i> Emery, 1875	AN	321.	<i>Temnothorax rottenbergii jesus</i> (Forel, 1913)	AN
270.	<i>Stenamma debile</i> (Förster, 1850)	AN, TH	322.	<i>Temnothorax satunini</i> (Ruzsky, 1907)	AN
271.	<i>Stenamma striatulum</i> Emery, 1895	AN, TH	323.	<i>Temnothorax schoedli</i> Seifert, 2006	AN
272.	<i>Stigmatomma denticulatum</i> Roger, 1859	AN, TH	324.	<i>Temnothorax semiruber</i> (André, 1881)	AN, TH
273.	<i>Strongylognathus alpinus</i> Wheeler, 1909	AN	325.	<i>Temnothorax similis</i> Csősz, Heinze & Mikó, 2015	AN
274.	<i>Strongylognathus huberi</i> Forel, 1874	AN	326.	<i>Temnothorax smyrnensis</i> (Forel, 1911)	AN
275.	<i>Strongylognathus huberi</i> subsp. <i>dalmaticus</i> Baroni Urbani, 1969	?	327.	<i>Temnothorax sordidulus</i> (Müller, 1923)	TH
276.	<i>Strongylognathus karawajewi</i> Pisarski, 1966	AN	328.	<i>Temnothorax strymonensis</i> Csősz, Salata & Borowiec, 2018	AN
277.	<i>Strongylognathus kervillei</i> Santschi, 1921	AN	329.	<i>Temnothorax subtilis</i> Csősz, Heinze & Mikó, 2015	AN
278.	<i>Strongylognathus rehbinderi</i> Forel, 1904	AN	330.	<i>Temnothorax tuberum</i> (Fabricius, 1775)	AN, TH
279.	<i>Strongylognathus silvestrii</i> Menozzi, 1936	AN	331.	<i>Temnothorax turcicus</i> (Santschi, 1934)	AN, TH
280.	<i>Strongylognathus testaceus</i> (Schenck, 1852)	AN, EI	332.	<i>Temnothorax unifasciatus</i> (Latreille, 1798)	AN, TH
281.	<i>Strumigenys argiola</i> (Emery, 1869)	AN, TH	333.	<i>Tetramorium anatolicum</i> Csősz & Schulz, 2007	AN
282.	<i>Strumigenys baudueri</i> (Emery, 1875)	AN, TH	334.	<i>Tetramorium aspina</i> Wagner, Karaman, Aksoy & Kiran, 2018	AN
283.	<i>Strumigenys membranifera</i> Emery, 1869	?, (i)	335.	<i>Tetramorium bellerophon</i> Salata & Borowiec, 2017	AN
284.	<i>Strumigenys tenuipilis</i> Emery, 1915	?	336.	<i>Tetramorium bicarinatum</i> (Nylander, 1846)	?, (i)
285.	<i>Tapinoma erraticum</i> (Latreille, 1798)	AN, TH, EI	337.	<i>Tetramorium brevicorne</i> Bondroit, 1918	AN
286.	<i>Tapinoma festae</i> Emery, 1925	AN	338.	<i>Tetramorium caespitum</i> (Linnaeus, 1758)	AN, TH, EI, MI
	<i>Tapinoma cf. festae</i>	AN, TH	339.	<i>Tetramorium cheketi</i> Forel, 1911	AN, TH, EI
287.	<i>Tapinoma nigerrimum</i> (Nylander, 1856)	AN, TH, EI	340.	<i>Tetramorium davidi</i> Forel, 1911	TH
288.	<i>Tapinoma simrothi</i> Krausse, 1911	AN, TH	341.	<i>Tetramorium densopilosum</i> Radchenko & Arakelian, 1990	AN
289.	<i>Tapinoma subboreale</i> Seifert, 2012**	AN, TH	342.	<i>Tetramorium diomedea</i> Emery, 1908	AN, TH
290.	<i>Teleutomyrmex seiferti</i> Kiran & Karaman, 2017	AN	343.	<i>Tetramorium ferox</i> Ruzsky, 1903	AN, TH, EI
291.	<i>Temnothorax aeolius</i> (Forel, 1911)	AN	344.	<i>Tetramorium feroxoide</i> Dlussky & Zabelin, 1985	AN, TH
292.	<i>Temnothorax affinis</i> (Mayr, 1855)	AN, TH	345.	<i>Tetramorium flavidulum</i> Emery, 1924	AN, TH
293.	<i>Temnothorax angustifrons</i> Csősz, Heinze & Mikó, 2015	AN	346.	<i>Tetramorium galaticum</i> Menozzi, 1936	AN, TH, EI, MI
294.	<i>Temnothorax antgoni</i> (Forel, 1911)	AN, TH	347.	<i>Tetramorium goniommoide</i> Poldi, 1979	AN
295.	<i>Temnothorax artvinensis</i> Seifert, 2006	AN	348.	<i>Tetramorium hippocratis</i> Agosti & Collingwood, 1987	AN, TH, EI
296.	<i>Temnothorax bulgaricus</i> (Forel, 1892)	AN, TH	349.	<i>Tetramorium hungaricum</i> Rösler, 1935**	AN, TH
297.	<i>Temnothorax clypeatus</i> (Mayr, 1853)*, **	AN	350.	<i>Tetramorium immigrans</i> Santschi, 1927	AN, (i)
298.	<i>Temnothorax corticalis</i> (Schenck, 1852)	TH	351.	<i>Tetramorium impurum</i> (Förster, 1850)	AN, TH
299.	<i>Temnothorax crasecundus</i> Seifert & Csősz, 2015	AN, TH	352.	<i>Tetramorium inerme</i> Mayr, 1877	AN
300.	<i>Temnothorax curtisetosus</i> Salata & Borowiec, 2015	AN	353.	<i>Tetramorium lanuginosum</i> Mayr, 1870	AN, (i)
301.	<i>Temnothorax dessyi</i> (Menozzi, 1936)	AN	354.	<i>Tetramorium lucidulum</i> Menozzi, 1933	AN, TH, EI, MI
302.	<i>Temnothorax exilis</i> (Emery, 1869)	AN, TH	355.	<i>Tetramorium moravicum</i> Kratochvil, 1941	AN, TH
303.	<i>Temnothorax finzii</i> (Menozzi, 1925)	?	356.	<i>Tetramorium punctatum</i> Santschi, 1927	AN
304.	<i>Temnothorax flavicornis</i> (Emery, 1870)	AN, TH	357.	<i>Tetramorium punicum</i> (Smith, F., 1861)	TH
305.	<i>Temnothorax graecus</i> (Forel, 1911)	AN, TH, EI	358.	<i>Tetramorium rhodium</i> Emery, 1924	AN
306.	<i>Temnothorax helenae</i> Csősz, Heinze & Mikó, 2015	TH	359.	<i>Tetramorium schmidt</i> Forel, 1904	AN
307.	<i>Temnothorax interruptus</i> (Schenck, 1852)	AN, TH	360.	<i>Tetramorium staerckei</i> Kratochvil, 1944	TH
308.	<i>Temnothorax kemali</i> (Santschi, 1934)	AN	361.	<i>Tetramorium syriacum</i> Emery, 1924	AN
309.	<i>Temnothorax korbi</i> (Emery, 1924)	AN	362.	<i>Trichomyrmex perplexus</i> (Radchenko, 1997)	AN
310.	<i>Temnothorax laestrygon</i> (Santschi, 1931)	AN			